

**GENERAL SPECIFICATIONS
STANDARDS**

POLICY AND PROCEDURES

DEPARTMENT OF COMMUNITY DEVELOPMENT

DIVISION OF NEIGHBORHOOD SERVICES

| DATE REVISED: APRIL 29, 2005

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PREFACE

These GENERAL SPECIFICATIONS have been prepared for the purpose of establishing and maintaining high construction quality standards on City of Cleveland Rehabilitation projects, and making these standards clear to both property owners and contractors. The paperwork (bids, waivers, affidavits, etc.) required of contractors is also explained.

Contractors should read and follow these GENERAL SPECIFICATIONS carefully. The materials and procedures specified will greatly affect a contractor's costs. Careless bidding could result in a losing bid or a contract that must be performed at a loss. Careful bidding based on a close review of the applicable GENERAL SPECIFICATIONS, should result in quality work at a fair price for the property owner, and a fair profit for the contractor.

The GENERAL SPECIFICATIONS are to be used as an adjunct to the BID SPECIFICATIONS. Whenever a BID SPECIFICATION contradicts a GENERAL SPECIFICATION, the BID SPECIFICATION takes precedence. Local code takes precedence over both.

The staff wishes every contractor success in providing the highest quality housing rehabilitation. We are confident that these GENERAL SPECIFICATIONS will aid in achieving that goal.

The term "Division" shall be used to mean the Division of Neighborhood Services.

The term "Advisor", "Supervisor" or "Inspector" shall be used to mean the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector.

INSTRUCTIONS TO BIDDERS

A. BIDDING PROCEDURES

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CONTRACTOR ELIGIBILITY REQUIREMENTS FOR HOMEOWNER REPAIR PROGRAMS

A Contractor must be on the active list, in good standing to participate as a bidder for work done in the Division of Neighborhood Services (Division or DNS). The following information must be current:

- Registration with the Department of Building & Housing as a General Contractor with the required bond.
- Workmen Compensation Insurance.
- Commercial Liability Insurance (\$2,000,000 aggregate/\$1,000,000 per occurrence) with the City of Cleveland named [ed](#) as additional insured.
- Lead Hazard Reduction/Lead Pollution Insurance (\$2,000,000 aggregate/\$1,000,000 per occurrence) with the City of Cleveland named [ed](#) as additional insured.
- Certification as a Lead Abatement Contractor with the State of Ohio.
- Current background Check from the City of Cleveland.
- Approval from the Division to bid on home repair jobs in the Division.

CONTRACTOR SELECTION FOR BIDDING

- Three contractors will be selected to bid on each job from the approved bid rotation list.
- The homeowner may select one contractor to bid on the job.
 - If the homeowner selects a contractor to bid on the job, the selection of that contractor must be made no later than the Pre-Bid Conference.
 - If the homeowner selects a contractor to bid, then only 2 contractors will be selected from the active rotation list.
 - If the homeowner selects a contractor to bid that has not received prior approval from the Division because of missing Contractor requirements, the contractor must come into compliance.

- If the homeowner selects a contractor that has been removed from the rotation list by the Division, this contractor is not able to bid on the job.

CONTRACTOR INVITATION TO BID

- Contractor will receive notice of invitation to bid by telephone, fax, or email and the bid package will be distributed at the site visit.
- The bid invitation will include the following information:
 - Name of the repair program
 - Name of the homeowner
 - Address of the property
 - Time of the site visit (SEE CONTRACTOR SITE VISIT)
 - Date the sealed bid is due to the Division of Neighborhood Services
- Three infractions in a 30 day period of failure to bid, will result in being removed from the bid rotation for the next two bid openings.
 - Removal from the bid rotation at least three times in a 6 month period will result in removal from the bid rotation for a 6 month period.

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Deleted: <#>Contractor options for Receiving Invitation to Bid: ¶
 <#>The contractor may select to receive bid invitation via email. ¶
 <#>If this option is selected, the contractor must confirm receipt of the email within 3 working days. ¶
 <#>The contractor may select to pick up the bid package.¶
 <#>The package must be picked up with in 3 days of notification. ¶

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B. CONTRACTOR SITE VISIT

Purpose of the Site Visit

The purpose of the site visit is to review the work specifications and make any adjustments prior to bidding of the job. At the site visit the contractor should verify measurements and review the scope of work.

Scheduling of the Site Visit

- An appointment will be scheduled by the Financial Counselor with the homeowner for the site visit.
- The Rehabilitation Inspector will arrive 15 minutes prior to the scheduled appointment time to review what to expect during the site visit with the homeowner and provide the homeowner with a copy of the work specifications.
- All contractors invited to bid will review the job site and the work to be performed at this appointment time.
- Contractors should not arrive early to view the work. The specifications will not be distributed by the Rehabilitation Inspector until the site visit start time.

- The site visit will start for all contractors invited to bid at the same time. If you are not present at the start time, you forfeit your right to bid.
- If a contractor is more than 15 minutes late, the contractor will forfeit the right to bid on this job.
 - Three such infractions within a 30 day period will remove you from the bid rotation for a two week period.
- If the contractor calls the Inspector because the contractor will be delayed and all invited contractors agree to the delay, the site visit can be delayed an additional 15 minutes.
 - Three such infractions within a 30 day period will remove you from the bid rotation for a two week period.
- Any changes to be made to the specifications will be made at the site visit for all contractors bidding.
 - Any addendum not approved at the site visit will disqualify your bid.
 - Three such infractions within a 30 day period will remove you from the bid rotation for a two week period.
 - Three such infractions resulting in removal from the bid rotation within a 6 month period will remove you from the bid rotation for a period of 6 months.
- Any contact with the homeowner prior to awarding the bid, will disqualify your bid.
 - Three such infractions within a 30 day time period will remove you from the bid rotation for a two week period.
 - Three such infractions resulting in removal from the bid rotation within a 6 month period will remove you from the bid rotation for a period of 6 months.
- All contractors must leave the site visit at the same time. Contractors can not remain behind to have conversations with the homeowner.
 - Three such infractions within a 30 day time period will remove you from the bid rotation for a two week period.

- Three such infractions resulting in removal from the bid rotation within a 6 month period will remove you from the bid rotation for a period of 6 months.

C. JOBS THAT REQUIRE REBIDDING

The job must be re-bid if any of the following occurs:

- The site visit specification change exceeds \$~~2,000.00~~.
 - The job will be re-bid to the same contractors.
 - If the scope of work changes significantly, another site visit will be required.
- If only one contractor shows at the site visit.
- If the winning bidder **and** the remaining bidders are no longer in compliance with Divisional policy prior to starting the job.

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2. BIDDING SUBMISSION PROCEDURE

- A. All bids are to be submitted on the BID SPECIFICATION forms, two sets of which will be provided to each contractor.
- B. The bidder shall mark a price for each numbered item on the BID SPECIFICATIONS.
 - All markings shall be done with black ink or typed (for best reproduction on copy machines). Please round prices to the nearest dollar.
 - Each general category (Interior and Exterior) shall be totaled on the last sheet of that category with a grand total of both following on the last page.
 - Failure to comply will result in the disqualification of the bid.
 - The bid can not be received via email.

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Deleted: A Site Visitation Form shall be part of the bid package and must be signed by the Owner as witness of such visitation. ¶ Failure to comply will result in the disqualification of the bid.

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BID NOTIFICATION FORMS

The following is the cover letter that is submitted with each bid package:

TO ALL PARTICIPATING CONTRACTORS:

In submitting bids to the Division of Neighborhood Services housing repair programs, you must enter a price for each item listed on the specification sheet.

On the last page of the specification sheet where you enter the total, you must sign your company name below the total price.

The following forms must be completed with all required information:

- The Contractor's Bid Cover
- Subcontractor Utilization List
- Northern Ireland Fair Employment Practices Disclosure
- [Site Visitation Form Specification Changes \(if applicable\)](#)

Deleted: The Site Visitation Form signed by the homeowner will verify that a visual survey of the job site was conducted. ¶

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Failure to comply with any of the above stated provision will render your bid invalid.

Sincerely,

Chief Rehabilitation Supervisor

SITE VISITATION FORM

This statement is part of the bidding Documents and is to be presented to the Property Owner by the Rehabilitation Inspector. This form contains the name of the contractors invited to bid on the required work.

HOMEOWNER:	ADDRESS:
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SITE VISITATION DATE:		APPOINTMENT TIME:	
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The following contractors visited the property today for the purpose of bidding on the Construction Rehabilitation work, which the City of Cleveland propose to coordinate.

BIDDING CONTRACTOR	SIGNATURE OF CONTRACTOR REPRESENTATIVE	STATUS*

*EARLY; 15LATE; 30LATE; NO SHOW; ON TIME

Verification that the contractors visited the property and I have received a copy of the work specifications and the SITE VISIT RECAP.

HOMEOWNER SIGNATURE:		DATE:
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Verification that the contractors visited the property and a copy of the work specifications and the SITE VISIT RECAP were provided to the homeowner.

REHABILITATION INSPECTOR SIGNATURE:		DATE:
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SITE VISITATION FORM SPECIFICATION CHANGES

This statement is part of the bidding Documents and is to be used only if the specifications are changed during the site visit. This form contains the name of only those contractors present at the site to bid on the required work.

HOMEOWNER:		ADDRESS:	
SITE VISITATION DATE:		APPOINTMENT TIME:	

The following contractors visited the property today for the purpose of bidding on the Construction Rehabilitation work, which the City of Cleveland propose to coordinate.

BIDDING CONTRACTOR	SIGNATURE OF CONTRACTOR REPRESENTATIVE	STATUS*

Changes made to the specification at the site visit were as follows:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Comments: _____

Verification that the contractors visited the property and contractor was advised of changes to be added to the addendum.

REHABILITATION INSPECTOR SIGNATURE:		DATE:
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This form is given to the homeowner at the end of the site visit.

SITE VISIT RECAP

HOMEOWNER:	
ADDRESS:	
DATE:	

A site visit has been conducted by the following contractors to bid on your home repair job.

CONTRACTOR NAME

BID OPENING DATE:

The scheduled bid opening date is _____.

STAFF ASSIGNMENT

The following staff are available to assist you with any questions you may have:

Contact Financial Counselor _____ at _____ if you have questions concerning your application.

Contact Rehabilitation Inspector _____ at _____ if you have questions concerning the work to be done.

NEXT STEP:

After the bid opening and the job has been awarded to a contractor, a Preconstruction Conference will be scheduled with the homeowner, contractor and the Rehabilitation Inspector.

This form is submitted by the Contractor with the bid.

CONTRACTOR'S BID

BID FOR THE REHABILITATION OF PROPERTY

HOMEOWNER:

ADDRESS:

The undersigned Contractor proposes to furnish all materials, labor, tools, superintendence and service necessary to complete all work items for the rehabilitation of the above name property according to the specifications provided herewith for the lump sum prices of:

INTERIOR: \$

EXTERIOR: \$

SITE VISIT CHANGE: \$

TOTAL BID: \$

CONTRACTOR:

ADDRESS:

PRINCIPAL:

TITLE:

TELEPHONE:

BID OPENING DATE:

BID OPENING TIME:

This form is submitted by the Contractor with the bid.

SUB CONTRACTOR UTILIZATION LIST

CONTRACTOR: _____ **TELEPHONE:** _____

ADDRESS: _____

HOMEOWNER: _____ **TELEPHONE:** _____

BID ADDRESS: _____

The following is a list of my proposed Subcontractors to be used on this job.

List up to three (3) with no less than two (2) subcontractors in each category in the event there are names found to be unacceptable to the Division of Neighborhood Services.

CARPENTRY

	COMPANY/PRINCIPAL	ADDRESS/TELEPHONE NUMBER
1.		
2.		
3.		

PLUMBING

	COMPANY/PRINCIPAL	ADDRESS/TELEPHONE NUMBER
1.		
2.		
3.		

ELECTRICAL

	COMPANY/PRINCIPAL	ADDRESS/TELEPHONE NUMBER
1.		
2.		
3.		

HEATING

	COMPANY/PRINCIPAL	ADDRESS/TELEPHONE NUMBER
1.		
2.		
3.		

This form is submitted by the Contractor with the bid.

NORTHERN IRELAND FAIR EMPLOYMENT PRACTICE DISCLOSURE

INSTRUCTIONS: Pursuant to Codified Ordinance Sec. 181.36, the information requested on this page must be supplied by all contractors and any subcontractors having more than a fifty percent (50%) interest in the proposed contract prior to any contract being awarded by the City of Cleveland. Any contractor or subcontractor who is deemed to have made a false statement shall be declared to have acted in default of its contract and shall be subject to the remedies for default contained in its contract. For failure to cure such a default, the contractor or subcontractor shall be automatically excluded from bidding for the supply of any goods or services for use by the City for a period of two years.

CHECK WHICHEVER IS APPLICABLE:

A. () The undersigned or any controlling shareholder,* subsidiary, or parent corporation of the undersigned is **NOT ENGAGED IN ANY BUSINESS OR TRADING FOR PROFIT IN NORTHERN IRELAND.** (If paragraph A is checked, proceed to the signature line.)

B. () The undersigned or any controlling shareholder,* subsidiary, or parent corporation **IS ENGAGED IN ANY BUSINESS OR TRADING FOR PROFIT IN NORTHERN IRELAND.** (If paragraph B is checked, please either check the stipulation contained in paragraph C or attach documentation that shows that the undersigned has complied with the stipulation contained in paragraph C.

C. () The undersigned and all enterprises identified in paragraph B are **TAKING LAWFUL AND GOOD FAITH STEPS TO ENGAGE IN FAIR EMPLOYMENT PRACTICES WHICH ARE RELEVANT TO THE STANDARDS EMBODIED IN THE "MacBRIDE PRINCIPLES FOR FAIR EMPLOYMENT IN NORTHERN IRELAND."** A copy of the MacBride Principles can be obtained from the Office of the Commissioner of Purchases and Supplies. In lieu of checking this paragraph, the undersigned must attach documentation which the undersigned believes shows compliance with the stipulation contained in this paragraph C.

Name of Contractor or Subcontractor

By: _____

Title: _____

*"Controlling shareholder" means any shareholder owning more than fifty percent (50%) of the stock in the corporation or more that twenty-five percent (25%) of the stock in the corporation if no other shareholder owns a larger share of stock in the corporation.

PUBLIC BID OPENING PROCEDURES

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- A. The bidder shall submit the completed, sealed bid to the City of Cleveland at or before the designated time, date and location. Late bids cannot be considered and will be disqualified.
 - B. Two employees of the Division of Neighborhood Services shall hold a public bid opening procedure at such time and location as is designated on the bid package.
 - C. The bidder with the low bid shall be named the "Apparent Winning Bidder" until such time as the entire bid can be reviewed. The successful bidder shall be named by the Contractor Evaluation Section.
 - D. The bidder shall accept conditions as found, and shall not at any time, alter the execution of the contract, make any claims based upon insufficient data or incorrect assumed conditions, nor shall the bidder claim any misunderstanding in regard to the nature, conditions, or character of the work to be done under this contract. The bidder shall assume all risks resulting from any damages which may occur during the progress of the work.
 - E. While the Rehabilitation Advisor, Rehabilitation Supervisor, Rehabilitation Inspector, Assistant Chief Rehabilitation Supervisor or Chief Rehabilitation Supervisor has attempted to provide accurate measurements and statements of quantities, the bidder is responsible for verification of all such measurements and quantities during the site visit. The Division assumes no liability for the accuracy of such measurements and statements of quantity. The differences shall be handled as set forth in Section 3, Paragraph B.
3. **CHANGE OR ADDITIONS TO BID**
- A. Bidders are urged to bid the job as written and to avoid changes or addendum's that have not been approved at the Site Visit. Bidders are not to attempt to "Sell" or "Switch" products or services with the Owner.

- B. All bidders shall submit their bids on the BID SPECIFICATIONS as provided. Any deletions, additional work or corrections of quantities that the bidder feels is absolutely necessary to fully describe the work, must be fully disclosed at the Site Visit to the Inspector.

INSTRUCTIONS TO CONTRACTORS

1. THE CONTRACT

- A. The BID SPECIFICATIONS that are accepted by the property owner, with the approval of the City of Cleveland, become a part of the CONTRACT between the property owner and the bidder. The City of Cleveland and its employees are not a party to the CONTRACT and assume no liability for any breach of CONTRACT that might occur.
- B. The bidder shall be known as the "Contractor" from the time the CONTRACT is signed.
- C. The Contractor is to examine and become familiar with all parts of the Deleted: .
CONTRACT, including the BID SPECIFICATIONS and GENERAL SPECIFICATIONS. Failure to do so will not relieve the Contractor of any responsibilities delineated therein.

2. CHANGES AND/OR ADDITIONS TO THE CONTRACT

- A. Contractors are urged to avoid changes and/or additional work. Contractors are not to attempt to "sell" additional work to the property owner nor to "switch" products.
- B. All proposed changes and/or additions to the CONTRACT shall be submitted in writing to the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector. The Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector will consult with the property owner, then prepare a CHANGE ORDER for the deletions and/or additions deemed appropriate, which must be signed by the property owner, the contractor and Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector, provided that the changes meets the approval of same.
 - o Final Approval of the Change Order is achieved with approval of the Commissioner of the Division of Neighborhood Services or designee.
- C. The Contractor is not to begin work on items included in a CHANGE ORDER until notified to proceed by the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector in writing i.e. change order.

SEE SECTION ON CHANGE ORDERS

3. PERMITS

- A. The Contractor shall obtain all of the permit(s) through the Division of Building & Housing that are required by the City. The Contractor or homeowner shall post such permit(s) as required by law.
- B. The application for a permit must be signed by the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector for the SHAP program.
 - a. All building permits for the Repair-A-Home Program, Afford-A-Home Program and CDC (Community Development Corporation) home repair programs will be carried by the Department of Building and Housing.
 - b. The electrical permit will be carried by the Electrical Inspector housed in the Division of Neighborhood Services.
 - c. The HVAC permit will be carried by the HVAC Inspector housed in the Division of Neighborhood Services.

4. PROBLEMS ON THE JOB

- A. The Contractor shall inform the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector of all problems or unusual occurrences on the job.

5. PROGRESS PAYMENTS

If the job is of sufficient dollar value PARTIAL PAYMENTS may be made in conformance with the CONTRACT. The procedure is as follows:

- A. All invoices for payment must be received by the Financial Counselor from the General Contractor for tracking.
- B. Request for payment must be inspected within two business days. If the invoice contains items that are not to be paid or if the job is not ready for payment, the invoice will not be processed.
- C. If contractor continuously submits invoices prior to completion of the work, this will result in the contractor being removed from the bid rotation.
 - Three such infractions within a 30 day period will remove you from the bid rotation for a two week period.

- Three such infractions resulting in removal from the bid rotation within a 6 month period will remove you from the bid rotation for a period of 6 months.
- D. All items invoiced shall be deemed "ready for draw".
- E. Mechanical inspections must have been held and sign-offs delivered to the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector.
- F. The contractor must furnish a Contractors Affidavit and Waivers of Lien from all sub-contractors on the job. All shall be notarized.
- G. The invoice amount shall reflect the 10% hold back.

ALL DEPARTMENTAL PROCEDURES MUST BE FOLLOWED IN SUBMISSION AND PICKUP PROCEDURES FOR CONTRACTOR PAYMENTS.

INSPECTION PROCEDURES FOR CONTRACTOR PAYMENTS

REQUIRED INSPECTIONS FOR PAYMENT

The Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector will make periodic inspections of work in progress.

- A. **Close out Inspection** – The Rehab Inspector must ensure that the job is ready for closeout prior to scheduling the Audit Inspection.
- B. **Audit Inspection** – An Audit Inspection must be done by another Inspector prior to receive the approval for payment. (See Section – Audit Inspection).
- C. **Final Roof Inspection** - Prior to closing out any repair jobs where a new roof was installed, the Rehabilitation Inspector must go on the roof to verify the following:
 - Number of nails used per shingle; a sampling of the shingles should be checked.
 - Proper installation of the flashing
 - Installation of the starter shingle
 - Installation of the ice guard

Please coordinate this with the general contractor prior to the Audit Inspection.

ALL DEPARTMENTAL PROCEDURES MUST BE FOLLOWED IN SUBMISSION AND PICKUP PROCEDURES FOR CONTRACTOR PAYMENTS.

- Staff in the Division of Neighborhood Services can not pickup your check from the Division of Accounts or Treasury.

CONSTRUCTION RESPONSIBILITY

All home repair projects will involve the following persons, each with different responsibilities to make the project successful:

- Homeowner
- Rehabilitation Inspector
- General Contractor

COMMUNICATION CONCERNS

Timely communication is the key to a successful project. Homeowners and the contractor are very important to the success of their rehab project.

- Are the contractor and homeowner talking to one another?
- Are the contractor and the subcontractors talking to one another?
- Does the homeowner know what work is scheduled for a particular time?

Answers to these questions will help the Rehabilitation Inspector assess whether there are problems brewing on the job site. Catching a problem before it derails a project can save time and money. The Rehabilitation Inspector should talk with the homeowner, general contractor and subcontractors to assess potential issues that could lead to conflict.

A. HOMEOWNER - RESPONSIBILITY

The homeowner has an obvious interest in the property and wants the repair work to be done well.

- The homeowner is requested to inspect the work that is done by the contractor on a daily basis.
 - But, we have to take into account that different owners will have varied levels of construction knowledge, and therefore their ability to perform inspections will also vary.
- The property owner will always be asked to sign for work approval prior to payment to the contractor.

B. REHABILITATION ADVISOR, REHABILITATION SUPERVISOR OR REHABILITATION INSPECTOR - RESPONSIBILITY

- The Rehabilitation Inspector is the staff person who completes the survey of the property, prepares the work write up, and monitors the construction.
- ~~The~~ Rehabilitation Inspector often provides considerable education to the homeowner and most often has authority to approve field changes and payment request.
- The Rehabilitation Inspector has to submit all change orders and field change requests to the Assistant Chief Rehabilitation Supervisor or the Chief Rehabilitation Supervisor for approval. (See Procedure for Field Changes and Change Orders.)

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C. GENERAL CONTRACTOR – RESPONSIBILITY

The general contractor is the entity that enters into a contract with the homeowner to complete the rehabilitation project.

- The general contractor usually hires and schedules all subcontractors.
- The General Contractor is responsible for ordering materials, and securing those items on the property sight.
- The General Contractor initiates control activities to keep the project on track. The homeowner understanding the work schedule is key to successfully completing a job. Understanding when tasks are scheduled to occur and monitoring against that schedule ensures that the work is progressing as planned.
 - Responsible for providing a work schedule prior to the start of the work.
 - Responsible for reviewing this work schedule with the homeowner.
 - Responsible for providing any updates to the work schedule to the homeowners.

CONSTRUCTION OVERSIGHT

The purpose of construction oversight is to ensure the following:

- Quality of workmanship by the contractor.
- Ensure that the quality of the installed products meets the Divisional product guidelines.
- To effectively monitor the expenditure of public funds.
- To verify contractor adherence to all City, State and Federal regulations.

A. CONSTRUCTION OVERSIGHT –INSPECTOR

The Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector along with the Inspector that carries the building permit are the persons charged with construction oversight. They have the responsibility of ensuring that the scope of work as outlined in the specifications and the contract is effectively carried out. Monitoring progress of the work is a necessary aspect of construction oversight because the inspections ensure that all work is being completed on time, within stated quality guidelines, and is in compliance with all City, State and Federal codes and the Federal program rules.

The Rehabilitation Inspector monitors for the following:

- Posting of permits.
- Posting of required Lead Hazard Work notification.
- Quality of material – Were the appropriate materials as [spec'ed](#) used?
- Quality of installation – Was the measure installed properly and as per manufacturer specifications?
- Presence of contractors and workers on the job site.
- Completion of inspections by code officials.
- Problems that may be brewing on the job between the occupants and the contractor/subcontractors.
- Compliance with City, State and Federal rules.
- Evaluating of the Contractor invoice for compliance with the scope of work
- Documenting all change orders to the scope of work.

PROGRESS INSPECTIONS

Progress inspections are conducted for the following reasons:

- Answering homeowner’s concerns about work in progress and quality, and seeing the project and work site with a scheduled or an unscheduled inspection. Much can be learned when the contractor is not anticipating a visit.
 - **DRIVE-BY INSPECTIONS ARE NOT ACCEPTALBE. EVERY VISIT INVOLVES KNOCKING ON THE DOOR AND COMMUNICATING WITH THE HOMEOWNER.**
- Determine if the work completed corresponds to the work write-up before payment is made to the contractor. These inspections also include the inspections made at scheduled key points in the construction process. (See Key Point Inspections)
- Addressing the need for field changes or change orders and intervention in owner/contractor disputes. (See Change Order Section)
- Determining whether the contractor is performing according to the guidelines within the Division and documenting work procedures in accordance with the construction contract.
- Alerting the general contractor of problems in a timely manner as to take corrective action.
- Ensuring that measures are being taken to ensure occupant safety and security while the job is under construction.
- Ensuring that all necessary code inspections have been made and work is being performed to code.

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KEY INSPECTION POINTS

Jobs should be monitored on a weekly basis and at the key point inspection schedule.

Key point inspections are as follows:

- Prior to the concrete pour to verify that the work site has been properly prepared.
- Roof tear off to verify the condition of the sheathing.
- Exterior Tyvek to verify proper installation prior to vinyl siding the house.

- Window Installation to verify proper installation and the proper insulation of the window cavity.
- Rough-In Mechanical to verify that the materials used are those outlined in the specifications.
- Final Mechanical

CHANGE ORDERS

Each change is a modification to the contract and must be documented and approved by the homeowner, contractor and the Division of Neighborhood Services. Any proposed revision to the construction document must be reviewed and documented through the revision process. Change orders should be submitted when the following has occurred:

- A change to the scope of work when an unforeseen item has been discovered.
- Addition or deletion to the scope of work.
- A change in the cost for any reason. A change order must be executed even if the change has no cost implication.

Request for additional funds should be submitted when the change is for unforeseen but necessary construction items.

FIELD CHANGES

An alteration to the existing scope of work that does not involve adding additional work items is considered a field change. For example if the hinging of the door is being changed from left to right, this is a field change. If you want to add a security door to the specifications where there was not a security door that is a change order.

ALL CHANGE ORDERS MUST BE APPROVED PRIOR TO THE WORK BEING PERFORMED BY THE CHIEF REHABILITATION SUPERVISOR, ASSISTANT CHIEF REHABILITATION SUPERVIOR OR THE COMMISSIONER OF THE DIVISION.

AUDIT INSPECTION - CLOSE OUT PROCEDURES

Partial Payment: Any request for a partial payment which is greater than 50% of the total cost of the job must follow the same procedure as a Final Payment Inspection.

Final Payment Inspection: Any repair job will require two inspections to close the job and release the final payment.

- The Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector will close the job and obtain the homeowner signoff.
- The Audit Inspector will review the job and sign off as the Audit inspector.

Scheduling of the Audit Inspection – The Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector will schedule the Audit Inspection within 24 hours after the Final Payment Inspection.

Homeowner Evaluation/Rehab Staff Evaluation: All requests for payment require the following documents to be completed:

- Homeowner and Rehabilitation Inspector must sign the completed Authorization To Pay the contractor.
- Homeowner and Rehabilitation Inspector must complete and sign the homeowner evaluation form.
- Workmanship is evaluated on a scale of 1-5 with 5 being excellent and 1 being poor. If the workmanship evaluation is 2 (fair) or less, an inspection must be made of the property by the Chief Rehabilitation Supervisor or the Assistant Chief Rehabilitation Supervisor to evaluate the work performed.
- If it is found that the work has to be redone, the contractor will be notified and a date scheduled with the homeowner.
- If the homeowner refuses to sign the Authorization To Pay the contractor and or complete the Homeowner Evaluation, the reason must be stated in writing. The homeowner has five business days to place their concerns in writing.
- In cases where the homeowner does not comply, a second letter is sent to the home address requesting a written response.

CONTRACTOR FINAL CLOSINGS

- A. The Contractor shall thoroughly examine all of the work at the job site for proper completion, and shall determine that the property owner is satisfied that the work meets SPECIFICATIONS, before calling for a final closing. The Division reserves the right to require a wait of up to two weeks for a reinspection of work that has failed to pass final inspection.

- B. Contractors are to schedule a formal final closing by calling the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector. It is the contractor's responsibility to inform the property owner of the final closing, and to assure that the property owner or his authorized agent will be present.

- C. The Contractor shall provide the property owner and City with an INVOICE, a CONTRACTOR'S AFFIDAVIT, a WAIVER OF LIENS from each sub-contractor and each supplier of materials, and verification of final closing of electrical, plumbing, and heating permits.

TIME OF PERFORMANCE

The property owner and/or the Division of Neighborhood Services may remove any contractor from a job, if the job is not completed within the time allotted by the CONTRACT, excepting in those circumstances where a time extension is allowable under terms of the CONTRACT, (Contractors should note that delays in performance are the most frequent source of conflict between contractors and property owners. Avoid delays and avoid complaints.)

WORK START TIME OF PERFORMANCE

The contract will contain the start and ending dates for both the interior and exterior work to be completed under the contract.

- If the work is not completed as per contract, the penalty section of the contract will be enforced.
- If additional work is needed under the contract, the time of performance will be adjusted accordingly.

CONSTRUCTION DELAYS

The contract contains penalties for construction period delays. In addition, the Division may suspend a contractor from the bid rotation in the event that they have more than two active jobs that are subject to time of performance penalties.

PERFORMANCE STANDARDS

1. MATERIAL & WORKMANSHIP

A. All materials used under the CONTRACT shall be new (unless otherwise specified), of same or better grade, quality, dimensions, and shall meet or exceed all applicable codes and HUD minimum standards, including HUD fire resistance standards.

- **SEE HOMEOWNER SELECTION MANUAL**

B. All work shall be performed by workers skilled in their respective trades in accordance with the best practices of such trades, and in full compliance with all applicable codes and HUD minimum standards.

C. Approval of materials or workmanship at an interim inspection does not relieve the Contractor of the responsibility to turn over same at a final closing in acceptable condition. (In other words: If it breaks after an interim inspection, it must be fixed before the final closing).

2. STORAGE

A. The Contractor may use the premises for storage of equipment and materials, but in doing so the Contractor assumes all responsibility for the safety and security of same.

B. No combustible materials shall be stored or allowed to accumulate at the job site.

3. SECURITY

A. The security of an unoccupied job site is the responsibility of the Contractor.

B. The security of an occupied job site is the responsibility of the Contractor at all times when work is in progress and the occupants are not home. (In other words: Lock doors and windows at the close of the work day).

4. CLEAN-UP

- A. The Contractor shall follow safe work practices as defined by HUD and the contractor is to remove construction debris at the end of the day during the course of work, before such debris constitutes a safety hazard or extreme nuisance.
- B. The Contractor shall remove all construction debris before calling for a final inspection. All premises shall be "mopped with a phosphate and water solution and heppa-vacumed according to HUD guidelines on lead cleaning.
- C. Clearance must be obtained prior to call for the Audit inspection.

5. LATENT DEFECTS

- A. The Contractor shall notify the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector of all conditions or repairs not covered in the BID SPECIFICATIONS which are necessary for satisfactory completion.
- B. Defects which become evident as the work progresses shall be reported to the Rehabilitation Advisor, Rehabilitation Supervisor or Rehabilitation Inspector, not ignored or covered over.
- C. Defects or damage created by the Contractor, his employees, or any sub-contractor during the performance of the CONTRACT shall be corrected by the Contractor, at no charge.

6. MANUFACTURER'S WARRANTIES

The Contractor shall convey to the property owner **all manufacturer's warranties and instruction manuals**, and shall instruct the owner as to proper procedure at the final close-out.

- o Verification of receipt by the homeowner will be done at the Audit Inspection. If homeowner does not have required warranties, the payment will be placed on hold until such has been provided.

HOMEOWNER MATERIAL SELECTION

The Division of Neighborhood Services recommends that the bidder determine what colors or styles are the property owner's choices, where such choices are allowed in the SPECIFICATIONS and further recommends that the bidder obtains written confirmation of such choices from the property owner. Failure to do so will not relieve the contractor of the obligation to honor the property owner's choice for the agreed price.

SELECTION MANUEL

Homeowner will receive the Selection Manual at the Pre-Bid Conference. The Inspector will review with the owner, the items that the homeowner will need to select.

The Preconstruction Conference will not be scheduled until the owner has made all the required selections.

- The Material Selection Form must be completed and signed by the homeowner and the Inspector.
- At the Preconstruction Conference the selection form will be reviewed along with all the work to be performed and the work schedule.

The Selection Form will become a part of the contract.

WARRANTY - COMPLAINT PROCEDURES

Complaint Investigation procedures are as follows:

Homeowners should contact the contractor as outlined in the contract. If the homeowner should contact the City of Cleveland, the following procedure will be implemented:

- Within three days of receipt of the complaint we will contact the homeowner and set an appointment time to come out and investigate the complaint. We will take photographs as needed.
- Complaint investigation for jobs under construction or in the one year warranty period will be handled by the Rehabilitation Inspector assigned to the case. The Inspector will determine the reason for the homeowner concern: poor workmanship, inferior materials used, lack of homeowner maintenance, poor communication between contractor and homeowner or Rehabilitation Inspector.
- Contact the appropriate party or contractor if the case is currently in progress or under the one year workmanship warranty to make the necessary corrections or address the homeowner's concern.

Rehab Jobs Under Construction/Rehab Jobs Under Warranty

1. Requirements for complaint resolution if job is still under construction.
 - If the investigation reveals that the required work is not in the specifications and the work is needed to ensure all code requirements are met, the Rehabilitation Inspector will initiate the required change order to correct same.
2. Requirements for complaint resolution if job is under the one year workmanship warranty period.
 - If the investigation reveals that the required work was apart of the job specifications and requires the contractor to correct, the Inspector will do the following:
 - a. Contact the contractor and notify them of the condition and obtain a time the issue will be addressed or investigated.

- b. Contact the homeowner and notify the homeowner of the next step with the contractor.
 - c. Monitor the required work to ensure timely completion.
- 3. If the investigation reveals that the required work is not in the specifications and the work is needed to ensure all code requirements are met, the Rehabilitation Inspector will do the following:
 - a. Initiate the required paper work to have the required work completed.
 - b. Contact the original contractor and notify of the condition and obtain a time the issue will be addressed or investigated.
 - c. Contact the homeowner and notify the homeowner of the next step with the contractor.
 - d. Monitor the required work to ensure timely completion.
- 4. If the investigation reveals that the required work is not in the specifications and the work is not needed to ensure code requirements are met or the needed repair appears to be the result of intentional damage or neglect, the Rehabilitation Inspector will do the following:
 - Notify the homeowner that the contractor will not be addressing the issue.
 - Provide technical assistance when possible to assist homeowner with addressing an issue.

Rehab Job No Longer Under Warranty

Complaint investigation for jobs no longer under warranty will be handled by the Assistant Chief Rehabilitation Supervisor. If the investigation reveals that the work is valid and should have been included in the original scope of work:

- Complete the justification form for corrective work to correct the problem.
- Contact the original contractor to have the work completed.
- If corrective work exceeds \$3,000, create the specifications and provide to the Chief Rehabilitation Supervisor for bidding the work out to at least three contractors.
- Contact the homeowner and notify the homeowner of the next steps.

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CONTRACTOR PERFORMANCE STANDARDS

This Manuel should be the contractor's guidelines for all programs operated through the Division of Neighborhood Services. This would include the SHAP (Senior Housing Assistance Program), RAH (Repair-A-Home) and the Afford-A-Home Program.

SMOKE DETECTORS

A. LOCATION

1. A smoke detector shall be installed in every location where required by local code. Location on ceiling shall comply with local code and detector manufacturer's instructions.

PRODUCT STANDARD

2. Smoke detectors shall be of the type (battery powered or wired into the building's electrical system) required by local code. Extensive electrical work requires hard wired smoke detectors. Extensive would be defined as new 100 AMP service and a new panel box. Detectors shall be U. L. approved and meet all applicable HUD standards. Battery models shall be equipped with a test button and a standard 9 volt battery and shall be self monitored. Smoke detectors must be installed in the following locations:
 - a. At the head of stairways leading to occupied floors containing sleeping rooms or sleeping area.
 - b. In each suite and at the head of stairs of multiple dwellings.
 - c. Attic
 - d. Basement

NOTE: Smoke Detector shall be First Alert only

Each smoke detector shall be UL and/or FM approved and bearing the following:

"Single-Station Smoke Detector",

"Single and/or Multiple Station Smoke Detector", "Single and/or Multiple Smoke Detector Accessory".

CARBON MONOXIDE DETECTORS

C.O. detectors are to be installed per Manufacturers instructions and in locations where required by local code.

ELECTRICAL

PLEASE NOTE: These GENERAL SPECIFICATIONS, as well as electrical BID SPECIFICATIONS prepared by the Rehabilitation staff, are statements of expected standards and shall not be construed as citations of electrical violations. Citations and enforcement of electrical code are the responsibility of the certified electrical inspector.

B. 1. SCOPE OF WORK

The General Contractor is responsible for having a licensed Electrical Contractor perform all electrical work necessary to bring the structure into compliance with the residential electrical rehabilitation code. Any additional work required and not included on specifications should be identified at the site visit for DNS home repair programs.

Once contract is entered into no adjustments will be allowed for any additional required electrical work. This includes the correction of all violations on existing wiring and equipment, as well as the installation of any and all new wiring and equipment required to meet Code.

Questions regarding code requirements shall be directed to the Electrical Inspector. The Division of Neighborhood Services reserves the right to require any additional work called for in the BID SPECIFICATIONS and GENERAL SPECIFICATIONS.

2. PERMIT

The Contractor is required to secure an ELECTRICAL PERMIT from the City of Cleveland and to call for all inspections pursuant to the PERMIT. The Contractor shall post the PERMIT as required by law, and shall provide a copy of the PERMIT to the Inspector before commencing work. At the closing of the job, the Contractor shall provide the property owner with verification that the PERMIT has been closed.

3. DAMAGE REPAIR

Any portion of the building including, but not limited to, plaster, drywall, tile, concrete, or woodwork that is disturbed during installation or servicing of the electrical system, or any portion of same, shall be restored to its original condition by the general contractor.

4. ABANDONED EQUIPMENT

All defective or abandoned wiring and equipment on interior and exterior of building shall be removed. This includes the removal of service terminals and insulators.

5. CIRCUIT DISTRIBUTION IN MULTI-FAMILY DWELLINGS

Every circuit, existing or new, shall be wired to the circuit panel labeled to serve the suite in which the circuit is located. There shall be no crossover of circuits between suites.

6. U.L. LISTING REQUIREMENT

All newly installed electrical equipment or materials shall be listed by Underwriter's Laboratories, Inc. as conforming to its standards.

7. WIRE MOLD PROHIBITION

Wire mold may not be used except where it is specifically allowed by the BID SPECIFICATIONS.

8. CIRCUIT-BREAKER PANEL REQUIREMENT

Every building not presently equipped with a circuit-breaker type main disconnect and a breaker panel with at least 8 or more spaces for each living unit shall be so equipped as part of the job. Appliance and motor driven equipment shall be labeled.

9. CONVERSION TO 100 AMP SERVICE

100 AMP minimum service shall be provided to every building not presently equipped with at least 100 AMP service. The contractor shall call the power

company, inform the company, and request the service change. The contractor shall not charge for making the call. It is suggested that the contractor request this change as soon as possible to avoid delaying the close of the job. Before the power company installs the increase service, the contractor shall comply with GEN. SPEC. B-8.

10. KITCHEN FIXTURES

All light fixtures in kitchens shall have a 12" minimum globe. The light shall be ceiling mounted near the center of the room and shall be controlled by a wall switch, inside the room, within 12" of the doorway. Light bulbs shall be installed in all new fixtures in the amount the device will accept. (i.e., if a fixture accommodates two bulbs, 2 bulbs must be existing at the closing.)

11. DINING ROOM FIXTURES

Three bulb fixture or more in the dining room.

12. BEDROOM AND DINING ROOM FIXTURES

All light fixtures installed in bedrooms and dining rooms shall have 12" minimum glass light diffusers, shall be ceiling mounted near the center of the room, and shall be controlled by a wall switch, inside the room, within 12" of the doorway. Light bulbs shall be installed in all new fixtures. Wall fixtures may not be installed except where specifically allowed by the BID SPECIFICATIONS. A receptacle controlled by the wall switch may be substituted for a ceiling fixture when permitted by code and acceptable to homeowner and electrical inspector.

13. BATHROOM FIXTURES

Light fixtures installed in bathroom shall be either ceiling mounted with 4" minimum globe, or 2 bulb channel style, wall mounted over the mirror above the sink. In either case, adequate illumination shall be provided to both the sink or tub area. If a tub wall separates the sink from the tub, both a ceiling and a wall mounted channel style fixture shall be installed. Fixtures shall be controlled by a wall switch inside the room, within 12" of the doorway. Light bulbs shall be installed in all new fixtures. Only GFI receptacle(s) shall be located in the bathroom.

14. PORCELAIN PULL-CHAIN FIXTURES

Porcelain pull chain fixtures shall not have a receptacle device. Porcelain pull-chain fixtures are permitted only in cellars, and unfinished attics. Light bulbs shall be installed in all new fixtures. Guarded fixtures shall be installed in closets as required by Code.

15. OUTSIDE FIXTURES

An exterior type light fixture shall be mounted outside of every outside door not presently equipped with an approved fixture, and shall be controlled by a wall switch, inside the house, within 12" of the doorway.

16. KITCHEN RECEPTACLE GROUNDING REQUIREMENT

All kitchen receptacles, existing or new, must be on 20 AMP, grounded circuits, a minimum of 2 circuits per kitchen. G.F.I. receptacles shall be located near the sink in accordance with N.E.C. requirements.

17. DOORBELL EQUIPMENT

Existing electric doorbell system shall be considered as part of the electrical system, and shall be restored to operating condition.

18. VENTILATION FANS

Ventilation fan installation shall include all necessary ducts and grills. Bathroom fan switches shall be located in the same unit as lighting switches, but shall be separately controlled. Ventilation fan product standard: Nu-Tone, Miami Carey, or equivalent. Ventilation fans shall be ducted to outside.

19. GARAGE WIRING

(BIDDERS PLEASE NOTE: Garage wiring must be bid separately from other electrical work. Please include with such bid a list of all electrical work to be performed in the garage, including the electrical run to the garage.) The Contractor is required to perform all work necessary to bring the entire garage into compliance with the most recent National Electric Code as interpreted by the Electrical Inspector City of Cleveland as well as all additional requirements that

such Electrical Section may have. This includes the correction of all violations on existing wiring and equipment, as well as the installation of any and all new wiring and equipment required to meet code. Questions regarding code requirements shall be directed to the Electrical Section of the City of Cleveland. The Division of Neighborhood Services reserves the right to require any additional work called for in the BID SPECIFICATIONS and GENERAL SPECIFICATION.

PLUMBING

1. PERMITS

The Contractor is required to secure a PLUMBING PERMIT from the Division of Building & Housing of the City of Cleveland, and to call for all inspections pursuant to the PERMIT. The Contractor shall post the PERMIT as required by law, and shall provide a copy of the PERMIT to the Division of Neighborhood Services before commencing work. At the closing of the job, the contractor shall provide the Advisor, Supervisor or Inspector with verification that the PERMIT has been closed.

2. DAMAGE REPAIR

Any portion of the building including, but not limited to, plaster, drywall, tile, concrete, or woodwork that is disturbed during installation or servicing of plumbing, shall be restored to its original condition at no extra charge. Special care must be taken to avoid damaging carpeting or woodwork with hot solder or solvents.

3. CROSS CONNECTION PROHIBITION

No existing or new connections or equipment shall be permitted that could cause a cross-connection between the water supply and the drainage system.

4. K-LINES

K-Lines (water lines from water main to meter) must be 3/4" type "K" copper with no joints below ground. New K-lines must be installed at least 36" below grade. All necessary excavation and backfill is to be included at no extra charge. Trenches shall be run in straight lines with the bottom properly pitched to give support to the piping along its full length. Trenches shall be backfilled evenly, and be thoroughly compacted. Lawn areas shall be re-seeded, or sodded to match existing lawn as closely as possible. The stability of any building foundation must not be disturbed.

5. WATER LINES REPLACEMENT

Galvanized water lines shall be replaced to code with copper lines. All water lines shall be 3/4", except branch lines to hose bibs, sinks, tubs, showers, washer and dishwasher, which shall be a minimum of 1/2". All new water lines must run parallel to the building construction, and be neat and workmanlike. The pipes shall be concealed in walls, below floors, above ceiling, or in furred spaces. All new piping shall be properly supported, and be pitched to drain. Joints shall be formed with new 95/5 solder, or other approved type fittings. Brass stop valves shall be installed after the water meter, before the hot water heater, before each hose bib (sill cock), before each faucet, and before each toilet. Stop valves that are visible below wall hung sinks and toilets, and behind old style bathtubs, shall be chrome plated brass. Stop valves for sinks, toilets, and bathtubs shall be located within reach of such fixtures, in addition to the stop located at the junction of riser and run in cellar. Hot and cold water lines shall be at least 6" apart, where such piping is parallel. Air chambers shall be installed at proper locations as per Code. All abandoned pipes shall be removed. Brass stop valves located in cellar for risers to fixtures shall be identified with tags as to their destination.

6. GAS FUEL LINE

New fuel gas piping shall be schedule 40 black steel pipe with standard weight malleable iron 150 psi screwed fittings. Cast iron fittings are prohibited.

7. GAS SHUT-OFF VALVES

Shut-off valves on gas lines shall be "gas approved" ball valve, plug-type and stop-cocks with cast brass bodies and plugs, and lever type handles.

8. STACKS

All stack diameters shall meet or exceed code. Stacks shall be schedule 40 galvanized steel pipe with standard black cast iron screwed fittings, or P.V.C. pipe (subject to code) solvent welded. Pipes passing through the roof shall be flashed with anodized aluminum flashing set in waterproof mastic compound, or P.V.C. boots. New stacks must extend at least 6" above finished roof surface.

In no case shall steel pipe be installed above P.V.C. pipe, except where code prohibits P.V.C. from extending above roof.

9. SOIL AND WASTE PIPE (UNDER BUILDING)

New soil and waste piping under the building, to a point 5 ft. outside of the building, shall be service weight, cast iron soil pipe and fittings, or approved P.V.C. pipe (subject to code) and fittings.

10. SOIL AND WASTE PIPE (UNDERGROUND)

New soil and waste piping, from a point 5 ft. outside of the building to the street connection, shall be vitrified clay pipe, or P.V.C. (subject to code) with compression plastic joints. All new sewers shall be buried at least 36" below grade. All necessary excavation and backfill shall be included at no extra charge. Trenches shall be run in straight lines with the bottom properly pitched to give support to the piping along its full length. Trenches shall be backfilled evenly, and be thoroughly compacted. Lawn areas shall be re-seeded, or sodded to match existing lawn as closely as possible.

11. DRAIN PIPE GRADE REQUIREMENT

All new soil, waste, vent, and drainage piping shall be run at a uniform grade of at least ¼" per foot.

12. ESCUTCHEON PLATE REQUIREMENT

All new water, waste, and gas piping passing through floors, walls, and ceilings shall be fitted with chrome-plated escutcheon plates.

13. HOSE BIBS (SILL COCKS)

New hose bibs shall be rough brass ½" sill faucets of frost-free type.

14. GAS FUELED WATER HEATERS

Water heater installation shall include removal and hauling away of old heater. New water heaters shall be standard recovery type with glass-lined 40 gal. tanks, and shall be insulated with fiberglass or polyurethane located between the

tank and the outer jacket. Water heaters shall meet H.U.D. efficiency standards for energy conserving appliances. Water heaters shall be "tall" models. "Short" models may be used only in location with restricted clearance. Installation shall include a "gas approved" shut-off valve 5 ft. above floor on gas line, a 6" dirt (drip) leg, a 3/4" T & P relief valve, a 3/4" blow-off tube to within 6" of floor, water heaters shall be A.G.A. Approved. A 5 year minimum guarantee shall be affixed to the unit.

15. LAUNDRY TUBS

Laundry tubs installation shall include removal and hauling away of old tubs. New laundry tubs shall be fiberglass single or double bowl (as specified) with brass faucets and a flexible waste to recessed floor drain. Laundry tub shall be securely anchored.

16. KITCHEN SINKS

Kitchen sink installation shall include removal and hauling away of old sink. New kitchen sinks shall be 32"x21"x7¹/₄", double bowl, copper-nickel stainless steel 20 gallon minimum. Undersized sinks are not permitted. Every new kitchen sink shall include basket strainer, a new P-trap assembly (mechanical vents not permitted), new washerless faucets, and new stop valves on supply lines. Sprayers shall not be included, unless specified. Sink products standard: ELkay CR 3322 or approved equivalent. Faucet product standard: Delta Washerless (Model 100/400) Moechateau (Model 2841-B, or approved equivalent. (See GEN. SPEC. F-25 for base cabinets).

17. BATHROOM SINKS

Bathroom sink (lavatory) installation shall include removal and hauling away of old sink. New bathroom sinks shall be of white vitreous china, 19"x17" minimum size (smaller sizes will be accepted only if there is insufficient space for a full sized sink), and shall include an overflow, new washerless faucets, pop-up plug, P-trap, (mechanical vents not permitted), and stop valves on supply lines. Wall hung sinks shall be mounted on brackets, supplied by the manufacturer. If no bracket is supplied, standard bracket hangers shall be used. Brackets shall

always be mounted on a cross brace extending between 2 or more studs, and shall be positioned so that the top of the basin is 31" above the finished floor. Wall hung sinks shall be grouted at the wall with a durable, hard white cement to eliminate all voids and cracks, and shall be equipped with two (2) chrome-plated legs. Vanity mounted sinks shall be one-piece, integral with the counter top. All areas damaged during removal of old sink shall be repaired to a finish condition, including final painting. Sink product standard: Eljer, Crane, Kohler, (Model 520), Moen Legend Single handle (Model 4220, or approve equivalent. (See GEN. SPEC. F-27 for vanities).

18. BATHTUBS

Bathtub installation shall include removal and hauling away of old tub, and all floor repairs necessary to insure a secure, level installation. New bathtub shall be white enameled steel recess type, with new washer-less faucets, stop valves on supply lines, pop-up plug, overflow, and trap assembly. Showers are not to be included, unless specified. Faucets shall be supported by 2"x4" support board. Installation shall include any wall framing necessary to achieve a flush, finished installation. New walls shall be constructed with 2"x4" plates with studs on 16" centers. Walls shall extend all the way to the ceiling and be covered with water-proof drywall, tacked, taped, finished, sanded and primed. A silicone sealant caulk shall be applied neatly between tub and walls. If the wall behind the faucets is an interior wall, it must be fitted with an access panel constructed from 1/2" exterior plywood with a grade "A" face. Access panel shall be trimmed with wood molding to match existing molding in room as closely as possible. If no access panel is possible, faucets shall be fitted with large chrome plated escutcheon plates to permit faucet repairs from the tub wall. If a shower is called for, it shall be of the water diverter type with the shower pipe run up and elbowed out 6 ft. above the floor and centered on the tub width. The shower outlet shall be supported by a 2"x4" support board. All shower installations shall include installation of a tub wall, installed according to the manufacturer's instructions, and a chrome- plate shower curtain rod. New tub wall shall be white. Bathtub product standard: American Standard, Eljer, Kohler, Briggs or approved equivalent. Faucet product standard: Delta Washer-less (Model

611-C) (Model 641-C), Moen Chateau Single handle (2739-A) or approved equivalent. Tub wall product standard: 1/16" fiberglass, panels with polyurethane coating. Owens Corning, Swan or an approved equal of equal quality. ABS plastic panels are prohibited.

19. WATER CLOSETS

Water closet installation shall include removal and hauling away of old water closet, and all floor repairs necessary to insure a secure, level installation. Water closet shall be white vitreous china, close-coupled type, with white heavy solid plastic or wood seat. Bowl height shall be 14-½" minimum. Under-sized water closets or light weight plastic toilet seats are not acceptable. Water closet installation shall include new water closet bowl gasket, and a new stop valve on the supply line. Water closet product standard: American Standard "Cadet", Crane, Kohler, Eljer, Gerber Water Saver, or approved equivalent.

20. TOILET TANK VALVE ASSEMBLIES

Toilet tank valves shall be replaced with brass ballcock assemblies. Product standard: Mansfield "Sanitary Beaver", or approved equivalent.

21. CLOSET BEND REPLACEMENT

Lead bends, or other types of closet bends, shall be replaced with copper bends, or P.V.C. bends (subject to code). Installation shall include repair of all damaged floors and ceilings to as close to original condition as possible, and shall meet all applicable codes.

22. SEWER HUBS

Sewer hub replacement shall include snaking the sewer per GEN. SPEC. C-23, and cementing the downspouts into the new hub. Hubs shall be vitrified clay, installed so that the flared top is exposed 6" above grade.

23. SNAKING

A specification calling for "snaking" shall be construed to mean the successful clearing of the drain or sewer specified. If it is found that a section of drain or sewer needs replacement, the Contractor shall immediately contact the Inspector.

HEATING

D. 1. PERMIT

The Contractor is required to secure a HEATING PERMIT from the Division of Building & Housing, and to call for all inspections pursuant to the PERMIT. The Contractor shall post the PERMIT as required by law, and shall provide a copy of the PERMIT to the Advisor, Supervisor or Inspector before commencing work. At the closing of the job, the Contractor shall provide the property owner and Advisor, Supervisor or Inspector with verification that the PERMIT has been closed.

2. DAMAGE REPAIR

Any portion of the building including, but not limited to, plaster, drywall, tile, concrete, or woodwork, that is disturbed during installation or servicing of the heating system, or any portion of same, shall be restored to its original condition at no extra charge.

3. ABANDONED EQUIPMENT

All heating equipment, exposed heat ducts, related wiring and related piping that is replaced or abandoned during the execution of the CONTRACT, shall be removed from the premises. Abandoned flue openings in chimneys shall be bricked up and finished to match adjacent areas of chimney. All other openings, from unused returns or supply registers or grills, shall be closed and sealed. All unused gas pipes shall be removed and capped.

4. GAS FURNACES (REPLACEMENT AND NEW INSTALLATIONS)

Installation of gas fueled forced air furnaces shall include bringing all flues, chimney clean-outs, heat ducts, heat registers, fuel lines to furnace, hot water tank, , stove and other appliances, electrical lines to furnace, thermostats, and other related items, into compliance with the regulations and codes of the City of Cleveland HVAC Division. All new and existing heat ducts passing through unheated areas of attic or cellar shall be insulated per GEN. SPEC. 1-7. If installation is in a cellar, the furnace shall be set on a solid concrete pad or

blocks 3" minimum. (The pad may be eliminated in dry cellars with insufficient ceiling clearance only). The system must be able to maintain an inside temperature of 70° F. at the thermostat, when the outside temperature is 0° F. The system shall be designed, installed, adjusted, and balanced to provide for the distribution of heat to all habitable spaces in accordance with the calculated heat loss of the spaces to be heated. The system shall be of standard efficiency design, and should be carefully sized to be no greater than 15% oversized for the critical design, except to satisfy the manufacturer's next closest nominal size. The heat exchanger shall be guaranteed by the manufacturer for 20 years. Furnace product standard: Rheem, Armstrong, or the approved equivalent. (Please note: Bidders are to indicate on the bid the specific brand and B.T.U. rating of the unit to be installed).

5. GAS FURNACE SYSTEM SERVICING (Clean and Check)

Cleaning and adjusting fueled forced air furnaces shall include:

- a. Change air filter (disposable type) or clean air filter (permanent type).
- b. Clean blower blades, burners, combustion chambers, and flues.
- c. Adjust blower belt (should depress approx. one half inch under slight thumb pressure) of, if belt is broken, cracked, or frayed, replace blower belt.
- d. Lubricate the motor and blower according to the manufacturer's instruction (often attached to the blower housing).
- e. Clean flame and pilot.
- f. Check fan limit control and high limit control for operation.
- g. Thoroughly examine entire system and report all malfunctions to the Inspector.

(Eliminate the non applicable steps for gravity system service). At the time of job closing, the Contractor shall provide the Advisor, Supervisor or Inspector with a copy of the receipt, indicating work performed, from the heating contractor and the completed, signed work form.

6. GAS BOILER (REPLACEMENT AND NEW INSTALLATIONS)

Installation of gas fueled boilers for steam or hot water heating systems shall

include bringing all safety devices, flues, chimney clean-outs, controls, thermostats, pipes, pumps, radiators, radiator valves, radiator vents, fuel lines to boiler, (see furnace instructions) and electric lines to boiler, into compliance with the regulations and codes of the City of Cleveland, Division of HVAC. The boiler shall include an automatic water feed, back flow preventer and be installed on a concrete pad. The system must be able to maintain an inside temperature of 70° F. at the thermostat, when the outside temperature is 0° F. The system shall be designed, installed, adjusted, and balanced to provide for the distribution of heat to all habitable spaces in accordance with the calculated heat loss of the spaces to be heated. The system shall be of high- efficiency design, and shall be carefully sized to be no greater than 15% oversize for the critical design, except to satisfy the manufacturer's next closest nominal size. Heat pipes through unheated spaces shall be insulated with wrapped pipe insulation with a minimum rating of R-2. Vapor barrier shall be on the outside. Boiler product standard: Pennco, Weil-McLain, or approved equivalent. (Please note: Bidders are to indicate on the bid the specific brand, and the input, output, and net rating of units to be installed).

7. GAS BOILER SYSTEM SERVICING (Clean and Check)

Cleaning and adjusting gas fueled steam or hot water system shall include:

- a. Flush system.
- b. Clean burners.
- c. Clean flame and pilot.
- d. Check thermocouple, thermostat, and safety controls, and inform the Inspector of all malfunctions.
- e. Replace all leaking or frozen radiator valves.
- f. Re-pitch all improperly pitched steam radiators.
- g. Replace all malfunctioning steam radiator vents. At the time of job closing, the Contractor shall provide the Advisor, Supervisor or Inspector with a copy of a receipt, indicating work performed, from the heating contractor and the completed, signed work form.

8. HEAT AND PIPE INSULATION

All heat ducts passing through unheated areas of cellar or attic shall be insulated to a factor of R-4 or greater, with a vapor barrier placed on the outside of the insulation. Vapor barriers on adjoining sections of insulation shall be taped together.

10. THROUGH-THE-WALL HEATERS

New gas fueled through-the-wall heaters shall be equipped with automatic controls, thermostat, and electronic ignition. The heat output of the unit shall not be less than the calculated heat loss of the space served. Installation shall include all necessary carpentry work and caulking. The unit and installation shall comply with all of the applicable regulations and codes of the City of Cleveland, Division of HVAC. Product standard: Dyna Vent, Warm Morning, or approved equivalent.

Operational manuals and warranties to be given to homeowner at completion of installation, to include instructions by installer as to proper operation procedure.

All existing asbestos covering must be removed and/or encapsulated to meet EPA Standards and requirements. Removal and disposal requires special license/permit. Contact Commissioner, Division of Air Pollution Control (216) 664-3500.

Submit addendum, if applicable, on Contractors stationary for those conditions, referred to above, that exist.

EXTERMINATION

E. 1. LICENSE REQUIREMENT

Extermination shall only be performed by exterminators licensed by the State of Ohio. **License verification must be submitted with invoice for payment.**

2. COCKROACHES

The extermination shall consist of two complete heavy applications of the strongest appropriate legally available insecticide(s) performed 21 days (+ 3 days) apart. The building shall be guaranteed to be free of cockroaches for a minimum of 60 days from the date of the last application. The Contractor shall provide the property owner with a copy of the guarantee from the exterminator. **Copy of the guarantee must be submitted with invoice for payment.**

3. CARPENTER ANTS

The extermination shall consist of spraying the strongest appropriate legally available insecticide close to the foundation all the way around the building, into cracks between pavement and the foundation, into cracks between cellar floors and foundation, and near the foundation wall of any cellar and crawl space having a dirt floor. The insecticide shall also be applied directly to heavily infested timbers. The building must be guaranteed to be free of carpenter ants for a period of one year from the date the extermination is performed. The Contractor shall provide the property owner with a copy of the guarantee. **Copy of the guarantee must be submitted with invoice for payment.**

4. TERMITES

The extermination shall consist of injecting the strongest appropriate legally available insecticide into the ground, down to the footer, at 16" intervals around the entire perimeter of the building. Drilling and patching of pavement, where necessary to maintain the 16" interval, shall be the Contractor's responsibility. The building must be guaranteed to be free of termites for a period of one year

from the date of extermination is performed. The Contractor shall provide the property owner with a copy of the guarantee. **Copy of the guarantee must be submitted with invoice for payment.**

5. POWDER POST BEETLES

The exterminator shall thoroughly inspect the premises to locate all areas of powder post beetle activity, and shall spray the strongest appropriate legally available insecticide directly onto the affected areas. The building shall be guaranteed to be free of powder post beetles for a period of one year from the date the extermination is performed. The Contractor shall provide the property owner with a copy of the guarantee. **Copy of the guarantee must be submitted with invoice for payment.**

6. RODENTS

The exterminator shall locate areas of rodent activity by looking both inside and outside of the house for droppings, raceways, and burrows. All such areas shall be treated with zinc phosphide and an anti-coagulant, such as warfarin. The building shall be guaranteed to be free of rodents for a minimum of 60 days from the extermination date. The Contractor shall provide the property owner with a copy of the guarantee. **Copy of the guarantee must be submitted with invoice for payment.**

CARPENTRY

F. 1. MAIN INTERIOR STAIRS (NEW INSTALLATION & REPLACEMENTS)

Stair framing shall be well spiked together. 4" minimum solid bearing shall be provided for the stringers at the header joist. Newels and posts shall be secured to rough stair framing. Rough carriages shall be cut to exact shape to receive finish oak treads and stained white pine risers (if stairs are to be carpeted, yellow pine treads and risers may be used). Stair work shall be fit, nailed, and glued together to form a rigid structure without squeaks and vibrations. A handrail shall be installed on at least one side of every flight of stairs which exceed 3 risers. Handrail height shall be 34" to 36". Headroom over open stairs shall be 6'9" minimum. Headroom over stairs where ceiling is enclosed and sloped to follow the stairs shall be 7 ft. minimum. Width of treads shall be 3 ft. minimum. Treads, exclusive of nosing, shall be from 10" to 11". Risers shall be of uniform height, 6-3/4" to 7½". Stairs and handrail shall be sanded smooth and varnished with 2 coats of floor varnish. A landing of not less than 3 ft. shall be provided at the top of every new stair run having a door. Dimensions of replacement stairways may be modified to fit existing spaces. Non-skid nosing required on common stairways.

2. CELLAR OR SERVICE STAIRS (NEW INSTALLATION & REPLACEMENTS)

Stairs shall be open riser type constructed from 2"x10" or 5/4"x10" treads and 2"x12" stringers, notched and spiked. 4" minimum solid bearing shall be provided for the stringers at the header joist. Headroom over stairs shall be 6'6" minimum. Width of treads shall be 2'6" minimum. Rise between treads shall be of uniform height, from 6-3/4" to 7-1/2". Stairway must include a handrail on one side, varnished 1-5/8" x 1-1/2" white pine colonial (if wall mounted), or 2"x4" construction (if open mounted). Stairs and 2"x4" handrails to be sanded smooth, primed, and painted with one coat of deck enamel. Corners of 2"x4" handrail edges must be eased and sanded. Dimensions of replacement stairways may be modified to fit existing spaces. Non-skid nosing required on common stairways.

3. INTERIOR HANDRAILS

Handrails shall be 1-5/8" x 1-1/2" white pine colonial style, mounted 34" to 36" high. Handrails shall be secured to studs with brass brackets. Wood shall be sanded smooth and varnished. All plaster damaged during removal of old brackets, or installation of new, shall be patch plastered, sanded smooth, primed, and painted to match existing as closely as possible.

4. EXTERIOR STAIRS

Replacement stairs shall be equal in width to old stairs but not less than 3 ft. Unless otherwise specified, stairs are to be open riser type with 1-1/2" x 10" treads, and risers of uniform height, 7-1/2" maximum. A handrail, of 2"x4" construction, with eased corners, shall be installed on at least one side of every flight of stairs which exceeds 3 risers. 2x2 Balusters are to be used 6" on center and must be smooth and sanded to a finish condition. Handrail shall be 30" to 32" high. Stairs shall be secured to fascia board, or other appropriate structural member, and shall rest on a concrete pad. (Installation of a 3" concrete pad shall be considered part of this specification, wherever such pad does not exist). Stairs and handrail shall be sanded smooth, primed (use oil based deck enamel, thinned 50% with mineral spirits), and, if painting is not called for elsewhere in the BID SPECIFICATIONS, painted with 2 coats of oil based deck enamel, property owner's choice from a selection of readily available colors. Enamel manufacturer's instructions must be followed regarding the addition of silica to the enamel. Wrought iron railing may be used in lieu of wood rails.

5. PORCH POSTS

Porch posts shall be built-up from 4"x4" , then covered with four 1"x6"s, #2 pine or better. All nail holes shall be filled with wood putty. Knots and resinous wood shall not be used. Fresh cut ends of posts shall be treated with a wood preservative. Posts shall be primed and, if painting is not called for elsewhere in the BID SPECIFICATIONS, painted a color to match main color of building, or trim color, whichever is appropriate. Posts shall bear on piers at least 6" above grade, or on reinforced portion of finished floor to include plinth block at base.

6. PORCH RAILINGS (MINIMUM STANDARDS)

Railings shall be constructed from pressure treated lumber. 2"x6" top and 2"x4" bottom rails. Balusters shall be 2"x2" or 2"x4", spaced 6" o.c. Cut down 2"x4"s are unacceptable unless all rough edges have been thoroughly sanded to a smooth, finished appearance.

7. WROUGHT IRON HANDRAILS

Rails shall consist of 1" square 14 gauge post, 1"x1/2"x1/8" top channel with 1-1/2"x3/16" top rail, and 1/2" square solid pickets. Rails shall be wrought iron, not steel or aluminum. Rails shall be securely anchored at both the top and bottom of the top support post. If the bottom support post is to be mounted on a wood tread, a floor flange shall be used, secured with bolts, large flat washers, and nuts. If the bottom support post is to be mounted on a stone or concrete tread, the post shall be set in a hole drilled 1-1/2" into the tread, and shall be secured with quick-set cement or molten lead.

8. PORCH LATTICE

Lattice shall consist of wood strips, spaced equal to the width of the strips, and crossed diagonally. This assembly shall be installed in a framework constructed from 1"x4" lumber. Lattice shall be hung from skirt board hinges. All surfaces shall be primed and painted, unless painting is called for elsewhere in the BID SPECIFICATIONS. Pre-manufactured lattice with spacing larger than the width of the lattice material is not approved for use.

9. PORCH LATTICE SUBSTITUTE

Lattice substitute shall not be used unless specified. If specified, it shall consist of 1/2" exterior grade plywood, installed in a framework constructed from 1"x4" lumber, and shall be hung from skirt board by hinges. A diamond shaped opening shall be cut in each panel, and shall be fitted with wire mesh (hardware cloth). All surfaces shall be primed and painted, unless painting is called for elsewhere in the BID SPECIFICATIONS.

10. PORCH FLOORS

Porch floor replacement shall include replacing or doubling up headers and joists with new headers and joists equal in size to original (2"x6" minimum), to include joist hangers at all joist ends and replacement of skirt board. Flooring shall be 1"x4" Philippine mahogany, grade 1 minimum, tongue and groove. Fresh cut ends of headers and joists shall be treated with a wood preservative. Joint between floor and wall shall be caulked with paintable silicone caulk. Fascia and flooring shall be primed with oil based deck enamel, thinned 50% with mineral spirits. Unless painting is called for elsewhere in the BID SPECIFICATIONS, fascia shall be painted a color to match main color of building, or trim color, whichever is appropriate, and flooring shall be painted with 2 coats of oil based deck enamel, (gray, brown) property owner's choice from a selection of readily available colors. Enamel manufacturer's instructions must be followed regarding the addition of silica to the enamel. All flooring shall be back primed and edge primed prior to installation.

11. TONGUE & GROOVE PORCH CEILING (Existing Only)

Porch ceiling shall be replaced with double 2" exposure tongue and groove boards ("Philadelphia fencing"). Ceiling shall be primed and, if painting is not called for elsewhere in the BID SPECIFICATIONS, painted with polyurethane stain. Material shall be free of pin knots or knot holes.

12. PLYWOOD PORCH CEILINGS

Porch ceilings shall be replaced with minimum 3/8" exterior grade plywood, (exposed side shall be grade "A"), trimmed with batten strips on every edge and seam. Ceilings shall be primed and, if painting is not called for elsewhere in the BID SPECIFICATIONS, painted with polyurethane stain

13. PARTITION (INTERIOR WALL) FRAMING

Partitions shall be constructed with 2"x4" studs, top plates, and bottom plates. Studs shall be spaced 16" o.c., and doubled at all openings. Bearing partitions shall have double top plates. Proper headers shall be used at all framed openings.

14. EXTERIOR WOOD DOORS (MINIMUM REQUIREMENTS)

Doors shall be 1-3/4" particleboard core flush birch veneer with one small square window, of double strength glass, placed diagonally in the upper center of door. Installation shall include three 4"x4" butt hinges installed with 6 screws each, key and knob tubular lockset, strike plates, and a single cylinder tubular deadbolt lock with a 1" minimum throw. All repairs to jamb, stops, casing, and threshold that are necessary for a firm, true fit shall be performed. Weather-stripping shall be installed in accordance with GEN. SPEC 1-9. Door shall be sanded smooth and painted or varnished on both sides and all edges. Property owner shall choose between varnish and paint, and shall choose color of paint from selection provided by the program. If new casings are installed, they shall match old casings as closely as possible in size, style, and finish. Locksets and deadbolts shall be Schlage "A" series or equal and all shall be keyed alike for each separate unit.

15. STEEL REPLACEMENT DOOR SYSTEMS

The Contractor shall perform all carpentry necessary for proper installation of steel door systems. Doors shall be 1-3/4" thick. Panels shall be formed of 24 gauge minimum galvanized steel with baked enamel prime finish. Door core shall consist of a resin impregnated kraft honeycomb core, laminated to inside of both door panels, with a polyurethane foam. Door shall be prehung in a frame formed of 20 gauge minimum galvanized steel with baked enamel prime finish. Weather-stripping shall be an integral part of the unit. Door system shall allow a maximum heat loss of 2000 B.T.U.'s per day.

Door shall be equipped with a viewer, key and knob tubular lockset and a single cylinder tubular deadbolt lock, with a 1" minimum throw. Door system shall be installed and finish painted, (property owner's choice of color with program approval), in full compliance with the manufacturer's instructions. Unless otherwise specified, door shall be flush style. Door system product standard:

Perma-Door, Taylor, Pease or approved equivalent. Door systems shall comply with all standards of the Insulated Steel Door System Institute. New casings

shall match existing as closely as possible.

16. INTERIOR SOLID CORE WOOD DOORS TO COMMON AREAS

Doors shall be 1-3/4", solid core, flush birch veneer design. Installation shall include three 4"x4" butt hinges installed with 6 screws each, and a single cylinder, keyed, tubular lockset, strike plate, and self-closing device. All repairs to jamb, stops, and casing that are necessary for a firm, true fit shall be performed. A viewer shall be installed on doors separating suites from common passageway. Doors shall be sanded smooth and painted or varnished on both sides and all edges. Property owner shall choose between varnish and paint, and shall choose color of paint from selection provided by the program. New casings shall match existing as closely as possible.

17. HOLLOW CORE WOOD DOORS

Doors shall be 1-3/8" thick, and of flush birch veneer design. Installation shall include two 3-1/2"x3-1/2" butt hinges installed with 6 screws each, and a tubular lockset, including a privacy lock and strike plate. All repairs to jamb, stops, and casing that are necessary for a firm, true fit shall be performed. A clearance of 1/2" over floor shall be provided. Door shall be sanded smooth and painted or varnished on both sides and all edges. Property owner shall choose between varnish and paint, and shall choose color of paint from selection provided by the program. New casings shall match existing as closely as possible. Privacy tubular locksets shall be furnished at bathroom and bedroom doors. Where carpet is specified, doors shall be undercut to clear the carpet a minimum of 1/4".

18. BASEMENT/CELLAR WINDOWS

Basement/cellar windows shall be wood or glass block (as specified) awning or hopper type, and shall be installed complete with sash, frame, and latch. New unit shall equal as closely as possible size of original unit. Frames shall be fastened securely to wall framing or masonry. Steel window manufacturer's instructions shall be followed regarding use of anchors or slips. Installation shall include priming and painting all wood or steel surfaces. Frame shall be caulked to assure a weather tight fit.

19. WOOD DOUBLE HUNG WINDOWS (NEW INSTALLATIONS)

Wood double hung window units shall be installed complete with sashes and all frame members, including jambs, sill, stool, parting strips, stops, all casings, and aprons. Glass shall be single strength, unless 1/4" insulated glass is specified. Each unit shall be fitted with sash cords or spring devices, a sash lock, and a sash lift. Jiffy clips shall not be used. Weather-stripping shall be an integral part of all new units. Units shall equal in size and style as closely as possible the existing windows in the room or house. Installation shall include opening of wall and constructing a rigid enclosure. Double studs shall be used at all openings. Jamb studs shall extend in one piece from header to sole plate. Sill shall not cut into jamb studs more than 1/2". Frames shall be set plumb and level, and fastened securely to wall framing. All wood surfaces shall be primed prior to installation, and painted after installation.

20. WOOD DOUBLE HUNG WINDOW REPLACEMENT

Replacement of wood double hung windows shall include tear-out of old window, and installation of a new unit complete with sashes and all frame members, including jambs, sill, stool, parting strips, stops, all casings, and aprons. Glass shall be single strength, unless 1/4" insulated glass is specified. Each unit shall be fitted with sash cords or spring devices, a sash lock, and a sash lift. Jiffy clips shall not be used. Weather-stripping shall be an integral part of all new units. Unit shall equal in size and style, as closely as possible, the window being replaced. All wood surfaces shall be primed prior to installation, and painted after installation. New casing shall match existing as closely as possible.

21. WOOD SASH REPLACEMENT

Sashes shall be equipped with single strength glass, unless 1/4" insulated glass is specified. Lower sashes shall include sash locks, lifts, and cords. Sash cords shall be #8 cord. Jiffy clips shall not be used. When both sashes in a unit are replaced, window channels shall be substituted for sash cords. New stops shall be installed whenever the old stop is damaged during installation of a lower

sash. New stops and/or parting strips shall be installed whenever the old stops and/or parting strips are damaged during installation of upper sash. Sashes must be properly fitted to lock and be weather tight. All wood surfaces shall be primed prior to installation, and painted after installation.

22. DOOR OR WINDOW CLOSE-IN

Close-in shall include removal of door or window, all frame, and all trim members. Doubled up studs shall remain. A sole plate and studs shall be installed, equal in size to plate and studs in remainder of wall (shims may be used). 3-1/2" fiberglass batt insulation shall be installed with foil vapor barrier faced toward living space. Both sides of wall shall be finished to match adjacent areas with required exterior grade sheathing, siding, masonry, drywall, lath, plaster, and base mold. Siding shall be installed with staggered joints, and shall be primed and painted to match existing. Siding and masonry shall be toothed-in to existing. Drywall or plaster shall be finished, primed, and painted to match adjacent drywall or plaster as closely as possible.

23. SASH CORD REPLACEMENT

Sash cord replacement is figured in BID SPECIFICATIONS on a per window basis: 2 new cords required in the lower sash of each window specified. Sashes shall be freed and made operable whenever cords are installed. New stops shall be installed whenever the old stop is damaged during installation of cords. Sash cords shall be #8 cord, Sampson brand, or approved equivalent.

24. WINDOW GLASS REPLACEMENT

Broken glass, old bedding putty, and old glazier's points shall be removed from sash, and the bed thoroughly cleaned. Wood beds shall be coated with linseed oil or thinned exterior paint. A thin bed of glazing compound shall be applied, double strength glass shall be installed tightly against glazing compound, glazier's points shall be tapped into sash 4" to 6" apart (wood sashes only), and a neat triangular bead of glazing compound shall be applied. If complete exterior painting or exterior trim painting is not included elsewhere in the BID SPECIFICATIONS, special care shall be taken to insure that the glazing is painted

a color to match existing as closely as possible, at least a week after the glazing is performed. Paint shall overlap the glass approx. 1/16" as a moisture seal. Obscure glass is required in bathroom windows.

25. KITCHEN BASE CABINETS

Kitchen base cabinets installation shall include removal and hauling away of old base cabinet. Cabinet framing shall be solid oak. Remaining construction shall be of solid wood or chip core. (Chip core subject to government regulations). Plastic construction is prohibited. Exposed wood surfaces shall be covered with a finish that is resistant to household chemicals and alcohol. Exposed chip core shall be covered with Formica (or approved equivalent). Units shall be 34-1/2" high (36" with counter top), 24" deep, and as wide as called for in BID SPECIFICATIONS. Base cabinets shall include all door and drawer hardware, a Formica (or approved equivalent) covered 1-1/2" counter top, and a matching Formica (or approved equivalent) 4" backsplash. Unit shall be firmly secured to wall and/or floor. All holes in the wall or floor, where plumbing enters the base cabinet, shall be neatly patch plastered or repaired with exterior grade plywood, and painted. All base units shall be certified by the National Kitchen Cabinet Association. Product standards are: " ExcellWalden"; Merillat, "Omni"; Aristocraft, "Colony Park"; Ultra Craft.

26. KITCHEN WALL CABINETS

Wall cabinet construction shall comply with standards stated in GENERAL SPECIFICATIONS F-25. When wall cabinets are being installed at the same time as base cabinets, the cabinet units shall match each other. A soffit, constructed from 2"x4" framing and 1/2" drywall, shall be installed between top of cabinet and ceiling. Drywall shall be tacked, taped, spackled, sanded smooth, primed, and painted to match adjacent drywall or plaster as closely as possible. Scribe moulding shall be used at all soffits and wall abutments. Cabinets are not to be attached to the soffit; screws at stiles, at cabinet back and into studs.

27. BATHROOM VANITIES

Vanity installation shall include removal and hauling away of old vanity, if any. New units shall be made of solid wood or chip core. (Chip core subject to

government regulations). Plastic construction is prohibited. Exposed wood surfaces shall be painted or varnished. Exposed chip core surfaces shall be covered with Formica (or approved equivalent). Unit shall be 29-1/2" high, 21" deep, and a minimum of 24" wide. Undersized units may be installed only when sufficient clearance for standard unit does not exist. Unit shall be firmly secured to wall. All holes in the wall or floor, where plumbing enters the vanity, shall be neatly patch plastered or repaired with exterior grade plywood, escutcheon plate and painted. Vanity cabinets shall be same as manufactured by Kitchen Cabinet manufacturer. Finish vanity shall be level, plumb and true. Area where vanity top backslash abuts the wall shall be caulked with a "Tub & Tile" caulk to render a watertight seal.

28. MEDICINE CABINET

All medicine cabinets shall be equipped with a plate glass mirror door and a minimum of 3 shelves. Cabinets shall be sized as follows:

- a. Surface mounted cabinets and new recessed cabinets shall be a minimum size of 16"x22"x3 1/2".
- b. Replacement recessed cabinets shall equal the size of the original cabinet as closely as possible. All damaged wall surfaces around cabinet shall be repaired to a finish condition.
- c. Product standard shall be Nutone or Miami-Carey.

29. FLOOR SAG CORRECTION

Sagging floors shall be corrected as follows:

- a. Jack-up floors shall be shown in illustration #1. Jacking shall be performed slowly, no more than 1/4 turn per day.
- b. Install 4"x4" hardwood posts or 4" non-adjustable steel post at each end of beam. Posts shall be attached at bottom of 2 ft. square concrete footers, 12" thick (6" above floor, and 6" below floor). Posts shall be attached at top to beam. Beam shall be attached to joists.
- c. Remove jack. Finished job shall appear as in illustration #2.
- d. Repair all damage to walls, doors, and windows, that occurred as a result of jacking.

30. EXTERIOR CELLAR DOORS

Doors shall be ready made, 2-door, steel units with torsion springs that lock in open position. Unit shall be securely mounted to foundation of house and stairs, and shall be caulked at all edges with paintable silicone caulk. A lock shall be supplied with the unit. Unit shall be primed and painted with enamel. Product standard: Bilco, or approved equivalent. (Ready made cellar door units are available through Preisler Lumber, West End Lumber, and other suppliers).

31. NEW CLOSET CONSTRUCTION

New closets shall consist of wall framing per GENERAL. SPECIFICATION. F-13, installation and painting of drywall per GENERAL. SPECIFICATION. H-2, installation of base mold at base of all walls (including inside of closet) to match base mold in remainder of room as closely as possible, installation of a 12" #2 pine shelf, installation of a 1 3/8" chrome plated clothes pole, and installation of a hollow core birch wood swing door or bi-fold door with jambs, casing, and bi-fold hardware. Door shall be finished to existing woodwork. Closet floor area shall be 2 ft. deep x 5 ft. wide, except where existing room arrangement or size necessitates a narrower closet.

FLOOR COVERINGS

G. 1. NO WAX FLOOR TILE

Installation of floor tile shall include removal of existing floor covering, underlayment, cove mold and/or shoe mold, and repair of floor to provide a strong base with no hard protrusions (such as nail heads). 1/4" Philippine mahogany underlayment shall be installed with 6d screw nails (pneumatic staple gun may be used with galvanized staples), 6" spacing. Nail heads shall be slightly countersunk. Seams shall be staggered, and shall be filled and leveled. Underlayment shall not be allowed to get oily, greasy, or dirty before installation of tile. Tile shall be 12"x12", .08 ga., vinyl-asbestos (subject to government regulation) no-wax type, and shall be installed per manufacturer's instruction. Tile shall not be cut to fit around toilets, tub legs, sink pedestals, or radiators. Such fixtures shall be lifted off the floor, then reset after tile installation. Necessary plumbing repairs shall be performed. Where wood base mold is present, 1/2"x3/4" wood shoe mold shall be installed, then painted or varnished to match base mold. Where wood base is not present, rubber cove mold shall be installed. Property owner shall choose color and style of tile, and color of cove mold (if used), from a selection of readily available colors and styles. Tile product standard: Armstrong, Kentile, or equivalent. (Please note: Contractor shall have a sample of the tile available at job close for verification of gauge).

2. SHEET VINYL FLOORING

Installation of sheet vinyl flooring shall include removal of existing floor covering, underlayment, cove mold and/or shoe mold, and repair of floor to provide a strong base with no hard protrusions, (such as nail heads). 1/4" Philippine mahogany underlayment shall be installed with 6d screw nails, (pneumatic staple gun may be used with galvanized stapled), 6" spacing. Nailheads shall be slightly countersunk, seams shall be staggered, and shall be filled and leveled. Sheet vinyl flooring shall be affixed to underlayment with adhesive spread over entire floor area. Seams shall be sealed with material recommended by the manufacturer. Sheet vinyl shall not be cut to fit around toilets, tub legs, sink pedestals, or radiators. Such fixtures shall be lifted off the floor, and then reset

after vinyl installation. Necessary plumbing repairs shall be performed. Sheet vinyl flooring shall be no-wax type, with a 10 mil minimum wear surface, and shall meet or exceed federal specification L-F-001641-Class 3. Where wood base mold is present, 1/2"x3/4 wood shoe mould shall be installed, then painted or varnished to match base mould. Where wood base is not present, rubber cove mold shall be installed. Property owner shall choose color and style of sheet vinyl flooring, and color of cove mold (if used), from a selection of readily available colors and styles. Sheet vinyl flooring product standard: Armstrong "Cambray", or better; Congoleum "Profile", or better; Gafstar "3400 Series", or approved equivalent.

3. DECK COVER - CANVAS

Canvas installation shall include removal and hauling away of old deteriorated deck covering and repair of deck to provide a strong, smooth base with no hard protrusions (such as nail or screw heads). Install single width #10-15 oz. canvas decking to include two (2) coats of deck paint reduced 3 parts to 1 part linseed oil fastened with 1/4" copper tacks, 1" apart. Include flashing where porch abuts structures. Seal all plywood edges with exterior primer and cover with metal edging.

4. DECK COVER - BITUMINOUS

Built-up roof installation shall include removal and hauling away of old deteriorated deck covering and repair of deck to provide a strong, smooth base with no hard protrusions such as nail or screw heads. Install 65# 19 inch selvage edge mineral roofing (smooth). To be blind nailed and laps cemented to avoid exposed nails. Care should be taken not to get roof cement from lap seams on finished surface of roofing as this will not be acceptable.

PLASTER, DRYWALL, WALL TILE, & CEILING TILE

H. 1. PATCH PLASTERING

All loose plaster and rough patches are to be removed from areas to be patched. The opened area shall extend until it reaches solid plaster, and the solid plaster shall be undercut. New metal lath or rock lath shall be installed in all holes to be patched, except very small holes with sound lath. The edges of the hole or crack to be filled shall be dampened before new plaster is applied. Use plaster weld at edges where new plaster abuts old. As finished patch must be secure and free from cracks, it will be necessary to apply plaster in at least two operations in all but the smallest repairs. Patch shall be sanded, primed with alkyd or oil based primer, and painted to match adjacent areas as closely as possible.

Plastering shall not be performed when the inside temperature is below 45° F for at least 72 hours after application. All electrical fixtures, outlets, switches, and wall plates disturbed during plastering shall be reinstalled in a workmanlike manner to meet code.

2. DRYWALL CEILING AND WALLS

Unless otherwise specified, all drywall installed shall be 1/2" thick, except that thicker drywall shall be installed where required by code. Drywall shall be tacked, taped, finished, sanded smooth, primed with alkyd, or oil based primer, and painted per GEN. SPEC. N-5. Seams and nails shall be invisible.

- a. Ceilings: Drywall ceilings shall be level. Existing ceiling may be torn out and drywall nailed directly to joists with screw nails, 7" o.c., or drywall may be installed over existing ceiling, with or without furring strips, with screw nails passing through existing ceiling into joists, 7" o.c., providing ceiling is level, plumb and true.

- b. Walls: Existing plaster or drywall on walls shall be removed before new drywall is installed. Drywall shall be nailed directly to joists, 8" o.c.

All trim shall be reinstalled in a workmanlike manner to fit properly against drywall, and all electrical outlets, fixtures, and switches shall be reinstalled to code. Drywall spackling shall not be performed when the inside temperature is below 45° F. for at least 72 hours after application.

3. PREFINISHED PLYWOOD PANELING

Paneling shall be 1/4" plywood, (hardboard or particleboard not permitted), with a genuine grain, (photographic or other artificial grains not permitted). Paneling shall be installed with adhesive or nails. If nails are used, they shall be colored to match the paneling. Before installing paneling, the Contractor shall perform all necessary repairs to walls to assure a neat, tight paneling installation, free from bulges or hollows. All trim shall be reinstalled to fit properly against paneling, and all electrical fixtures, outlets, and switches disturbed during installation, shall be reinstalled to code. No rough edges of paneling shall be left exposed. Property owner shall choose paneling from a selection of readily available styles.

4. PLASTIC FINISHED HARDBOARD PANELING

Before panels are installed, walls shall be repaired to a condition sufficiently smooth to offer a firm base for panels. Hardboard shall be glued to walls. Nailing or screwing is not permitted. Molding manufactured specifically for use with plastic coated hardboard paneling shall be installed at all seams and edges. All electrical fixtures, outlets, and switches disturbed during installation shall be reinstalled to code. Property owner shall choose from selection of readily available colors and styles. Plastic finished hardboard paneling shall not be used for tub walls. Product standard: Marlite, Masonite "Royal-tile".

5. CERAMIC AND MOSAIC TILE

Tile shall be set in Portland cement mortar. Portland cement grout, or mastic, as specified in BID SPECIFICATIONS. Tile shall be set level, with

straight, uniform, solidly filled joints. Completed work shall be free from hollow sounding areas, and loose, cracked, or defective tile. All electrical fixtures, outlets, and switches disturbed during installation shall be reinstalled to code.

6. ACOUSTIC (NON-SUSPENDED) TILE CEILINGS

12" x 12" x 1/2" acoustic tile shall be installed upon 1" x 2" furring strips, nailed at right angles to ceiling joists. All electrical fixtures disturbed during installation shall be reinstalled to code. Product standard: Armstrong.

7. SUSPENDED CEILINGS

Installation of a suspended ceiling shall include removal of all plaster in danger of falling, and patching of all holes in ceiling with plaster or drywall. Plaster or drywall need not be brought to a finish condition. Suspended ceiling shall consist of 2 ft. x 4 ft. and/or 2'x2' tiles installed in a level metal grid system. Styrofoam tiles are not permitted. Unless otherwise specified, existing incandescent light fixtures shall be remounted to code on the surface of the suspended ceiling properly supported behind the suspended ceiling with proper type metal bracket. Product standard: Armstrong.

WEATHERIZATION

I. 1. **BLANKET OR BATT INSULATION**

All blanket or batt insulation shall be foil faced fiberglass installed with the vapor barrier toward the living area (the warm-in-winter side). It shall be stapled every 8" to the edges of studs, rafters, and collar beams so that vapor barrier edges meet. Where ends of blankets or batts meet, the foil shall overlap slightly. Any tears in vapor barrier shall be repaired with duct tape or masking tape. Insulation shall not be compressed, and shall not be installed in more than one layer. Approx. 1" of space shall be left between insulation and sheathing. Vents shall be installed in accordance with Gen. Spec. I-5. Fiberglass insulation product standard: John Manville, Owens-Corning, or approved equivalent. Ridge and Continuous Soffit Vents only.

2. **INSULATION OF ATTIC FLOORS**

Cellulose insulation, conforming to federal standard 515D, shall be blown to the specified depth in open joist attic floors, or shall be blown under floorboards in attics with finished floors. Floorboards shall be removed every 5 ft. to provide for uniform coverage, even around bridging, and to provide access to any recessed light fixtures or recessed fans. Sheet metal barrier only shall be installed to provide 3" of clearance on all sides of such fixtures and fans. Electrical boxes, (except recessed fans and fixtures), shall be protected from cellulose insulation by laying an unfaced fiberglass batt over them prior to installing cellulose. Unused gas pipes shall be removed from floor area, and ends capped if lines are live. If baffles don't already exist, baffles must be installed at the end of joist spaces to prevent insulation from blocking eaves and eaves vents. These baffles must be angled approx. 45° to provide free air flow to eaves. If attic access is via trap door, such door shall have a fiberglass batt stapled to it, vapor barrier side down. If attic access is via stairway, the stairwell walls shall be insulated with blown cellulose or fiberglass batts. The attic side of the stairwell door shall be insulated with rigid insulation in conformance to local code. An aluminum and vinyl door sweep shall be installed at the bottom of the

attic stairwell door. Vents shall be installed in accordance with GEN. SPEC. I-6. After insulation has been installed, attic floorboards shall be nailed back down. Cracked boards shall be replaced to provide a safe, secure floor. All plaster damaged in stairwell shall be repaired to as close to original condition as possible. Chimney and stack to have 5-50 fire rated blocking.

3. INSULATION OF FINISHED ATTICS

The floor behind the knee walls of finished attics shall be insulated to conform to GEN. SPEC. I-2, with air impermeable baffles installed to prevent insulation from getting under the living area. Knee walls shall be insulated from the back side with 3-1/2" R-13 foil faced fiberglass batts installed with the vapor barrier toward the living space (against the wall). The batts shall extend from the sole plate all the way up to the roof sheathing, except where rake holes are to be located. At the rake hole locations, the knee wall insulation shall end approx. 6" below the roof sheathing. The ceiling and rake shall be insulated between the collar beams and between the rafters with cellulose insulation, the same as the floor area behind the knee walls. Where eave space extends the full length or width of the house, two rakes shall be left open. Where eave space is broken up by dormers, one rake shall be left open per eave space. End walls shall be insulated with approved cellulose insulation, blown between studs. All holes that have been cut through plaster or drywall shall be repaired in accordance with GEN. SPEC. H-1 or H-2. The back sides of any trap and/or knee wall access doors shall have insulation stapled to them, foil side against door. The "cut and plug" method of gaining access to end walls shall only be used on wood houses scheduled for painting, and the work shall be performed prior to painting. Vents shall be installed in accordance with GEN. SPEC. I-6.

4. ATTIC VENTILATION

One sq. ft. of net free area ventilation shall be provided for every 150 sq. ft. of attic floor space. Approx. 1/2 of this ventilation shall be in the form of eave (soffit) vents; the other 1/2 in the form of roof vents installed 24" down from the roof peak. Gable vents may be substituted for roof vents where slate or tile roofs make installation of the latter impractical. Gable vents shall be installed

according to the manufacturer's instruction. Only when Hi lo cannot be achieved.

5. HEAT DUCT INSULATION

Heat ducts passing through unheated spaced shall be examined for leaks (all leaks found shall be sealed with duct tape), then insulated with 3-1/2" fiberglass insulation, with vinyl R-6, 25-50 fire rated duct wrap vapor barrier on the outside. Vapor barrier shall be slightly lapped, and taped.

6. HEAT PIPE INSULATION

Heat pipes passing through unheated spaces shall be wrapped with pipe insulation with a minimum rating of R-2. Vapor barrier shall be on the outside to conform to ASTM C534-82 or ASTM C-591-69.

7. DOOR WEATHER-STRIPPING

Weather-stripping an exterior door shall include the installation of weather-stripping at the top, two sides, and bottom of the doorway. If the door and jamb are in good condition, with proper clearances, cushion-metal or spring-metal weather-stripping shall be installed on the jamb. If there is distortion of the door or jamb, a metal and hollow neoprene weather-strip shall be nailed to the stops. (Install with door closed to insure proper contact between neoprene and door). If the door is being removed for any reason during the course of the job, or is a new door, the bottom shall be insulated with door shoe made out of aluminum and having a vinyl ridge. If sufficient clearance does not exist between the door and the threshold, the door bottom must be cut down, and then sealed with paint or varnish. The door shoe shall then be screwed to the door with the rain drip on the outside. If the threshold is worn, replacement is required with a new varnished oak threshold. If the door is not to be removed during the job, an aluminum threshold, with a hollow neoprene gasket, shall be installed on the outside of the door with the neoprene making firm contact with the door, or an aluminum and vinyl door sweep shall be installed on the inside of the door. All weather-stripping shall be adjusted to seal out cold air without inhibiting the operation of the door.

8. VINYL CLAD STORM WINDOWS

Vinyl clad storm windows installed over double hung windows shall be vinyl clad triple-track units with two glass panels, and one fiberglass or aluminum screen panel on each unit. Windows of more than 100 united inches shall be equipped with a stabilizer bar and heavy duty glass. Vinyl clad storm windows installed over hopper or awning style windows shall be one-lite type. The lite shall be replaceable with a fiberglass or aluminum screen panel, which shall be included with the window. A screen panel is not required if the prime window sash is permanently fixed in place. All storm windows shall be screwed to window frames and thoroughly caulked with paintable caulk, Two weep holes shall be provided at the bottom.

9. VINYL CLAD STORM DOORS

Vinyl clad storm doors shall be 1-1/4" thick "self storing" vinyl clad type with removable tempered glass panels, and one removable fiberglass or vinyl clad screen panel. Storm doors shall be equipped with frames, weather-stripping, latches, strike plates, and door closers. Storm doors shall be the proper size for the intended doorway. In no case may undersized doors be installed, even if wood panels are installed to fill up extra space.

10. CAULKING

The following exterior areas of the building shall be caulked with paintable silicone caulk:

- a. Between drip caps and siding.
- b. At joints between window frames and siding.
- c. Between door frames and siding.
- d. Between window sills and siding.
- e. At corners formed by siding.
- f. At sills where wood structure meets foundation.
- g. Around water faucets, or other breaks in outside surface of building.
- h. Between porches and main body of building.
- i. Where masonry meets siding.

- j. Where storm windows meet window frames (except weep holes).
- k. Where walls meet eaves at gable ends.

Before applying caulking, area shall be cleaned of dirt, built up paint, and deteriorated caulk. Porous surfaces shall be primed. Extra wide cracks shall be stuffed with oakum or fiberglass insulation strips. All visible caulk shall be painted to match adjacent areas.

CELLAR WATERPROOFING

J. 1. PERMIT

The Contractor shall secure a PERMIT or PERMITS (both Plumbing and Rehab) when so required by the City of Cleveland, and to call for all inspections pursuant to the PERMIT(S). The Contractor shall post the PERMIT(S) as required by law, and shall provide a copy of the PERMIT(S) to Rehab Advisor, Supervisor or Inspector before commencing work. At the closing of the job, the Contractor shall provide the Owner and Advisor, Supervisor or Inspector with verification of the closing of the PERMIT(S).

2. WATERPROOFING PROCEDURE

Cellar waterproofing shall consist of the following steps:

- a. Excavate around entire perimeter of foundation down to bottom of footers. If no footers, to bottom of foundation install 4" perforated P.V.C. around entire perimeter of foundation area being treated. Bottom of P.V.C. shall be level with, or slightly below, bottom of footer. P.V.C. shall be pitched toward storm sewer for a minimum velocity of .013.
- b. Extend P.V.C. to storm sewer, and connect to same. Connection may be made to sanitary sewer if storm sewer is not available, subject to code. Plumbing inspection required.
- c. Remove all loose mortar from masonry joints, and all loose foundation coating. Clean foundation.
- d. Parge foundation with a mixture of one part Portland cement to two parts clean coarse sand. Parging coat shall be a minimum of 1/2" thick.
- e. Apply one coat of Thoroseal (or equivalent) foundation coating mixed per manufacturer's instructions with a liquid consisting of one part bonding agent (Thoro "Acryl 60", or equivalent) to three parts water. 2 lbs. of foundation coating shall be applied per sq. yd. of surface over entire foundation to grade.
- f. Apply one coat of foundation tar to entire surface of foundation to grade.

- g. Apply single sheet of proper thickness Visqueen in continuous coverage.
- h. Replace all damaged sewer tiles leading from downspouts with new P.V.C.
- i. Backfill by hand to a minimum of 1 foot below finish grade with #4 slag.
Care shall be taken to avoid piercing Visqueen.
- j. Backfill remaining excavation to grade with clean fill dirt. Compact dirt and grade to provide positive drainage away from foundation.
- k. Replace all pavement that was removed as part of job with new pavement to match original as closely as possible.
- l. Clean up and remove all debris and excess dirt. Replanting of vegetation is not part of the CONTRACT.

3. SCOPE OF GUARANTEE

When cellar waterproofing is performed around entire perimeter of foundation, the cellar walls shall be guaranteed to be free of leaks for a period of one year. When cellar waterproofing is performed only on a portion of the foundation, that portion only shall be guaranteed to be free of leaks. Such guarantee shall not cover leaks caused by water traveling from another location through hollow clay tile foundation walls. In no case shall the guarantee cover cellar floor leaks.

Waterproofing Procedure For Cellar Interior System

Installation of B-Dry System or Approved Equal with Similar Type Customer Protection Warranty on Structures with Tile Foundation Walls.

- Remove approx. 12" of concrete floor adjoining the walls on the inside of the basement.
- Dig out and grade ditch to the bottom of the footer, exposing top and sides of footer, ditch can be deeper to accommodate any pipes crossing.
- Install a sump crock (PVC container with punch outs on sides by manufacturer) 18" wide and 30" deep, install sump pump and exit discharge pipe (1½" PVC) with check valve to the outside downspout line (storm sewer). All drainage intended to be by gravity, no trap is necessary.
- Line the bottom of the ditch with #8 washed limestone as a bedding for drain tile.

- Place 3" clay or PVC drain tiles in ditch with approx. ¼" spacing, gradual grade to sump crock.
- Cover drain tiles with #57 washed limestone as a filter approx. 1" over top of footer.
- Hang 2 sheets of 4 mil visqueen folded in half from ground level (grade) down to inside of ditch stopping 1" from top of footer as a vapor barrier. The visqueen is attached to wall with ½" concrete nails.
- Install 4x8 sheets of thermopanel over visqueen from grade down to inside of ditch, again stopping 1" from top of footer, anchor thermopanel with rivets into mortar joints of tile walls. (Nylon rivets spaced approx. 15" to 24" apart).
- Cover #57 washed limestone with 1" of #8 limestones as a bedding for cement.
- Replace floor area removed with concrete minimum of 3" thick.
- Electrical outlet for sump pump will be installed by a licensed electrician.
- In the event there is no footer we leave 4" of earth adjoining the wall intact for support of the wall then dig the ditch. The 4" spacing is left as if there were a footer.

REFINISHING OF WALLS

Thermopanel is not to be used on clay block walls, stucco the walls. With stucco, nail 2.5 gauge metal lath over the visqueen then apply a 1" coating of cement as a finish.

NOTE: If an approved equal is submitted for use with bid, specifications and a copy of the customer Protection Warranty must accompany the bid.

Installation of B-Dry System or Approved Equal with Similar Type Customer Protection Warranty on Structures with Cement Block Foundation Walls.

- Remove approx. 12" of concrete floor adjoining the walls on the inside of the basement.
- Dig out and grade ditch to the bottom of the footer, exposing top and sides of footer, ditch can be deeper to accommodate any pipes crossing.
- Install a sump crock (PVC container with punch outs on sides by

manufacturer) 18" wide and 30" deep, install sump pump and exit discharge pipe (1½" PVC) with check valve to the outside downspout line (storm sewer). All drainage intended to be by gravity, no trap is necessary. Plumbing inspection required.

- Drill ½" hole into each core of the first course of the cement block, as many as necessary, including the mortar joints. This procedure allows us to determine if any water is present and allows the block to drain and dry out. We then route the hole down approx. ¼" wide with a chisel to top of footer.
- Line the bottom of the ditch with #8 washed limestone as a bedding for drain tile.
- Place 3" clay or PVC drain tiles in ditch with approx. ¼" spacing, gradual grade to sump crock. (3" clay or PVC drain tile)
- Cover drain tiles with #57 washed limestone as a filter approx. 1" over top of footer.
- Hang 2 sheets of 4 mil visqueen folded in half from ground level (grade) down to inside of ditch stopping 1" from top of footer as a vapor barrier. The visqueen is attached to wall with ½" concrete nails.
- Install 4x8 sheets of thermopanel over visqueen from grade down to inside of ditch, again stopping 1" from top of footer, anchor thermopanel with rivets into block walls.
- Cover #57 washed limestone with 1" of #8 limestones as a bedding for cement.
- Replace floor area removed with concrete minimum of 3" thick.
- Electrical outlet for sump pump will be installed by a licensed electrician.
- In the event there is no footer we leave 4" of earth adjoining the wall intact for support of the wall then dig the ditch. The 4" spacing is left as if there were a footer.

REFINISHING OF WALLS

Thermopanel is not to be used on clay block walls, stucco the walls. With stucco, nail 2.5 gauge metal lath over the visqueen then apply a 1" coating of cement as a finish.

NOTE: If an approved equal is submitted for use with bid, specifications and a copy of the customer Protection Warranty must accompany the bid.

MASONRY

K. 1. MORTAR PROPORTIONS

- a. For concrete block: 1 part cement and 3 parts dry clean sand.
- b. For brick masonry: 1 part cement, 1 part lime, and 6 parts dry, clean sand.

2. MORTAR MIXING

Mortar shall be thoroughly mixed, and only in such quantity as needed for immediate use. Mortar shall be mixed with a maximum amount of water consistent with satisfactory workability for the bricklayer. Overwetting of mixes shall be avoided. Water shall be clean and free from injurious amounts of acids, alkalis, or organic materials. For hand mixing, the cement and sand shall be thoroughly mixed in the following manner, before water is added: Spread sand in box, spread cement on top of sand, and mix well with hoe from both ends of box. Add approximately 3/4 of the required water, and mix until all material is uniformly damp. Continue by adding water in small amounts and mixing until satisfactory workability is attained.

3. MASONRY WORK IN COLD WEATHER

Masonry may be performed if the mortar is heated sufficiently to maintain a working temperature of at least 50° F. Antifreeze compounds or accelerators are not permitted. No masonry shall be performed below 32° F. on a falling thermometer. No masonry shall be constructed on or with frozen materials.

4. WETTING OF BRICK

All bricks shall be thoroughly wetted to reduce their rate of water absorption at the time of laying.

5. WORKMANSHIP

All masonry units shall be laid plumb, level, and true to line. Face coursing shall be laid out before setting, to minimize cutting closures or jumping bond. All head joints in both face brick and backup work shall be completely full of mortar.

Mortar for the joints shall be spread thick, and the furrow in the mortar shall be shallow. Mortar spread on a wall shall be limited to that which can be covered before the surface of the mortar has begun to dry. Head joints shall receive ample mortar before units are shoved into place. Slushing is not permitted. Units shall be adjusted to the line immediately when first set into the wall, and shall not be moved thereafter, unless re-laid on fresh mortar. When hollow units, such as concrete blocks, are used for foundation below grade, or pilasters, they shall be laid in a full mortar bed. For other concrete block construction, mortar shall be used in a quantity sufficient to cause excess mortar to ooze out on both sides of the face shell in each head joint and bed joint.

6. JOINTS

All joints shall be of uniform thickness, approximately 3/8" thick, unless otherwise specified. All exterior joints shall be cut flush. As the mortar takes initial set (when the mortar requires pressure to make a print with the thumb), the joints shall be tooled to provide a concave surface. A tool approximately twice the diameter of the joint shall be used. All bricklayers on the job must use jointing tools of the same size. Head joints shall be tooled first. Sufficient pressure shall be applied during the tooling of the joints to compact the mortar firmly against the units and provide a neat, smooth, weather-tight joint. Exposed interior masonry work shall have neatly cut flush joints.

7. POINTING AND CLEANING NEW WORK

All holes and cracks in exposed joints shall be pointed and filled with additional fresh mortar. If the mortar has hardened, defects shall be chiseled out, wetted, refilled solidly with fresh mortar, and tooled as specified. Exposed masonry surfaces shall be thoroughly cleaned, from top down, to remove stains and mortar deposited during construction. Cleaning with soap powder or other mild solutions shall not be attempted in less than 48 hours after the construction of the wall. The use of acid solutions shall be restricted to well hardened mortar, not less than 7 days old.

8. TOOTH-IN

When bricking up to or building on to old brick work, each alternate old brick shall be removed whole, to form a saw tooth connection that will facilitate proper bond.

9. COLOR MATCHING

When bricking up to or building on to old brick work, the brick shall be chosen to match the color and texture of the old brick as closely as possible, and the mortar shall be dyed with mortar coloring agent to match adjacent mortar as closely as possible.

10. TUCKPOINTING

All deteriorated mortar shall be removed from the joints in the specified area of masonry, to a sound bed, at least 1/2" deep. All joints shall be rinsed with clean water, then pointed with properly mixed cement and lime mortar, prepared to match adjacent mortar in color. All joints shall be tooled to give a neat appearance.

11. FLUE HOLE CLOSE-IN

Flue holes in chimneys shall be closed-in with bricks and properly mixed cement and lime mortar. Exposed brickwork shall be neatly tooled. Plaster covered chimneys shall be patch plastered, sanded smooth, and primed.

CONCRETE FLOORS AND DECKS

L. 1. GUARANTEE

Concrete floors and decks shall be guaranteed not to fail in any way due to improper workmanship and/or materials for a period of one year from the date of final closing. Concrete that fails during this one year period shall be promptly replaced or repaired by the Contractor at no charge. This guarantee does not cover cracks caused by shrinkage, expansion, or stress in excess of the design limitations of the pavement (i.e., hairline cracks).

2. CELLAR FLOOR INSTALLATION

Cellar floor installation shall consist of the following steps:

- a. Tear out existing floor and excavate to 5" below desired finish level.
- b. Thoroughly tamp sub-grade.
- c. Install 2" of compacted sand.
- d. Install plastic vapor barrier.
- e. Install 3" of concrete conforming to GEN. SPEC. M-2. Concrete shall be pitched 1/8" to 1/4" per ft. to floor drains.
- f. Apply a smooth steel trowel finish.
- g. Apply Master Builder's "Masterseal", Sonneborn's "Kure-N-Seal", or the equivalent, in compliance with the manufacturer's instructions

3. CELLAR FLOOR PATCHING

Holes in cellar floors shall be patched by the following method:

- a. Under cut edges of hole.
- b. Remove all loose material from hole.
- c. Fill hole with compacted sand to desired level of bottom of patch.
- d. Moisten sand and edges.
- e. Install concrete conforming to GEN. SPEC. M-3 to a thickness equal to that of adjacent slab.
- f. Apply a smooth steel trowel finish.

4. PORCH FLOORS

Concrete porch floors shall consist of 5" of concrete reinforced with #4 rods, spaced 2" o.c. each way, properly wired at all intersections, and elevated, with metal spacers, 2" above the bottom of the form. Property owner shall have choice of broom or trowel finish.

5. PORCH PIER FOOTERS

Installation shall include digging, pouring, and backfill. Bottom of excavation shall be 36" below ground. Footer shall be 24" x 24" x 12".

DRIVEWAYS AND SERVICE WALKS

M. 1. GUARANTEE

Pavement shall be guaranteed not to fail in any way due to improper workmanship and/or materials for a period of one year from the date of final closing. Pavement that fails during this one year period shall be promptly replaced or repaired by the Contractor at no charge. This guarantee does not cover cracks by shrinkage, expansion, or stress in excess of the design limitations of the pavement (i.e., hairline cracks)

2. READY MIX CONCRETE

Ready-mix concrete shall conform to the following standards:

- a. Mix shall consist of 6½ sacks of portland cement per cu. yd. of concrete ("6½ sack mix").
- b. Air content shall be 6% to 7% by volume.
- c. Aggregate shall be 3/4".
- d. Slump shall be 4" + 1".
- e. Compressive strength at 28 days shall be a minimum of 3500 lbs. per sq. in. (A good concrete supplier will easily be able to meet these specifications).

Delivery ticket must accompany all ready mix concrete invoices.

3. DRY-MIX CONCRETE

Dry-mix concrete shall comply with ASTM standard C387, and shall be power mixed with clean water according to the manufacturer's instructions.

4. CONCRETE DRIVEWAYS

Driveway installation shall consist of the following steps:

- a. All necessary excavation shall be performed.
- b. The earth sub-grade shall be thoroughly tamped.
- c. Forms shall be constructed.
- d. 1/2" thick Celotex "Flexcell, shall be installed at curb junctions, and where concrete abuts existing slabs, buildings, or other fixed objects. Any voids

existing between flexcell and building shall be filled with a sealer.

- e. 4" of gravel shall be installed over the sub-grade.
- f. Forms and gravel shall be dampened with clean water.
- g. 4" of concrete, conforming to GEN. SPEC. M-2, shall be installed with a 4" by 4" steel mesh embedded into the center of the slab. Concrete shall be 6" thick on driveway aprons. Concrete shall not be installed when air temperature is 40° F. or lower.
- h. Concrete shall be pitched 1/8" to 1/4" per ft. away from building. A broom finish shall be applied. Control joints, running from one side of the driveway to the other, shall be cut at least 1" deep, and shall be evenly spaced no more than 10 ft. apart. A 1" deep control joint shall be cut the entire length of the driveway, down the center. All edges shall be rounded to a 1/4" radius.
- i. Concrete shall be cured with a liquid membrane, meeting ASTM-309 standards, sprayed or rolled on the surface of the slab as soon as practical after finishing. This must be applied no thinner than recommended by the manufacturer.
- j. Forms shall remain in place for at least 24 hours.
- k. After forms are removed, all affected areas shall be backfilled with clean dirt. All debris and excess dirt shall be hauled away. The Contractor shall not replace grass unless specified in Specifications.
- l. **The Contractor shall provide the property owner with written instructions stating that no salt, or other chemicals shall be used on the pavement for at least one year. Sand or cat litter may be used to provide traction.**

5. CONCRETE SERVICE WALKS

Service walk installation shall consist of the following steps:

- a. All necessary excavation shall be performed.
- b. The earth sub-grade shall be level and thoroughly tamped.
- c. Forms shall be constructed.

- d. 1/2" thick Celotex "Flexcell", shall be installed where concrete abuts existing slabs, buildings, or other fixed objects. Any voids existing between Flexcell and building shall be filled and sealed.
- e. Forms and sub-grade shall be dampened with clean water.
- f. 4" of concrete, conforming to GEN. SPEC. M-2 or M-3, shall be installed. Do not install when air temperature is 40° F. or lower.
- g. Concrete shall be pitched 1/8" to 1/4" per ft. away from buildings. A broom finish shall be applied. Control joints, running across the walk, shall be cut at least 3/4" deep, and shall be evenly spaced no more than 5 ft. apart. All edges shall be rounded to a 1/4" radius.
- h. Contractor shall follow i,j,k, and l of the preceding section on Concrete Driveways.

6. ASPHALT OVER EXISTING CONCRETE

The installation of asphalt over existing concrete shall consist of the following steps:

- a. At least one week before paving, weeds and dirt shall be removed from all cracks, and a herbicide shall be applied. (Caution: Do not let herbicide come into contact with any area other than pavement cracks. Herbicides can causes long term damage to any vegetation).
- b. Entire driveway, including cracks, shall be cleaned with compressed air.
- c. All cracks shall be filled with an asphaltic emulsion.
- d. An asphaltic emulsion shall be applied over concrete.
- e. If concrete is uneven, a 1/2" leveling (scratch) course of asphalt shall be applied and leveled.
- f. A surface courses of asphalt, conforming to federal asphalt pavement standards, shall be applied and compacted to 2". Weight of compacted asphalt shall be 24 pounds per sq. ft.
- g. Seal coating is included in the procedure, unless specified. (Installation only)

7. ASPHALT TOPPING AND ASPHALT TEAR OUT

Re-paving Blacktop Driveway on good 2" base shall consist of the following

steps:

- a. Entire driveway, including cracks, shall be cleaned with compressed air.
- b. Apply a leveling course to all low and uneven areas, and open holes to achieve proper grade.
- c. Pave entire driveway surface with 2" inches of top wearing course asphalt. Weight of compacted asphalt shall be a minimum of 24 pounds per sq. ft.
- d. Seal coating is included in the procedure, unless specified.

(Contractor to provide to Homeowner: Allowing cars to drip gasoline or oil on asphalt will cause deterioration and void the one year warranty).

8. REPLACING EXISTING DRIVEWAY WITH NEW ASPHALT

The replacing of an existing driveway with a new asphalt driveway shall consist of the following steps:

- a. Dig out, remove existing driveway (concrete, asphalt, or dirt) and haul away debris.
- b. Properly grade and compact slag or crushed stone to 4" inch thickness, install 2" inch asphalt binder, and 1" inch asphalt top wearing course.
- c. Finish asphalt to be 4" inches below basement window sills and door thresholds. (Dig out cut should allow for these grades).
- d. Seal after appropriate curing period if specified.

NOTE: Contractor shall provide the property owner with written instructions stating that no oil, gasoline or other similar type chemicals should be allowed to drip on new asphalt for at least one year. Contractor shall also provide owner with written instructions stating that no salt, or other chemicals shall be used on the asphalt pavement for at least one year. Sand or cat litter may be used to provide traction.

PAINING

N. 1. GENERAL REQUIREMENTS

Lead based paint is prohibited. All paint within any single type or color shall be by the same manufacturer. Paint shall be kept well mixed throughout the application. Paint shall not be thinned in excess of the manufacturer's instructions. Paint shall not be applied below 40° F., nor when a temperature drop of more than 20° F. is forecast, nor when the temperature is over 100° F. Drop cloths shall be used to keep paint off areas not to be painted. All surfaces to be painted shall be cleaned of loose paint, grease, and dust, and free from moisture. When scrapping off old paint, care shall be taken to sweep up and dispose of all chips at the end of each work day. The chips may contain lead.

2. EXTERIOR PAINTING

Latex or oil base house paint shall be applied to all exterior wood including siding, soffits fascia, window frames and sashes (including behind storm windows), door frames (including behind storm doors), lattice, porch ceilings, porch rails, porch steps, and garage (if specified) siding, doors, and trim. If oil base paint is to be used over latex, the surface shall first be washed down with T.S.P. (Tri Sodium Phosphate). Preparation shall include nailing down all loose siding, caulking (in accordance with GEN. SPEC. I-14), and removing all loose paint with a scraper, putty knife, or wire brush. Paint shall not be burned off. All bare wood shall be coated with an oil base primer. The property owner shall select up to 3 colors, a primary color, a trim color, and a sash color, and shall choose which surfaces shall be painted the trim color. **Colors are to be approved by the Division of Neighborhood Services prior to application of paint.** The Contractor is encouraged to determine the property owner's choices of color before submitting a bid, as full coverage is required regardless of how many coats are needed to achieve full coverage. While the Division of Neighborhood Services encourages that a flat paint be used on rough surfaces, the property owner shall have the final choice between gloss or semi-gloss. Existing galvanized gutters and downspouts shall be painted with house paint, if

they are not scheduled for replacement. Porch floors (both wood and concrete) and wood steps shall be painted with 2 coats of gray deck enamel. Enamel manufacturer's instructions must be followed carefully as they may call for silica to be added to the paint. Varnished exterior doors shall be lightly sanded, then coated with spar varnish. All rust shall be sanded off metal railings. Bare metal shall be coated with a metal primer, and the rails painted with black enamel. Anodized vinyl clad rails shall not be painted. Exterior painting shall include the removal of all loose window putty and the application of new putty. Before new putty is applied, the bed shall be thoroughly cleaned and coated with linseed oil or thinned exterior paint. Paint shall overlap the glass approx. 1/16" as a moisture seal. Alkyd/oil or oil base house paint product standard: Dutch Boy Exterior Oil/Alkyd 150 Super (gloss), Moorcraft Gloss 142 01. Latex base house paint product standard: Olympic Overcoat Acrylic Latex Flat Finish, Benjamin Moore White primer, MooreGard low lustre or MooreGlo House & Trim Paint, Sherwin Williams Gloss Latex House & Trim A-100.

3. EXTERIOR TRIM PAINTING

This specification is identical to GEN. SPEC. N-2, except that only wood trim items (all wood items except siding) are included.

4. MASONRY PAINTING

Masonry surfaces shall be wire brushed and cleaned, then painted with latex house paint or exterior masonry paint. (NOTE: If exterior masonry paint is used over unpainted concrete block, a primer-sealer must first be applied). Property owner shall choose color - full coverage is required. Latex house paint product standard: Olympic Overcoat Acrylic Latex Flat Finish, Benjamin Moore MooreGard low lustre or MooreGlo Latex House & Trim Paint, Sherwin Williams Gloss Latex House & Trim A-100, or equivalent.

5. INTERIOR WALL, CEILING, AND TRIM PAINTING

All loose paint and wall coverings shall be removed from walls, ceilings, and trim. Small holes and cracks shall be spackled and sanded to a finish condition.

Electrical face plates shall be removed before walls are painted, and reinstalled after painting has been completed. All unpainted or water stained plaster shall be coated with alkyd or oil base primer-sealer. Rough ceilings may be stippled with a texturing compound. Defects in walls shall be corrected to allow a smooth finish. Kitchens, bathrooms, and common hallways shall be painted with a latex low-lustre paint. All other rooms shall be painted with latex flat paint. Trim, which shall include previously painted window sashes and frames, doors, door frames, and baseboards, shall be painted with latex or oil base low-lustre (in rooms with flat walls), or latex or oil base gloss (in rooms with low-lustre walls). Property owner shall choose colors - full coverage required. Latex interior flat paint product standard: Benjamin Moore Regal Wall Satin Latex Interior, Tru-Test Select, or equivalent. Latex interior low-lustre paint product standard: Sears Easy Living Paint Interior Latex Wall and Trim 9100 Series, PPG Manor Hall or equivalent.

VINYL SIDING

O. 1. SCOPE OF WORK

Furnish all necessary labor, material and equipment for complete installation of vinyl siding and related work shown on drawings or as specified.

2. MATERIALS

- a. Solid vinyl siding and accessories shall comply with the provisions of ASTM-D-3679. Rigid Polyvinyl Chloride Siding (PVC).
- b. Solid vinyl siding and accessories shall be of the same manufacturer as specified.
- c. The specified vinyl siding shall be composed of polyvinyl chloride of an average minimum thickness of .044", + .044". The texture of the outside standard corner post shall match the texture of the panel.
- d. Horizontal siding panels will be factory-notched so as to form an overlapping joint.

3. INSTALLATION PROCEDURE

Siding installation shall include the following steps:

- a. Property owner is responsible for requesting disconnect (loosening of meter) and reconnect from power company, and shall pay all charges for such service. Contractor shall give the property owner **one week minimum** notice of the date that such disconnect will be necessary.
- b. All loose boards and shingles shall be nailed down, and all badly rotten boards replaced.
- c. Moisture control vents shall be installed in each stud space where there is evidence of a moisture problem.
- d. All hose bibs (sill cocks), electrical fixtures, house numbers, surface mounted mailboxes, exhaust grills, vents, awnings, or other non- permanent attachments shall be reinstalled and caulked (where necessary) after siding installation. If such items, except hose bibs, are of metal other than vinyl clad, they shall be replaced with vinyl clad.

- e. Unless otherwise specified, minimum 3/8" backer board to be installed.
 - f. If insulation/sheathing is specified, such sheathing shall be installed over existing siding, then furring/lath strips shall be installed to level out irregularities. Sills and casings shall be built out beyond such insulation/sheathing. All insulation/sheathing shall be installed per manufacturer's instructions over all areas exposed to exterior dwelling walls.
4. Enclose lead painted surfaces with vinyl siding according to HUD specification "ABATEMENT" Chapter 12-1.

ROOFING AND GUTTERS

P. 1. **ROOF TEAR-OFF**

Roof tear-off shall include removal of all layers of roof covering and restoration of sheathing to a solid condition ready for the application of a new covering. This shall include replacement of all rotted sheathing, or covering existing wide spaced sheathing with 3/8" minimum plyscord CDX. If existing sheathing is removed, new sheathing shall be 1/2" minimum plyscord CDX.

2. **SHINGLE ROOFING**

Shingle roofing shall be 235 lb. minimum 3-tab asphalt or fiberglass with a U. L. Class "C" minimum fire resistance rating. Property owner is to choose shingle color. Shingles shall be nailed to the roof with corrosion resistant shingle nails in a pattern as recommended by the manufacturer. When shingles are installed directly to sheathing, a layer of No. 15 asphalt saturated felt shall first be installed. Roof installation shall include all new anodized vinyl clad valleys and flashing to match shingle color as closely as possible. Existing lead boots around stacks shall be free from cracks and/or deterioration, or shall be replaced with new lead or PVC boots. Shingle product standard: Johns-Manville, GAF, or approved equivalent.

3. **ROLL ROOFING (FLAT PORCH ROOFS, SHED GARAGE ROOFS, FLAT ROOFS OF BUILDING LESS THAN 4/12 PITCH)**

Install 65#, 19-in. selvage edge mineral surfaced roof, blind nail and cement all laps to avoid exposed nails throughout to include metal edging. (Not to be used on main structure.) Include metal flashing tin where roof abuts house. **TO BE USED ONLY ON PORCHES WITH A SLIGHT PITCH WHERE 3-in-1 SHINGLES CANNOT BE USED.**

FOR FLAT ROOFS OF LESS THAN 1 in 4 PITCH

Granule Surfaced Mop Applied SBS Modified Bitumen Roofing.

- Strip existing roof to sheathing and haul away all debris, taking care to

clean the site of any and all debris caused by this operation.

- Broom clean the sheathing and inspect for soundness of sheathing. Replace any deteriorated sheathing.
- Re-nail any loose nails. Re-nail with galvanized nails any loose sheathing boards.
- Tuck-point the roof sides of any masonry parapet walls, cutting out the deteriorated joints a minimum of ½" inch prior to tuck-pointing.
- Install a minimum one inch (1") mineral fiberboard insulation board, anchoring the insulation board to the existing roof deck with deep threaded, self drilling point screws equipped with hexagonal galvanized steel plates according to the installation instructions for GafTite Fastening System or an approved equal.
- Install 1"x4"x48" mineral fiber cant strips at perimeter of complete roof where it abuts parapet walls.
- Install Gafglas #75 Base Sheet or an approved equal according to manufacturers specifications and installation instructions. **If an approved equal is to be used a specification and installation instruction sheet must accompany the bid.**
- Install GAF Ruberoid MB Granule Surfaced Mop Applied SBS modified bitumen membrane roofing to complete roof and flash parapet. Metal counter-flashing per manufacturers installation instructions.
- Issue twelve (12) year warranty.

4. BUILT-UP ROOFS

The Inspector shall determine whether or not roof tear-off is necessary, or if roof can be repaired and additional plies of roofing installed.

- If tear-off is required, all rotted sheathing shall be replaced with new solid board (T & G, ship-lapped, or splined) or plyscord CDX sheathing equal in thickness to adjacent sheathing.
- Existing sheathing shall be re-nailed wherever it has loosened.
- Deck surface shall be swept clean before installation of new roofing.
- All boots and flashings shall be replaced with new P.V.C. or lead boots

and vinyl clad flashing.

- Flashing visible from ground level shall be anodized, color matched to adjacent surfaces.
- If roof recovering without tear-off is indicated, existing roof shall be swept free of dust and debris. All blisters shall be repaired per GEN. SPEC. Q-5.
- Existing boots and flashing shall be inspected for cracks and/or deterioration, and replaced if not sound. New boots shall be P.V.C. New flashing shall be vinyl clad (anodized if visible from ground).

5. BLISTER REPAIR

Area shall be swept clean. Blister shall be split open and patched with asphalt emulsion (Koppers liquid asphalt 480, or approved equivalent) and 2 plies of fiberglass membrane (GAF "Gafglas", Koppers "Glasfab", or approved equivalent). Top of patch shall be asphalt emulsion. Crushed stone or gravel shall be reapplied to patched area if remainder of roof is so protected.

6. GUTTERS AND DOWNSPOUTS FOR PITCHED ROOFS

Gutter and downspout replacement shall include removal of old gutters and downspouts and replacement of all deteriorated gutter board. When a portion of a gutter board is replaced, it shall be primed and painted. Gutters shall be .027 ga. 5" seamless vinyl clad with white baked enamel finish. If a gutter board is present, gutters shall be secured with vinyl clad spikes and sleeves at 3 ft. maximum intervals. If there is no gutter board, gutters shall be hung by vinyl clad gutter brackets at 3 ft. maximum intervals. Gutters shall be slanted toward downspouts approx. 1/8" per ft. Seams at corners, ends, and junctions with downspouts shall be sealed with silicone caulk. Downspouts shall be .019 ga. 3" (4" when used with 6" gutters) squared vinyl clad with white baked enamel finish. Bottom of downspouts shall be cemented into sewer hubs. If sewer hubs do not exist, commercially produced splash blocks shall be installed to divert water away from the foundation, but not onto neighboring property (subject to code).

7. GUTTERS AND DOWNSPOUTS FOR LARGE FLAT ROOFS

Gutters shall be 6" (7" where dictated by code or size of area to be drained) .024 ga. galvanized steel "flat back" design. Flange shall be nailed to roof sheathing and sealed with roofing cement. Downspouts shall be 4", 5", or 6" (as dictated by code, gutter size, and gutter length) .019 ga. galvanized steel. Bottom of downspouts shall be cemented into sewer hubs. If sewer hubs do not exist, commercially produced splash blocks shall be installed to divert water away from the foundation, but not onto neighboring property (subject to code).

8. BOX GUTTER REPLACEMENT

All rotted wood and gutter lining shall be removed, as well as any additional wood necessary to accommodate the installation of new framing, sheathing, and gutter boards. Roof sheathing shall be extended over the old box gutter area with new solid board of Plyscord CDX sheathing of a thickness equal to existing sheathing. Shingles shall then be installed in accordance with GEN. SPEC. Q-2. Shingle color shall match adjacent shingles as closely as possible. Gutter boards and gutters shall then be installed in accordance with GEN. SPEC. Q-6.

FENCING

Q. 1. LOT LINE LOCATION

It shall be the responsibility of the property owner to clearly denote to the Contractor the exact location for fence installation. Neither the Contractor nor the City of Cleveland assumes any responsibility for encroachments onto adjacent property.

2. CHAIN LINK INSTALLATION

Chain link fencing shall be 9 ga. galvanized steel or 11 ga. with vinyl dip finish and shall include top rail ties, and line, end, and corner posts. Line posts shall be evenly spaced 10 ft. o.c. All posts shall be set in concrete in holes approx. 30" deep. Concrete shall be exposed above grade, and crowned to shed water. The fence fabric shall be stretched taut, approx. 2" above ground, and shall be securely fastened to all posts. The top edge of the fence fabric shall be fastened to the top rail with wire tees, 24" o.c.

DEMOLITION

R. 1. SCOPE OF WORK

Demolition shall consist of tearing down and hauling away the specified structure or portion of a structure. Foundations shall be removed to 18" below grade, and the excavation filled with clean fill graded to provide positive drainage away from any adjacent remaining structure. Garage slabs shall not be removed, unless specified in the BID SPECIFICATIONS. If slab removal is specified, the excavation shall be filled with clean fill and leveled to grade. Backfilling shall not include the planting of grass.

GENERAL INFORMATION

INVOICE PAYMENT PROCESSING

Steps for processing a payment:

- ❖ Original invoice submitted to Division of Neighborhood Services
 - Original invoice (dated and signed by contractor)
 - Copy of mechanical permits (electrical, heating, plumbing), if applicable
 - Copy of mechanical sign-off for partial and/or final payment, if applicable
 - Affidavit of Original Contractor
 - Waiver of Liens for all sub-contractors used on the job (electrical, heating, plumbing, roofing, carpentry, masonry, etc.)

- ❖ Inspection has to be scheduled with Homeowner and Contractor.

- ❖ Documentation authorizing payment has to be signed by the Homeowner and Rehab Inspector. After the documents are signed, the Rehab inspector submits required documentation to the Financial Counselor.

- ❖ The Financial Counselor prepares payment request and submits to Project Director for final review and city voucher.

- ❖ The voucher and all required documentation are submitted to the Accounting Section.

- ❖ The Accounting Section submits the payment request to the Finance Department.

- ❖ The check should be cut by Treasury within five to ten days.

Sample Invoices

Sample # 1 - Request for First and Final Payment

Sample # 2 - Request for First Partial Payment

Sample # 3 - Request for Second Final Payment

Sample # 4 - Request for Second Final Payment with a Change Order

SAMPLE #1

Date

Department of Community Development
Division of Neighborhood Services
60I Lakeside Avenue, Room 302
Cleveland, OH 44114

Request for final payment for contract with (Homeowner's Name) of (Homeowner's Address).

Work completed to date.....\$29,787.00

<u>Item</u>	<u>Contract</u>	<u>Payment Due</u>
Plumbing	\$ 2,160.00	\$ 2,160.00
Electric	1,900.00	1,900.00
Heating	3,200.00	3,200.00
Interior Carpentry	1,400.00	1,400.00
Roof	6,000.00	6,000.00
Gutters/Downspouts	900.00	900.00
Porch(front/rear)	3,000.00	3,000.00
Exterior Walls (Paint/Siding)	5,000.00	5,000.00
Exterior Carpentry	1,200.00	1,200.00
Doors	1,100.00	1,100.00
Windows	<u>3,927.00</u>	<u>3,927.00</u>
Total	\$29,787.00	\$29,787.00
 Total Payment Due		 \$29,787.00

Contractor

Approved for payment:
Twenty nine thousand seven hundred eighty seven and no cents (\$29,787.00).

Rehabilitation Inspector

SAMPLE #2

CONTRACTORS LETTER HEAD

Date

Department of Community Development
Division of Neighborhood Services
601 Lakeside Avenue, Room 302
Cleveland, OH 44114

Request for partial payment for contract with (Homeowner's Name) of (Homeowner's Address).

Work completed to date.....\$18,560.00

<u>Item</u>	<u>Contract</u>	<u>Payment Due</u>
Plumbing	\$ 2,160.00	\$ 2,160.00
Electric	1,900.00	1,900.00
Heating	3,200.00	3,200.00
Interior Carpentry	1,400.00	1,400.00
Roof	6,000.00	6,000.00
Gutters/Downspouts	900.00	900.00
Porch(front/rear)	3,000.00	3,000.00
Exterior Walls (Paint/Siding)	5,000.00	-0-
Exterior Carpentry	1,200.00	-0-
Doors	1,100.00	-0-
Windows	<u>3,927.00</u>	<u>-0-</u>
Total	\$29,787.00	\$18,560.00

Payment due \$18,560.00
Less 10% holdback - 1,856.00
Total payment due \$16,704.00

Contractor

Approved for payment:
Twenty nine thousand seven hundred eighty seven and no cents (\$29,787.00).

Rehabilitation Advisor/Supervisor

SAMPLE #3

CONTRACTORS LETTER HEAD

Date

Department of Community Development
Division of Neighborhood Services
601 Lakeside Avenue, Room 302
Cleveland, OH 44114

Request for final payment for contract with (Homeowner's Name) of (Homeowner's Address).

Work completed to date.....\$29,787.00

<u>Item</u>	<u>Contract</u>	<u>Previous Payment</u>	
<u>Payment Due</u>			
Plumbing	\$ 2,160.00	\$ 2,160.00	\$ -0-
Electric	1,900.00	1,900.00	-0-
Heating	3,200.00	3,200.00	-0-
Interior Carpentry	1,400.00	1,400.00	-0-
Roof	6,000.00	6,000.00	-0-
Gutters/Downspouts	900.00	900.00	-0-
Porch(front/rear)	3,000.00	3,000.00	-0-
Exterior Walls (Paint/Siding)	5,000.00	-0-	5,000.00
Exterior Carpentry	1,200.00	-0-	1,200.00
Doors	1,100.00	-0-	1,100.00
Windows	<u>3,927.00</u>	<u>-0-</u>	<u>3,927.00</u>
Total	\$29,787.00	\$18,560.00	\$11,227.00

Payment due \$11,227.00
Plus 10% holdback 1,856.00
Total payment due \$13,083.00

Contractor

Approved for payment:
Thirteen thousand eighty three and no cents (\$13,083.00).

Rehabilitation Advisor/Supervisor

SAMPLE # 4

CONTRACTORS LETTER HEAD

Date

Department of Community Development
 Division of Neighborhood Services
 60I Lakeside Avenue, Room 302
 Cleveland, OH 44114

Request for final payment for contract with (Homeowner's Name) of (Homeowner's Address).

Work completed to date.....\$31,112.00

<u>Item</u>	<u>Contract</u>	<u>Previous Payment</u>	
<u>Payment Due</u>			
Plumbing	\$ 2,160.00	\$ 2,160.00	\$ -0-
Electric	1,900.00	1,900.00	-0-
Heating	3,200.00	3,200.00	-0-
Interior Carpentry	1,400.00	1,400.00	-0-
Roof	6,000.00	6,000.00	-0-
Gutters/Downspouts	900.00	900.00	-0-
Porch(front/rear)	3,000.00	3,000.00	-0-
Exterior Walls (Paint/Siding)	5,000.00	-0-	5,000.00
Exterior Carpentry	1,200.00	-0-	1,200.00
Doors	1,100.00	-0-	1,100.00
Windows	<u>3,927.00</u>	<u>-0-</u>	<u>3,927.00</u>
Total	\$29,787.00	\$18,560.00	\$11,227.00
Change Order #1			<u>1,325.00</u>
Total			\$12,552.00

Payment due \$12,552.00
 Plus 10% holdback 1,856.00
 Total payment due \$14,408.00

 Contractor

Approved for payment:
 Fourteen thousand four hundred eight and no cents (\$14,408.00).

 Rehabilitation Advisor/Supervisor