

# **ATTACHMENT B**

Please note that this report is attached solely for informational purposes and to give the applicant an overview of the general condition of the subject properties as of the date of the USACE Report. The USACE Report is not intended to be an exhaustive scope of work required and/or necessary at the subject properties. Any use which an applicant party makes of the USACE Report, or any reliance on or decisions made based on the USACE Report, are solely the responsibility of the applicant and applicant releases the Authority from any and all liability related to applicant's use of the USACE Report. The Authority accepts no responsibility for damages, if any, suffered by any applicant as a result of decisions made or actions taken based on the USACE Report.



**US Army Corps  
of Engineers  
Philadelphia District**

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## **Osage Avenue/Pine Street Inspections**

### **Final Report of Findings and Recommendations**

December 1997



# Osage/Pine Street Inspections Report of Findings and Recommendations

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# 1. Background

1.1 The purpose of this report is to convey the results of the inspection of the 61 properties comprising the Osage/Pine Community and to make recommendations regarding future course of action. Inspections were conducted between April 22 and June 12, 1997 in accordance with Memorandum of Agreement #010440 between the City of Philadelphia, Redevelopment Authority and The U.S. Army Corps of Engineers, Philadelphia District entered into on 18 December 18, 1996.

1.2 This report includes a general discussion of existing building systems, inspection findings, and recommendations for additional investigations and repairs. Appendices include Inspection Data Tabulation (Appendix A,) Photographs (Appendix B), Calculations (Appendix C), Figures (Appendix D), Trip Reports (Appendix E), Subsurface Investigation Data (Appendix F) and Preliminary Cost Estimate (Appendix G), and Draft Report comments and responses (Appendix H).

1.3 Reference documentation provided by the Philadelphia Redevelopment Authority was reviewed prior to inspection in order to gain a better understanding of the original design intent, summary of conditions, previous findings and maintenance history. Documentation included: architectural design plans; foundation design plan; data and photographs from previous site investigations and inspections; and maintenance records.

1.4 A computerized pre-designed inspection form was developed for the project and utilized by the inspection team to record data on a field computer. A digital camera, linked to the field computer, was utilized to photograph existing conditions and significant findings. This process was utilized to assure consistency in the inspection process and data transfer.

1.5 The entire project team consisted of project manager, architect and assistant, mechanical engineer, electrical engineer, geotechnical engineer and structural engineer. The base inspection team, consisting of the architect and assistant, conducted a thorough visual interior and exterior inspection of all properties. Structural and geotechnical engineering team members coordinated an overall visual survey of the exterior of the residences to determine if indications of settlement and/or related structural problems or deficiencies were present. The entire project team conducted a thorough investigation of 6221 Osage Avenue. This property was selected since it exhibits some of the worst of both the exterior and interior conditions noted. In addition, the property is occupied by maintenance and police personnel; has open evidence of previous investigations; was available for more in-depth and limited intrusive investigations than other properties without disruption to residents. In-depth inspection of this property was valuable in coordinating exterior and interior findings, formulating recommendations regarding structural and foundation conditions, and in finalizing mechanical and electrical report recommendations.

1.6 The exterior inspection included all exterior walls, paving, and roofing. After a brief interview with a resident escort, all accessible interior spaces of each property were inspected (except for 6215 Osage Avenue, which could not be accessed). In some instances, the crawl space was inaccessible due to furniture or other large items blocking the entrance. Resident interviews were used to identify previously repaired and ongoing problems.

## 2. Existing Conditions

The inspected properties have two basic layouts with those on the south side of Osage Avenue and Pine Street being very similar. There are additional variations in the end units. All homes have a lower level with crawl space, recreation room, laundry, half bath, utility room, and either family room or garage. The living level is comprised of an entrance/den, living room, dining room/area, and kitchen. The second level has three bedrooms (four in some end units) and a full bath. Architectural drawings and specifications reflect design details and types of materials common to residential construction. However, no as-built plans were ever produced and several discrepancies between design drawings and observed "actual" conditions were noted. These include, but are not limited to: differences in type of windows (sliders verses single hung); location of stairs to bedroom level (living area verses dining area on Osage properties); living room closet not constructed; Master bedroom half bath not constructed as indicated on north side Osage Ave. In addition, the drawings indicate a strip footing four feet below grade. Photographs of subsurface investigations conducted in 1995 indicate a grade beam on top of the foundation of original structures. Basic construction consists of wood frame structure with brick veneer and cedar siding accent on the second story front face. Framing consists of 2" x 8" and 2" x 10" roof joists and floor joists; and 2"x 6" ceiling joists and exterior wall framing (1 hour fire rated). Party walls are constructed of 8" CMU at the living and bedroom levels and 12" CMU at the basement level. Design drawings indicate that Party walls bear on a strip footing located 18" below grade. The basement slab is 4" concrete with 4" aggregate base and vapor barrier. The original built-up roof on all structures was replaced with a torch applied, single membrane roof system within a few years of original construction. Floor and roof sheathing is standard ½" plywood. Calculated foundation loads, based on design drawing conditions, do not indicated overloading (Appendix C).

### **3. Findings and Recommendations**

Problems identified during investigations and recommended for repair are discussed in the following paragraphs. Problems are categorized by location (i.e. exterior/interior) and by system/component (i.e. architectural/windows). They are primarily attributable to design or construction deficiencies including: improper selection of material; specification or installation of substandard products; and improper installation/construction techniques. A few maintenance problems were also identified. Maintenance items include instances where the normal expected life of item has been exceeded, instances of abnormal wear and tear, or where normal upkeep is required. Maintenance items are generally felt to be a homeowner responsibility. Recommended repairs for design/construction related problems, identified by Repair Item number, are described herein. Associated costs are included in the Preliminary Cost Estimate (Appendix G). Many problems were observed to be typical for all or several properties. Others are limited to only a few properties. All such findings and recommended repairs are indicated in the inspection data form along with a list of Repair Items (Appendix A). Problems unique to an individual property are not assigned a Repair Item number. However, recommended repairs are described in the "Notes" column of the data form.

#### **3.1 Exterior Findings**

3.1.1. Deterioration of cedar siding ranging from minimal to severe was observed at all properties. The condition is most severe on the odd numbered properties on Osage Avenue due to southern exposure. While homeowner maintenance would have improved the condition, cedar siding was a poor choice of materials for this application. Questionable installation further aggravates the situation. Since complete replacement of siding is currently in order, replacement of all cedar siding with vinyl siding is recommended (Repair Item 1). Repair should include provision of drip and fascia for upper shingle roof. Vinyl siding presents a lower first-cost, and lower maintenance alternative to replacement-in-kind with cedar siding.

3.1.2. Gutters alongside front entrances were constructed without required supports, rather were nailed directly to the plywood fascia through the gutter back flange. Due to improper fastening, the gutter is slopped away from the downspout causing water to overflow the rear of the gutter, run down the fascia and drip onto the brick below. Many properties exhibit deterioration of plywood fascias in this location as a result. Also, the downspout nipple (3" - 4") from the den roof gutter to the entrance side gutter is missing or out of place in many instances. Plywood fascias should be replaced with vinyl siding. Gutters should be reset a proper slope towards downspout and supported with brackets, and downspout nipples replaced/reinstalled (Repair Item 2).

3.1.3. The shingle roofs over the first floor den areas are improperly flashed resulting in leaks and drywall staining. Repairs to flashing are recommended for all properties (Repair Items 3). Figure 1 shows typical detail for this repair.



3.1.4. The torch applied, single membrane roofing system which exists on all properties has undergone several local repairs over the years due to problems related to its original installation. There are many locations where the joints between sheets have opened and where the substrate has deteriorated. The parapet walls and roof penetrations are improperly flashed. Parapet gutter boxes should be replaced and properly sealed. Replacement of the existing roofing system with a similar type roofing system is recommended (Repair Item 4). Proper joining of sheets and proper flashing are critical to prevent recurring problems. It is anticipated that approximately 15% of roof sheathing has deteriorated to the point of requiring replacement. Special attention should be paid to the parapet flashing. Flashing should be provided as per Figure 2.

3.1.5. Brick efflorescence was observed on most properties. Common locations are below parapet gutter boxes, behind downspouts, and below window and door sills. This condition should be alleviated by roof, window and door repairs recommended in paragraphs 3.1.1, 3.2.1, and 3.2.2, respectively.

3.1.6. The brick used on this project generally exhibits surface pitting and micro-cracking. This condition is relatively uniform on all bricks on both the front and rear face of properties on all three blocks. This condition was previously identified as a possible cause for concern due to the potential for moisture migration through the brick, and resulting moisture damage to drywall on exterior walls. If moisture was migrating through, freeze/thaw cycles would be expected to result in larger cracks than those observed. Moisture damage to drywall on all exterior walls would also be expected. This was not the case. It is more likely that the micro-cracking and pitting are simply characteristics of the brick used and as such, no action is recommended.

3.1.7. Brick cracking was observed on the alley (back) side of the odd numbered properties on Osage Avenue. Crack dimensions range from hairline to over ½". The cracks mainly run in a diagonal pattern through the mortar joints although some cracking through brick is apparent. Cracking is attributable to the lack of expansion joints in the brick veneer. Expansion joints, which were not provided for in the design documents, are recommended at rear party walls of each affected property. Joints should be constructed as detailed in Figure 3 (Repair Item 5) to prevent advancement of this condition. Areas where cracking has occurred should be repaired as indicated in Figure 4 (Repair Item 6). There are a few instances of spalling/missing brick at the pilasters between the garage doors and man doors. These areas should be repaired in a similar manner.

3.1.8. Brick cracking is not apparent on Pine Street or the south side of Osage Avenue due to the undulating configuration of the exterior walls. Brick cracking does not appear to transfer to interior finished spaces and, as such, is not indicative of any ongoing, chronic settlement condition. Cracking does not correlate with locations of subsurface voids or lateral leakage indicated by previous investigations (Appendix E&F). Indications of normal settlement including, drywall joint cracking/tape distortion, and racking of interior doors were observed on all three blocks (Appendix A, paragraph 3.2.8).

3.1.9. Brick cracking and spalling is evident at the lintel terminations over the garage door openings of some of the odd numbered Osage Avenue properties. Door opening structural framing was determined to be adequate based on observed conditions in 6221 Osage upon removal of drywall and finish framing. The entire opening and framing system appears to be constructed according to code. Cracking and spalling may be attributed to initial deflection of the lintel. Calculations included in Appendix C indicate acceptable deflection. Recommended action is to replace cracked and spalled brick as per Figure 5 (Repair Item 7). No additional deflection is anticipated; therefore, this condition will not recur once repaired.

3.1.10. Steel lintels were used throughout the project area. Lintels were randomly galvanized, primarily over rear man doors on the north side of Osage Avenue. The remainder of lintels have no protective coating and are subject to corrosion. It is recommended that all unprotected lintels be cleaned to near white finish, painted and caulked to prevent progressive corrosion (Repair Item 8).

3.1.11. Entrance slabs and rear patio/driveway slabs. Concrete slabs have experienced minimal settlement and rolling typical of this type of construction. This is to be expected and is largely unavoidable. No action is recommended regarding this condition. In many instances, patio/driveway slabs do not slope to site drains. This results in some water ponding after a rainfall event. From resident reports, this situation appears to present only a minor inconvenience and no action is recommended. There are two locations (south side of Osage Avenue and south side Pine Street) where the sidewalk has settled from the curb to the extent that it has become a tripping hazard. Recommend bringing sidewalk elevation up to top of curb (Repair Item 9). There are two instances on the south side of Osage Avenue where the front entrance gate posts have rusted through and the gate is supported by the fence on either side. Recommend replacing in kind (Repair Item 10).

3.1.12. Concrete condenser unit pads are not properly leveled/grouted in place and units are not anchored to pads. Cracking of pads is typical. Recommend replacing with new concrete pads, leveled and grouted in place. Condensing units should be anchored in place as per manufacturer's recommendations (Repair Item 11).

### 3.2 Interior Findings - Architectural

3.2.1. Windows - Most windows with the exception of the large garden windows in the den area and casement type windows are single pane. The design plans call for sliding windows in all locations, with the exception of the den with an R value of 16 or better. Such energy efficient Thermopane windows were available and were standard for residential construction at the time. Den and casement windows were double pane; however, many of the original seals have broken. This is unusual for windows of this age. The windows appear to be substandard, even for those available at time of original construction. Many windows are missing screens or screens are broken/torn in part due to poor design which makes them impossible to remove. Some windows were inoperable due to improper installation. In general, racking of windows due to settlement was not a problem. Drafts caused by lack of windows insulation and lack of

proper sealing was a major complaint voiced by residents. Recommend replacement of all existing windows with new vinyl clad, wood frame, thermopane double hung windows (Repair Item 12).

**3.2.2. Sliding Doors** in kitchens and lower level family rooms of many properties are experiencing problems typical of sliding doors of this age and quality. Doors are difficult to open and close and many of the thermal seals are broken. There is leaking around frames in several locations resulting in staining of interior drywall. Complete replacement of all sliding doors with new sliding doors is recommended (Repair Item 13a). The railings outside kitchen sliding doors have rusted and should be cleaned and painted. Some railings are pulling away from the wall. This may be caused by leaning against the rails. Recommended that fasteners be checked and, where appropriate, removed and replaced with new anchor bolts (Repair Item 13b). The remainder of exterior and interior doors do not generally require replacement. However, a number of interior doors opening to the second level hallway are racked and require adjustment to open and close properly (Repair Item 13c).

**3.2.3. Joist hangers, exposed** at the living room stairwell of 6221 Osage Avenue during previous investigations, were observed to have been constructed with no nails in place on each side of the joist hangers at the connection to the stairwell side triple trimmer. As few as two of four nails were found on each side of the hanger into the triple trimmer. It is interesting to note that the triple side trimmer ties into a double front trimmer; the opposite would be expected. Where the triple trimmer meets the double trimmer, one single joist hanger was provided. Since two additional trimmers were face nailed to the trimmer, only one side of the joist hanger was visible. Only one nail of four was in place at this location. While there are currently no apparent problems related to this situation, this is the critical connection point for this stair framing system. As such, this condition is a cause for concern. Typically, all four nails on each side of the hanger connection to both joists and headers should be used. Since this investigation did not include destructive testing, the extent of this condition is unconfirmed. Recommend toe nailing through drywall at front and rear trimmer connection points on stairwell side to assure adequate connection. Removal of drywall between studs will be required on the north side Osage Avenue properties since there is no basement stairway in this location to allow access. Also recommend removal of the ceiling in vicinity of basement and first floor stairwells, and providing nails in all missing joist/trimmer connection locations (Repair Item 14).

**3.2.4. Joists** in many inspected crawl spaces were found to be unbraced and utility runs inadequately supported. There were also isolated instances of a sheared joist in this area. Proper bracing and supports, and joist repairs should be provided as required (Repair Item 15).

**3.2.5. Utility room penetrations** were observed to be unsealed, as is the condensing unit refrigerant line set through the exterior wall. This condition compromises the fire rating of these areas. Sealing of penetrations is recommended at all properties (Repair Item 16) Hose bibs and kitchen exhaust vents on a limited number of properties required sealing in a similar fashion.

3.2.6. Spongy floors were noted in a few properties. This condition is most likely due to improper fastening of floor boards. Removal and replacement of flooring is recommended where appropriate. Sloping floors related to minor settlement were also noted in a few locations. Deterioration of bathroom and kitchen subfloors due to plumbing fixture leaks was anticipated based on maintenance record review. However, response to foot traffic and visual inspection of bathroom ceramic tile and kitchen vinyl composition tile floors were generally not indicative of subfloor deterioration.

3.2.7. The original self-venting gas fireplaces, located in either the family room or recreation room of the lower level, were replaced due to potential carbon monoxide build up. The new fireplaces appear to be generally safe and functional. However, the replacement fireplaces were anchored to the floor only and are unstable. Recommend securing fireplaces to the wall as well. This condition is typical of all properties inspected (Repair Item 17).

3.2.8. Drywall cracking and staining was evident at several typical locations throughout the project. Individual locations and repair recommendations are detailed below.

- Over half of the properties exhibit drywall staining and damage in the bedrooms which can be attributed to roof leaks. A few instances of staining indicative of roof leaks were also observed in the hallways and at bathroom skylights. Replacement of the roof material as discussed in paragraph 3.1.4. above should resolve these problems. In addition, approximately 30% of the properties showed indications of leaks in the den, mostly at the party wall which can be attributed to improper parapet flashing. There are isolated instances of damage related to unsealed vents and window leaks. Recommend refinishing of all areas exhibiting drywall staining (Repair Item 18a). Recommend removal and replacement of damaged drywall (Repair Item 18b). In some instances, bathroom skylight well requires drywall removal, insulation of wall cavity, and drywall replacement (Repair Item 18c).
- Over one third of the properties have drywall staining/damage attributable to leaks at bathroom and kitchen plumbing and fixtures. In many instances, leaks are attributable to substandard products or installation. However, future leaks may be minimized by proper general maintenance of caulking; and replacement of faucets, disposals and dishwashers as they outlive their useful performance period. Repairs required as a result of material/construction deficiencies are included in Repair Items 18a and 18b, previously discussed.
- Staining and cracking at the window seat located in the master bedroom is common. Replacement of all damaged drywall and provision of wood sills, jambs and trim is recommended along with window replacement (recommended in paragraph 3.2.1) to eliminate this condition (Repair Item 19).

- **Diagonal cracking typically occurred at transfer registers located over the bedroom doorways of south side Pine Street and north side Osage Avenue properties. One possible solution is to simply spackle, sand and paint at all locations. This repair is likely to be temporary; however, and reflective cracking is likely. A more permanent, although more costly solution (presented in Appendix G), would be to replace the section of drywall over the doorway and add control joints on either side (Repair Item 20) (Figure 6).**
- **Another recurring crack location is at the stair header. This condition is also typical for properties on the south side of Pine Street and the north side of Osage Avenue. The different configuration at the stair header of properties on the south side of Osage Avenue may explain the absence of this finding. While it is possible that this situation is related to findings presented in paragraph 3.2.3., it is more likely the result of normal drying and dimensional changes of construction materials. Cracking appears to be purely cosmetic and does not present a cause for concern other than of an aesthetic nature. Recommended constructing control joint as indicated in Figure 6 (Repair Item 21).**
- **Cracking is evident in the master bedroom adjacent to the party wall of several properties. Cracking is most likely associated with initial settlement of the building, and/or drying and cupping of joists. This condition is not progressing and is typical of this type of construction. Open cracks should be retaped, spackled, sanded and painted. The same repair is recommended for other miscellaneous open cracks located throughout properties (Repair Item 22).**

## **4. Mechanical**

**4.1 Problems associated with the adequacy of the HVAC system were consistently reported by residents, particularly in the heating cycle. Factors potentially contributing to this situation were investigated and findings are detailed in the following paragraphs.**

**4.1.1. The furnace is a Carrier Model 58pg 07553, series 311 with an applied coil # Carrier 23vq036020-R22. The capacity of this unit was checked for adequacy based on the size of south side Osage Avenue middle and end properties. Calculations were based on the existing building envelope (do not reflect recommended window and sliding door replacement) and include the basement as an occupied area. Calculations indicate the unit to have adequate capacity for middle properties and to be marginally undersized for end properties based on an assumed operating efficiency of 80%. Replacement of windows and doors would rectify this situation.**

**4.1.2. It is suspected that duct sizing and layout is largely responsible for the heating and cooling problems consistently reported by residents. The lower level has only one supply register in the recreation room and one in the family room, where present. The duct work and registers are in a ceiling level soffit. The warm air stays at the ceiling level and does not adequately warm the area. Again there is only one register for the entrance/den area. This register is in the living room ceiling duct soffit one and one-half stories above the entrance/den floor level. The combination of inefficient air distribution, large open area between the recreation room and the den/entrance, and the large green-house windows in the den make this area the most common complaint. Recommendations include either extending the basement HVAC soffit duct through partition wall into den (approximately three feet above floor level) or rerouting duct work below the crawl space (preferred option cost included in Appendix G) in order to obtain more efficient heat distribution. Also, recommend insulation of crawl space ceiling, and general rebalancing of the HVAC system (Repair Item 23). This, combined with replacement of windows and sliding doors should greatly improve existing conditions.**

**4.2 Some properties have experienced problems with basement level powder room and/or laundry room plumbing. Resident have reported backups at yards drains rendering toilets an/or washers unusable. This condition can most likely be attributed to inadequate slope in the sanitary line. Possible solutions would be to provide a sump pit and pump at the site drain, or to reset the slope of the existing line. Additional investigations would be required to determine the most effective solution (Repair Item 24a). Other plumbing problems, referenced in paragraph 3.2.8, also require repair. Original bathroom sink/drain connections have prematurely deteriorated. While most have been replaced, there are a few instances of active leaks related to this condition. Recommend replacement of sinks and associated drain lines (Repair Item 24b). Other miscellaneous valve and pipe leaks, the majority of which are associated with hose bib locations, also require repair (Repair Item 24c). Hot water heater relief valve extensions are also typically required (Repair Item 24d).**

**4.3 Dryer vent runs in all properties exceed 30'. This is the maximum straight run length typically recommended by manufacturers. There is limited flexibility in rerouting to minimize length of run and in all but a few instances, no problems have been reported. Where lint buildup and inefficient operation have been reported, steps should be taken to improve existing routing (Repair Item 25).**

## **5. Electrical**

**5.1 Information regarding joint PECO and Redevelopment Authority inspection of sample underground electrical service splice points conducted in October 1996 was reviewed. This inspection was prompted by power interruption due to short circuit in the electrical service connection to 6221 Osage Avenue in July 1996. Reports indicate that the main electrical trunk line and individual service connections are encased in PVC conduit. The conduit is discontinuous at the actual splice points. Splice points are intended to be encapsulated by thermal sand. The installing utility has authority over specific connection details, however, the intended method is consistent with standard practice for this type of connection. The October 1996 inspections also revealed that thermal sand did not totally surround the splice, and that improper backfill was encountered in some of the sample locations. Such findings and associated power outages are not highly unusual. In such an event, the utility company is responsible for timely equipment, line and associated repairs. If a situation similar to that at 6221 Osage Avenue occurs elsewhere, the residents would be inconvenienced by power interruption while the necessary repairs were made. However, no action is recommended since the burden regarding this situation would remain on the utility.**

**5.2 Electrical service is standard 100 amp residential with electrical meters mounted on outside walls at entrance areas. Panels are located in den area of properties of the south side of Pine Street and Osage Avenue. Properties on the north side of Osage Avenue have the panel in the laundry room and the main breaker panel in the den area. A representative sample of outlets in each property was tested with a receptacle meter to determine if they were properly wired. Approximately 10% of the outlets tested were either improperly wired or broken. The majority of these were exterior outlets. Further testing to inventory every outlet and requirements for replacement/rewiring is recommended. Residences were either provided with GFI outlets or GFI breakers in accordance with code requirements effective at the time of construction. An exception is north side Osage Avenue powder rooms where no GFI protection as provided, recommend providing GFI protection at this location. (Repair Item 26). Approximately 40% of GFI breakers were tripped. Possible causes include overloading the circuit or moisture from unsealed exterior outlets causing a short in the circuit. This condition warrants additional investigation along with the overall inventory. It should be noted that, in order to bring up to current code, residents would have to extend GFI protection to all kitchen counter outlets.**



## **6. Cost Estimate**

The preliminary cost estimate includes cost of all identified Repair Items and overall cleaning and painting subsequent to repair. Costs are based on the 1997 Means Construction Cost Estimating Guide. The total estimated cost of [redacted] includes all contractor indirect costs (overhead, profit and bond) and owner costs (supervision and administration, engineering costs) and contingency. The most significant cost items are those associated with repairs to the building envelope including: brick related repairs; and replacement of roofing, siding, sliding doors, windows. These items account for approximately 70% of the total cost.

## **7. Summary**

The investigations identified numerous deficiencies, the majority of which are typical for all properties or a group of properties. None of the deficiencies raise concern as to the overall integrity of building foundations or superstructures "above ground". Framing connections observed at stairwells are inadequate. As such, structural integrity at this location is questionable. This is the most significant instance of a potential personnel safety and property damage and should be given the highest priority. While the recommended repair is likely to be intrusive for residents, it is relatively simple and inexpensive. Other potential safety concerns include; fastening of kitchen door railings, sealing fire wall penetrations, and identifying and rectifying improper wiring and devices. Problems which, left unchecked, will eventually cause concern for personal safety and property damage include: repair of brick cracking on the north face of odd numbered Osage Avenue properties; and roof and flashing repairs. The majority of remaining problems are either result in resident discomfort and inconvenience, and/or are aesthetically unacceptable. The most common of these items include: substandard windows and sliding doors; inefficient heat distribution; deteriorated cedar siding; miscellaneous brick cracking; drywall staining and cracking; non-functioning outlets; and problems with basement level plumbing. The above problems are generally attributable to design and/or construction deficiencies; and account for the vast majority of the cost associated with recommended repairs. There are a limited number of problems which are considered homeowner maintenance issues and, as such, have not been included in repair costs. They include: repair/replacement of original plumbing fixtures and appliances; maintenance of rails and fences; and replacement of GFI outlets, where required.

**APPENDIX A  
DATA TABULATION**

## Repair Item Index

Repair Item Number	Description	Location
1	Replace Cedar Siding with vinyl	All properties
2	Reset entrance gutter and replace plywood soffit with vinyl	All properties
3	Add flashing to shingle roof	All properties
4	Replace upper roof and appurtenances	All properties
5	Add brick expansion joints	All North Osage Avenue
6	Repair brick cracking	Miscellaneous North Osage
7	Repair brick spalling/missing at garage door lintels/pilaster	Miscellaneous North Osage
8	Clean and paint lintels	
9	Adjust sidewalk elevation to match top of curb	South Osage Avenue
10	Replace entrance gate/posts	South Osage Avenue
11	Replace condenser pad	All properties
12	Replace all existing windows	All properties
13a	Replace all existing sliding doors	All properties
13b	Refasten kitchen door railings	South Osage and Pine
13c	Adjust interior doors	Miscellaneous
14	Provide appropriate joist hangar connections at all stairwell locations	All properties

15	Provide joist bracing and utility supports in crawl spaces	All properties
16	Seal utility room penetrations and other miscellaneous exterior penetrations	All properties
17	Anchor fireplace to wall	All properties
18a	Refinish stained drywall	Miscellaneous
18b	Repair damaged drywall	Miscellaneous
18c	Remove damaged drywall, insulate and replace	Miscellaneous
19	Repair master bedroom window seat	All properties
20	Repair crack/add expansion joint at transfer registers	All South Pine North Osage
21	Repair crack/add expansion joint at stair headers	All South Pine North Osage
22	Repair miscellaneous drywall cracking	Miscellaneous
23	Modify HVAC duct layout	All properties
24a	Rectify lower level sanitary line backups	Miscellaneous
24b	Replace bathroom sinks/drain lines	Miscellaneous
24c	Repair pipe/valve leaks	Miscellaneous
24d	Extend pressure relief drain line/condensate line	All properties
25	Reroute dryer vent run	Miscellaneous
26	Test electrical outlets and replace as appropriate	All properties
27	General cleaning and painting	All properties

OS#	No.	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage	6213	BATHROOM	DRYWALL - STAINING	18a		Evidence of moisture in linen closet.
Osage	6213	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet operable.
Osage	6213	BATHROOM	PLUMBING	NONE		Faucet problem with sink and tub.
Osage	6213	BEDROOM 1	DRYWALL - CRACKING	22		Left window bay corner bead improperly fastened.
Osage	6213	BEDROOM 1	DRYWALL - STAINING	4, 18a		Evidence of roof leaking along ceiling joist, closet and north wall.
Osage	6213	BEDROOM 1	WINDOW	12, 19		Racked 1" from head to sill; Typical deterioration at sill/jam.
Osage	6213	BEDROOM 3	DRYWALL - STAINING	4		History of roof leak northwest corner ceiling/wall caused by roof outlet, repaired by city.
Osage	6213	CRAWL SPACE	ELECTRICAL WIRING	15		Wires unsupported.
Osage	6213	EXTERIOR MISCELLANEOUS REAR	BRICK	NONE		Previous foundation investigation at right side of garage and adjoining property man door.
Osage	6213	EXTERIOR WALLS REAR	PLUMBING	24c		Leak at hose bib.
Osage	6213	EXTERIOR WALLS	BRICK	NONE		Spotted efflorescence, miscellaneous locations.
Osage	6213	EXTERIOR WALLS REAR	BRICK	5, 6	6213D-1 to 6	Spotted efflorescence; Crack from bottom right garage to upper left man door adjoining property, crack gauge installed Inoperable; Brick lower right garage door spalling 1 course.

Sheet No.	LOCATION	PROBLEM	REPAIR PLAN	NOTES
Osage 6213	EXTERIOR WALLS FRONT	SIDING	1, 2	No notice of settlement in entry slab; Cedar siding fair; Entry side gutter typical.
Osage 6213	GARAGE	PLUMBING	NONE	Broken clean-out fitting repaired/ patched with PVC fitting.
Osage 6213	HALLWAY	DOOR - INTERIOR	13c	Bedroom 1 hinges not anchored properly.
Osage 6213	KITCHEN	FLOOR	4	Floor bowed down center east to west direction; Floor tile damage from previous roof leak from 2nd floor.
Osage 6213	POWDER ROOM	ELECTRICAL OUTLETS	26	No cover on exhaust fan; No GFI outlet.
Osage 6213	POWDER ROOM	PLUMBING FIXTURE	24c	Toilet rocking. wood shims installed not solving problem, leakage from ring.
Osage 6213	ROOF	ROOFING	NONE	Six roof penetrations: Skylight penetration covered up; 3 vent stacks two 3", one 2", just in front of roof outlet; 4" galvanized stack for bathroom exhaust; typical of other properties not noted.
Osage 6213	ROOF	ROOFING	4	Overflow out rear wall, patched with asphalt cement across front parapet wall.
Osage 6213	STAIRS	DRYWALL CRACKING	21	No typical problems at header.
Osage 6213	UTILITY ROOM	OTHER	18a, 24d	No drop from hot water heater: North wall moisture damage 1 foot up wall, full width.
Osage 6214	BATHROOM	ELECTRICAL OUTLETS	NONE	GFI outlet operational.
Osage 6214	BEDROOM 1	DRYWALL - CRACKING	22	Slight ripling of tape at northwest corner, crack not opened.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6214	BEDROOM 1	WINDOW	12, 19		Typical deterioration around window sill.
Osage 6214	BEDROOM 3	DRYWALL - CRACKING	22		Southeast corner hairline crack full height and 6" on both sides of the ceiling.
Osage 6214	EXTERIOR WALLS	OTHER	NONE		At top both upper and lower plaster capped with mortar, cracked; Door sill recesses in 2 places.
Osage 6214	EXTERIOR WALLS	OTHER	NONE		Side wall numerous efflorescence spots throughout.
Osage 6214	EXTERIOR WALLS	OTHER	NONE		Entry slab settled 1/4" and rolled 1/2" to 3/4". Joint at alley stair opened up with patio slab; Railing right side pulled away from wall 1 1/2" due to entry slab settlement.
Osage 6214	EXTERIOR WALLS REAR	OTHER	NONE		Gap between brick plaster and retaining wall, 2" foundation visible, parge, flaking off; Outlet operational; Retaining wall joint not sealed; No evidence of efflorescence; 7 coarse plaster top above plaster separating from wall 3/4" parge.
Osage 6214	FAMILY ROOM	DRYWALL - STAINING	18b		Gypsum soffit moisture damage/bulging at center of wall, longitudinal crack opened.
Osage 6214	FAMILY ROOM	FIREPLACE	17		Unstable, typical problem.
Osage 6214	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater installed.
Osage 6214	HALLWAY	DOOR - INTERIOR	NONE		Doors plum and level.
Osage 6214	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6214	KITCHEN	CABINET - VANITY	NONE		Seal on top of counter backsplash pulled away from wall 3/8" max., seal broken.



Street	No.	LOCATION	PROBLEM	REPAIR	PICHTS	NOTES
Osage	6214	KITCHEN	DOOR - SLIDING	13		Left side door frame not fastened to jam properly, bowing to center, seal broken.
Osage	6214	ROOF	ROOFING	4		Typical flashing and patching problems; two vents 1 4", one 2 1/2", just off outlet skylight; Typical boxed in flue; Cricket at rear wall 3 feet off wall slope at angle towards drain.
Osage	6214	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at stair header.
Osage	6214	UTILITY ROOM	DRYWALL - STAINING	4, 18b		Some evidence of moisture damage under flu on gypsum board.
Osage	6214	UTILITY ROOM	HOT WATER HEATER	NONE		Pressure valve mounted on top of heater, piped to indirect waste.
Osage	6215	EXTERIOR WALL FRONT	OTHER	NONE		Upper fascia/soffit cut into brick parapet wall; No evidence of how brick wall above is supported.
Osage	6215	EXTERIOR WALLS	BRICK - OTHER	1, 3, 18	62150 - 1	Foundation wall up 6" above grade, paraged; Some parging deterioration; Upper fascia signs of rot; Upper sloped roof unfinished where meets brick; Some shingle deterioration; Typical cedar siding weathering; Hose bib not sealed to wall.
Osage	6215	EXTERIOR WALLS	OTHER	2		Gutter side entry unsupported stopped away from downspout.
Osage	6215	ROOF	ROOFING	4		Typical roof penetration: one 4", one 2-1/2", one 2", typical skylight and flue at rear wall; Signs of ponding.
Osage	6216	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage	6216	BATHROOM	PLUMBING	NONE		Tub drain stopper doesn't work.
Osage	6216	BEDROOM 1	WINDOW	12, 19		Typical deterioration around sill.

Street	No	LOCATION	PROBLEM	REPAIR	Priority	NOTES
Osage	6216	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Diagonal bracing fastened; electrical wires not properly supported; Door off hinges.
Osage	6216	DINING ROOM	OTHER	26		Smoke detector not operational.
Osage	6216	EXTERIOR WALLS REAR	OTHER	NONE		Joint at wall not sealed; Outlet operational; Owner installed steel deck; Some efflorescence under deck header, below range hood vent and below owner installed awning above kitchen door; Joint not sealed at wall and slab.
Osage	6216	EXTERIOR WALLS FRONT	OTHER	1, 2, 9		Foundation wall exposed/parged 1" good; Cedar siding good; Upper fascia fair; Sidewalk settled to curb about 3/4".
Osage	6216	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater installed.
Osage	6216	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage	6216	KITCHEN	OTHER	NONE		Garbage disposal jammed.
Osage	6216	LAUNDRY	OTHER	NONE		Light cover not able to stay on, light fixture is broken.
Osage	6216	ROOF	GENERAL DESCRIPTION	NONE		Typical penetrations; Flue box cricket at base.
Osage	6216	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at header.
Osage	6216	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage	6216	UTILITY ROOM	PLUMBING	24		Condensate line to far above indirect drain.

Street No.	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage 6217	BATHROOM	ELECTRICAL FIXTURES	NONE		Tub light socket unusable and bulb replacement impossible.
Osage 6217	BATHROOM	PLUMBING FIXTURES	24a		Sink and trap pipe rusted; Toilet flush valve not operating properly. Low water pressure at toilet, cycle time several hours.
Osage 6217	BEDROOM 1	DRYWALL - CRACKING	12, 19		Typical deterioration around window and cracks below window seat.
Osage 6217	DEN	WINDOW	12		Both top window seals broken.
Osage 6217	EXTERIOR WALLS	BRICK - OTHER	1, 2		Foundation wall up 3" above grade; Upper fascia signs of rot; Typical cedar siding weathering; Entry Side gutter unsupported; Added brick planter wistone capping to front patio.
Osage 6217	EXTERIOR WALLS REAR	BRICK - CRACKING	NONE		Field- brick faces with miscellaneous cracks; Pits, and other irregularities present throughout; Brick condition same on 1st and 2nd floor.
Osage 6217	EXTERIOR WALLS REAR	BRICK - CRACKING	7, 8		Overhead lintel brick stress crack and face flaking; Steel lintel sagging at center causing damage to support bricks; Rusting to overhead steel lintel.
Osage 6217	EXTERIOR WALLS REAR	BRICK - CRACKING	5, 6	62170 - 5	See picture!
Osage 6217	EXTERIOR WALLS REAR	BRICK - CRACKING	5, 6	62170 - 3 & 4	Strain gauge reading = 1.01mm west and 0.6mm down on left side
Osage 6217	EXTERIOR WALLS REAR	BRICK - CRACKING	5, 6	62170 - 1 & 2	Crack from right rear bottom man door diagonal up to head jam corner man door adjoining property.
Osage 6217	EXTERIOR WALLS REAR	BRICK - OTHER	6		Missing at man door pilaster 1-1/2 course high and 2" wide, drive sloping toward house.
Osage 6217	EXTERIOR WALLS REAR	BRICK - OTHER	NONE		Efflorescence evident under owner installed deck entire width due to moisture behind deck header and header bolts through brick.

Street No	LOCATION	PROBLEM	REPAIR	Priority	NOTES
Osage 5217	KITCHEN	PLUMBING	NONE		Kitchen sink clogs frequently. City has worked on problem in the past.
Osage 5217	LIVINGROOM	FIREPLACE	NONE		Fireplace was moved by owner to living room. Works.
Osage 5218	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 5218	BATHROOM	PLUMBING	NONE		Tub drain stopper doesn't work.
Osage 5218	BEDROOM 1	DRYWALL - CRACKING	19		Cracks both sides of window seat.
Osage 5218	BEDROOM 1	WINDOW	12		Typical window deterioration.
Osage 5218	BEDROOM 2	DRYWALL - CRACKING	22		Southwest corner of chase gypsum spitting at top 6".
Osage 5218	BEDROOM 3	DRYWALL - STAINING	4, 18b		Southwest corner at ceiling moisture damage from roof leaking.
Osage 5218	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Diagonal bracing unfastened. Some wiring requires additional support.
Osage 5218	EXTERIOR WALLS REAR	OTHER	NONE		No seal at wall and slab; Outlet operational; Extensive efflorescence noted on entire side wall from roof to 1st floor, none evident on back wall. Joint in retaining wall not sealed properly.
Osage 5218	EXTERIOR WALLS FRONT	OTHER	1, 2		Carpet covered patio; 3" foundation exposed/parged, good condition; Cedar siding good; Upper fascia fair.
Osage 5218	FAMILY ROOM	DRYWALL - STAINING	18b, 24c		Valve leaking inside soffit behind cover, city instructed owner to keep valve off, not repaired.

Street No	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage 6218	FAMILY ROOM	PLUMBING	NONE		Hose bib installed heater.
Osage 6218	HALLWAY	DOOR - INTERIOR	13c		Bedroom 3 door racked 1/4", door out of plumb 1/4" both sides.
Osage 6218	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6218	HALLWAY	ELECTRICAL WIRING	NONE		Missing fire detector, Wires exposed, capped off.
Osage 6218	KITCHEN	FLOOR	NONE		Floor buckling under sink; 1/4" space open under base board on west wall entire length.
Osage 6218	KITCHEN	LIGHTING - INTERIOR	NONE		Fluorescent light needs new starter.
Osage 6218	LAUNDRY	OTHER	NONE		Leak behind ceiling light dripping into light shield, no cause indicated below dining room, seemingly inactive.
Osage 6218	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at header.
Osage 6219	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet not operational.
Osage 6219	BEDROOM 1	DRYWALL - CRACKING	22		Crack above door, repaired but re-cracking.
Osage 6219	BEDROOM 2	DRYWALL - CRACKING	22		Crack full length both sides of window; Gypsum board tape is split.
Osage 6219	CRAWL SPACE	JOISTS	15		Gas pipe supported; Diagonal bracing not properly installed; Electrical wire supported properly; post snapped.

Street No.	LOCATION	PROBLEM	REPAIR	Pictures	NOTES
Osage 6219	DINING ROOM	DRYWALL - CRACKING	22		Hairline crack above return grill.
Osage 6219	EXTERIOR - MISCELLANEOUS FRONT	OTHER	1, 2		Entry slab settles 3/4" also roll away 1/4"; Typical brick condition; Foundation wall pargeed with hairline cracks; Entry side gutter unsupported; Top fascia signs of rot; Cedar siding right side at party wall twisting.
Osage 6219	EXTERIOR WALLS	BRICK - CRACKING	5, 6		Note - pictures taken previously of crack.
Osage 6219	EXTERIOR WALLS	OTHER	NONE		Foundation exposed/pargeed, good condition; No sign of settlement in slab; Entry slab settled 1/2", roll 3/8"; Some efflorescence under window sill.
Osage 6219	EXTERIOR WALLS FRONT	OTHER	1, 2		Left side of fascia pulling away from soffit (1"); Some efflorescence noted on left door jam; Cedar siding poor, warped panels; Upper fascia deterioration.
Osage 6219	HALLWAY	DOOR - INTERIOR	13c		Bedroom 1 door out of alignment at top; bathroom door OK; Bedroom 3 door out of alignment; Bedroom 2 OK.
Osage 6219	KITCHEN	DRYWALL - CRACKING	22		Crack above kitchen door, repaired but re-cracking.
Osage 6219	ROOF	ROOFING	4		Antenna installed; Six penetrations.
Osage 6219	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at stair header.
Osage 6219	UTILITY ROOM	DRYWALL STAINING	16a		Staining on wall behind water drain.
Osage 6220	BATHROOM	ELECTRICAL OUTLET	NONE		GFI outlet operational.
Osage 6220	BEDROOM 1	DRYWALL - CRACKING	22		Gypsum tape buckling entire length of north wall at left closet; Evidence of wall settling or joist arching.

Street No	LOCATION	PROBLEM	REPAIR	RIGHTS	NOTES
Osage 6220	BEDROOM 3	OTHER	4		History of water leak on south wall, no evidence; City repaired roof gutter box.
Osage 6220	CRAWL SPACE	JOISTS	15		Diagonal bracing fastened; One electrical connection without junction box; Piping and wire seemingly supported properly; Water meter not properly supported.
Osage 6220	EXTERIOR WALLS REAR	OTHER	6		No seal between house and slab; Slight efflorescence noted under back wall dryer vent, under side wall range hood vent; Brick sill fractured at kitchen door; 2 bricks not sealed under door.
Osage 6220	EXTERIOR WALLS REAR	OTHER	NONE		Efflorescence noted underneath wall plate for owner installed deck, above family room door, Outlet operational.
Osage 6220	EXTERIOR WALLS FRONT	OTHER	1, 2, 16		Carpet covered patio; Hose bib not sealed to wall; 2" foundation exposed/parged good; Cedar siding good; Upper fascia fair.
Osage 6220	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater.
Osage 6220	HALLWAY	DOOR - INTERIOR	NONE		All doors plumb and level.
Osage 6220	HALLWAY	DRYWALL - STAINING	18b		Signs of moisture damage on ceiling at west wall closet.
Osage 6220	KITCHEN	FLOOR	NONE		Floor dips about 4 feet off of door.
Osage 6220	STAIRS	DRYWALL CRACKING	NONE		No typical cracks at header.
Osage 6220	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage 6221	BATHROOM	OTHER	26		GFI inoperable, no GFI breaker.

Street	No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage	6221	BEDROOM 1	INSULATION	NONE		Paperback insulation (R30).
Osage	6221	BEDROOM 1	OTHER	NONE	62210 - 3	Opening above door; Same framing as above; Ties between plywood roof and ceiling joists; No wall header support to joists; 2x6 installed above wall not tied to joists and 2x6 (approx 2") above wall runner.
Osage	6221	BEDROOM 1	OTHER	NONE	62210 - 2	Opening in ceiling from previous investigations, 2x10 roof, 5/8" gypsum board, 12" insulation; Joist 16" on center; Plywood roof deck; Gypsum board attached with nails; Paper back insulation.
Osage	6221	BEDROOM 1	OTHER	NONE		City screwed in gypsum board when needed; Diagonal bracing installed.
Osage	6221	BEDROOM 2	DRYWALL - STAINING	12, 18a		Moisture stain above and around window to floor.
Osage	6221	BEDROOM 2	OTHER	4, 18	62210 - 4 & 5	Opening from previous investigations; Double 2x10 at outside wall; Unfaced insulation in wall complete filled cavity; Evidence of roof leaking at double rafter, 2x4 ceiling joist at outside wall and 2x6 ceiling joist elsewhere.
Osage	6221	BEDROOM 3	OTHER	26		Wall switch not properly stabilized; Otherwise no remarks.
Osage	6221	DINING ROOM	DRYWALL - STAINING	12, 18a		Gypsum ceiling damage/ peeling possibly from window problems in bedroom 2; Staining at and below window sill sides.
Osage	6221	EXTERIOR MISCELLANEOUS	OTHER	1, 2	62210 - 1	Entry slab roll out 1/2", settlement 1/2"; Foundation wall parged & in good condition; Cedar siding at window bay and below deteriorating; Signs of rot at upper fascia; Gutter unsupported.
Osage	6221	EXTERIOR MISCELLANEOUS	WINDOW	12		Insulated swing windows 2nd floor bedroom in outcove at back.
Osage	6221	EXTERIOR MISCELLANEOUS REAR	BRICK - CRACKING	5, 6		Spotted brick; efflorescence visible between 2nd floor and at left party wall; Typical brick wall condition; Cracks/scoring in bricks due to manufacturing; Evidence of previous investigations behind utility room.
Osage	6221	EXTERIOR MISCELLANEOUS REAR	OTHER	11		Condenser slab cracked and not anchored to slab typical all properties.



Sheet	LOCATION	PROBLEM	REPAIR	Picture	NOTES	
Ossage	6221	GARAGE	DOOR - EXTERIOR	7, 8	62210-20 & 21	Steel angle rusted entire height 6"; Man door header back faces sheered off two coarse, just over 1" from back of sheathing, 1" right side, 1 1/2" left.
Ossage	6221	GARAGE	DOOR - EXTERIOR	NONE	62210-18 & 19	Overhead door header bears full width at pilaster, Triple 2x10 overhead door header resting on 2x6 (4).
Ossage	6221	GARAGE	DOOR - EXTERIOR	NONE	62210-16 & 17	Steel header; Metal wall ties at pilaster every two-three coarse; 1/2" sheathing; 5/8" gypsum board; Man door 1/2 x 5 x 1/4"; Headers do not appear to be anchored to wall.
Ossage	6221	GARAGE	OTHER	7, 8	62210-15 & 16	Door lintel 17" x 2" exposed, rusted; Left side brick fractured; Drips above door evident; Man door-14 x 3", exposed lintel, galvanized/painted.
Ossage	6221	KITCHEN	OTHER	NONE	62210-14	Bracing observed 1" at center, 2x12 joist/dining/kitchen wall head approx 1" below joist, 2x12 joist 3/4" plywood thick, 1/2" thick gypsum and 1x3 on CMU.
Ossage	6221	KITCHEN	PLUMBING FIXTURES	NONE		Disposal not working.
Ossage	6221	LAUNDRY	OTHER	NONE		2x12 floor joist, 2x4 ceiling joist; Note romex laying across copper water supply pipe, pipe hangers noted; Hangers noted on steel gas pipe.
Ossage	6221	LIVINGROOM	DRYWALL - STAINING	18a		Signs of moisture stain at 4" drain pipe through plywood from bathroom above.
Ossage	6221	LIVINGROOM	JOISTS	14	62210-12 & 13	Joist stops 1 ft from dining room/kitchen wall; single header installed; 2x4 flat extending from header to soffit; 2 supports up to plywood; Joist hangers present, 1 nail each hanger to joist, none visible to header.
Ossage	6221	LIVINGROOM	JOISTS	14	62210-8 & 9	Double stair header continues to party wall; Triple 2x12 header on top stair side wall; Single hanger with 1 nail at end of triple header; Other two header members nailed to first; Two other joist visible with hangers with 3 nails each side of header.
Ossage	6221	LIVINGROOM	JOISTS	NONE	62210-10 & 11	Joists typical with blocking at ceiling.
Ossage	6221	LIVINGROOM	JOISTS	14	62210-8 & 9	No nails to joists; Typical blocking noted with shims above joists for undetermined purpose; Visible romex cable cable anchored properly; Diagonal support visible 1 each at center.

Street	No.	LOCATION	PROBLEM	REPAIR	Pictures	NOTES
Osage	6221	POWDER ROOM	OTHER	26		Outlet unprotected.
Osage	6221	ROOF	ROOFING	4		Patched gutter box is evident.
Osage	6221	STAIRS	OTHER	NONE	62210-687	Two 2x12 ceiling joist; Plywood subfloor on 2nd floor, 5/8" 2x4 blocking.
Osage	6221	UTILITY ROOM	FURNACE	NONE		Home heater carrier, model 56gp07553 series 311, input 75,000 BTUs per hour, max. supply pressure 13.6, min 4.5, manifold pressure 3.5, max. amps 9.9, design outlet 200 degrees f, ANSI Z21.47 1983, temp rise 45-75 static (Continued Below)
Osage	6221	UTILITY ROOM	FURNACE	NONE		Press 45, blower 105, hp 130 55-85, 103, 146, 55-85, 12, 102, 1/10, i-t-e indoor load center, cat no. g2020mf1125, typ 1, 125 amp max., 14 breakers, 8 blanks
Osage	6221	UTILITY ROOM	HOT WATER HEATER	NONE		Bradford white standard 30 gallon hot water heater, typical.
Osage	6222	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational
Osage	6222	BEDROOM 1	DRYWALL - CRACKING	22		Southwest corner gap opened up 1/8", full height. Slight settlement evidenced by tape pulling off gypsum ceiling.
Osage	6222	BEDROOM 1	DRYWALL - CRACKING	22		Northeast corner tape deforming lower 3 feet of wall.
Osage	6222	BEDROOM 1	DRYWALL - CRACKING	22		Southeast corner joint at closet open full height, no settlement noted.
Osage	6222	BEDROOM 1	WINDOW	12, 19		Typical deterioration around window, cracked left side window seat.
Osage	6222	BEDROOM 2	DRYWALL - CRACKING	22		Minimal opening at northeast corner of north wall. Signs of settlement evidenced by tape deformation.

Sheet No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6222	BEDROOM 2	DRYWALL - CRACKING	22		Southeast corner gap open full height.
Osage 6222	BEDROOM 3	DRYWALL - CRACKING	NONE		Southwest corner slight settlement in outside wall, no crack evident, tape deformed.
Osage 6222	DEN	DRYWALL - STAINING	4, 18a		Moisture stain on ceiling at northwest corner and ceiling in front of soffit at party wall.
Osage 6222	DEN	DRYWALL - STAINING	3, 18a		Evidence of staining on closet ceiling.
Osage 6222	EXTERIOR WALLS	OTHER	1, 2		Carpet covered patio; Foundation exposed 4", good condition; Cedar siding good; Upper fascia poor; Owner installed fabric awnings; slight open in upper right side soffit siding.
Osage 6222	EXTERIOR WALLS	WINDOW	1		Lower window bay soffit signs of water damage.
Osage 6222	EXTERIOR WALLS REAR	OTHER	NONE		Wall not sealed at slab; Some efflorescence noted at range hood vent.
Osage 6222	EXTERIOR WALLS REAR	OTHER	24a		Owner installed deck; Efflorescence noted entire side spotted from roof to 1st floor level; Outlet operational; Efflorescence across entire deck plate; History of backup problems in site drain, city repaired, no current problems.
Osage 6222	FAMILY ROOM	FIREPLACE	17		Unstable, typical problem.
Osage 6222	FAMILY ROOM	PLUMBING	NONE		Hose bib heater installed.
Osage 6222	HALLWAY	DRYWALL - CRACKING	22		Northeast wall above bathroom 1/8" opening 3 feet.
Osage 6222	HALLWAY	DRYWALL - STAINING	18a		Northwest closet ceiling moisture evident crack full height hairline.

Street	No	LOCATION	PROBLEM	REPAIR	PRIO	NOTES
Osage	6222	LAUNDRY	ELECTRICAL 26 OUTLETS			Center and left outlet hot, neutral reversed.
Osage	6222	ROOF	ROOFING 4			Patch 9 feet off rear wall, full width set in asphalt cement, seams sealed.
Osage	6222	STAIRS	OTHER	NONE		Owner opened stairwell, removed wall both upper and lower level.
Osage	6222	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage	6222	UTILITY ROOM	PLUMBING	18a, 24		Condensate pipe sifting to high above pipe; Moisture stain on wall.
Osage	6223	BATHROOM	OTHER	NONE		History of moisture problems at skylight well, repaired by city.
Osage	6223	BEDROOM 1	WINDOW	12, 19		Typical deterioration at sill and around window, bowing of both window jams opening 1/4" gap.
Osage	6223	EXTERIOR MISCELLANEOUS REAR	BRICK - CRACKING	5, 6	62230 -1 & 2	Spotted efflorescence noted above/beside right 1st floor window/right side 2nd floor right window; Crack gauge installed, crack extends 2ft left side head man door to upper right corner of utility vent, down right side diagonal with downspout stops.
Osage	6223	EXTERIOR MISCELLANEOUS REAR	BRICK - CRACKING	5, 6, 16	62230 -3 & 4	Cracking between hairfins to 1/16" max; Seals at condenser inlet not present, typical all properties.
Osage	6223	EXTERIOR - MISCELLANEOUS FRONT	OTHER	1, 2		Entrance slab settled 1/2" to 1-1/4"; Patio and walk slab pulling away from entrance slab and house wall 1/4" to 3/4, unsupported entrance side; Upper fascia signs of rot; Deterioration below upper window sill foundation wall, parged/cracked
Osage	6223	HALLWAY	DOOR INTERIOR	13c		Bedroom 2 door racked 1/2"; Bedroom 3 door racked 1/4".
Osage	6223	KITCHEN	ELECTRICAL 26 OUTLETS			No GFI protection, typical all properties.

Slip#	No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage	6223	KITCHEN	OTHER	NONE		One Drawer hardware inoperable.
Osage	6223	LIVINGROOM	DRYWALL - STAINING	NONE		Ceiling leak from tub above, ceiling repaired, tub replaced recently.
Osage	6223	POWDER ROOM	ELECTRICAL WIRING	26		No GFI outlet protection, typical all properties.
Osage	6223	REC ROOM	FIREPLACE	17		Unstable, Typical.
Osage	6223	ROOF	ROOFING	4		Cricket approx 10 feet off rear wall angled and sloped to drain.
Osage	6223	STAIRS	DRYWALL - CRACKING	21		Crack opening between living room stair wall at ceiling with header 1/8" settlement.
Osage	6224	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet not working.
Osage	6224	BEDROOM 1	DRYWALL - CRACKING	22		Crack at right side of window seat.
Osage	6224	BEDROOM 1	WINDOW	12, 19		Typical deterioration around window sill.
Osage	6224	DEN	OTHER	NONE		Order of gas coming from gas meter closet, main cutoff installed inside of closet. Owner informed and contact with PGW recommended.
Osage	6224	DEN	STAIRS	NONE		Owner installed circular stairs.
Osage	6224	EXTERIOR WALLS	OTHER	1, 2		Cedar siding good. Upper fascia poor, signs of deterioration.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6224	EXTERIOR WALLS REAR	OTHER	16		Effluence under dryer vent, below and at both sides of range hood outlet, beside dining room window back and side walls, below kitchen window and door; outlet operational; Hose bib not sealed to wall; Floor not sealed to wall.
Osage 6224	EXTERIOR WALLS FRONT	OTHER	9		Foundation wall exposed/parged 4"; Slab settled 1/2"; Paving from west side of property down past 6222 settled at curva creating 1" depression.
Osage 6224	FAMILY ROOM	PLUMBING	NONE		Hose bib heater installed.
Osage 6224	HALLWAY	DOOR - INTERIOR	NONE		Doors level and plumb.
Osage 6224	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents
Osage 6224	LAUNDRY	VENTILATION	NONE		Dryer vent detached from dryer.
Osage 6224	ROOF	ROOFING	4		Evidence of standing water at outlet due to debris at screen.
Osage 6224	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at stair header.
Osage 6224	UTILITY ROOM	DRYWALL STAINING	18a		Signs of staining on south wall, 1 foot from base, unknown reason.
Osage 6224	UTILITY ROOM	ELECTRICAL PANELS	26		GFI breaker was off.
Osage 6224	UTILITY ROOM	HOT WATER HEATER	24d		No drop from hot water heater.
Osage 6225	BEDROOM 1	DOOR - INTERIOR	NONE		Door racked 1/8".

Street No	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage 6225	BEDROOM 1	DRYWALL - STAINING	14, 19		Typical moisture at sill/jams of window. Owner noticed dripping inside wall at southwest corner.
Osage 6225	BEDROOM 3	DRYWALL - CRACKING	18b		Moisture damage northwest corner entire length under paint; Unattached corner bead at chase.
Osage 6225	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Joist bracing installed; Incorrect electric wiring running under joist partially unsupported.
Osage 6225	DEN	DOOR - INTERIOR	NONE		Not framed properly/doesn't seal completely.
Osage 6225	DINING ROOM	DRYWALL - CRACKING	22		Soffit bulging at south end of dining room, cause not determinable.
Osage 6225	EXTERIOR BRICK REAR	BRICK OTHER	NONE		Spotted efflorescence visible between 2 upstairs windows below right bottom window sill.
Osage 6225	EXTERIOR MISCELLANEOUS	OTHER	1, 2		Entrance slab settlement 1/2"; Foundation parged and cracking; Entry side gutter unsupported; Upper fascia signs of rot; Cedar siding deteriorated below window sill/left side bottom at party wall.
Osage 6225	EXTERIOR BRICK	DOOR - EXTERIOR	5, 6, 8		Lintel rusting garage door; No signs of fracture on lintel supports; Sill slab slope towards house on west side; typical brick quality.
Osage 6225	EXTERIOR WALLS	BRICK OTHER	NONE		Brick pilaster resting on concrete slab; 1st coarse brick shelved concrete fill.
Osage 6225	KITCHEN	DRYWALL - CRACKING	22		Gypsum at soffit, typical.
Osage 6225	KITCHEN	ELECTRICAL OUTLETS	26		Outlets over sink not protected.
Osage 6225	KITCHEN	FLOOR	NONE		Floor uneven at center looks like underlayment patch was installed.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6225	LIVINGROOM	DRYWALL - STAINING	18b, 24c		Repair of ceiling due to active pipes leaking under bathroom, bathroom sink looks ok, assume leak in ceiling.
Osage 6225	LIVINGROOM	DRYWALL - STAINING	18b, 24c		Gypsum at soffit buckled and loose due to leak, continues into dining room.
Osage 6225	POWDER ROOM	ELECTRICAL OUTLETS	26		No GFI protection.
Osage 6225	POWDER ROOM	PLUMBING	24a		History of sporadic pipe clogs.
Osage 6225	ROOF	ROOFING	4		Patching evident at vertical joints/parapet, both corner joints at rear.
Osage 6225	STAIRS	DRYWALL - CRACKING	21	62250 - 1	Header at top of slope open from 1/32" to 1/4".
Osage 6225	UTILITY ROOM	HOT WATER HEATER	24d		No drop from hot water heater pressure valve.
Osage 6226	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational
Osage 6226	BEDROOM 1	WINDOW	12, 19		Typical window sill / jam deterioration.
Osage 6226	BEDROOM 2	DRYWALL - STAINING	18a		Northeast corner tape peeling at ceiling
Osage 6226	BEDROOM 3	DRYWALL - STAINING	18		Moisture damage southeast corner, entire height and 1 foot across ceiling.
Osage 6226	CRAWL SPACE	JOISTS	15		Unsupported gas pipe; Diagonal bracing not connected; One wire connection without a junction box; Wire seems to be supported sufficiently



Singer No	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage 6226	EXTERIOR WALLS REAR	OTHER	NONE		Efflorescence noted at party wall down to top of kitchen window, beneath 2nd floor window sill and beneath dryer outlet; Owner installed deck, efflorescence noted along wall plate, full width; Wall not sealed at slab.
Osage 6226	EXTERIOR WALLS REAR	OTHER	NONE		Efflorescence noted at party wall down to top of kitchen window, also beneath 2nd floor window sill.
Osage 6226	EXTERIOR WALLS REAR	OTHER	24c		Efflorescence noted beneath kitchen window sill side wall; Some efflorescence below range hood outlet; Hose bib pipe broken in wall.
Osage 6226	EXTERIOR WALLS FRONT	OTHER	1, 2		carpet covered entry; Cedar siding good; Upper fascia fair.
Osage 6226	FAMILY ROOM	DRYWALL - STAINING	18b		Soffit damage due to dishwasher leak, city replaced; Typical hose bib heater installed
Osage 6226	HALLWAY	DOOR - INTERIOR	NONE		Doors level and plumb.
Osage 6226	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6226	HALLWAY	DRYWALL - STAINING	4, 18a		Water stain on ceiling at northwest closet wall.
Osage 6226	REC ROOM	ELECTRICAL OUTLETS	28		Bottom of stair hot and neutral are reversed.
Osage 6226	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at stair header.
Osage 6226	UTILITY ROOM	HOT WATER HEATER	24d		No drop from hot water heater.
Osage 6227	BATHROOM	DRYWALL - CRACKING	NONE		Hairline crack floor and wall seam through ceramic tile.

Street No	Location	Problem	Repair	Priority	Notes
Osage 6227	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6227	BEDROOM 1	DRYWALL - CRACKING	22		Diagonal crack at closet door.
Osage 6227	BEDROOM 1	DRYWALL - CRACKING	4, 18b, 22		Southeast corner moisture damage; Cracked full height; Uneven settlement; Distorted tape.
Osage 6227	BEDROOM 1	DRYWALL - CRACKING	19		Cracks both sides below window seal.
Osage 6227	BEDROOM 1	DRYWALL - CRACKING	4, 18b		Moisture damage at ceiling, left side bay; Corner bead cracked both sides of bay.
Osage 6227	BEDROOM 1	WINDOW	12		Typical deterioration around window jam.
Osage 6227	CRAWL SPACE	OTHER	NONE		Crawl space inaccessible.
Osage 6227	DEN	DRYWALL - STAINING	18a, 26		Moisture stain at soffit end; Outlet under window not operational.
Osage 6227	EXTERIOR WALLS REAR	OTHER	7, 16, 26		Efflorescence under powder room fan vent, under 1st floor left/right sill; Garage door left/right jams 1st brick cracked on both sides and at jam face down middle of brick; Hose bib not sealed to wall; Exterior outlet not operational.
Osage 6227	EXTERIOR WALLS FRONT	SIDING	1, 2		Carpet covered; 4" parge exposed; Cracked foundation under right plaster; Cedar siding poor; Upper fascia poor.
Osage 6227	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater.
Osage 6227	HALLWAY	DOOR - INTERIOR	13c		Bedroom 1 and 2 doors out of level 1/2".

SHOW #	LOCATION	PROBLEM	REPAIR	PLANTING	NOTES
Osage 6227	HALLWAY	DRYWALL - CRACKING	20		Typical cracks at transfer vents.
Osage 6227	KITCHEN	DRYWALL - CRACKING	18a, 22		Soffit cracked at ceiling and were soffit meets exterior wall; Possibly leaking range hood vent, evidence of moisture, but no sign of damage.
Osage 6227	LAUNDRY	VENTILATION	25		Dryer vent not connected to dryer, per resident duct is clogged; Duct runs from dryer around to right side into wall at ground level up wall to ceiling then 30 feet out to rear wall.
Osage 6227	LIVINGROOM	DRYWALL - STAINING	18b		Moisture stain on center ceiling from bathroom leak; Soffit settling at right side of chase.
Osage 6227	STAIRS	DRYWALL - CRACKING	21		Horizontal crack at stair header floor level.
Osage 6227	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage 6228	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6228	BEDROOM 1	DRYWALL - CRACKING	22		Northeast corner moisture damage at ceiling; Settlement of front wall, opened corner and ripped corner tape, minimal gap between front and side walls, entire height.
Osage 6228	BEDROOM 1	DRYWALL - CRACKING	22		Ceiling cracked at west corner of window seal, from 1 foot off of front wall to bay window; Evident floor slopes towards window.
Osage 6228	BEDROOM 1	WINDOW	12, 19		Typical deterioration around window sill.
Osage 6228	BEDROOM 2	DRYWALL - CRACKING	22		Northwest wall cracked along ceiling full width, less than 1/32".
Osage 6228	CRAWL SPACE	JOISTS	15, 26		Some diagonal bracing installed; One junction box without cover; Wires fastened.

Street No.	LOCATION	PROBLEM	REPAIR	Picture	NOTE
Osage 6228	DEN	DRYWALL - STAINING	4, 18b.		Damage gypsum board northwest corner at ceiling.
Osage 6228	DINING ROOM	PLUMBING	NONE		Owner reported drip sound when bathroom water is on, no problem evident.
Osage 6228	EXTERIOR WALLS	OTHER	NONE		Exterior outlet operating. Typical hose bib heater.
Osage 6228	EXTERIOR WALLS REAR	OTHER	4		Some efflorescence noted under kitchen door sill slight behind/next to downspout; Some efflorescence noted at range hood and right side 2nd floor window from top to just above 1st floor kitchen window.
Osage 6228	EXTERIOR WALLS FRONT	OTHER	1, 2		Right side entrance slab settled 1/2". Cedar siding good; Upper fascia fair.
Osage 6228	HALLWAY	DOOR - INTERIOR	NONE		Doors level and plumb.
Osage 6228	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6228	KITCHEN	FLOOR	NONE		Northeast wall floor pulling away from wall maximum 3/8".
Osage 6228	POWDER ROOM	PLUMBING FIXTURES	24c		Signs of leaking from P trap in bathroom.
Osage 6228	ROOF	ROOFING	4		Asphalt patch on top front parapet wall; Antenna installed to roof with 3 penetrations; Water ponding from debris at rear near outlet; Water infiltration under roofing at outlet; Ponding under patch evident on west side parapet wall top.
Osage 6228	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at heads.r
Osage 6228	UTILITY ROOM	DRYWALL - STAINING	18b		Signs of moisture damage on southwest wall 1 foot up wall, cause unknown.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6228	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage 6229	BATHROOM	ELECTRICAL OUTLETS	26		GFI working, test mechanism not working.
Osage 6229	BATHROOM	PLUMBING FIXTURES	NONE		Tub stopper not working.
Osage 6229	BEDROOM 2	DRYWALL - STAINING	18a, 4		Northwest corner, gypsum board stained at ceiling.
Osage 6229	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Electrical wiring unsupported; Bracing in place.
Osage 6229	EXTERIOR MISCELLANEOUS EXTERIOR	DOOR -	5, 6		No typical fracture problems at right head jam, hairline crack at left of garage door.
Osage 6229	EXTERIOR WALLS	BRICK	NONE		Efflorescence noted at center top of wall and under 2nd floor window sill.
Osage 6229	EXTERIOR WALLS REAR	BRICK CRACKING	5, 6		Cracking at first two courses, typical brick quality issues.
Osage 6229	EXTERIOR WALLS FRONT	OTHER	1, 2		Entry slab separated from wall 1/2" on left; Side wall gutter unsupported, sloping opposite direction; Upper fascia signs of det; Left party wall brick below roof cut back for bannard cap, 2 courses; Siding det below window cove, cut/epit.
Osage 6229	HALLWAY	DRYWALL - STAINING	4, 18a		Gypsum board stained, west wall at ceiling.
Osage 6229	LIVINGROOM	DRYWALL - STAINING	18a		Evidence of leak from bedroom, city repaired.
Osage 6229	POWDER ROOM	ELECTRICAL OUTLETS	26		no GFI protection.

Street No	LOCATION	PROBLEM	REPAIR	Estimate	NOTES
Osage 5229	ROOF	ROOFING	4		Horizontal and vertical seal at parapet wall.
Osage 5229	ROOF	ROOFING	NONE		Antenna installed to parapet wall.
Osage 5229	UTILITY ROOM	HOT WATER HEATER	24d		No drop from pressure valve; Odor of sewage (no determination of source), condensate trap with water.
Osage 5230	BASEMENT STAIRS	OTHER	NONE		Top step not fastened properly, tripping hazard.
Osage 5230	BATHROOM	ELECTRICAL OUTLETS	26		GFI operational, OK as is.
Osage 5230	BEDROOM 1	DRYWALL - CRACKING	19		Right side window seat crack.
Osage 5230	BEDROOM 1	OTHER	22		Some deformation in tape at northeast corner from mid height of wall to base.
Osage 5230	BEDROOM 1	OTHER	18a		Owner reported sighting joists in ceiling; Moisture spot in ceiling from previous leak, owner hasn't noticed leak.
Osage 5230	BEDROOM 1	WINDOW	12		Typical window deterioration.
Osage 5230	BEDROOM 2	DRYWALL - STAINING	18b		Southwest closet wall moisture damage full width.
Osage 5230	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Wiring not fastened properly; Diagonal bracing not installed.
Osage 5230	DEN	OTHER	22		Northwest foundation wall cap, corner bead is unfastened.

Street	No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage	6230	DINING ROOM	DRYWALL - CRACKING	SEE NOTES		Cracking of center ceiling under bathroom patched several times by city, possibly missing joists due to toilet drain. Recommend additional investigations, framing around drain may be required.
Osage	6230	EXTERIOR WALLS	OTHER	4, 24d		Efflorescence visible behind downspout adjacent to 2nd floor window, below 2nd floor door. Outlet operational. Site drain backs up.
Osage	6230	EXTERIOR WALLS	OTHER	NONE		Joint between wall and lab not sealed; Efflorescence noted below dryer vent on back wall, below 1st/2nd floor windows side wall, top of side wall from 2 feet off corner to approx. 3 feet down wall.
Osage	6230	EXTERIOR WALLS FRONT	OTHER	1		Some efflorescence noted underneath entry soffit approximately 2 feet down wall; Entry pad settlement 3/4" to 1", roll over 3/4" max; Plaster sitting on concrete; Cedar siding good; Upper fascia rotted.
Osage	6230	EXTERIOR WALLS FRONT	OTHER	1, 2		Patio gapped off wall 3/4"; Patio settled 3/4" to 1", rolled 1/4"; Efflorescence visible below entry way soffit 1st floor (2 ft); Cedar siding good; Upper fascia poor.
Osage	6230	EXTERIOR WALLS FRONT	OTHER	2		Front entry plywood; Side fascia weathered and cracked, Typical all homes, stable but unsightly.
Osage	6230	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater installed.
Osage	6230	HALLWAY	DOOR - INTERIOR	13c		Bedroom 1 door racked 1/8", sticks, jams out of plumb.
Osage	6230	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage	6230	KITCHEN	DOOR	NONE		hinge screw won't hold closet door on.
Osage	6230	OTHER	OTHER	NONE		Crown molding installed on 1st floor.
Osage	6230	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at header.

Street No	LOCATION	PROBLEM	REPAIR	PLANS	NOTES
Osage 6230	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage 6230	UTILITY ROOM	OTHER	18a, 24		Moisture staining from condensate line to far above indirect drain; Gas odor - Owner informed and contact with PGW recommended.
Osage 6231	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet not operating.
Osage 6231	BEDROOM 1	DRYWALL - STAINING	14, 18a		Northeast corner moisture noted leak from party wall.
Osage 6231	BEDROOM 1	WINDOW	12, 19		Windows initially replaced by city, still draft problems.
Osage 6231	BEDROOM 3	DRYWALL - STAINING	4, 18a		Stain on north wall at ceiling above window; Hairline crack 1 foot near pipe chase.
Osage 6231	DEN	DRYWALL - STAINING	4, 18a		Southwest corner at ceiling evidence of moisture.
Osage 6231	DINING ROOM	DRYWALL - STAINING	NONE		Previous history of leaking at chandelier, no further problems, cause unknown.
Osage 6231	EXTERIOR WALLS	DOOR - EXTERIOR	7	62310 - 1 4.2	Brick fracturing at overhead door, left head and spalling right head 2 1/4" deep.
Osage 6231	EXTERIOR WALLS	BRICK - OTHER	5, 6		Plaster bottom cracked observed two brick high at overhead door side; Efflorescence at 2nd floor below window sill.
Osage 6231	EXTERIOR WALLS	OTHER	NONE		Horizontal brick joint open 2 courses above flashing at right party wall.
Osage 6231	EXTERIOR WALLS FRONT	OTHER	1, 2		Front entry slab rolled at right side 1/2"; Typical gutter problem at side of entrance; Cedar siding det under window sill/bay; Bottom course warped; Slight det at upper fascia; Horizontal brick joint open 2 courses above flashing at right.



Sheet No	LOCATION	PROBLEM	REPAIR	FIGURE	NOTES
Osage 6231	HALLWAY	DOOR - INTERIOR	13c		Bedroom 2 door racking 1/2". Bedroom 1 door racking/sticking.
Osage 6231	LIVINGROOM	OTHER	NONE		Owner reported drip noise from tub use, no signs on gypsum board below.
Osage 6231	POWDER ROOM	ELECTRICAL OUTLETS	26		No GFI outlet protection.
Osage 6231	ROOF	ROOFING	NONE		Antenna installed next to 4" vent and tied off to smaller vent.
Osage 6231	STAIRS	DRYWALL - CRACKING	21		Header surface cracked 1 foot at corner bead.
Osage 6231	UTILITY ROOM	HOT WATER HEATER	24d		No drop from water heater.
Osage 6232	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6232	BATHROOM	PLUMBING	24c		Drain pipe is leaking in ceiling or wall, when any of three fixtures are working leak occurs.
Osage 6232	BEDROOM 1	ELECTRICAL OUTLETS	26		Outlet on front wall shorts out south outlet on west wall; Outlet on front wall tests OK; Unable to check outlet behind bed.
Osage 6232	BEDROOM 1	WINDOW	12, 19		Typical window deterioration, cracks both sides of window seal.
Osage 6232	BEDROOM 3	DRYWALL - STAINING	4, 18a		Roof leak southeast corner at ceiling. Wall patched and roof repaired.
Osage 6232	CRAWL SPACE	OTHER	15		Noticed water heater connection leaking. Signs of joints deterioration at water meter, gas pipe not supported properly. Some electrical wiring unsupported; Diagonal bracing installed, some not properly.

Street	No	LOCATION	PROBLEM	REPAIR	Pictures	NOTES
Osage	6232	DINING ROOM	DRYWALL - STAINING	18b		Extensive leaking in chase from above bathroom; Leaking at crack in middle of ceiling, possible expansion crack.
Osage	6232	EXTERIOR WALLS	OTHER	1, 2, 10		Side gutter unsupported; Slab settled 1/8"; Cedar good; Upper fascia good; Railing post left side gate opening completely rotted through.
Osage	6232	EXTERIOR WALLS	OTHER	NONE		Downspout seemed opened near top to middle kitchen wall, possible source of efflorescence on wall.
Osage	6232	EXTERIOR WALLS	OTHER	NONE		Wall not sealed at slab; efflorescence under dryer vent, behind downspout and around corner full height side kitchen door, below kitchen door sill, side by downspout; Outlet operating; Asphalt saturated joint filler around perimeter of wall.
Osage	6232	FAMILY ROOM	FLOORS JOISTS	NONE		No signs of floor settlement in ceiling from kitchen walls. Settlement could be from wood shrinking in walls causing floor damage; No signs of joist damage; Pump crosses room.
Osage	6232	FAMILY ROOM	PLUMBING FIREPLACE	17		Hose bib heater installed; Fireplace unstable, typical problem.
Osage	6232	HALLWAY	DRYWALL - CRACKING	20		Doors true and plumb; No cracks at transfer vents.
Osage	6232	HALLWAY	DRYWALL - STAINING	4, 18a		Possible ceiling leak in hallway closet.
Osage	6232	KITCHEN	DRYWALL - CRACKING	18b		Wall bulging out at kitchen/dining room corner next to closet; Damaged gypsum board.
Osage	6232	KITCHEN	FLOOR	NONE		Floor along east wall slopes approximately 1/16" per foot.
Osage	6232	KITCHEN	OTHER	NONE		Evidence of settlement (1/4") at southwest wall center of room, this occurs from room center to outside corner.
Osage	6232	KITCHEN	OTHER	NONE		Closet door wall at party wall out of plumb approximately 1/4" per foot.

Sheet No	LOCATION	PROBLEM	REPAIR	Pictures	NOTES
Osage 6232	LAUNDRY	VENTILATION	25		Dryer pipe vent not installed.
Osage 6232	POWDER ROOM	PLUMBING FIXTURES	24c		Deteriorating S-trap under sink.
Osage 6232	REC ROOM	DRYWALL - CRACKING	22		Crack at bottom of stair opening across hall to corner of laundry room.
Osage 6232	ROOF	ROOFING	4		Patch 9 feet off rear wall, full width set in asphalt cement, seams sealed.
Osage 6232	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at stair header.
Osage 6232	UTILITY ROOM	OTHER	18a, 24, 24d		No drop from hot water heater; Condensate pipe to far from indirect drain; Moisture damage on wall.
Osage 6233	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet test mechanism not working.
Osage 6233	BEDROOM 1	DOOR - INTERIOR	NONE		Opening (3/8") under jam, stair side.
Osage 6233	BEDROOM 1	DOOR - INTERIOR	13c		Door racked, sides plumb.
Osage 6233	BEDROOM 1	DRYWALL - CRACKING	4, 18b		Evidence of moisture damage southwest corner; Crack opening at front wall corner ceiling 1-1/8" max; Hairline cracking along entire wall height.
Osage 6233	BEDROOM 1	DRYWALL - CRACKING	22		Northwest corner hairline crack full height; Tape pulling from ceiling, possible settling issue or crown issue.
Osage 6233	BEDROOM 1	DRYWALL - CRACKING	22		Crack over right closet door jam up ceiling over 6".

Survey	No	LOCATION	PROBLEM	REPAIR	PICTURE	NOTES
Osage	6233	BEDROOM 1	DRYWALL - CRACKING	12, 19		Southeast corner crack entire length of wall; Window bay outside corner cracked at corner bead; Typical window sill jam deterioration.
Osage	6233	BEDROOM 2	DRYWALL - CRACKING	22		Northwest chase corner crack full height both sides along corner bead; Closet corner crack along corner bead.
Osage	6233	BEDROOM 2	DRYWALL - CRACKING	22		Closet northwest corner settlement crack full height; Tape pulling from ceiling.
Osage	6233	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Unsupported electrical wires; Diagonal bracing present not attached.
Osage	6233	DEN	DRYWALL - STAINING	18b		Moisture damage at southwest ceiling corner.
Osage	6233	EXTERIOR MISCELLANEOUS	DOOR - EXTERIOR	9		Slab in front of man door raised from reinstallation after previous investigations, causes puddling in front of overhead door.
Osage	6233	EXTERIOR WALLS	DOOR - EXTERIOR	7	62330 - 1	Brick fractured and spalling at left end overhead door lintel, 4 bricks high; Garage door frame warping at base, pulling away from brick; Efflorescence noted under deck header, probably from header anchors; Header beam against brick holding moisture.
Osage	6233	EXTERIOR MISCELLANEOUS FRONT	OTHER	6, 10		Foundation wall not exposed; No settling in entrance slab noticed; Cracking through at railing post; Fracture of 3 bricks at entrance, both sides.
Osage	6233	EXTERIOR WALLS	OTHER	NONE		Spot efflorescence noted on side; Owner installed deck, french door and security door. Some efflorescence below 2nd floor window and sill.
Osage	6233	EXTERIOR WALLS FRONT	SIDING	1, 2		Side entry gutter not supported; Cedar siding warping throughout; Upper fascia signs of rot.
Osage	6233	HALLWAY	DOOR - INTERIOR	13c		Bedroom 3 door racked 1/8", head out of level, jam plumb. Bedroom 2 door racked 1/4", head not level, jam plumb.
Osage	6233	HALLWAY	DRYWALL - CRACKING	20		Typical cracks over doors at transfer vents.

Sheet No	LOCATION	PROBLEM	REPAIR	PRIORITY	NOTES
Osage 6233	KITCHEN	SUBFLOOR	NONE		Floor spot raised from subfloor problem.
Osage 6233	POWDER ROOM	ELECTRICAL OUTLETS	26		No GFI outlet protection.
Osage 6233	STAIRS	DRYWALL - CRACKING	21		Header horizontal crack along upper edge at corner bead.
Osage 6233	UTILITY ROOM	HOT WATER HEATER	24d		No drop from pressure valve.
Osage 6234	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6234	BATHROOM	PLUMBING FIXTURES	NONE		Faucet requires repair, leaking under rim.
Osage 6234	BATHROOM	PLUMBING FIXTURES	24b		Seal in sink bowl broken.
Osage 6234	BATHROOM	PLUMBING FIXTURES	NONE		Chip on replacement tub, no grout tile to tub, tub scheduled for replacement.
Osage 6234	BEDROOM 1	DRYWALL - CRACKING	19		Cracks both sides of window seal.
Osage 6234	BEDROOM 1	DRYWALL - STAINING	4, 18a		Moisture stain from roof leak at east wall center corner.
Osage 6234	BEDROOM 1	DRYWALL - STAINING	18a		South wall residing in ceiling tape full length.
Osage 6234	BEDROOM 1	WINDOW	12		Typical window deterioration.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6234	BEDROOM 3	DRYWALL - STAINING	4, 18a		Moisture stain full height 2 feet either side of southeast corner, Southwest corner cracked full height( 1/32"); No distortion in tape.
Osage 6234	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Some diagonal bracing not installed properly; Some electrical wiring not supported properly; Piping seems to be supported properly.
Osage 6234	DINING ROOM	DRYWALL - STAINING	18b, 24c		Staining on soffit; Crack on edge from bathroom above, leak is active.
Osage 6234	EXTERIOR WALLS	OTHER	13		Owner installed deck; Outlet operational; Joint between wall and slab not sealed; Efflorescence noted below wall plate below deck, below dryer vent; Joint not sealed in retaining wall; Joints in door settled, possibly from cmu joints below.
Osage 6234	EXTERIOR WALLS REAR	BRICK			Efflorescence noted on side wall at corner adjacent to 2nd floor window, at range hood vent, below and left side of kitchen window.
Osage 6234	EXTERIOR WALLS FRONT	OTHER	NONE		Slight settlement (1/8") of entry slab; Slight efflorescence by window, possibly from owner installed canvas awning.
Osage 6234	EXTERIOR WALLS FRONT	OTHER	1, 2		Pave not sealed at wall; Patio not sealed at wall; Cedar siding good; Upper fascia fair; Left side gutter unsupported; Left side plaster sitting on somewhat of foundation, foundation up to grade, starts on one course.
Osage 6234	FAMILY ROOM	DRYWALL - STAINING	18b		Extensive soffit damage from sink leak, same leak from corner of soffit down to hose bib heater.
Osage 6234	HALLWAY	DOOR - INTERIOR	13c		Bedroom 2 door out of alignment due to hinge screw missing; Bedroom 3 door sticking due to hinge at bottom.
Osage 6234	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks in transfer vents.
Osage 6234	KITCHEN	DRYWALL - CRACKING	22		Crack across opening to kitchen over to closet wall.
Osage 6234	KITCHEN	FLOOR	Per Note		Crack (1/2") along entire length west wall. Recommend replacing vinyl composition tile due to expansion and from sink water damage.

Street No	LOCATION	PROBLEM	REPAIR PRIORITY	NOTES
Osage 6234	KITCHEN	FLOOR	NONE	Floor hump 4 feet from kitchen entry, possibly from joists twisting below; High point noted left side of dishwasher.
Osage 6234	KITCHEN	OTHER	Per Note	Sink cabinet base rotted due to previous drain pipe leaks, city replaced; Also rotting behind counter top behind sink
Osage 6234	KITCHEN	PLUMBING	NONE	Dishwasher works occasionally.
Osage 6234	LIVINGROOM	ELECTRICAL OUTLETS	26	Outlet not operational.
Osage 6234	ROOF	ROOFING	4	Substantial give of roofing material indicative of sheathing deterioration.
Osage 6234	STAIRS	DRYWALL - CRACKING	NONE	No typical cracks at header.
Osage 6234	STAIRS	OTHER	NONE	Top riser is 7 1/4", all others 7 3/4".
Osage 6234	STAIRS	OTHER	NONE	Seam opening at corner round molding at side stairs.
Osage 6234	UTILITY ROOM	HOT WATER HEATER	24d	No drop pipe from hot water heater valve.
Osage 6234	UTILITY ROOM	OTHER	16	Gypsum board opened around flu.
Osage 6235	BEDROOM 1	DRYWALL CRACKING	22	Northeast wall cracked (1/8") from ceiling to floor. Some settlement at northwest corner full height, crack not opened.
Osage 6235	BEDROOM 1	WINDOW	12, 19	Typical deterioration around window sill.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6235	BEDROOM 3	DRYWALL - CRACKING	18a, 22		Northeast chase moisture/cracking at ceiling and along corner bead.
Osage 6235	CRAWL SPACE	ELECTRICAL WIRING	NONE		Unsupported electrical wiring.
Osage 6235	DEN	DRYWALL - STAINING	3, 18a		Southeast corner evidence of moisture at ceiling corner near soffit.
Osage 6235	DINING ROOM	DRYWALL - STAINING	18a		Northeast corner moisture noticed behind register at soffit, 1 foot off back wall.
Osage 6235	EXTERIOR WALLS	DOOR EXTERIOR	7		Brick spalling at right overhead door, 1 course; Efflorescence present spotted, efflorescence noticeable at right side 2 feet off party wall down to 2nd floor level, and at party wall below 2nd floor window left party wall.
Osage 6235	EXTERIOR WALLS	ELECTRICAL OUTLET	26		Exterior electrical outlet not working.
Osage 6235	HALLWAY	DOOR - INTERIOR	13c		Bedroom 2 door racked slightly, jams plumb; Same at bathroom door; Bedroom 1 door racked 1/4", jam slightly out of plumb.
Osage 6235	HALLWAY	DRYWALL - CRACKING	21, 22		Some settlement from party wall at stair across through hall, 3/8" at door. No typical cracking at stair header.
Osage 6235	HALLWAY	DRYWALL - CRACKING	20		Typical cracks at transfer vents.
Osage 6235	POWDER ROOM	PLUMBING	24b		Toilet drip continuous due to faulty mechanism; Signs of leaking at sink outlet, deterioration of drain pipe.
Osage 6235	REC ROOM	FIREPLACE	17		Unstable, typical problem.
Osage 6235	UTILITY ROOM	HOT WATER HEATER	24d		No drop line from water heater; Typical hose bib heater.



Street	No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage	6236	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage	6236	BEDROOM 1	WINDOW	12, 19		Typical cracks around window sill; Vertical crack right side window seat.
Osage	6236	BEDROOM 3	DRYWALL - STAINING	18a		Moisture at ceiling 1 foot left of window.
Osage	6236	BEDROOM 3	DRYWALL - STAINING	18b		Slight moisture damage southwest corner at ceiling.
Osage	6236	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Some unsupported electrical wiring. Diagonal bracing fastened improperly.
Osage	6236	EXTERIOR WALLS REAR	OTHER	NONE		Typical hose bib heater. Slab not sealed at wall; Some efflorescence on left side of downspouts from outlet to side kitchen door; Exterior outlet operational.
Osage	6236	EXTERIOR WALLS FRONT	OTHER	1, 2		Side gutter unsupported; Cedar siding good; Upper fascia signs of deterioration
Osage	6236	HALLWAY	DRYWALL - CRACKING	20		Doors true and plumb; No typical cracks at transfer vents.
Osage	6236	LAUNDRY	PLUMBING FIXTURES	25		Washer leaking, air outlet from dryer is unattached.
Osage	6236	ROOF	ROOFING	4		Evidence of water ponding at outlet due to debris; Severe sheathing deterioration felt under foot.
Osage	6236	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at header.
Osage	6236	UTILITY ROOM	OTHER	18a, 24, 24d		No drop from hot water heater; Condensate pipe is too far from indirect waste; Typical wall staining.

Street No.	LOCATION	PROBLEM	REPAIR	Priority	NOTES
Osage 6237	BATHROOM	DRYWALL OTHER	NONE		Wall belly 1/2" behind toilet.
Osage 6237	BATHROOM	ELECTRICAL OUTLETS	26		Inoperable GFI test mechanism.
Osage 6237	BEDROOM 1	DRYWALL - CRACKING	21		Typical gypsum cracking above door at transfer register.
Osage 6237	BEDROOM 1	DRYWALL - OTHER	NONE		Reverse belly in ceiling gypsum above window approx 2ft off left wall; Wall over door bellies approx. 1" from door head to ceiling.
Osage 6237	BEDROOM 1	FLOOR	NONE		West floor sloped 1/16" per foot east (floor), full width.
Osage 6237	BEDROOM 1	WINDOW	12, 19		Typical window jam/sill deterioration.
Osage 6237	BEDROOM 2	DRYWALL - CRACKING	22		Northeast corner settlement; Stretch crack (1/4") full height un-open.
Osage 6237	EXTERIOR MISCELLANEOUS	ELECTRICAL OUTLETS	26		All tested outside outlets are non-operational.
Osage 6237	EXTERIOR WALLS	BRICK	7, 8		Spotted efflorescence, miscellaneous locations; Brick spalling at left overhead door head jam side; Steel lintel typical condition.
Osage 6237	EXTERIOR WALLS FRONT	SIDING	1, 2		Foundation exposed, parged good condition; No settlement in entry slab; Side gutter typical; Upper fascia rot and pulling away from support.
Osage 6237	HALLWAY	DOOR - INTERIOR	13c		Bedroom 2 door racked 1/2"; Bedroom 1 door racked 1/2".
Osage 6237	LAUNDRY	VENTILATION	25		Gas pipe is compressing dryer exhaust line, reducing capacity 50%.

Street No	LOCATION	PROBLEM	REPAIR	PERMIT	NOTES
Osage 6237	POWDER ROOM	PLUMBING FIXTURE	24a		Toilet backing up, owner replaced, flange installation improper.
Osage 6237	ROOF	ROOFING	NONE		Unused antenna bracket on west parapet wall, antenna mounted to east parapet wall.
Osage 6237	UTILITY ROOM	HOT WATER HEATER	24d		Typical hose bib heater; No drop from pressure valve.
Osage 6236	BATHROOM	DRYWALL - STAINING	18c		Air leaking through skylight, Moisture damage on ceiling and skylight well.
Osage 6236	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet operational.
Osage 6236	BATHROOM	PLUMBING FIXTURES	NONE		Sink has been replaced several times.
Osage 6236	BEDROOM 1	OTHER	NONE		Bedroom inaccessible.
Osage 6236	BEDROOM 3	DRYWALL - STAINING	18b		Moisture stain southeast corner full height, city has repaired in past.
Osage 6236	CRAWL SPACE	JOISTS	15		Diagonal bracing not installed properly.
Osage 6236	DINING ROOM	DRYWALL - STAINING	NONE		Repairs on ceiling from bathroom water leaks.
Osage 6236	EXTERIOR WALLS REAR	OTHER	4, 26		Some efflorescence behind downspout full height; Outlet not operational.
Osage 6236	EXTERIOR WALLS FRONT	OTHER	1, 2		Foundation exposed (8") at party wall, parapet/intact, not exposed elsewhere; Cedar siding good; Upper fascia rotted; Side gutter unsupported; Roll of entry slab approximately 1/4".

Street No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6238	HALLWAY	DOOR - INTERIOR	13c		Bedroom 3 door header out of level 1/4", jams plumb.
Osage 6238	POWDER ROOM	PLUMBING	24a		Toilet backs up periodically.
Osage 6238	ROOF	ROOFING	NONE		Three antenna supports fastened to roof without antennas.
Osage 6238	ROOF	ROOFING	4		Sheathing deterioration; Roof patch 9 feet from back wall similar to others; Patched top parapet wall entire back and outcove side; Patching along front top parapet and left side top.
Osage 6236	STAIRS	DRYWALL - CRACKING	NONE		No typical problems at stair header.
Osage 6239	BATHROOM	OTHER	4		Owner report of roof leak through ceiling fan; City installed tub enclosure and tub due to past leak; Low water pressure at tub; GFI outlet installed; Tub faucet leaks at handle.
Osage 6239	BEDROOM 1	DRYWALL - STAINING	12, 19		Typical moisture around window sill and jam; Vertical crack under window seat hairline to floor.
Osage 6239	DINING ROOM	DRYWALL - STAINING	12, 18a		Under window sill.
Osage 6239	EXTERIOR WALLS	DOOR - EXTERIOR	13		Rear door racked.
Osage 6239	EXTERIOR WALLS	DOOR - EXTERIOR	6, 7, 8		Door sill sloped toward OH door; Jamb at main door 5" wide plaster supporting both door steel angles; 1st brick fractured both sides OH; 2nd brick left side stress cracks; Unfinished steel lintels throughout; limited EF over 2nd and 1st right window.
Osage 6239	EXTERIOR WALLS	DOOR - EXTERIOR	13		Door sill deteriorated.
Osage 6239	EXTERIOR WALLS	OTHER	1		Typical weathering of cedar siding, some evidence of rot.

Street	Block	Location	Problem	Repair	Structure	Notes
Osage	6239	EXTERIOR WALLS FRONT	SIDING	1, 2		Foundation not exposed; Gutter side typical; Upper fascia signs of deterioration; Cedar siding good shape no signs of deterioration.
Osage	6239	FAMILY ROOM	FURNACE	23		Owner complaint of inadequate heat in family room.
Osage	6239	FAMILY ROOM	PLUMBING	24c		Water leak at valve for front hose bib.
Osage	6239	GARAGE	DOOR - EXTERIOR	NONE	62390 -1 & 2	Overhead Door sill sloped toward door; Water leakage under door; Door sill sealed due to finished garage.
Osage	6239	KITCHEN	DRYWALL - STAINING	18a		Staining at northeast corner under scffit, possibly from range hood outlet; Flooring rotten do to faucet leaking, city replaced faucet.
Osage	6239	LIVINGROOM	DRYWALL - STAINING	18a		Ceiling stain from tub above - inactive.
Osage	6239	POWDER ROOM	ELECTRICAL WIRING	26		No GFI outlet; No GFI breaker in panel either.
Osage	6239	ROOF	ROOFING	4		Patching at party wall to parapet on east and west front walls.
Osage	6239	ROOF	ROOFING	4		Patching at party wall to parapet on east and west front walls also top of back parapet entire width and both rear corners.
Osage	6239	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Osage	6240	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage	6240	BEDROOM 1	DRYWALL - STAINING	18a		Moisture staining northwest corner at ceiling.

Sheet No.	LOCATION	PROBLEM	REPAIR	NOTES
Osage 6240	BEDROOM 2	OTHER	NONE	Owner installed closet full width of north wall.
Osage 6240	BEDROOM 3	DRYWALL - STAINING	18a	Moisture stain southwest wall at ceiling and 2 feet along wall.
Osage 6240	BEDROOM 3	OTHER	NONE	Owner installed closet in northwest corner of room.
Osage 6240	DINING ROOM	DRYWALL - STAINING	18b	Evidence of previous moisture damage under soffit at chase wall.
Osage 6240	EXTERIOR WALLS	OTHER	1, 2	Cedar siding good; Side gutter unsupported; Upper fascia good.
Osage 6240	HALLWAY	DOOR - INTERIOR	13c	Bedroom 1 door head out of level enough for door to stick.
Osage 6240	HALLWAY	DRYWALL - CRACKING	NONE	No typical cracks at transfer vents.
Osage 6240	ROOF	ROOFING	4	Patching evident parapet top back and side cove.
Osage 6240	STAIRS	DRYWALL - CRACKING	NONE	No typical problems at stair header.
Osage 6241	BEDROOM 1	DOOR - INTERIOR	13c	Closet door racked 1/2", head not level, jams slightly out of plumb.
Osage 6241	BEDROOM 1	DRYWALL - CRACKING	20	Typical cracking above doors.
Osage 6241	BEDROOM 1	FLOOR	NONE	Floor sloped 1/16" to center.

SI	NO	LOCATION	PROBLEM	REPAIR	DATE	NOTES
Osage	6241	CRAWL SPACE	ELECTRICAL WIRING	NONE		Some wiring unsupported; bracing in place.
Osage	6241	EXTERIOR MISCELLANEOUS	DOOR - EXTERIOR	NONE		Left head mortar squeezing front joint full brick wide.
Osage	6241	EXTERIOR MISCELLANEOUS	ELECTRICAL OUTLETS	26		Outlet operable, open neutral.
Osage	6241	EXTERIOR WALLS	BRICK	6		Slight efflorescence noticed under 2nd floor left window sill; Lintel joint open at 1st floor left window left head; Steel exposed in joint; Staining w/alk; Lintels rusting both heads 1st floor windows.
Osage	6241	EXTERIOR WALLS	BRICK - CRACKING	5, 6	6/24/10 - 1 to 6	Diagonal from right head man door to bottom left corner utility room vent; Horizontal to half brick right side of vent; Diagonal at center party wall at crack gauge; Vertical to grade crack (1/16" max) from crack gauge up wall 5 courses through brick/mortar; Hairline crack discontinues at joining property (6243).
Osage	6241	EXTERIOR WALLS FRONT	SIDING	1, 2		Entry slab and patio settled 1/2"; Typical side gutter; Cedar siding deteriorated and warping.
Osage	6241	HALLWAY	DOOR - INTERIOR	13c		Bedroom 2 door racked 1/16" operable; Bedroom 1 door racked, trimmed by owner.
Osage	6241	LAUNDRY	DOOR - INTERIOR	13c		Racked 1/4", hinge jam not plumb.
Osage	6241	OTHER	WINDOW	12		Den windows double insulated, fixed top double glazed; All other large windows single pain, slider with storms; Narrow windows single hung, single pain, aluminum frame.
Osage	6241	ROOF	ROOFING	4		Patch (10x10) east side of skylight; Signs of patching in northwest corner.
Osage	6241	STAIRS	DRYWALL - CRACKING	21		Header horizontal crack (1/32" max) at upper edge.
Osage	6241	UTILITY ROOM	OTHER	16		Typical for penetrations.

SITE #	LOCATION	PROBLEM	REPAIR	PICTURE	NOTE
Osage 6242	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6242	BEDROOM 3	DRYWALL - STAINING	18a		Moisture stain southeast corner at ceiling and wall.
Osage 6242	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Some wiring unsupported; Diagonal bracing not properly installed, nailed to sides of joists.
Osage 6242	DEN	DRYWALL - STAINING	4, 18b		Moisture damage northwest corner on walls and ceiling.
Osage 6242	EXTERIOR WALLS	OTHER	4, 26		No seal at wall and slab; Outlet operational, open neutral; Some efflorescence behind downspout, roof to bottom and below kitchen sill
Osage 6242	EXTERIOR WALLS	OTHER	1, 2		Foundation wall exposed 2"; Seal separated at patio; Right pilaster signs of efflorescence from top to 3 feet down; Entrance wall signs of efflorescence 3 coarse down; Cedar siding good; Entry slab carpeted.
Osage 6242	HALLWAY	DOOR - INTERIOR	13c		Bedroom 1 door out of level enough to make door stick.
Osage 6242	HALLWAY	DRYWALL	NONE		Gypsum board in corner of closet unfinished.
Osage 6242	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6242	REC ROOM	FIREPLACE	17		Unstable, typical problem.
Osage 6242	REC ROOM	PLUMBING	NONE		Floor bib heater installed.
Osage 6242	STAIRS	DRYWALL - CRACKING	21		Horizontal crack (6") at floor level at stair header.



OSage	UTILITY ROOM	OTHER	18a, 24, 24d	Moisture stain behind indirect waste drain, condensate stop short (3") of drain. No drop from hot water heater.
OSage	BATHROOM	DRYWALL - CRACKING	18c	Ceiling cracked from southwest corner of skylight well to corner chase; Moisture damage at top of skylight well evident.
OSage	BATHROOM	ELECTRICAL OUTLETS	NONE	GFI outlet operating; No vent.
OSage	BEDROOM 1	DRYWALL - CRACKING	18b	Southwest corner cracking full height; Evidence of moisture damage at ceiling.
OSage	BEDROOM 1	DRYWALL - CRACKING	20, 22	Diagonal crack (3/16") over door from left of door through transfer vent; Crack at head of closet door.
OSage	BEDROOM 2	DRYWALL - STAINING	18b	Northeast corner ceiling moisture damage.
OSage	BEDROOM 3	DRYWALL - STAINING	18b	62430 - 5 Northeast corner ceiling moisture damage at and around chase.
OSage	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15	Bracing unfastened; Some electrical wiring unfastened; Pipe unsupported.
OSage	EXTERIOR MISCELLANEOUS	OTHER	NONE	Foundation wall exposed 4", parged.
OSage	EXTERIOR MISCELLANEOUS FRONT	OTHER	1, 2, 9	Entry slab rolled off wall 1/2"; Brick pilaster off foundation 2"; Side walk depression off entry slab max. 5/8"; tripping hazard; Upper fascia signs of rot; Cedar side good condition; Side gutter unsupported.
OSage	EXTERIOR WALL REAR	BRICK - CRACKING	5, 6	Slab cracked from condenser pad foundation, 1 foot off party wall across man door to 2 feet off right side party wall jam, ending at overhead door sill, continued 3 feet from overhead door sill to 2 feet off right side party wall.
OSage	EXTERIOR WALL REAR	DOOR - EXTERIOR	7	62430 - 4 Man door right head jam brick face delamination; Left brick fracture at overhead door lintel.

Street	Location	Problem	Repair	Priority	Notes
Osage	EXTERIOR WALLS REAR	BRICK - CRACKING	5, 6	62430 - 1, 2 & 3	Crack from behind gutter (2 course) above crack garage diagonally through electrical switch to top of vent. diagonally down to condenser pipe opening, down to ground (1 course) left of man door.
Osage	HALLWAY	DOOR - INTERIOR	13c		Bedroom 1 door racked 1/4" per foot (head), jams plumb; Bedroom 2 door racked 1/4" per foot, jams plumb; Floor stopped to center of house min 1/16" per foot.
Osage	KITCHEN	OTHER	NONE		Garbage disposal not working.
Osage	LIVINGROOM	DRYWALL - STAINING	18b		Moisture at living/dining room ceiling and center of room, apparently from bathroom.
Osage	STAIRS	DRYWALL - CRACKING	21		Header horizontal crack along corner bead.
Osage	UTILITY ROOM	HOT WATER HEATER	24D, 26		No hose bib heater. No drop from hot water heater; Outlet not fastened to wall, box pulls out, uncovered.
Osage	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet inoperable.
Osage	BEDROOM 1	WINDOW	12, 19		Typical window sill and jam deterioration.
Osage	BEDROOM 2	DRYWALL - STAINING	18a		Moisture spot northwest ceiling at corner, 1 foot off party wall.
Osage	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Diagonal bracing installed properly; Some electrical wiring unsupported.
Osage	EXTERIOR WALLS	OTHER	4		Wall not sealed at base; Exterior outlets operational; Efflorescence present behind downspout and some around corner adjacent to kitchen door.
Osage	EXTERIOR WALLS	PLUMBING	24a		Yard drain backs up periodically, opened up by city several times.

SYMBOL	NO.	LOCATION	PROBLEM	REPAIR	PHASE	NOTES
Osage	6244	EXTERIOR WALLS FRONT	OTHER	1, 2		Carpet on patio; Side gutter unsupported; Cedar siding good; Upper fascia good.
Osage	6244	FAMILY ROOM	DRYWALL	NONE		Crease in gypsum board right side of door, possible previous repair.
Osage	6244	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater.
Osage	6244	HALLWAY	DOOR - INTERIOR	NONE		Doors are plumb and level.
Osage	6244	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage	6244	LAUNDRY	DRYWALL - STAINING	18a		Moisture stains west wall at ceiling, possibly behind light.
Osage	6244	ROOF	ROOFING	4		Ponding at outlet due to debris; Patching evident northwest corner of parapet wall and front.
Osage	6244	STAIRS	DRYWALL - CRACKING	NONE		No typical cracks at header.
Osage	6244	UTILITY ROOM	DRYWALL - STAINING	18a		Stain behind indirect drain on wall.
Osage	6244	UTILITY ROOM	ELECTRICAL PANELS	26		Breaker 10 listed on panel as smoke detector, also controls GFI outlets and exterior rear outlet; Dining room smoke detector goes off when cooking, over shuts breaker off when cooking; Hood fan operational.
Osage	6244	UTILITY ROOM	FURNACE	NONE		Carrier Model # 58GP075-3.
Osage	6245	BATHROOM	ELECTRICAL OUTLETS	26		GFI test mechanism not working, socket loose; No window exhaust fan.

Street	Location	Problem	Repair	Notes
Osage	BEDROOM 1	DRYWALL - CRACKING	22	(Stress crack at entry corner.
Osage	BEDROOM 1	DRYWALL - STAINING	18a	Northwest corner of ceiling, 2 feet wide; Moisture at ceiling/wall at joint.
Osage	BEDROOM 1	WINDOW	12, 19	Typical window deterioration at sill jam.
Osage	BEDROOM 3	DRYWALL - STAINING	18b	Moisture damage at northwest corner of ceiling, ceiling belled, city reportedly repaired; Exposed insulation is dry, 3" diameter hole.
Osage	DINING ROOM	DRYWALL - STAINING	18b	Ceiling moisture areas under bathroom above, 3 to 4 areas.
Osage	DINING ROOM	DRYWALL - STAINING	18a	Wall moisture stain above head of closet door.
Osage	EXTERIOR MISCELLANEOUS	OTHER	2	Step/patio covered with carpet. Gutter side unsupported; Entry back board panel deteriorated/cracking (plywood); some efflorescence below den window.
Osage	EXTERIOR WALLS REAR	BRICK - CRACKING	5, 6, 7	62450 - 1, 2 & 3 One spot of efflorescence below right 2nd floor window; Left head overhead door brick fracture diagonally to party wall up 3 course, right jam from 4th course below head diagonally down to 1 course inside corner, from left party line to 3 feet in at overhead sill, from corner of building at corner guard diagonally to raining wall.
Osage	EXTERIOR WALLS REAR	BRICK - CRACKING	6	Wall cracked, 1/4" max.
Osage	GARAGE	ELECTRICAL OUTLETS	26	Interior socket linked to GFI outlet in bathroom, open neutral.
Osage	GARAGE	OTHER	NONE	Smoke Detector inoperable.
Osage	HALLWAY	DOOR - INTERIOR	13c	Bedroom 3 door right side settled 1/2", jams plumb; Bedroom 2 door racked 1/4" header plumb; Bedroom 1 door racked head out of level 1/4" jams plumb.

OSage	LOCATION	PROBLEM	REPAIR	Quantity	DESCRIPTION
6246	BEDROOM 2	DRYWALL - STAINING	14, 18b		Moisture damage southeast and southwest closet corners, extensive on left.
6246	BEDROOM 3	DRYWALL - STAINING	18a		Moisture stain Southeast corner of ceiling and top of side wall.
6246	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Diagonal bracing fastened; Typical wiring.
6246	DEN	DRYWALL - STAINING	4, 18b		Moisture damage northeast corner of ceiling and side wall.
6246	DINING ROOM	DRYWALL - STAINING	18b		Moisture damage at chase wall from bathroom shower head.
6246	EXTERIOR WALLS	OTHER	4		Yard drain slow drainage, puddles; No seal around sidewalk/wall, efflorescence behind downspout full height 2 feet left side to kitchen door and at party wall left side kitchen door; Expansion joint at retaining wall not sealed; Outlet operational.
6246	EXTERIOR WALLS FRONT	OTHER	1, 2		Tile patio; Side gutter unsupported; Cedar siding good; Upper fascia deteriorating; Foundation exposed 3" and parged.
6246	HALLWAY	DOOR - INTERIOR	13c		Bedroom 3 door 1/4" out of level, jama plumb.
6246	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks in transfer vents.
6246	POWDER ROOM	PLUMBING FIXTURES	NONE		Faucet rim leaking under cabinet.
6246	ROOF	ROOFING	4		Open vertical seam in west parapet wall.
6246	ROOF	ROOFING	4		Spot patch across entire parapet front; Some ponding at outlet; Patching at top and both inside corners of flue box; Patching at all inside and outside corners as well as intermediate party wall vertical joints.

Street No.	LOCATION	PROBLEM	REPAIR	NOTES
Osage 6246	STAIRS	DRYWALL - CRACKING	NONE	No typical cracks.
Osage 6246	UTILITY ROOM	HOT WATER HEATER	Z4d	No drop pipe from hot water heater valve.
Osage 6248	BATHROOM	ELECTRICAL OUTLETS	NONE	GFI outlet operating.
Osage 6248	BATHROOM	PLUMBING FIXTURES	NONE	Slow drainage from tub drain.
Osage 6248	BEDROOM 1	DRYWALL - CRACKING	19	Slight crack below window seat right side.
Osage 6248	BEDROOM 1	WINDOW	12	Typical window deterioration.
Osage 6248	BEDROOM 2	DRYWALL - STAINING	4, 18b	Southwest corner closet extensive moisture staining on ceiling.
Osage 6248	BEDROOM 3	DRYWALL - STAINING	4, 18b	Southwest corner extensive moisture staining on ceiling. Extending full height down corner.
Osage 6248	CRAML SPACE	JOISTS ELECTRICAL WIRING	15	Typical electrical wiring. Bracing fastened by owner improperly.
Osage 6248	DINING ROOM	DRYWALL - STAINING	18a	Moisture stain on soffit, ceiling under bath tub, city repaired.
Osage 6248	EXTERIOR WALLS REAR	OTHER	4, 26	Efflorescence behind downspout, 2 feet both sides full height, party wall from above kitchen doors down to bottom side wall, adjacent to kitchen doors at corner; No seal at sidewalk/wall; No drainage problem from patio; Outlet open neutral.
Osage 6248	EXTERIOR WALLS FRONT	OTHER	1, 2	Side gutter unsupported; Cedar siding good; Upper fascia signs of deterioration; Efflorescence noted at entrance corner 6 coarse from top, 3 coarse high.

Sheet No.	LOCATION	PROBLEM	REPAIR	Priority	NOTES
Osage 6248	HALLWAY	DOOR - INTERIOR	NONE		Doors level and plumb.
Osage 6248	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Osage 6248	REC ROOM	DRYWALL - STAINING	4, 1Bb		Southwest wall moisture damage possibly from roof leaking.
Osage 6248	REC ROOM	FIREPLACE	17		Unstable, Typical problem
Osage 6248	ROOF	ROOFING	4		Evidence of ponding at outlet due to extensive debris.
Osage 6248	STAIRS	DRYWALL - CRACKING	NONE		No typical cracking.
Osage 6250	BATHROOM	ELECTRICAL OUTLETS	NONE		GFI outlet operational.
Osage 6250	BEDROOM 1	DRYWALL - CRACKING	19		Cracks at bay seat both sides vertical.
Osage 6250	BEDROOM 1	WINDOW	12, 19		Typical deterioration around window sill.
Osage 6250	BEDROOM 3	DRYWALL - CRACKING	18b		Hairline crack southeast corner; Moisture damage full height of wall.
Osage 6250	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Diagonal bracing not fastened; Some electrical wires not supported; Efflorescence present at northeast corner and front wall corner; Front wall not visible due to insulation installation.
Osage 6250	EXTERIOR WALLS REAR	OTHER	4, 13a		Slight efflorescence behind downspout, under kitchen door sill, at party wall between kitchen doors; Kitchen door railing typical all homes; Upper anchor to wall pulling out; Expansion joint in retaining wall not sealed.

Sheet No.	LOCATION	PROBLEM	REPAIR	Priority
Osage 6250	EXTERIOR WALLS FRONT	OTHER	1, 2	Carpet covered sidewalk; Unsupported side gutter, slopes away from downspout; Cedar siding good; Upper fascia signs of deterioration; Upper soffit moisture stain (6") right side.
Osage 6250	HALLWAY	DRYWALL - CRACKING	NONE	No typical cracks at transfer vents.
Osage 6250	LAUNDRY	VENTILATION	NONE	Detached vent from dryer.
Osage 6250	ROOF	ROOFING	4	Patch at front parapet top center and east party wall; Horizontal patch at west parapet near top; Several open vertical joints at west party wall.
Osage 6250	STAIRS	DRYWALL - CRACKING	NONE	No typical cracks.
Osage 6250	UTILITY ROOM	HOT WATER HEATER	24d	No drop from hot water heater.
Osage 6252	BATHROOM	DRYWALL - STAINING	18c	Moisture damage in skylight well.
Osage 6252	BATHROOM	ELECTRICAL OUTLETS	26	GFI outlet operating.
Osage 6252	BEDROOM 1	DRYWALL - CRACKING	19	Vertical crack both left and right side of window sill bay; Corner bead at left bay unattached.
Osage 6252	BEDROOM 1	DRYWALL - CRACKING	22	Horizontal crack between door and closet.
Osage 6252	BEDROOM 1	WINDOW	12	Typical window deterioration.
Osage 6252	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15	Diagonal bracing not attached; Some electrical wires not supported properly; Entry main breaker to mechanical room breaker box, typical all properties.



SALE #	LOCATION	PROBLEM	REPAIR	DATE	NOTES
06252	DINING ROOM	DRYWALL - STAINING	18b		Stains below bathroom from leaking tub.
06252	EXTERIOR MISCELLANEOUS	OTHER	1, 2, 10, 16		Carpet on patio/entry; Cedar siding good; Upper fascia deterioration; Entry side gutter unsupported; Hose bib not sealed to wall; Roof shingles curled up, left side upper bay; Railing post left side gate jammed, rusted through.
06252	EXTERIOR WALLS	OTHER	4, 24c		Slight efflorescence present behind downspout entire length, right side kitchen door, below kitchen door; Outlet operational; Broken hose bib.
06252	FAMILY ROOM	DRYWALL - CRACKING	22		Transverse expansion crack along ceiling adjacent to laundry room.
06252	HALLWAY	DOOR - INTERIOR	13c		Bedroom 3 door racked 1/4", out of level, jame plumb; No typical cracks at transfer vents.
06252	REC ROOM	PLUMBING	NONE		Hose bib heater installed.
06252	ROOF	ROOFING	4		Typical 9 foot rear patch; Sheathing underneath flexible; One patch spot in field of roof; Patch spot west parapet wall; Rear parapet and cove wall patched at top; Patch at both party wall corners at base in front.
06252	STAIRS	DRYWALL - CRACKING	21		No typical cracks at header.
06252	UTILITY ROOM	OTHER	16		Typical for penetrations.
06254	BATHROOM	DRYWALL - STAINING	18c		Moisture damage at skylight wall.
06254	BATHROOM	ELECTRICAL OUTLETS	26		GFI outlet not operating.
06254	BEDROOM 1	DRYWALL - STAINING	4, 18a		West wall moisture at ceiling.

OSage	6254	BEDROOM 1	WINDOW	12, 19		Typical window deterioration at sill.
OSage	6254	BEDROOM 2	DRYWALL - STAINING	4, 18a		Southeast side moisture damage.
OSage	6254	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Unattached diagonal bracing; Unsupported wiring.
OSage	6254	DEN	DRYWALL - STAINING	4, 18a		Northeast ceiling moisture stain from exterior wall to soffit face and across to end of soffit; Moisture stain at northwest corner ceiling.
OSage	6254	DINING ROOM	DRYWALL - CRACKING	22		Soffit cracked at corner bead; 3 to 4 transverse cracks.
OSage	6254	EXTERIOR WALLS	BRICK	NONE		Joint at slab/brick not sealed; Efflorescence at party wall below 2nd floor windows, kitchen door sill; Efflorescence also from parapet left side of downspout down wall ending top kitchen door.
OSage	6254	EXTERIOR WALLS REAR	OTHER	6		Top coarse brick at plaster broken off.
OSage	6254	EXTERIOR WALLS FRONT	OTHER	1, 2		Carpet patio; Awnings applied over patio and door; Left front gutter unsupported/clogged, backing up onto wall; Moss full height; Cedar siding good.
OSage	6254	HALLWAY	DOOR - INTERIOR	13c		Typical transfer vent cracks not present; Bedroom 3 door racked 1/4", jams plumb.
OSage	6254	REC ROOM	FIREPLACE	17		Unstable, typical problem.
OSage	6254	REC ROOM	PLUMBING	NONE		Typical hose bib heater.
OSage	6254	STAIRS	DRYWALL - CRACKING	NONE		Signs of header repair at hall floor.

Slip No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Osage 6254	UTILITY ROOM	ELECTRICAL PANEL	28		Breaker 10 off - bath/smoke detector, probable cause of GFI not working.
Osage 6254	UTILITY ROOM	HOT WATER HEATER	24d		No drop from hot water heater.
Osage 6256	BATHROOM	ELECTRICAL OUTLETS	28		GFI outlet operating
Osage 6256	BEDROOM 1	WINDOW	12, 19		Typical window sill jam, moisture problems.
Osage 6256	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Typical missing diagonal bracing; Wiring unsupported.
Osage 6256	EXTERIOR WALLS	BRICK	NONE		Efflorescence present under both 1st floor windows; Cage over dryer vent allowing vent to open only 1/2" max.
Osage 6256	EXTERIOR WALLS	OTHER	1		Carpet covered patio, awnings installed over entry patio; Efflorescence evident along right side window full height, moss growth left side corner of patio, both items due to awning drain onto wall; Cedar siding good; Upper fascia signs of rot.
Osage 6256	EXTERIOR WALLS	OTHER	24a		Owner installed deck; Efflorescence at wall, probably due to fasteners deck header to wall; History of water back up at site drain; Low spot on block; Stairs to ally gate removed for deck installation.
Osage 6256	EXTERIOR WALLS	OTHER			Seven foot retaining wall at alley; 2 foot garden from retaining wall; Patios stepped from high end to low end at 6256, every other house stepped approximating 1 foot.
Osage 6256	FAMILY ROOM	PUMPING	NONE		Typical hose bib heater.
Osage 6256	HALLWAY	DOOR - INTERIOR	22		Bedroom 3 deformation of gypsum tape above door at ceiling; No typical cracks at transfer vents; Doors plumb/level.
Osage 6256	LIVINGROOM	DRYWALL - STAINING	18b		Previous history of leaking from tub, city repaired.

SYMBOL	NO.	LOCATION	PROBLEM	PERMITS / PICNIN	NOTES
Osage	6256	ROOF	ROOFING	NONE	Recess with angle 4" above roof, possible steel lintel.
Osage	6256	ROOF	ROOFING	4	Patch at east wall base of parapet wall extension; Sheathing deteriorating under foot, patch at outlet.
Osage	6256	STAIRS	DRYWALL - CRACKING	NONE	No cracking, signs of previous repair.
Osage	6256	STAIRS	DRYWALL - CRACKING	22	Gypsum board cracked left side of ceiling 50% length; Head not cracked.
Osage	6256	UTILITY ROOM	HOT WATER HEATER	24d	Condensate leaking from unit, pipe in place and to drain.
Osage	North Side	EXTERIOR WALL FRONT	OTHER	NONE	End houses angle supporting brick 4" above roof top; Seals with siding poor condition; Wall extension to front of bedroom not free standing parapet wall, no lintel visible.
Osage	North Side	ROOF	GENERAL DESCRIPTION	NONE	Typical wall sheathing behind cedar side with tyvec.
Osage	North Side	ROOF	OTHER	3, 4	Some signs of roof sheathing deterioration; Typical joint and flashing problems at parapet walls.
Osage	North Side	ROOF	OTHER	NONE	Typical all Osage Avenue corner homes party wall.
Osage	North Side	ROOF	ROOFING	NONE	Typical overflow galvanized sheet metal 2-1/2" overlapped and riveted through exterior wall.
Osage	North Side	ROOF	ROOFING	4	Typical roof problems, details same as Pine Street.
Osage	North Side	ROOF	ROOFING	NONE	Noted some nails punched through shingles.

Street	No.	LOCATION	PROBLEM	REPAIR	NOTES
Osage	North Side	ROOF SIDING	ROOFING	1, 4	Seals at cedar side deteriorated cracked/open; All other typical roof gutter problems, same as pine; Nails pulling from cedar siding, seems siding is not nailed to studs, just through fiber sheathing.
Osage	South Side	ROOF	GENERAL DESCRIPTION	NONE	Exhaust fan installed only on south side of Osage Avenue.
Osage	South Side	ROOF	ROOFING	4	3" galvanized overflow at side wall cove, riveted.
Osage	South Side	ROOF	ROOFING	4	Typical note copper gutter box all 4 sides top open at outlet.
Osage	Typical	DEN	OTHER	NONE	Gas meter not supported to wall, meter lines have movement.
Osage	Typical South Side	BATHROOM	ELECTRICAL OUTLETS	NONE	Houses on south side of Osage GFI outlet installed in bathroom is connected to powder room outlet and exterior outlet.
Pine	6212	BATHROOM	PLUMBING FIXTURES	NONE	Toilet runs continuously.
Pine	6212	DEN	STAIRS	NONE	Top stair tread loose - lipped 1/2" below floor plane, initial riser 9-3/4" high, all others 7-1/2" high. Owner installed stairs.
Pine	6212	EXTERIOR WALLS	OTHER	2	Same as 6228; Horizontal joint at party wall typical; Slight evidence of entry slab settlement 1/4"; Evidence of efflorescence above top of 1st floor entry at party wall.
Pine	6212	EXTERIOR WALLS REAR	OTHER	4, 13	Slight efflorescence behind downspout and under kitchen door sill; Slight slope to site drain.
Pine	6212	FAMILY ROOM	DRYWALL - STAINING	17, 18b,	Soffit moisture problems under kitchen sink; Typical hose bib heater; Fireplace unstable.
Pine	6212	FAMILY ROOM	PLUMBING	18b, 24c	Leak from hose bib comes through wall at bottom.

Site No.	Location	Problem	Repair	Plan	Notes
Pine 8212	KITCHEN	PLUMBING FIXTURES	NONE		Ceiling light inoperable; Dishwasher inoperable.
Pine 8212	LIVINGROOM	DRYWALL - STAINING	18b		On ceiling below bathroom.
Pine 8212	OTHER	ELECTRICAL OUTLETS	26		Owner complaint of non working outlets - all outlets tested OK.
Pine 8212	POWDER ROOM	PLUMBING	18b, 24a		Chronic toilet backup problems; Water damage to restroom walls.
Pine 8212	ROOF	FLASHING	4		End units have parapet flashing on rearfront/sides approx 4" down wall and 4" on top; Alum capping is laid over roofing material covered with 6" wide roofing tape; Alum coating over entire roof area.
Pine 8212	ROOF	GENERAL DESCRIPTION	4		Uncoated area behind parapet wall shows modified bit fiberglass material, may have been heat sealed to wall.
Pine 8212	ROOF	GENERAL DESCRIPTION	NONE		Penetrations 1/2 have galvanized metal boot, approx 1 foot above roof and roofing tape over joint.
Pine 8212	ROOF	ROOFING	4		Roof slope from 0 to 1/32" per foot; Signs of mastic patching in various places along top of parapet wall, downspout/gutter box; Alum material through wall with tar patch all 4 sides.
Pine 8212	ROOF	ROOFING	NONE		Parapet slightly sloped to inside of bldg 1 1/2" over 1 foot parapet wall lift.
Pine 8212	ROOF	ROOFING	NONE		Evidence of aerial installation, 3 anchors to roof.
Pine 8212	ROOF	ROOFING	NONE		Evidence of patch on northwest corner of vertical joint of roofing material.
Pine 8212	STAIRS	DRYWALL - CRACKING	21		Hairline crack (6") at stair header - horizontal.

SYMBOL	LOCATION	PROBLEM	REPAIR	NOTES
Pine 6212	UTILITY ROOM	DRYWALL - STAINING	18a, 24d	Water leak from around chimney duct; Missing pipe on hot water heater relief valve.
Pine 6214	EXTERIOR WALLS	OTHER	NONE	6214P-1 Joint at slab and wall typical; Evidence of entry slab and pavement settlement 1 1/4". Party wall 2nd floor horizontal joint same as opposite end of street.
Pine 6214	EXTERIOR WALLS	OTHER	1, 2	Entry slab settled 1", no roll over; Cedar siding good; Upper fascia fair.
Pine 6214	EXTERIOR WALLS REAR	OTHER	4, 12, 13	Major efflorescence behind downspout entire length extending from corner to kitchen door, side wall. Efflorescence along corner and under kitchen window sill. Non frost proof hose bib. Slight slope to site drain.
Pine 6214	ROOF	ROOFING	4	Asphalt coated building paper roof patch applied 6 feet from rear wall full width; Slope to drain is suspect.
Pine 6214	ROOF	ROOFING	4	Penetrations: 2-1/2" stack, two 3" stacks, flue and skylight. Signs of patching at 2-1/2" stack and seam at roof.
Pine 6216	BEDROOM 3	DRYWALL - STAINING	4, 18a	Northeast corner moisture staining full height also ceiling spotted 2' from side wall and 1' from back wall.
Pine 6216	EXTERIOR WALLS	OTHER	NONE	Joint at slab and wall typical; Evidence of slab settlement 3/4".
Pine 6216	EXTERIOR WALLS REAR	OTHER	4, 12, 13	Efflorescence via behind downspout full length extending over to sliding door in kitchen also from parapet at party wall to 1st fl level, also 2nd fl window side wall slight ef vis at corner and under 2nd fl window sill; Non frost proof hose bib; Slight slope to site drain.
Pine 6216	KITCHEN	PLUMBING - DOOR, EXT	12	Inoperable garbage disposal; No typical damage at door.
Pine 6218	BATHROOM	PLUMBING DRYWALL	4, 18c	Tank hardware not operating properly; Skylight moisture at ceiling edge and at northeast wall corner.
Pine 6218	BEDROOM 1	DRYWALL - STAINING	4, 18a, 19	Typical moisture problem at window sill; West closet ceiling party wall evidence of roof leakage.

Sheet No	LOCATION	PROBLEM	REPAIR	DATE	DESCRIPTION
Pine 6218	CRAWL SPACE	JOISTS	15		Typical unbraced joists, no evidence of twisting.
Pine 6218	DEN	ELECTRICAL PANELS	26		GFI breaker is tripped.
Pine 6218	EXTERIOR WALLS	OTHER	NONE		Joint at slab and wall typical; Evidence of entry slab settlement 1 1/2".
Pine 6218	EXTERIOR WALLS REAR	WINDOW	12		Efflorescence visible above 2nd floor window full width from parapet and along party wall to bottom of 1st floor; Slight slope to site drain.
Pine 6218	FAMILY ROOM	FIREPLACE	17		Fireplace is unstable; Typical hose bib heater.
Pine 6218	ROOF	GENERAL DESCRIPTIO N	NONE		Top of party parapet wall where elevations change are capped with alum; Trim similar to face wall; Roof material from below cap to top of lower wall; Parapet wall at roofs with same elevation; Capped front/sides/across top with roofing tape applied; Unsealed between parapet, possible point of water infiltration.
Pine 6218	ROOF	ROOFING	4		Signs of delamination of parapet wall material, isolated instances on all roofs; Strainer seems to be ponding water due to debris accumulation.
Pine 6218	STAIRS	DRYWALL - CRACKING	21		Crack (3") at header.
Pine 6219	BEDROOM 1	DRYWALL - CRACKING	19		Cracks at bottom of window seal.
Pine 6220	BEDROOM 1	DRYWALL - CRACKING	12, 19		Typical around window; Inoperable sash.
Pine 6220	BEDROOM 2	DRYWALL - STAINING	4, 18a		Northeast corner wall at ceiling, and roof leaking at parapet closet at northwest wall.
Pine 6220	DEN	DRYWALL - STAINING	18		Typical staining northeast side at ceiling to soffit and at front wall at ceiling from corner to 3 feet.



Sheet No.	LOCATION	PROBLEM	REPAIR	PLANS	NOTES
Pine 6220	EXTERIOR MISCELLANEOUS	ELECTRICAL OUTLETS	26		Rear outlet inoperable; GFI breaker is active.
Pine 6220	EXTERIOR WALLS	OTHER	NONE		Joint at slab and wall typical.
Pine 6220	EXTERIOR WALLS REAR	OTHER	4		Efflorescence visible behind full length of downspout and at side wall corner; No slope to site drain.
Pine 6220	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater installed.
Pine 6220	LIVINGROOM	DRYWALL - STAINING	18a		Two spots on ceiling under tub.
Pine 6222	BATHROOM	PLUMBING FIXTURES	24b		Sink rusting out at drain pipe.
Pine 6222	BEDROOM 2	WINDOW	12		Window seal broken.
Pine 6222	DEN	DRYWALL - STAINING	4, 18a		Northeast wall at ceiling evidence of roof leakage.
Pine 6222	EXTERIOR WALLS	OTHER	2	6222P-1	Joint at slab and wall typical evidence of fascia rot and leakage through soffit.
Pine 6222	EXTERIOR WALLS REAR	OTHER	12, 13		Efflorescence visible under 2nd floor window sill and 1st floor kitchen door sill; Slight slope to drain and continuing to neighboring property.
Pine 6222	FAMILY ROOM	PLUMBING	24c		Valve/pipe to outside hose bib leaking in soffit; Typical hose bib heater.
Pine 6222	KITCHEN	OTHER	13		Exterior railing taking water from roof parapet; Kitchen floor MINOR squeak; No typical door problems.

Street No.	LOCATION	PROBLEM	REPAIR	DATE	NOTES
Pine 6222	ROOF	ROOFING	4		Patch at parapet wall center of building at vertical joint, patch is cracking.
Pine 6222	STAIRS	DRYWALL - CRACKING	21		Horizontal crack (6") at stair header. Squeaking stair treads.
Pine 6224	BEDROOM 1	OTHER	12, 19		Bedroom in accessible.
Pine 6224	EXTERIOR WALLS	OTHER	2		Joint at slab and wall typical; Evidence of fascia rot and leakage through soffit.
Pine 6224	EXTERIOR WALLS	OTHER	NONE		Joint at slab; Wall typical
Pine 6224	EXTERIOR WALLS REAR	OTHER	4, 13		Efflorescence visible at top party wall; Major efflorescence visible at side wall, Kitchen hood vent outlet; Some efflorescence present under kitchen door sill; No slope to site drain.
Pine 6224	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater installed.
Pine 6224	LIVINGROOM	DRYWALL - STAINING	18b, 24c		Leak at soffit from bathroom above - active, also prior patching from bathroom - inactive.
Pine 6224	ROOF	OTHER	NONE		Aerial installed on parapet wall.
Pine 6226	BEDROOM 3	DRYWALL - STAINING	4, 18a		Northeast corner at ceiling.
Pine 6226	DEN	DRYWALL - STAINING	4, 18a		East and west walls at ceiling as well as foyer closet ceiling.
Pine 6226	DINING ROOM	DRYWALL - CRACKING	18b, 22,		Transverse and longitudinal crack very evident at ceiling due to leak at tub base and tub wall; Ceiling smoke detector activates without cause.

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Street No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Pine 6226	EXTERIOR MISCELLANEOUS REAR	OTHER	4		Slight efflorescence at top behind downspout and at top party wall; Slight slope to site drain
Pine 6226	EXTERIOR WALLS	OTHER	2		Joint at slab and wall typical; Delamination of side fascia plywood
Pine 6226	LAUNDRY	PLUMBING	24c		Water leaking from behind wall at supply lines as well as at drainline under sink.
Pine 6226	STAIRS	DRYWALL - CRACKING	21		Typical horizontal crack at stair header - Repaired by city.
Pine 6226	UTILITY ROOM	HOT WATER HEATER	24d		No drop pipe from hot water heater valve.
Pine 6226	BEDROOM 1	DRYWALL - STAINING	12, 19		Typical window sill problems.
Pine 6226	BEDROOM 2	DRYWALL - STAINING	3, 4, 18a		Northeast corner at ceiling moisture stain from roof; Moisture stain at party wall from flashing.
Pine 6226	CRAWL SPACE	JOISTS	15		Unfastened joist bracing, no evidence of twisting.
Pine 6226	EXTERIOR WALLS	OTHER	NONE		Joint at slab and wall typical.
Pine 6226	FAMILY ROOM	DRYWALL - STAINING	13, 18a		Typical problems at exterior door.
Pine 6230	BEDROOM 1	WINDOW	12, 19		No deterioration at window.
Pine 6230	CRAWL SPACE	JOISTS	15		Unfastened bracing; Evidence of joists twisting.

Pin	6230	EXTERIOR MISCELLANEOUS REAR	OTHER	4, 12		
Pine	6230	EXTERIOR WALLS	OTHER	1, 2		Efflorescence visible behind downspout, bedroom window head mortar popping from joint; Owner added deck; Vertical flat to site drain.
Pine	6230	FAMILY ROOM	FIREPLACE	17		Joint at wall, gutter, Evidence of fascia board rot above 2nd floor window; Unprotected wood.
Pine	6230	KITCHEN	OTHER	12, 26		Unstable; Hose bib heater in place.
Pine	6230	STAIRS	DRYWALL - CRACKING	21		Short on GFI breaker; No typical deterioration of door.
Pine	6232	BEDROOM 1	WINDOW	12, 19		Minor hairline crack (3") at header.
Pine	6232	CRAWL SPACE	JOISTS ELECTRICAL WIRING	15		Typical deterioration around window sill.
Pine	6232	EXTERIOR MISCELLANEOUS REAR	OTHER	NONE		Diagonal bracing not installed properly; Electrical wiring not supported properly; Outlet box with outlet hanging unsupported without plate; Gas pipe not supported properly.
Pine	6232	EXTERIOR WALLS	OTHER	1, 2		No visible efflorescence; Slight slope to site drain.
Pine	6232	EXTERIOR WALLS	OTHER	2		Front entry slab settled 1/4", rolled 1/2"; Cedar siding good; Upper fascia poor.
Pine	6232	HALLWAY	DOOR - INTERIOR	NONE		Joint at wall; Typical gutter problem; No closure at right side of soffit 2" opening.
Pine	6232	EXTERIOR WALLS REAR	OTHER	NONE		No signs of efflorescence; Exterior outlet operable.
Pine	6232	HALLWAY	DOOR - INTERIOR	NONE		Doors level and plumb.

Site No.	Location	Problem	Repair	Photo	Notes
Pine 6232	HALLWAY	DRYWALL - CRACKING	NONE		No typical cracks at transfer vents.
Pine 6232	KITCHEN	OTHER	NONE		Garbage disposal removed.
Pine 6232	STAIRS	DRYWALL - CRACKING	21		Horizontal crack at stair header floor level.
Pine 6232	UTILITY ROOM	HOT WATER HEATER	NONE		Drop from hot water heater valve installed.
Pine 6234	BEDROOM 1	DRYWALL - CRACKING	12, 19, 22		Differential settlement entire length northwest corner. No typical deterioration at window.
Pine 6234	BEDROOM 3	DRYWALL - STAINING	4, 18a		Water leaking evident on northeast wall at ceiling and northeast wall at 2 places, unrepaired.
Pine 6234	DEN	DRYWALL - STAINING	4, 18b		Northwest wall/ceiling evidence of leak at end of soffit. Water evidence on northeast wall at ceiling above stair.
Pine 6234	EXTERIOR MISCELLANEOUS REAR	OTHER	NONE		Minimal efflorescence visible under kitchen level. Deck attributable to brick penetrations. Silt drain level with patio.
Pine 6234	EXTERIOR MISCELLANEOUS FRONT	OTHER	2		Typical gutter, joint.
Pine 6234	KITCHEN	DOOR - SLIDING	13		No typical door deterioration.
Pine 6234	KITCHEN	DRYWALL - STAINING	4, 18a		Northeast wall field hairline crack under paint approximately 5 feet off back wall; Leak at ceiling below bedroom leak, possible leak down.
Pine 6234	KITCHEN	FLOOR	NONE		Floor squeaking.

Street No	LOCATION	PROBLEM	REPAIR	PRIORITY	NOTES
Pine 6234	ROOF	ROOFING	4		Extensive ponding at outlet due to debris approx 12 feet from rear of wall, last rainfalls about 1 week ago, probably was much more extensive at that time.
Pine 6234	STAIRS	DRYWALL - CRACKING	21		Typical horizontal crack.
Pine 6236	BATHROOM	DRYWALL - STAINING	18c		Tile cracked continuously both sides of toilet, tub and vanity; Evidence of moisture damage at skylight.
Pine 6236	BEDROOM 1	DRYWALL - CRACKING	22		Northeast corner gypsum board cracking, differential settlement hairline full height.
Pine 6236	BEDROOM 1	WINDOW	12, 19		Typical problem.
Pine 6236	BEDROOM 3	DRYWALL - STAINING	18b		Southeast corner ceiling sagging; Moisture/staining full height at corner.
Pine 6236	CRAWL SPACE	JOISTS	15		Unattached bracing; Evidence of twisting joists; Water dripping from city side of water meter.
Pine 6236	EXTERIOR MISCELLANEOUS FRONT	OTHER	1, 2, 3		Paving not sealed to wall; Gutter side of entrance unsupported; Non frost proof hose bib; No past freezing problems; Some roof shingles damaged over bedroom window.
Pine 6236	EXTERIOR WALLS	OTHER	1, 2		No visible efflorescence; Non-frost proof hose bib; Typical problems.
Pine 6236	FAMILY ROOM	FIREPLACE	17		Unstable; Typical problem.
Pine 6236	FAMILY ROOM	PLUMBING	NONE		No nose bib heater installed.
Pine 6236	KITCHEN	DRYWALL - CRACKING	NONE		Hairline crack on ceiling at dining room partition wall approximately 1 foot and makes a 90 degree turn over to stair wall; Typack stair header crack.

Street	No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Pine	6236	LIVINGROOM	DRYWALL - STAINING	18b	6236P - 2	Ceiling damaged from toilet unrepaired, ceiling sagging 1 1/2"; Toilet water turned off to avoid leakage; Crack under soffit between living room/dining room, Typical stair header crack.
Pine	6236	REC ROOM	DRYWALL - CRACKING	18b	6236P - 3	Ceiling cracked from water damage under leak in living room, probably seep from living room; Leak in soffit as well.
Pine	6236	FAMILY ROOM	OTHER	NONE		Gypsum board slightly sagging.
Pine	6236	KITCHEN	DOOR - SLIDING	13		No typical moisture.
Pine	6236	OTHER	OTHER	NONE		Well maintained, no typical problems.
Pine	6236	STAIRS	DRYWALL - CRACKING	21		Typical crack at header.
Pine	6240	BEDROOM 1	WINDOW	12, 19		Well maintained, no typical problems around window.
Pine	6240	BEDROOM 2	DRYWALL - STAINING	4, 18a		Evidence of leak from party wall at northeast ceiling corner. Southeast corner of chase unfastened corner bead, cracked.
Pine	6240	BEDROOM 3	FLOOR	NONE		Minor floor squeaking.
Pine	6240	EXTERIOR MISCELLANEOUS FRONT	OTHER	2, 16		Typical gutter; Hose bib not sealed to wall; Frost proof questionable
Pine	6240	EXTERIOR WALLS	OTHER	1, 2		Minimal efflorescence at top party wall ; Typical problems with siding.
Pine	6240	FAMILY ROOM	FIREPLACE	17		Typical problem

Street No.	LOCATION	PROBLEM	REPAIR	QTY	NOTES
Pine 6240	FAMILY ROOM	FLOOR	NONE		Concrete installed uneven; Vinyl composition tile humped and pitted.
Pine 6240	KITCHEN	DOOR - SLIDING	13		Typical problems.
Pine 6240	KITCHEN	FLOOR	NONE		Slight hump in floor, somewhat spongy.
Pine 6240	STAIRS	DRYWALL - CRACKING	21		Horizontal hairline crack.
Pine 6242	BEDROOM 1	DRYWALL - CRACKING	19		Crack (1/16") right end vertical side of window sill.
Pine 6242	EXTERIOR MISCELLANEOUS FRONT	OTHER	2		Seal at wall typical; Same gutter note as 6244.
Pine 6242	EXTERIOR WALLS REAR	OTHER	4		Level site drain; Typical joint; Minimal efflorescence visible behind downspout and at top near party wall.
Pine 6242	FAMILY ROOM	FIREPLACE	17		Typical
Pine 6242	FAMILY ROOM	PLUMBING	NONE		Typical hose bib heater.
Pine 6242	STAIRS	DRYWALL - CRACKING	21		Typical
Pine 6244	BATHROOM	PLUMBING	NONE		Leaking overflow down to first level.
Pine 6244	BEDROOM 1	WINDOW	12, 19		Moisture around windows not present.



PROBLEM		REPAIR		NOTES	
Pine	6244	BEDROOM 2	ROOFING	4, 18a	Spot on ceiling at southeast corner, possible from roof leak; Moisture not present at party wall or around windows.
Pine	6244	BEDROOM 3	DRYWALL - STAINING	18a	Ceiling leak at southeast corner of party wall - repaired by city, no current problems.
Pine	6244	EXTERIOR MISCELLANEOUS FRONT	OTHER	2	Side wall of entrance gutter unsupported, stopped wrong direction; no seal at slab typical.
Pine	6244	EXTERIOR WALLS REAR	BRICK - OTHER	NONE	Evidence of efflorescence at party wall line; Typical joint between wall; Slab opening unsealed.
Pine	6244	EXTERIOR WALLS REAR	DOOR - SLIDING	13	Left jam of sliding door frame slanting inward.
Pine	6244	FAMILY ROOM	DOOR - SLIDING OTHER	13, 17	Typical hose bib heater in place; Sliding door won't close; Fireplace unstable and does not work.
Pine	6244	KITCHEN	DOOR - SLIDING	13	No moisture at sliding door.
Pine	6244	LIVINGROOM	DRYWALL - CRACKING	18b	HVAC soffit damaged from leaking tub overflow from above.
Pine	6244	LIVINGROOM	FLOOR	NONE	Floor boards loose.
Pine	6244	STAIRS	DRYWALL - CRACKING	21	Crack (1/16") at header.
Pine	6246	BEDROOM 3	DRYWALL - STAINING	18b	Evidence of moisture leakage at southwest corner; Only upper corner of gypsum board damaged.
Pine	6246	DEN	DRYWALL - STAINING	18a	Northeast corner at ceiling, stain at party wall, also above door at ceiling.

Sheet No.	LOCATION	PROBLEM	REPAIR	Priority	Notes
Pine	6246	EXTERIOR MISCELLANEOUS REAR	BRICK - OTHER	16	6246P - 3 No seal around 2 vents on north wall and 1 vent on east wall.
Pine	6246	EXTERIOR MISCELLANEOUS REAR	OTHER	NONE	No joint sealant between cement walk and brick wall.
Pine	6246	EXTERIOR MISCELLANEOUS REAR	OTHER	11	Precast concrete condenser pad fractured.
Pine	6246	EXTERIOR MISCELLANEOUS FRONT	SIDING	1	Cedar lap needs to be sealed.
Pine	6246	EXTERIOR MISCELLANEOUS FRONT	WINDOW	12	Aluminum sheet window head de-laminated/deformed.
Pine	6246	EXTERIOR MISCELLANEOUS	OTHER	NONE	6246P - 4, 5 & 6 Exterior photos.
Pine	6246	EXTERIOR MISCELLANEOUS	WINDOW	6	Steel lintels are unprotected.
Pine	6246	KITCHEN	DOOR - EXTERIOR	13	Opening in header at 2nd sliding door. Sill sealant/ mortar missing. No flashing and no interior sealant.
Pine	6246	KITCHEN	FLOOR	NONE	Floor Squeak.
Pine	6246	LIVINGROOM	DRYWALL - STAINING	NONE	Past evidence of leaking in HVAC soffit from bathroom - City repaired.
Pine	6246	REC ROOM	DOOR - EXTERIOR	13	Same as 6246 Pine kitchen door comment above.
Pine	6246	REC ROOM	FIREPLACE	17	Unit and wall behind unit unstable - replaced year ago.

Street	No.	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Pine	6246	STAIRS	DRYWALL CRACKING	21	6246P - 2	Typical cracking at headers.
Pine	6246	UTILITY ROOM	OTHER	16		No seal around vent, gas pipe, A/C lines, electrical and plumbing lines.
Pine	6248	BATHROOM	OTHER	NONE		City installed tub enclosure due to open corner and joint at tub and tub.
Pine	6248	BEDROOM 1	DRYWALL - CRACKING	NONE		Hairline crack - south wall door at tape joints.
Pine	6248	BEDROOM 1	DRYWALL - CRACKING	22	6248P-1	Cracking of ceiling northwest corner to window and down window wall.
Pine	6248	BEDROOM 1	WINDOW	12, 19		Typical
Pine	6248	BEDROOM 2	OTHER	4, 18a		Evidence of roof leaking at northeast corner of party wall.
Pine	6248	BEDROOM 3	DRYWALL - STAINING	4, 18a		Evidence of roof leaking at southeast corner of ceiling and wall joint.
Pine	6248	CRAWL SPACE	PLUMBING	24c		Pipe to front hose bib cracked, water leaks into crawl space when in use.
Pine	6248	DEN	OTHER	NONE		Hairline crack (1 Ft) at knee wall ledge northwest wall.
Pine	6248	DINING ROOM	DRYWALL - CRACKING	18b		Ceiling damaged from leak in bathroom, continual problem.
Pine	6248	EXTERIOR WALLS REAR	OTHER	4	6248P - 3	Slab drain on level slab; Typical concrete brick joint at party wall/roof joint; Scupper leak; Efflorescence entire downspout area; Evidence of removed/replaced single brick at party wall - purpose unknown.

Street	No.	LOCATION	PROBLEM	REPAIR	DATE	NOTES
Pine	6248	EXTERIOR WALLS FRONT	OTHER	2, 16		Site slopes from drain towards house; Non frost proof hose bib/not sealed to wall; Gutter at entry side unattached sloped away from downspout-plant growth.
Pine	6248	FAMILY ROOM	PLUMBING	13		Hose bib tape installed / wired to wall outlet in wal; Sliding door typical moisture problem.
Pine	6248	FAMILY ROOM	PLUMBING	NONE		Leaking in HVAC soffit from kitchen pipes - Repaired.
Pine	6248	KITCHEN	DOOR - EXTERIOR	13		Typical
Pine	6248	POWDER ROOM	PLUMBING	24a		Unable to use washer sewage backs up at site drain every 2-3 months.
Pine	6248	STAIRS	DRYWALL - CRACKING	21	6248P - 2	Horizontal crack at stair header (1/16" maximum) due to settling.
Pine	6250	BATHROOM	ROOF	4		Skylight leaking from roof flashing..
Pine	6250	BEDROOM 1	WINDOW	12, 19		Typical
Pine	6250	BEDROOM 1	WINDOW	NONE		Screens are broken.
Pine	6250	CRAWL SPACE	JOISTS - OTHER	15		Diagonal bracing unfastened (evident from twisting of floor joist); Uncovered junction box; Unsupported copper piping running along party wall.
Pine	6250	DEN	DRYWALL - STAINING	4, 18a		Stain at intersection of HVAC soffit; Roof leakage at party wall
Pine	6250	DINING ROOM	DRYWALL - CRACKING	20		Joints not tapped at return register; Corner bead not nailed.

Sheet No.	LOCATION	PROBLEM	REPAIR	PLAN	NOTES
Pine 6250	EXTERIOR MISCELLANEOUS REAR	BRICK - OTHER	NONE	6250P - 2	Some efflorescence noticed at parapet differential with neighbor. Vent through side cove wall uncapped (kitchen).
Pine 6250	EXTERIOR MISCELLANEOUS	PLUMBING	24a		Drain sporadically backs-up during heavy down pours.
Pine 6250	KITCHEN	VENTILATION	NONE		Oven hood not working properly resulting in cooking fumes activating smoke detector. Possible vent flapper not operational.
Pine 6250	POWDER ROOM	PLUMBING	18b		Sink S-trap leaking.
Pine 6250	REC ROOM	DRYWALL - CRACKING	NONE		Hairline crack on southeast corner; Settlement not evident.
Pine 6250	REC ROOM	DRYWALL - STAINING	18a		Evidence of moisture damage.
Pine 6250	STAIRS	DRYWALL - CRACKING	21	6250P - 1	Hallway stairs - horizontal crack at floor line at stair header; Slight buckling of gypsum board.
Pine 6252	BATHROOM	DRYWALL - STAINING	18c		Evidence of poor skylight well wall insulation, gypsum board stained, flaking and peeling.
Pine 6252	BATHROOM - DOWNSTAIRS	PLUMBING	24a		Not usable - rear site drain backs up when toilet/sink is used. Both toilet and sink are operational.
Pine 6252	BEDROOM 1	FLOOR	NONE		Wood floor buckling.
Pine 6252	BEDROOM 1	WINDOW	12, 19		See comment 6246; 8" knee wall above window seat - Typical.
Pine 6252	BEDROOM 2	OTHER	NONE		Closest door off track/ bed hardware.

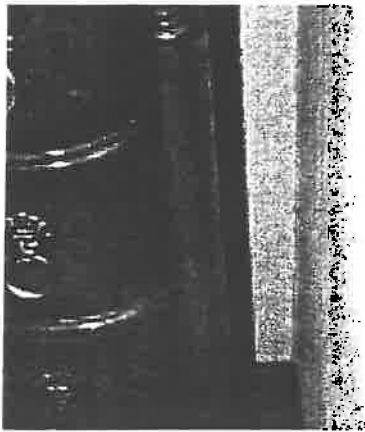
STATUS	LOCATION	PROBLEM	REPAIR	DATE	NOTES
Pine	6252	DEN	DRYWALL - STAINING	4, 18	Evidence of moisture on northwest ceiling corner.
Pine	6252	DEN	DRYWALL - STAINING	4, 18a	Moisture stain on closet ceiling.
Pine	6252	DEN	FLOOR	NONE	Northwest party wall, bottom of stairs, hardwood floor settlement 3/16"; Opposite wall same with 1/8" gap.
Pine	6252	DINING ROOM	FLOOR	NONE	Settlement of hardwood floor at northeast corner. 1/8" gap under corner round at party wall
Pine	6252	EXTERIOR MISCELLANEOUS REAR	BRICK - OTHER	24a	No efflorescence noticed; Base steel lintels & vents; Typical joint; site drain backs up with use of downstairs toilet; Hesco bib unusable, broken in wall; Suspect lack of insulation; Frost proof installed.
Pine	6252	EXTERIOR MISCELLANEOUS REAR	ELECTRICAL OUTLETS	26	Not operational.
Pine	6252	EXTERIOR MISCELLANEOUS FRONT	SIDING	1	Deteriorated trim on the east side; Cedar siding typical.
Pine	6252	FAMILY ROOM	FIREPLACE	17	Typical
Pine	6252	KITCHEN	DOOR - SLIDING	13	Typical
Pine	6252	KITCHEN	FLOOR	NONE	Floor fasteners telescoping through vinyl composition tile.
Pine	6252	LIVINGROOM	DRYWALL - STAINING	NONE	Evidence of repair from water damage from the bathroom.
Pine	6252	OTHER	OTHER	NONE	Smoke detector activated with high temperatures and or humidity from shower.

Street No	LOCATION	PROBLEM	REPAIR	Picture	NOTES
Pine 6252	ROOF	ROOFING	NONE		Cricket has been installed 5 feet off rear wall west side.
Pine 6254	BEDROOM 1	DRYWALL - STAINING	18a		History of roof leak at southwest corner - repaired by the City.
Pine 6254	BEDROOM 1	FLOOR	NONE		Floor boards are spongy.
Pine 6254	BEDROOM 1	WINDOW	12, 19		Typical
Pine 6254	EXTERIOR MISCELLANEOUS REAR	PLUMBING	NONE		Typical site drain, vertical level with concrete.
Pine 6254	EXTERIOR WALLS REAR	BRICK	24c		Efflorescence evident middle of brick panel left side second floor window; Horizontal joint at party wall undetermined; Slight evidence of efflorescence below second floor window sill; Leak from hose bib pipe.
Pine 6254	FAMILY ROOM	PLUMBING	NONE		Hose bib heat tape typical.
Pine 6254	HALLWAY	OTHER	NONE		Second floor smoke alarm activated by summer heat.
Pine 6254	KITCHEN	DOOR - EXTERIOR	13		Typical sliding door problems not evident.
Pine 6254	KITCHEN	FLOOR	NONE		Floorboards are spongy.
Pine 6254	ROOF	FLASHING	NONE		Roof step down varies.
Pine 6254	ROOF	ROOFING	NONE		Side fascia at roof step down approx 7'-8", covered with step flashing and covered with aluminum facing/drip, typical one 1/2" drip at gutters, gutter 3" depth by 4" height.

Street No.	Location	Problem	Repair	Priority	Notes
Pine 6254	ROOF	ROOFING	4		Water puddle due to debris.
Pine 6254	ROOF LOWER	OTHER	3		Not sure of flashing below.
Pine 6254	ROOF LOWER	ROOFING	NONE		Party wall tension between 12/14 open joint in wall noted in ground level inspection is steel lintel, both sides; Steel lintel also beneath upper roof; Wall flashed with step flashing/covered with alum face.
Pine 6254	ROOF LOWER/ENTRY	OTHER	2		Side entry plywood fascia deteriorated/cracked due to splash; Typical party wall base flashing, 3 pieces sides/fronts 8" up wall 2" on roof sealed, most seals broken; No right flashing below cedar side; 3" over roof tucked behind siding.
Pine 6254	ROOF LOWER/ENTRY	ROOFING	2		20 year asphalt roof; Gutter between entries missing small extension to lower gutter, typical most all roofs.
Pine 6254	UTILITY ROOM	OTHER	16		Open shaft to horizontal vent.
Pine Typical	ROOF	GENERAL DESCRIPTIVE	NONE		Generally there are penetrations: 1) 3" PVC vent over bedroom 1; 2) 12" PVC vent from the kitchen area; 3) Heater stack, heater stack is boxed out with drip/hood; 4) Operable/finned skylight on north side above roof.
Pine Typical	ROOF	GENERAL DESCRIPTIVE	NONE		Roofing material is modified bitumen laid from front to rear of house, in 3 foot strips; Parapet walls are 2 feet high all 4 sides, parapet walls have overflow drains approx 6" from back of buildings; Diameter of pipe is 2 1/2".
Pine Typical	ROOF	GENERAL DESCRIPTIVE	NONE		All homes have gutter boxes with 1/2" gutter strainer on roof; Slope of roof approx 1/8" per foot; Some ponding at roof outlet; Roofing material up sides and over top of parapet walls; No capping
Pine Typical	ROOF	OTHER	NONE		Typical all flashing at cedar side nailed directly to roof, approx 2 foot on center; Seals around cedar side, generally in good condition with intermittent openings.
Pine Typical	ROOF LOWER	OTHER	3		Asphalt shingle roof generally in good condition; At typical party wall step down flashing is stop down.
Pine Typical	ROOF LOWER ENTRY	OTHER	2		Some 4" drips applied to fascia in certain areas at gutter; Side gutters nailed directly to fascia with roofing nails, probably cause of negative flow problem.



**APPENDIX B  
PHOTOGRAPHS**



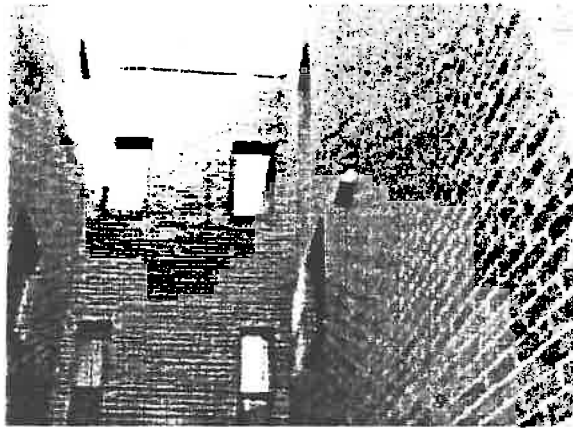
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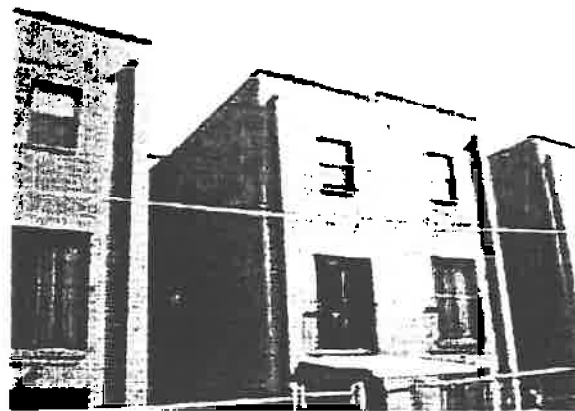


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6246P-3



6246P-4

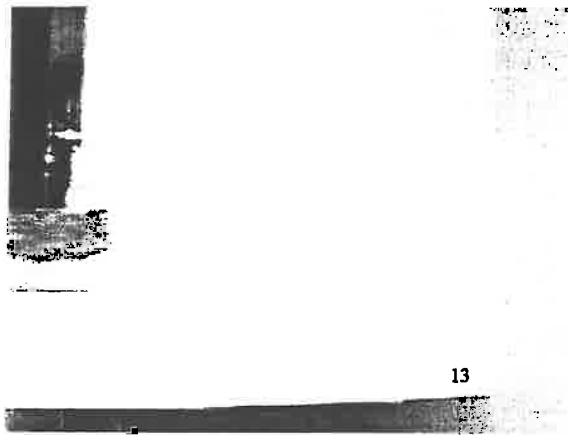


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6246P-6





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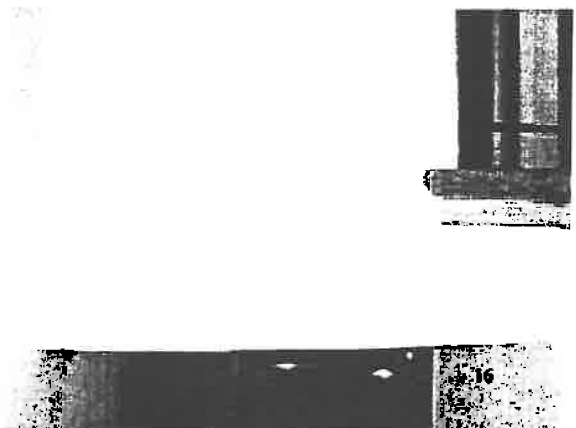


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6248P-2

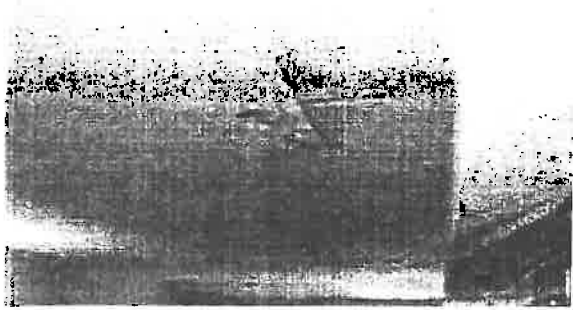


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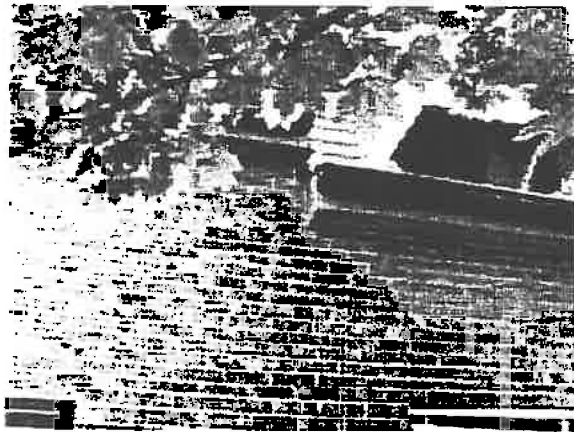




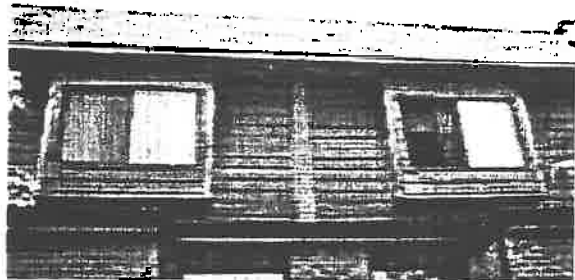
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6236P-3



6232P-1



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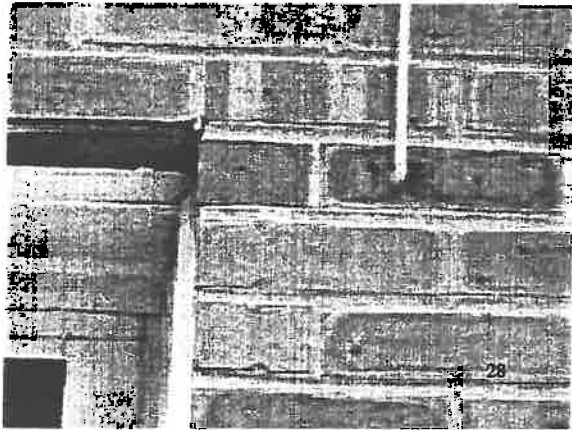


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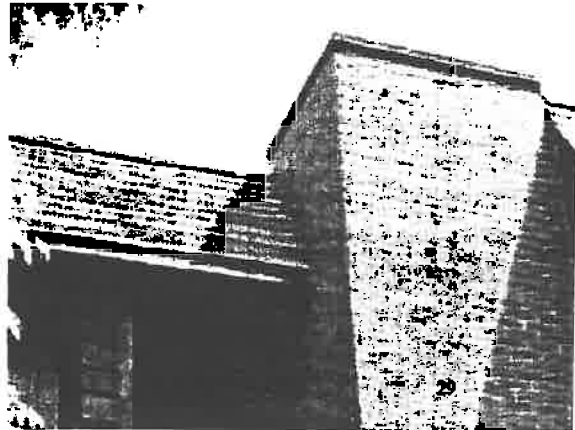


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62170-1



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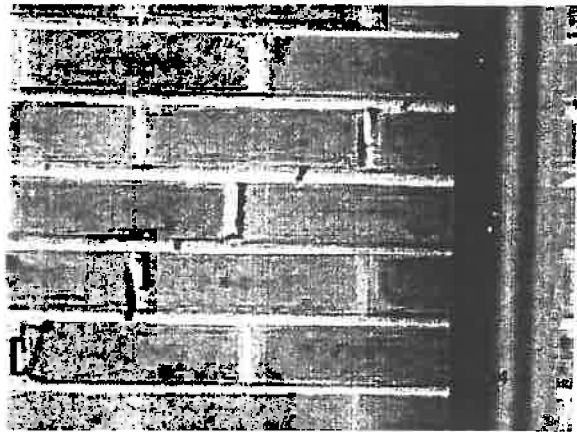
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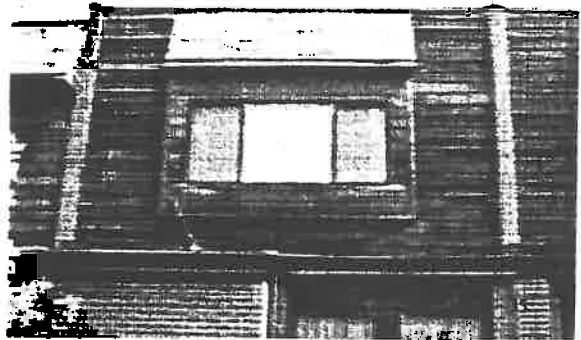
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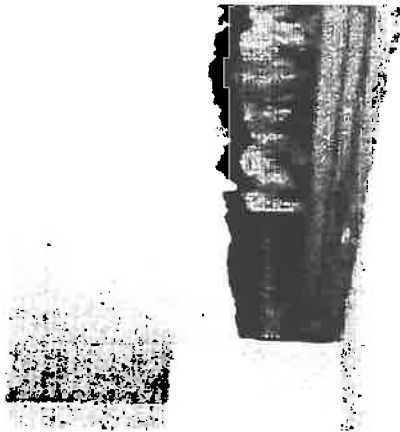




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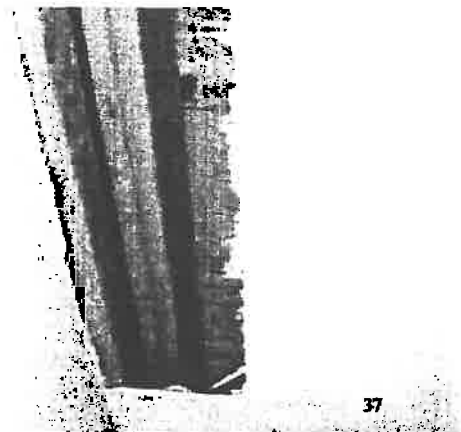


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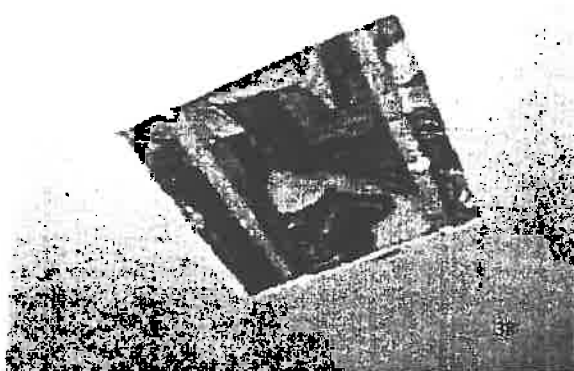
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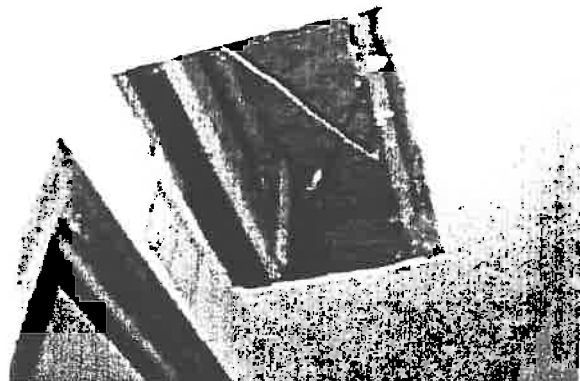


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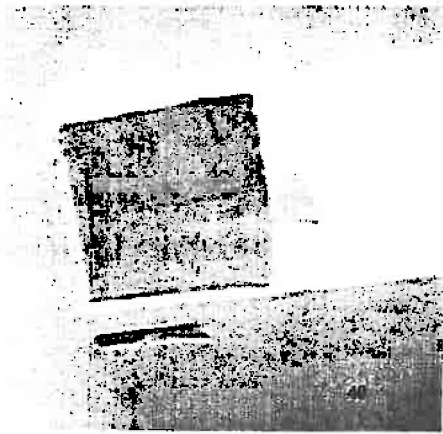


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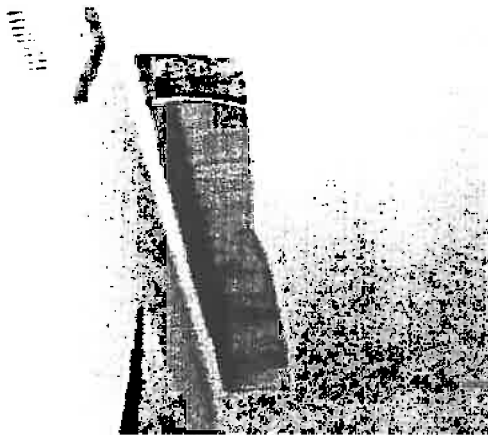
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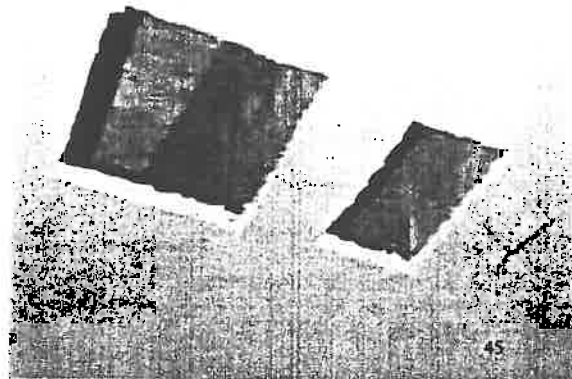


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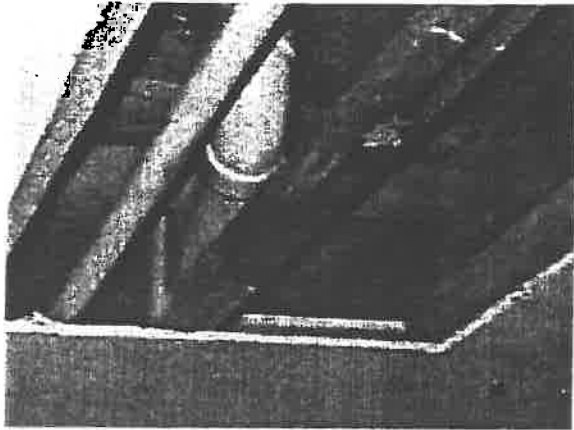
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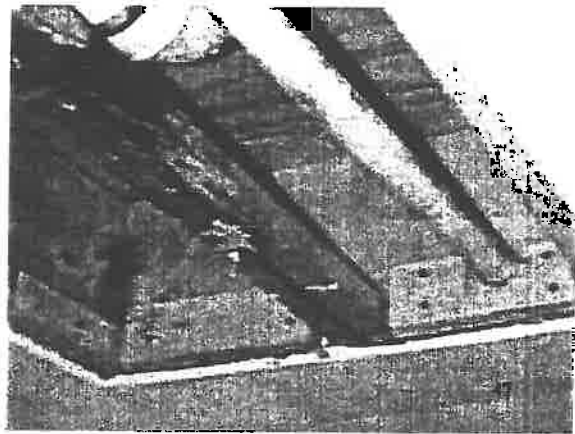
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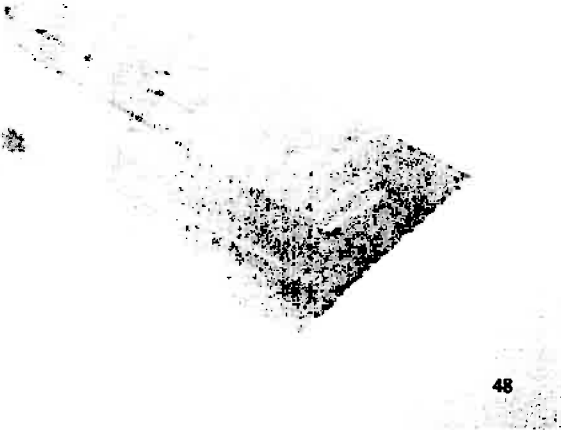




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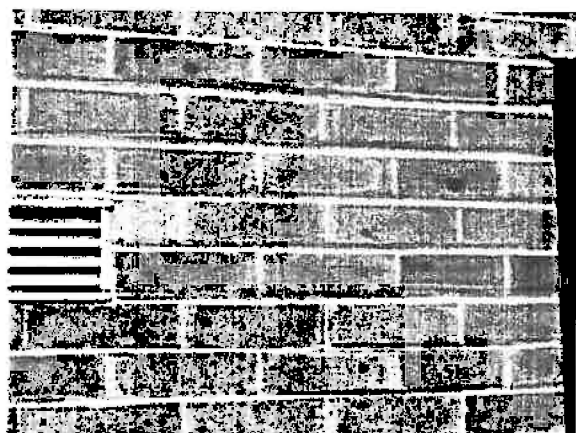
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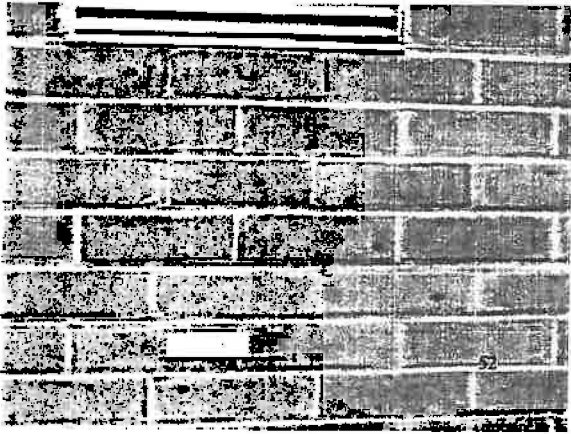


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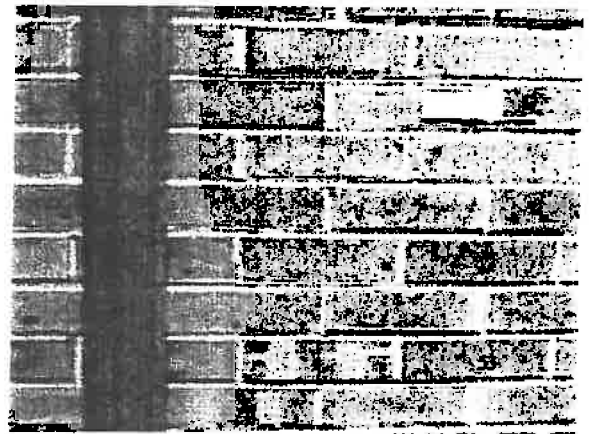


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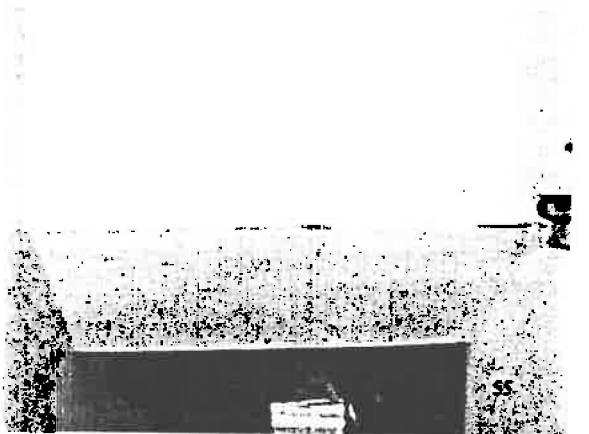
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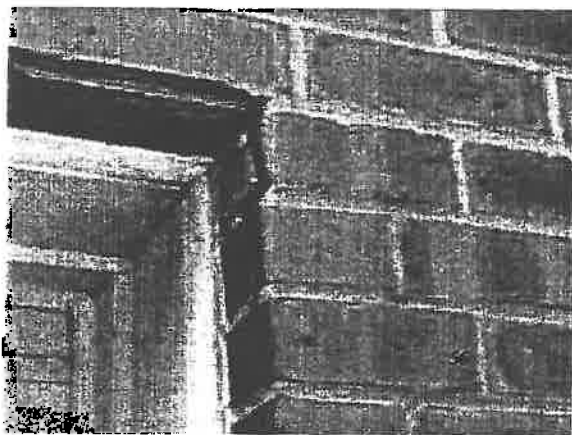
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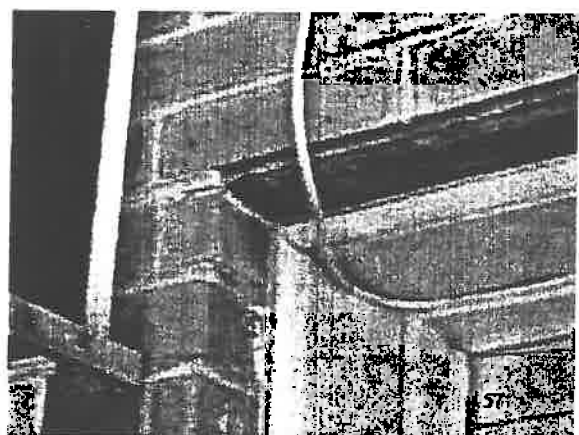
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62250-1



62310-1



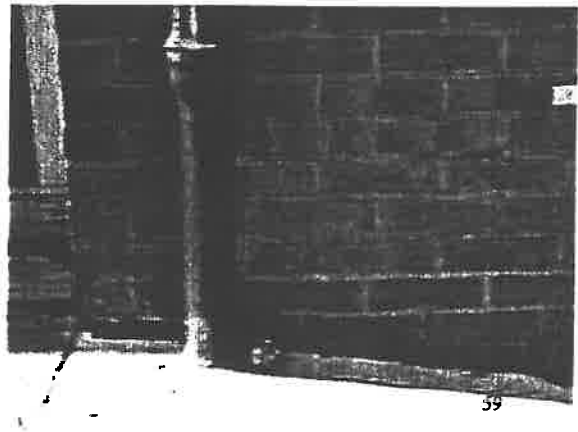
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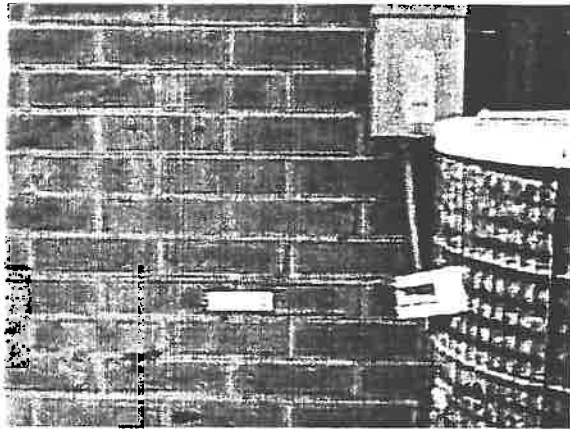




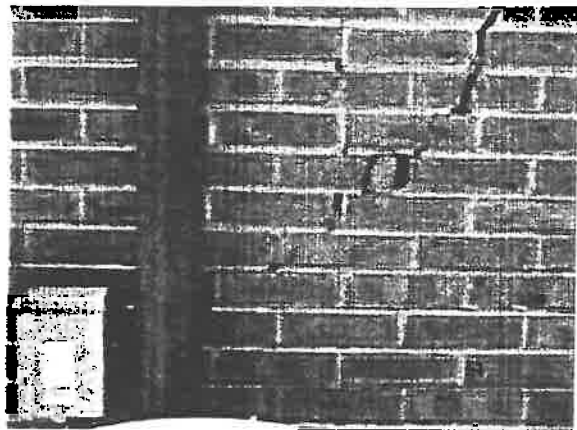
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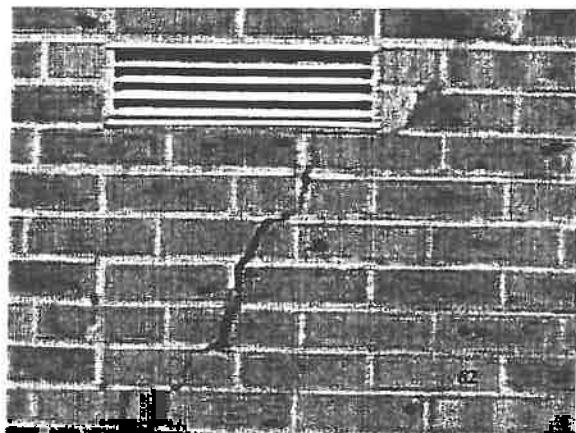
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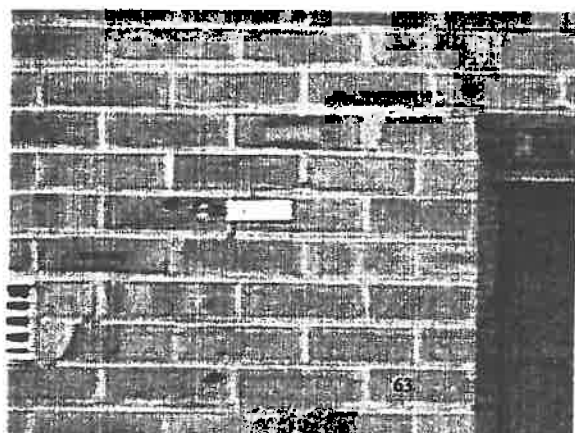
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62130-2

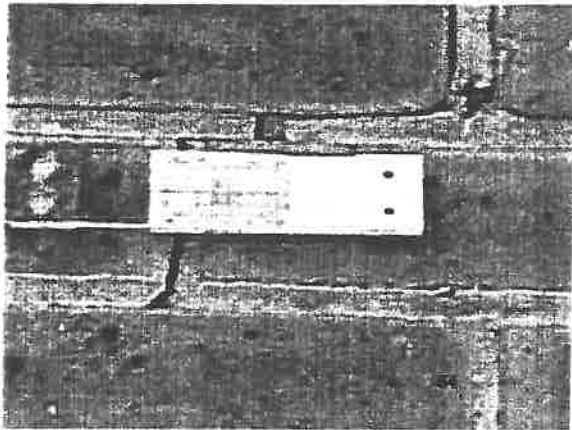


62130-3



62130-4

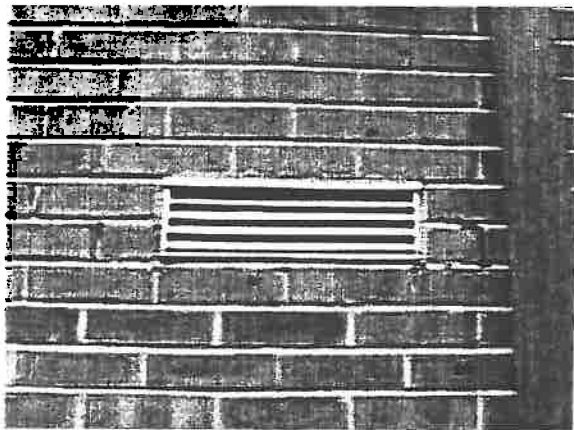




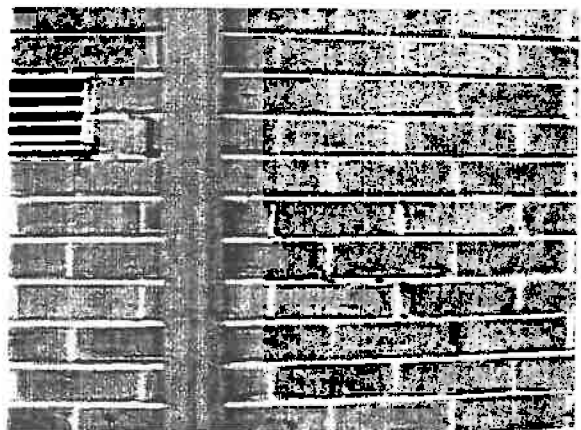
62130-5



62130-6



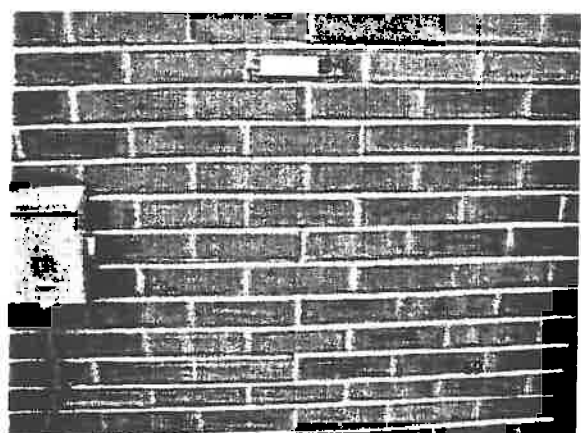
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62410-2

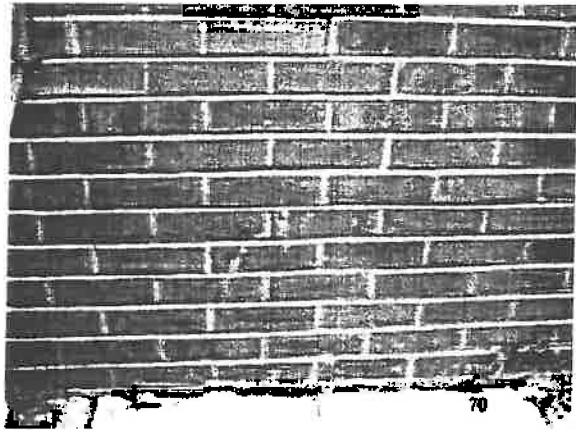


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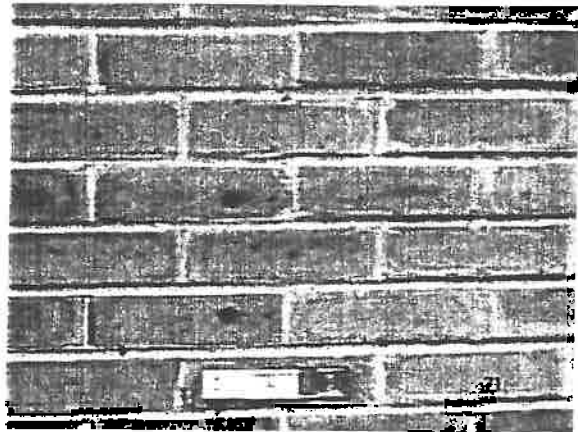


62410-4

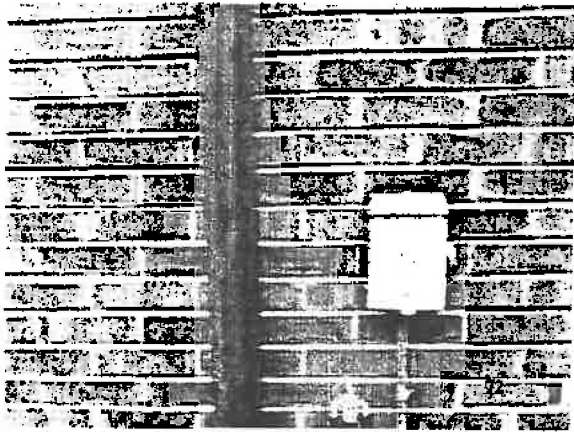




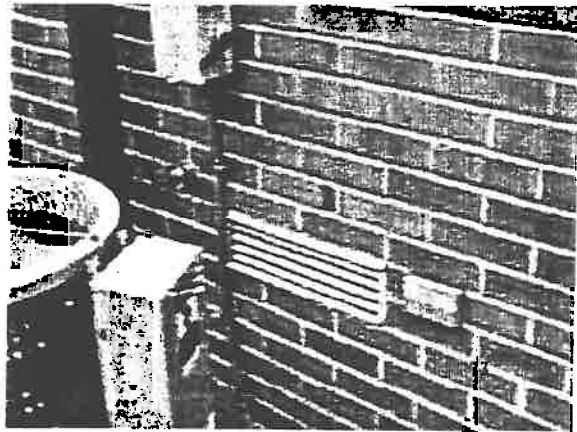
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62410-6



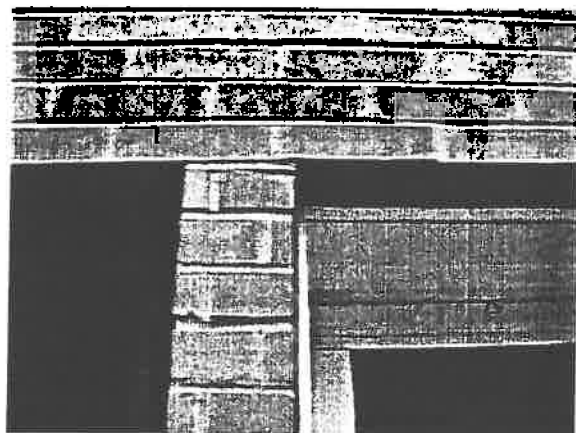
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62430-2



62430-3

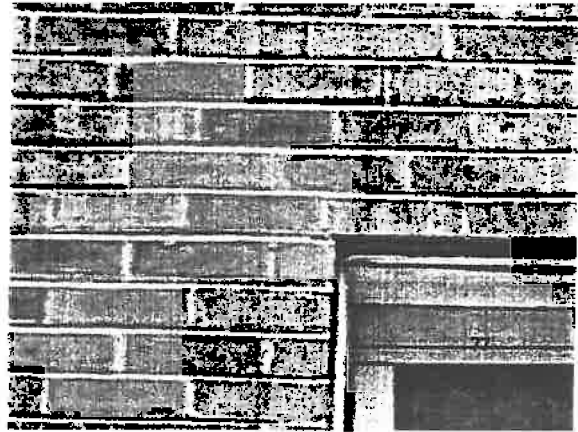


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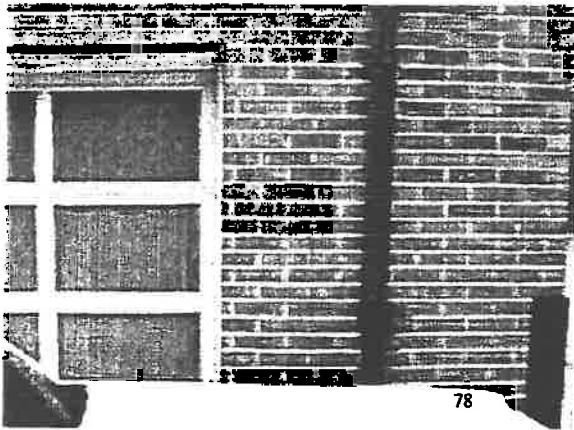


76

62430-5

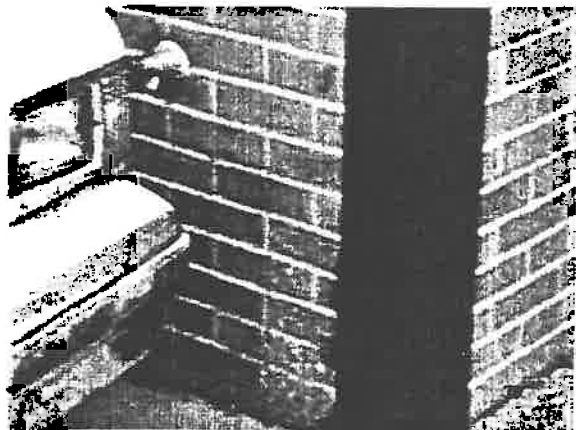


62450-1



78

62450-2

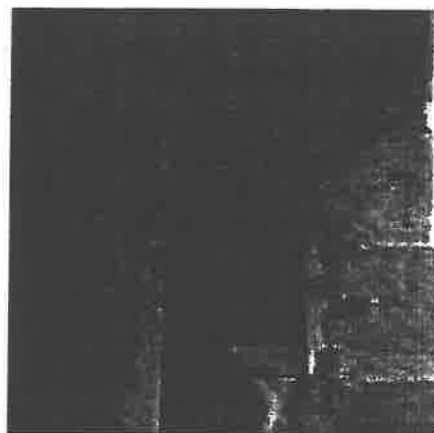


62450-3



80

62210-17



81

62210-18





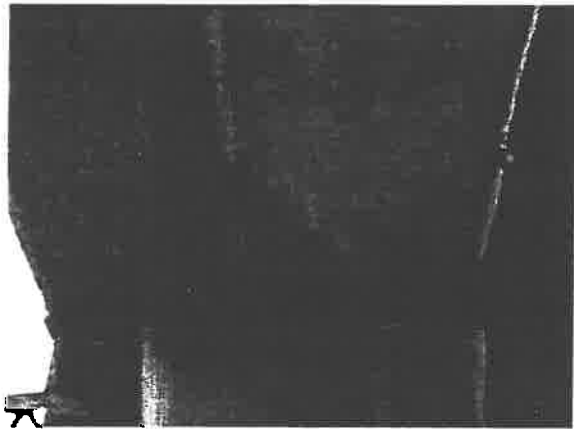


62210-19

82



62210-20



62210-21



**APPENDIX C  
CALCULATIONS**

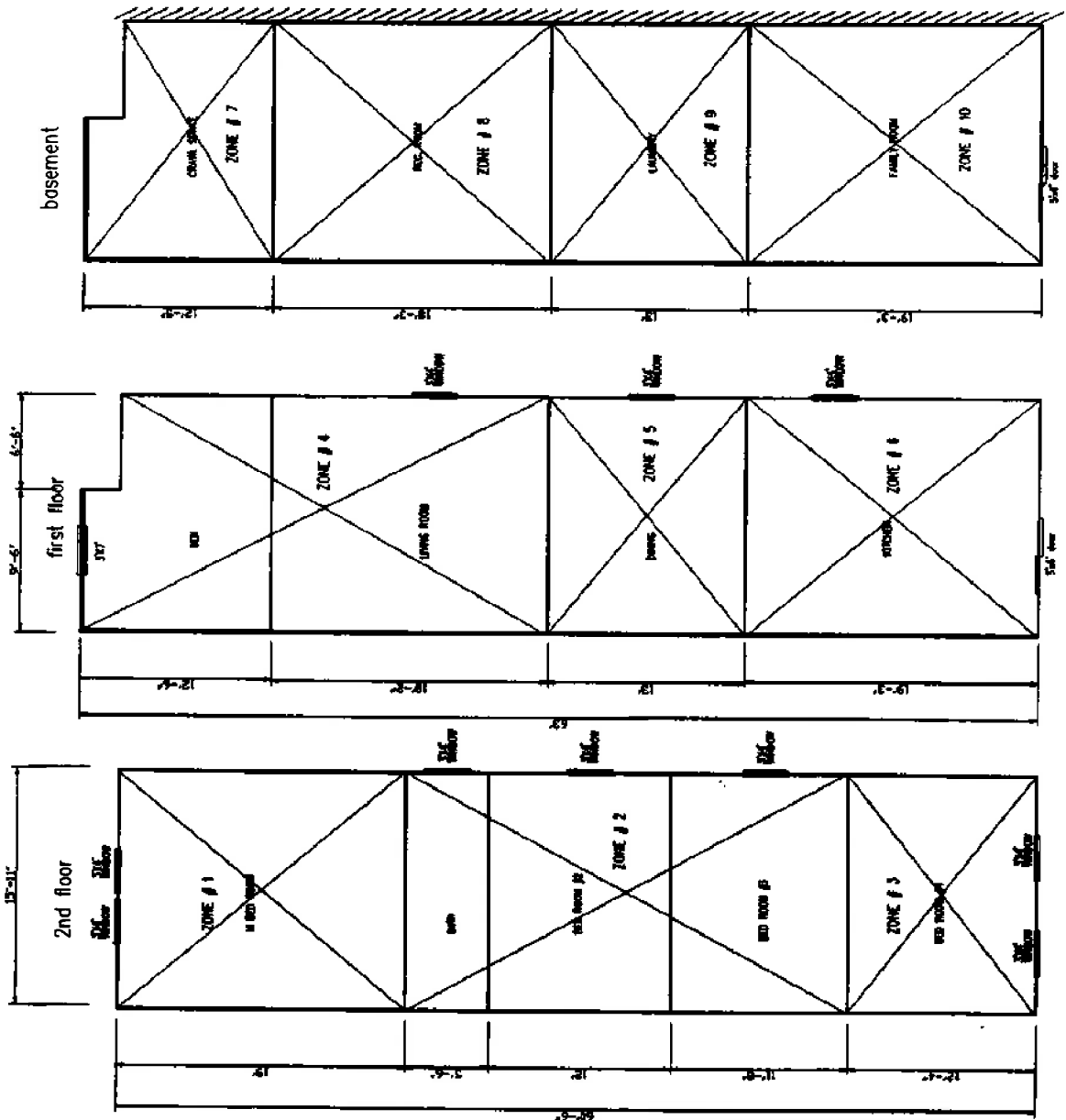
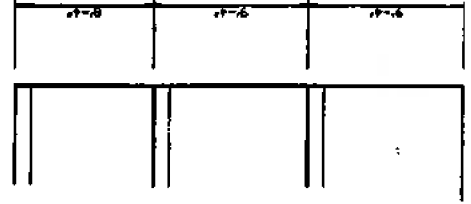
## HEAT LOAD CALCULATIONS

Heat load calculations for end unit properties on the south side of Osage Avenue are presented on pages C-2 through C-24. Calculations for middle properties on the same block are presented on pages C-25 through C-45. The heating unit is rated at 75 MBH. Assuming a reasonable efficiency of 80%, 60MBH are available for heating. Calculations indicate that at peak demand end and middle units require 65 MBH and 49 MBH respectively (pages C-24 and C45). As such, end units on the south side of Osage Avenue and Pine Street appear to be somewhat undersized under existing conditions. End units on the north side of Osage Avenue have a somewhat lower demand due to smaller unheated garage space in place of family room. There appears to be excess capacity for all mid-block units. Air should be redistributed in such a way that the actual quantity of air to each zone is proportional to the quantity shown on pages C-20 and C-41. Recommended duct changes are described in the main report.

OSAGE AVENUE HOUSE  
END UNIT



elevation



HVAC SYSTEM FOR OSAGE AVENUE HOUSING

U-values

Wall #1 - side

Layer	R-value	U-value	Group #
outside surface	0.170		
4" clay brick	1.010		
8" l.w. block	2.020		
1/2" air space	0.910		
3/4" gypsum board	0.560		
inside surface	0.685		
Total	5.355	0.187	E

Wall #2 - front & back

Layer	R-value	U-value	Group #
outside surface	0.170		
4" clay brick	1.010		
1/2" gypsum board	0.450		
6" insulation	22.000		
1/2" gypsum board	0.450		
inside surface	0.685		
Total	24.765	0.040	E

Roof

Layer	R-value	U-value	Group #
outside surface	0.170		
3-ply built-up roof	0.350		
1/2" ply wood	0.620		
air space	1.240		
Insulation	30.000		
1/2" gypsum board	0.450		
inside surface	0.610		
Total	33.440	0.030	10

Glass door & windows - single panel in metal frame

Layer	R-value	U-value	Group #
Single glass		1.04	

Door

Layer	R-value	U-value	Group #
Slab front door		0.59	G

US ARMY ENGINEER DIST.  
 100 PENN SQUARE EAST  
 PHILADELPHIA, PA 19107

PROJECT: Osage ave. housing  
 CLIENT: Philadelphia city  
 DATE: 08/15/97

FULL COMMERCIAL HVAC LOADS PROGRAM

DESIGNER: King D. Hu

**BUILDING MASTER DATA AND DESIGN PARAMETERS:**

DESIGN MONTH	OUTDOOR DRY BULB	OUTDOOR WET BULB	INDOOR REL.HUM	INDOOR DRY BULB	GRAINS DIFF.	IN/OUTDOOR CORRECTION
AUGUST	90	74	50%	75	35.99	-2
WINTER	14	0	50%	68	0.00	

ROOF TYPE	ASHRAE ROOF #	ROOF U-FAC	ROOF COLOR	SUSP CLG.
1.	1	0.030	LIGHT	NO

WALL TYPE	ASHRAE GROUP	WALL U-FAC	WALL COLOR
1.	E	0.187	MEDIUM
2.	E	0.040	MEDIUM
3.	G	0.590	MEDIUM

GLASS NO.	SUMMER U-FAC.	WINTER U-FAC.	GLASS SHD. COEF	INTERIOR SHADING	INTERIOR SHD. COEF	ROOM CONST	GLASS WIDTH	GLASS HEIGHT
1.	1.040	1.100	0.940	NO	0.000	MEDIUM	3.00	4.00
2.	1.040	1.100	0.940	NO	0.000	MEDIUM	5.00	6.00

**GENERAL PROJECT INFORMATION:**

PROJECT FILE NAME:	C:OSAGE
PROJECT LOCATION:	Philadelphia
BAROMETRIC PRESSURE:	29.916 IN.HG
ALTITUDE:	5 FEET
NORTH LATITUDE:	40 DEGREES
MEAN DAILY TEMPERATURE RANGE:	20 DEG.F
ATMOSPHERIC CLEARNESS FACTOR:	1.00
GROUND REFLECTANCE:	20 PERCENT
STARTING TIME FOR HVAC LOAD CALCULATIONS:	1 AM
ENDING TIME FOR HVAC LOAD CALCULATIONS:	12 AM
FLOOR HEAT LOSS COEFFICIENT:	0.50 BTUH/FT-F
NUMBER OF UNIQUE ZONES IN THIS PROJECT:	10



BUILDING DEFAULT VALUES:

CALCULATIONS PERFORMED:	BOTH HEATING AND COOLING LOADS
LIGHTING REQUIREMENTS:	1.75 WATTS PER SQUARE FOOT
EQUIPMENT REQUIREMENTS:	0.00 WATTS PER SQUARE FOOT
PEOPLE SENSIBLE LOAD MULTIPLIER:	250 BTUHS PER PERSON
PEOPLE LATENT LOAD MULTIPLIER:	250 BTUHS PER PERSON
ZONE SENSIBLE SAFETY FACTOR:	10%
ZONE LATENT SAFETY FACTOR:	10%
ZONE HEATING SAFETY FACTOR:	10%
PEOPLE DIVERSITY FACTOR:	100%
LIGHTING PROFILE NUMBER:	1
EQUIPMENT PROFILE NUMBER:	2
PEOPLE PROFILE NUMBER:	3
BUILDING DEFAULT CLG. HEIGHT:	9.00 FEET
BUILDING DEFAULT WALL HEIGHT:	9.33 FEET

INTERNAL OPERATING LOAD PROFILES (C-100):

REF NO.	HR 1	HR 2	HR 3	HR 4	HR 5	HR 6	HR 7	HR 8	HR 9	HR 10	HR 11	HR 12	HR 13	HR 14	HR 15	HR 16	HR 17	HR 18	HR 19	HR 20	HR 21	HR 22	HR 23	HR 24
1.	30	30	30	30	50	50	70	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	50	40
2.	10	10	10	10	10	50	75	50	10	10	50	C	50	10	10	10	50	C	50	10	10	10	10	10
3.	C	C	C	C	C	C	C	75	75	75	75	C	75	75	75	75	C	C	C	C	C	C	C	C
4.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

ALL DESIGN DATA TAKEN FROM THE 1989 ASHRAE HANDBOOK OF FUNDAMENTALS

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 1: m bed room (304 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	532	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	8.33	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	304	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	19.00	16.00	304.0	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	8.33	16.00	133.3	E - 90
2.	1	E	0.187	MEDIUM	8.33	19.00	158.3	S - 180

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	2.000	24.0	0	90	1

Osage ave. housing

08/15/97

PAGE 4

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 2: bed room # 2,2 &bath (467 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	29.17	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	817	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	2	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	50	CLG INFILTRATION CFM:	10
HTG VENTILATION CFM:	50	HTG INFILTRATION CFM:	17
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	467	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	29.17	16.00	466.7	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	8.33	29.17	243.0	S - 180

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	3.000	36.0	0	90	1

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 3: Bed room #4 (197 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	12.33	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	345	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	14
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	20
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	197	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.GEIL
1.	1	1	0.030	LIGHT	12.33	16.00	197.3	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	8.33	12.33	102.7	S - 180
2.	2	E	0.040	MEDIUM	8.33	16.00	133.3	W - 270

CLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	2.000	24.0	0	90	2

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 4: Den & Living rooms (471 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	29.41	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS:	PER.SF 824	EQUIPMENT WATTS:	DIRECT 300
NO. OF PEOPLE IN ZONE:	DIRECT 2	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	471	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	6.00	16.00	96.0	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	11.50	16.00	184.0	E - 90
2.	1	E	0.187	MEDIUM	10.00	29.41	294.1	S - 180
3.	3	G	0.590	MEDIUM	7.00	3.00	21.0	E - 90

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	1,000	12.0	0	90	2

ZONE # 5: Dining room (208 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	13.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	364	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	15	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	15	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	208	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	9.33	13.00	121.3	S - 180

GLASS	TYPE	SUM-UFAC	SHD. COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	1.000	12.0	0	90	1

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 6: kitchen (309 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.30	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	541	EQUIPMENT WATTS: DIRECT	352
NO. OF PEOPLE IN ZONE: DIRECT	1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	309	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	9.33	19.30	180.1	S - 180
2.	2	E	0.040	MEDIUM	9.33	16.00	149.3	W - 270

GLASS	TYPE	SUM-UFAC	SHD. COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	1.000	12.0	0	90	1
2.	2	1.040	0.940	6.00	5.00	1.000	30.0	0	90	2

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 7: crawl space (304 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: DIRECT	2	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	1	CLG INFILTRATION CFM:	1
HTG VENTILATION CFM:	1	HTG INFILTRATION CFM:	2
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	304	EXPOSED FLOOR SLAB EDGE-FT:	28.50
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	



Osage ave. housing

08/15/97

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 8: Rec. room (292 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	18.25	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	511	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (X):	10
SEN.SAFETY FACTOR (X):	10	LAT.SAFETY FACTOR (X):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	3
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	6
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	292	EXPOSED FLOOR SLAB EDGE-FT:	28.50
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 9: Laundry room (208 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	13.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS:	PER.SF 364	EQUIPMENT WATTS:	DIRECT 0
NO. OF PEOPLE IN ZONE:	DIRECT 0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	15	CLG INFILTRATION CFM:	2
HTG VENTILATION CFM:	15	HTG INFILTRATION CFM:	4
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	208	EXPOSED FLOOR SLAB EDGE-FT:	13.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 10: Family Room (308 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.25	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	539	EQUIPMENT WATTS: DIRECT	500
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	308	EXPOSED FLOOR SLAB EDGE-FT:	35.25
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	9.33	16.00	149.3	W - 270

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	2	1.040	0.940	6.00	5.00	1.000	30.0	0	90	1

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\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CFAC	CLTD SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
1. m bed room SYS# 1 PEAK TIME 3 PM AUG. (19 X 16) - 304 SF								
ROOF-1-1-NO.CLG-L	304	0.500	72	0.030	319		1.620	492
E. WALL-2-E-M	109	0.830	34	0.040	122		2.160	235
S. WALL-1-E-M	158	0.830	31	0.187	750		10.098	1595
E. GLS- 1- 90-TRANS	24	1.000	12	1.040	300		59.400	1426
OXS- 0- M- NS-SOLAR	24	0.940	216	0.290	1413			
LIGHTS-1	532.00	1.000	100%	3.410	1814			
PEOPLE-3	1.00	0.750		250/250	188	188		
SUMMER INFL	13			16.497	214	318		
WINTER INFL	21						58.309	1224
TOTAL					5,120	506		4,972
					X 1.10	X 1.10		X 1.10
					5,632	557		5,469
2. bed room # 2,2 &bath SYS# 1 PEAK TIME 2 PM AUG. (29.17 X 16) - 467 SF								
ROOF-1-1-NO.CLG-L	467	0.500	74	0.030	504		1.620	757
S. WALL-1-E-M	207	0.830	26	0.187	822		10.098	2090
S. GLS- 1- 90-TRANS	36	1.000	11	1.040	412		59.400	2138
OXS- 0- M- NS-SOLAR	36	0.940	149	0.580	2924			
LIGHTS-1	817.00	1.000	100%	3.410	2786			
PEOPLE-3	2.00	0.750		250/250	375	375		
SUMMER INFL	10			15.397	154	256		
WINTER INFL	17						58.309	991
TOTAL					7,977	631		5,976
					X 1.10	X 1.10		X 1.10
					8,775	694		6,574
3. Bed room #4 SYS# 1 PEAK TIME 5 PM AUG. (12.33 X 16) - 197 SF								
ROOF-1-1-NO.CLG-L	197	0.500	54	0.030	154		1.620	319
S. WALL-1-E-M	103	0.830	36	0.187	569		10.098	1040
W. WALL-2-E-M	109	0.830	34	0.040	122		2.160	235
W. GLS- 1- 90-TRANS	24	1.000	11	1.040	275		59.400	1426
OXS- 0- M- NS-SOLAR	24	0.940	216	0.560	2729			
LIGHTS-1	345.00	1.000	100%	3.410	1176			
PEOPLE-3	1.00	1.000		250/250	250	250		
SUMMER INFL	14			14.297	200	374		
WINTER INFL	20						58.309	1166
TOTAL					5,475	624		4,186
					X 1.10	X 1.10		X 1.10
					6,023	686		4,605

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\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CLTD CFAC SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
4. Den & Living rooms SYS# 1 PEAK TIME 6 PM AUG. (29.41 X 16) - 471 SF							
ROOF-1-1-NO.CLG-L	96	0.500	40	0.030	55	1.620	156
E. WALL-2-E-M	184	0.830	30	0.040	181	2.160	397
S. WALL-1-E-M	282	0.830	35	0.187	1514	10.098	2848
E. WALL-3-G-M	21	0.830	22	0.590	222	31.860	669
S. GLS- 1- 90-TRANS	12	1.000	10	1.040	125	59.400	713
OXS- 0- M- NS-SOLAR	12	0.940	149	0.350	588		
LIGHTS-1	824.00	1.000	100%	3.410	2810		
EQUIPMENT-2	300.00	1.000		3.410	1023	0	
PEOPLE-3	2.00	1.000		250/250	500	500	
SUMMER INFL	21			12.098	254	523	
WINTER INFL	35					58.309	2041
TOTAL					7,272	1,023	6,824
					X 1.10	X 1.10	X 1.10
					7,999	1,125	7,506
5. Dining room SYS# 1 PEAK TIME 3 PM AUG. (13 X 16) - 208 SF							
S. WALL-1-E-M	109	0.830	31	0.187	518	10.098	1101
S. GLS- 1- 90-TRANS	12	1.000	12	1.040	150	59.400	713
OXS- 0- M- NS-SOLAR	12	0.940	149	0.530	891		
LIGHTS-1	364.00	1.000	100%	3.410	1241		
SUMMER INFL	9			16.497	148	220	
WINTER INFL	16					58.309	933
TOTAL					2,948	220	2,747
					X 1.10	X 1.10	X 1.10
					3,243	242	3,022

\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CFAC	CLTD SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
6. kitchen SYS# 1 PEAK TIME 6 PM AUG. (19.3 X 16) - 309 SF								
S. WALL-1-E-M	168	0.830	35	0.187	902		10.098	1696
W. WALL-2-E-M	119	0.830	41	0.040	160		2.160	257
S. GLS- 1- 90-TRANS	12	1.000	10	1.040	125		59.400	713
OXS- 0- M- NS-SOLAR	12	0.940	149	0.350	588			
W. GLS- 2- 90-TRANS	30	1.000	10	1.040	312		59.400	1782
OXS- 0- M- NS-SOLAR	30	0.940	216	0.550	3350			
LIGHTS-1	541.00	1.000	100%	3.410	1845			
EQUIPMENT-2	352.00	1.000		3.410	1200	0		
PEOPLE-3	1.00	1.000		250/250	250	250		
SUMMER INFL	14			12.098	169	348		
WINTER INFL	23						58.309	1341
TOTAL					8,901	598		5,789
					X 1.10	X 1.10		X 1.10
					9,791	658		6,368
7. crawl space SYS# 1 PEAK TIME 3 PM AUG. (19 X 16) - 304 SF								
LIGHTS-1	2.00	1.000	100%	3.410	7			
SUMMER INFL	1			16.497	16	24		
WINTER INFL	2						58.309	117
FLOOR SLAB	28.50						27.000	770
TOTAL					23	24		887
					X 1.10	X 1.10		X 1.10
					25	26		976
8. Rec. room SYS# 1 PEAK TIME 3 PM AUG. (18.25 X 16) - 292 SF								
LIGHTS-1	511.00	1.000	100%	3.410	1743			
SUMMER INFL	3			16.497	49	73		
WINTER INFL	6						58.309	350
FLOOR SLAB	28.50						27.000	770
TOTAL					1,792	73		1,120
					X 1.10	X 1.10		X 1.10
					1,971	80		1,232

\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CFAC	CLTD SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
9. Laundry room SYS# 1 PEAK TIME 3 PM AUG.						(13 X 16) - 208 SF		
LIGHTS-1	364.00	1.000	100X	3.410	1241			
SUMMER INFL	2			16.497	33	49		
WINTER INFL	4						58.309	233
FLOOR SLAB	13.00						27.000	351
TOTAL					1,274	49		584
					X 1.10	X 1.10		X 1.10
					1,401	54		642
10. Family Room SYS# 1 PEAK TIME 6 PM AUG.						(19.25 X 16) - 308 SF		
W. WALL-2-E-M	119	0.830	41	0.040	160		2.160	257
W. GLS- 2- 90-TRANS	30	1.000	10	1.040	312		59.400	1782
OXS- 0- M- NS-SOLAR	30	0.940	216	0.550	3350			
LIGHTS-1	539.00	1.000	100X	3.410	1838			
EQUIPMENT-2	500.00	1.000		3.410	1705	0		
SUMMER INFL	14			12.098	169	348		
WINTER INFL	23						58.309	1341
FLOOR SLAB	35.25						27.000	952
TOTAL					7,534	348		4,332
					X 1.10	X 1.10		X 1.10
					8,287	383		4,765

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\*\*\*\*\* AIR SYSTEM # 1 (constant volume) ZONE SUMMARY \*\*\*\*\*

ZN. NO.	ZONE - DESCRIPTION PEAK TIME & MONTH	FLOOR AREA	HTG. LOSS O.A. CFM	SEN. GAIN O.A. CFM	LAT. GAIN EXH. CFM	HTG. CFM CFM/SF.	CLG. CFM CFM/SF.
1	m bed room 3 PM AUGUST	304	5,469 32	5,632 32	557 0	362 1.19	289 0.95
2	bed room # 2,2 &ba 2 PM AUGUST	467	6,574 50	8,775 50	694 0	435 0.93	450 0.96
3	Bed room #4 5 PM AUGUST	197	4,605 22	6,023 22	686 0	305 1.55	309 1.57
4	Den & Living rooms 6 PM AUGUST	471	7,506 53	7,999 53	1,125 0	497 1.06	410 0.87
5	Dining room 3 PM AUGUST	208	3,022 15	3,243 15	242 0	200 0.96	166 0.80
6	kitchen 6 PM AUGUST	309	6,368 35	9,791 35	658 0	421 1.36	502 1.62
7	crawl space 3 PM AUGUST	304	976 1	25 1	26 0	65 0.21	1 0.00
8	Rec. room 3 PM AUGUST	292	1,232 33	1,971 33	80 0	82 0.28	101 0.35
9	Laundry room 3 PM AUGUST	208	642 15	1,401 15	54 0	42 0.20	72 0.35
10	Family Room 6 PM AUGUST	308	4,765 35	8,287 35	383 0	315 1.02	425 1.38
ZONE PEAK TOTALS		3,068	41,159	53,147	4,505	2,724	2,725
TOTAL ZONES: 10			291	291	0	0.89	0.89



\*\*\*\*\* AIR SYSTEM # 1 (constant volume) TOTAL LOAD SUMMARY \*\*\*\*\*

AIR HANDLER DESC: constant volume WITH CV (PROPORTION) TERMINALS  
 SUPPLY AIR FAN: BLOW-THRU WITH PROGRAM ESTIMATED HORSEPOWER OF 0.99 HP.  
 FAN INPUT: 65% COMBINED FAN AND MOTOR EFF. WITH 1.50 IN WATER ACROSS THE FAN  
 SENSIBLE HEAT RATIO: 0.92 ----- THIS SYSTEM OCCURS 1 TIME(S) IN THE BUILDING

AIR SYSTEM PEAK TIME: 5 PM IN AUGUST  
 OUTDOOR CONDITIONS: 88 DB, 74 WB, 103.90 GRAINS INSIDE: 75 DB, 50% RH

BECAUSE OF THE DIVERSITY IN ZONE, PLENUM, AND VENT. LOADS, THE ZONE SENSIBLE  
 PEAK TIME IN AUGUST AT 6 PM IS DIFFERENT FROM THE TOTAL SYS. PEAK TIME  
 HENCE, THE AIR SYSTEM CFM WAS COMPUTED USING A ZONE SEN. LOAD OF 50,930

SUMMER: VENT CONTROLS OUTSIDE AIR ----- WINTER: VENT CONTROLS OUTSIDE AIR

ZONE SPACE	SEN.LOSS:	30,448 BTUH	
INFILTRATION	SEN.LOSS:	10,711 BTUH (	167 CFM)
OUTSIDE AIR	SEN.LOSS:	16,968 BTUH (	291 CFM)
SUPPLY DUCT	SEN.LOSS:	5,883 BTUH	
RETURN DUCT	SEN.LOSS:	1,471 BTUH	
TOTAL SYSTEM	SEN.LOSS:		65,481 BTUH

SUPPLY AIR:	47,042 / (1.000 X 1.08 X 16) =	(	2,724 CFM)
WINTER VENT OUTSIDE AIR	(10.7% OF SUPPLY):	(	291 CFM)

ZONE SPACE	SEN.GAIN:	48,979 BTUH	
INFILTRATION	SEN.GAIN:	1,587 BTUH (	101 CFM)
DRAW-THRU FAN	SEN.GAIN:	0 BTUH	
SUPPLY DUCT	SEN.GAIN:	5,992 BTUH	
TOTAL SEN.GAIN ON SUPPLY SIDE OF COIL:			56,558 BTUH

SUPPLY AIR:	56,922 / (1.000 X 1.10 X 19) =	(	2,724 CFM)
SUMMER VENT OUTSIDE AIR	(10.7% OF SUPPLY):	(	291 CFM)

RETURN DUCT	SEN.GAIN:	1,498 BTUH	
RETURN PLENUM	SEN.GAIN:	0 BTUH	
OUTSIDE AIR	SEN.GAIN:	4,160 BTUH (	291 CFM)
BLOW-THRU FAN	SEN.GAIN:	2,510 BTUH	
TOTAL SEN.GAIN ON RETURN SIDE OF COIL:			8,168 BTUH

TOTAL SEN.GAIN ON AIR HANDLING SYSTEM: 64,726 BTUH

ZONE SPACE	LAT.GAIN:	1,925 BTUH	
INFILTRATION	LAT.GAIN:	2,965 BTUH (	101 CFM)
OUTSIDE AIR	LAT.GAIN:	7,765 BTUH (	291 CFM)
TOTAL LAT.GAIN ON AIR HANDLING SYSTEM:			12,655 BTUH

TOTAL SYSTEM SENSIBLE AND LATENT GAIN: 77,381 BTUH

TOTAL TONNAGE REQUIRED WITH OUTSIDE AIR: 6.45 TONS

SYSTEM LOAD ANALYSIS	LATENT	GRAINS	SENSIBLE	TEMP	CFM
LEAVING COIL CONDITION		62.011		56.000	
DRAW-THRU FAN			0	0.000	0
MISC LOAD ON SUPPLY SIDE			0	0.000	0
SUPPLY AIR DUCT			5,992	2.000	287
ZONE LOADS	4,890	2.640	50,930	17.000	2,437
ZONE CONDITION	4,890	64.652	56,922	75.000	2,724
RETURN AIR DUCT			1,498	0.500	
RETURN AIR PLENUM			0	0.000	
MISC LOAD ON RETURN SIDE			0	0.000	
VENT AIR 291 CFM	7,765	4.193	4,160	1.389	
BLOW-THRU FAN			2,510	0.838	
ENTERING COIL CONDITION	12,655	68.844	65,090	77.726	2,724

GENERAL PSYCHROMETRIC EQUATIONS USED IN ANALYSIS:

- PR - (BAROMETRIC PRESSURE OF SITE / STANDARD ASHRAE PRESSURE OF 29.921)
- TSH - PR X 1.10 X CFM X (DB. ENTERING - DB. LEAVING)
- TLH - PR X 0.68 X CFM X (GRAINS. ENTERING - GRAINS. LEAVING)
- GTH - PR X 4.50 X CFM X (ENTHALPY. ENTERING - ENTHALPY. LEAVING)

TSH - 1.000 X 1.10 X	2,724 X ( 77.726 - 56.000 ) -	65,091 BTUH
TLH - 1.000 X 0.68 X	2,724 X ( 68.844 - 62.011 ) -	12,655 BTUH
SUM -		77,745 BTUH
GTH - 1.000 X 4.50 X	2,724 X ( 29.431 - 23.061 ) -	78,063 BTUH
TOTAL SYSTEM LOAD	-	77,381 BTUH

CHILLED-HOT WATER FLOW RATES:

COOLING GPM -	78,063 / ( 10.0 X 500 )	-	15.6 GPM
HEATING GPM -	65,481 / ( 20.0 X 500 )	-	6.5 GPM

ENTERING COOLING COIL CONDITIONS:

DRY BULB TEMPERATURE:	77.73
WET BULB TEMPERATURE:	64.37
RELATIVE HUMIDITY(%):	48.60
ENTHALPY:	29.43 BTU/LBM

ENTERING HEATING COIL CONDITIONS:

DRY BULB TEMPERATURE:	61.73
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LEAVING COOLING COIL CONDITIONS:

DRY BULB TEMPERATURE:	56.00
WET BULB TEMPERATURE:	54.81
RELATIVE HUMIDITY(%):	92.95
ENTHALPY:	23.06 BTU/LBM

LEAVING HEATING COIL CONDITIONS:

DRY BULB TEMPERATURE:	83.99
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ENVELOPE REPORT USING SUMMER U-FACTORS:

MATERIAL TYPES	GROSS AREA	GLASS AREA	NET AREA	-U-FACTOR	AREA x UFACTOR	AVERAGE UFACTOR
ROOF 1	1064.0	0.0	1064.0	0.030	31.920	0.030
WALL 1	1099.4	72.0	1027.4	0.187	192.128	0.187
2	749.1	108.0	641.1	0.040	25.645	0.040
3	21.0	0.0	21.0	0.590	12.390	0.590
TOT.WALL	1869.5	180.0	1689.5	N/A	230.163	0.136
GLASS 1	120.0	N/A	120.0	1.040	124.800	1.040
2	60.0	N/A	60.0	1.040	62.400	1.040
TOT.GLAS	180.0	N/A	180.0	N/A	187.200	1.040
TOTALS			2933.5	N/A	449.283	0.153

WALL DIRECTION	WALL AREA	GLASS AREA	WALL NET AREA	W.AVG U-FAC	GLASS AVG U-FACTOR	GLASS AVG SHD.COEFF
N	0.0	0.0	0.0	0.000	0.000	0.000
NE	0.0	0.0	0.0	0.000	0.000	0.000
E	338.3	24.0	314.3	0.077	1.040	0.940
SE	0.0	0.0	0.0	0.000	0.000	0.000
S	1099.4	72.0	1027.4	0.187	1.040	0.940
SW	0.0	0.0	0.0	0.000	0.000	0.000
W	431.8	84.0	347.8	0.040	1.040	0.940
NW	0.0	0.0	0.0	0.000	0.000	0.000
TOTALS	1869.5	180.0	1689.5	0.136	1.040	0.940

\*\*\*\*\* TOTAL BUILDING LOAD SUMMARY \*\*\*\*\*

BUILDING PEAKS IN AUGUST AT 5 PM

BLDG. LOAD DESCRIPTIONS	AREA QUAN	SEN. LOSS	XTOT LOSS	LAT. GAIN	+	SEN. GAIN	-	TOTAL GAIN	XTOT GAIN
ROOF	1,064	1,897	2.90	0		913		913	1.18
WALL	1,688	13,662	20.86	0		7,272		7,272	9.40
GLASS	180	11,763	17.96	0		18,552		18,552	23.98
FLOOR SLAB	105	3,127	4.78	0		0		0	0.00
SKIN LOADS	2,932	30,449	46.50	0		26,737		26,737	34.55
LIGHTING	4,839	0	0.00	0		18,152		18,152	23.46
EQUIPMENT	1,152	0	0.00	0		2,161		2,161	2.79
PEOPLE	7	0	0.00	1,925		1,925		3,850	4.98
PARTITION	0	0	0.00	0		0		0	0.00
VENT 291	291	16,968	25.91	7,765		4,161		11,926	15.41
INFL 167	101	10,711	16.36	2,965		1,587		4,552	5.88
DRAW-THRU FAN		0	0.00	0		0		0	0.00
BLOW-THRU FAN		0	0.00	0		2,510		2,510	3.24
SUPPLY DUCT		5,883	8.98	0		5,992		5,992	7.74
RETURN DUCT		1,471	2.25	0		1,498		1,498	1.94
BUILDING TOTALS		65,482	100.00	12,655		64,723		77,378	100.00

BUILDING SUMMARY LOAD DESCRIPTIONS	SEN. LOSS	XTOT LOSS	LAT. GAIN	+	SEN. GAIN	-	TOTAL GAIN	XTOT GAIN
VENTILATION	16,968	25.91	7,765		4,161		11,926	15.41
INFILTRATION	10,711	16.36	2,965		1,587		4,552	5.88
ZONE LOADS	30,449	46.50	1,925		48,975		50,900	65.78
PLENUM LOADS	0	0.00	0		0		0	0.00
FAN & DUCT LOADS	7,354	11.23	0		10,000		10,000	12.92
BUILDING TOTALS	65,482	100.00	12,655		64,723		77,378	100.00

TOTAL BUILDING SUPPLY AIR (BASED ON A 19 TD): 2,724 CFM  
 TOTAL BUILDING VENT AIR (10.67% OF SUPPLY): 291 CFM

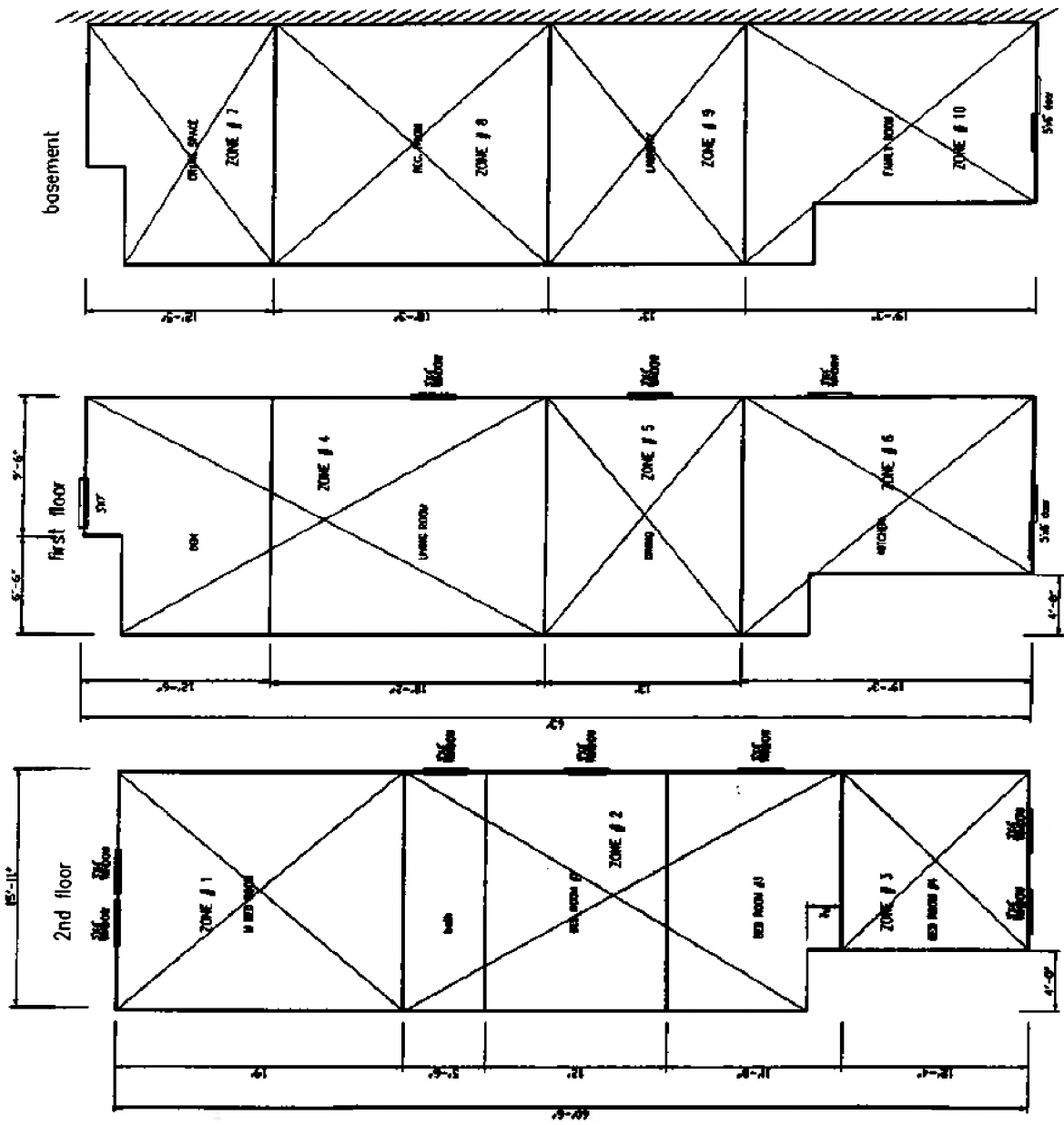
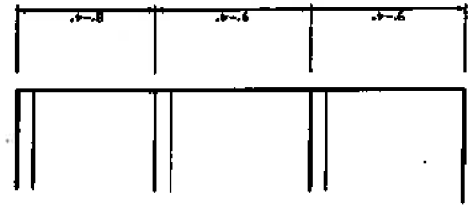
TOTAL CONDITIONED AIR SPACE: 3,068 SQ.FT  
 SUPPLY AIR CFM/SQ.FT. OF CONDITIONED SPACE: 0.8879 CFM/SQ.FT  
 SQ.FT OF CONDITIONED AIR SPACE PER TON: 475.7942 SQ.FT/TON  
 TONNAGE PER SQ.FT OF CONDITIONED AIR SPACE: 0.0021 TONS/SQ.FT

TOTAL HEATING REQUIRED WITH OUTSIDE AIR: 65.48 MBH  
 TOTAL TONNAGE REQUIRED WITH OUTSIDE AIR: 6.45 TONS

OSAGE  
 AVENUE  
 HOUSE  
 MIDDLE UNIT



elevation



US ARMY ENGINEER DIST.  
 100 PENN SQUARE EAST  
 PHILADELPHIA, PA 19107

PROJECT: Osage ave. housing  
 CLIENT: Philadelphia city  
 DATE: 08/15/97

FULL COMMERCIAL HVAC LOADS PROGRAM

DESIGNER: King D. Hu

BUILDING MASTER DATA AND DESIGN PARAMETERS:

DESIGN MONTH	OUTDOOR DRY BULB	OUTDOOR WET BULB	INDOOR REL.HUM	INDOOR DRY BULB	GRAINS DIFF.	IN/OUTDOOR CORRECTION
AUGUST	90	74	50%	75	35.99	-2
WINTER	14	0	50%	68	0.00	

ROOF TYPE	ASHRAE ROOF #	ROOF U-FAC	ROOF COLOR	SUSP CLG.
1.	1	0.030	LIGHT	NO

WALL TYPE	ASHRAE GROUP	WALL U-FAC	WALL COLOR
1.	E	0.187	MEDIUM
2.	E	0.040	MEDIUM
3.	G	0.590	MEDIUM

GLASS NO.	SUMMER U-FAC.	WINTER U-FAC.	GLASS SHD.COEF	INTERIOR SHADING	INTERIOR SHD.COEF	ROOM CONST	GLASS WIDTH	GLASS HEIGHT
1.	1.040	1.100	0.940	NO	0.000	MEDIUM	3.00	4.00
2.	1.040	1.100	0.940	NO	0.000	MEDIUM	5.00	6.00

GENERAL PROJECT INFORMATION:

PROJECT FILE NAME:	C:OSAG2
PROJECT LOCATION:	Philadelphia
BAROMETRIC PRESSURE:	29.916 IN.HG
ALTITUDE:	5 FEET
NORTH LATITUDE:	40 DEGREES
MEAN DAILY TEMPERATURE RANGE:	20 DEG.F
ATMOSPHERIC CLEARNESS FACTOR:	1.00
GROUND REFLECTANCE:	20 PERCENT
STARTING TIME FOR HVAC LOAD CALCULATIONS:	1 AM
ENDING TIME FOR HVAC LOAD CALCULATIONS:	12 AM
FLOOR HEAT LOSS COEFFICIENT:	0.50 BTUH/FT-F
NUMBER OF UNIQUE ZONES IN THIS PROJECT:	10

BUILDING DEFAULT VALUES:

CALCULATIONS PERFORMED:	BOTH HEATING AND COOLING LOADS
LIGHTING REQUIREMENTS:	1.75 WATTS PER SQUARE FOOT
EQUIPMENT REQUIREMENTS:	0.00 WATTS PER SQUARE FOOT
PEOPLE SENSIBLE LOAD MULTIPLIER:	250 BTUHS PER PERSON
PEOPLE LATENT LOAD MULTIPLIER:	250 BTUHS PER PERSON
ZONE SENSIBLE SAFETY FACTOR:	10%
ZONE LATENT SAFETY FACTOR:	10%
ZONE HEATING SAFETY FACTOR:	10%
PEOPLE DIVERSITY FACTOR:	100%
LIGHTING PROFILE NUMBER:	1
EQUIPMENT PROFILE NUMBER:	2
PEOPLE PROFILE NUMBER:	3
BUILDING DEFAULT CLG. HEIGHT:	9.00 FEET
BUILDING DEFAULT WALL HEIGHT:	9.33 FEET

INTERNAL OPERATING LOAD PROFILES (C-100):

REF NO.	HR 1	HR 2	HR 3	HR 4	HR 5	HR 6	HR 7	HR 8	HR 9	HR 10	HR 11	HR 12	HR 13	HR 14	HR 15	HR 16	HR 17	HR 18	HR 19	HR 20	HR 21	HR 22	HR 23	HR 24
1.	30	30	30	30	50	50	70	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	50	40
2.	10	10	10	10	10	50	75	50	10	10	50	C	50	10	10	10	50	C	50	10	10	10	10	10
3.	C	C	C	C	C	C	C	75	75	75	75	C	75	75	75	75	C	C	C	C	C	C	C	C
4.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

ALL DESIGN DATA TAKEN FROM THE 1989 ASHRAE HANDBOOK OF FUNDAMENTALS

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 1: m bed room (304 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	532	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	8.33	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	304	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	19.00	16.00	304.0	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	8.33	16.00	133.3	E - 90

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	2.000	24.0	0	90	1



\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 2: bed room # 2,2 &bath (459 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	28.66	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	803	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	2	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	50	CLG INFILTRATION CFM:	10
HTG VENTILATION CFM:	50	HTG INFILTRATION CFM:	17
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	459	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	28.66	16.00	458.6	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	8.33	2.00	16.7	N - 0
2.	2	E	0.040	MEDIUM	8.33	4.00	33.3	W - 270

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 3: Bed room #4 (148 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	12.33	ZONE WIDTH (FEET):	12.00
LIGHTING WATTS:	PER.SF 259	EQUIPMENT WATTS:	DIRECT 0
NO. OF PEOPLE IN ZONE:	DIRECT 1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	14
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	20
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	148	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	12.33	12.00	148.0	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	8.33	12.33	102.7	N - 0
2.	2	E	0.040	MEDIUM	8.33	12.00	100.0	W - 270

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	1	1.040	0.940	4.00	3.00	2.000	24.0	0	90	2

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 4: Den & Living rooms (471 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	29.41	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS:	PER.SF 824	EQUIPMENT WATTS:	DIRECT 300
NO. OF PEOPLE IN ZONE:	DIRECT 2	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	471	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

ROOF	TYPE	ASHRAE #	U-FACTOR	COLOR	LENGTH	WIDTH	ROOF-AREA	SUSP.CEIL
1.	1	1	0.030	LIGHT	6.00	16.00	96.0	NO

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	11.50	16.00	184.0	E - 90
2.	1	E	0.187	MEDIUM	10.00	2.00	20.0	N - 0
3.	3	G	0.590	MEDIUM	7.00	3.00	21.0	E - 90

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 5: Dining room (208 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	13.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	364	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	15	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	15	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	208	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 6: kitchen (251 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	15.67	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS:	PER.SF 439	EQUIPMENT WATTS:	DIRECT 352
NO. OF PEOPLE IN ZONE:	DIRECT 1	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	251	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	1	E	0.187	MEDIUM	9.33	19.25	179.6	N - 0
2.	2	E	0.040	MEDIUM	9.33	16.00	149.3	W - 270

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
2.	2	1.040	0.940	6.00	5.00	1.000	30.0	0	90	2

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 7: crawl space (304 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	19.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: DIRECT	2	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	1	CLG INFILTRATION CFM:	1
HTG VENTILATION CFM:	1	HTG INFILTRATION CFM:	2
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	304	EXPOSED FLOOR SLAB EDGE-FT:	18.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 8: Rec. room (292 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	18.25	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	511	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG INFILTRATION CFM:	3
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	6
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	292	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 9: Laundry room (208 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	13.00	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	364	EQUIPMENT WATTS: DIRECT	0
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	15	CLG INFILTRATION CFM:	2
HTG VENTILATION CFM:	15	HTG INFILTRATION CFM:	4
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	208	EXPOSED FLOOR SLAB EDGE-FT:	0.00
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	



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\*\*\*\*\* ZONE INPUT DATA \*\*\*\*\*

ZONE # 10: Family Room (251 SF)

AIR HANDLER NUMBER:	1	ZONE OCCURRENCES:	1
ZONE LENGTH (FEET):	15.67	ZONE WIDTH (FEET):	16.00
LIGHTING WATTS: PER.SF	439	EQUIPMENT WATTS: DIRECT	500
NO. OF PEOPLE IN ZONE: DIRECT	0	PEOPLE PROFILE NO:	3
LIGHTING PROFILE NO:	1	EQUIPMENT PROFILE NO:	2
CEILING HEIGHT (FEET):	9.00	HTG.SAFETY FACTOR (%):	10
SEN.SAFETY FACTOR (%):	10	LAT.SAFETY FACTOR (%):	10
SEN.HEAT PER PERSON (BTUH):	250	LAT.HEAT PER PERSON (BTUH):	250
CLG VENTILATION CFM:	0	CLG-INFILTRATION CFM:	0
HTG VENTILATION CFM:	0	HTG INFILTRATION CFM:	0
EXHAUST AIR CFM:	0	MINIMUM SUPPLY CFM:	0
CLG. SQFT EXPOSED TO PLENUM:	251	EXPOSED FLOOR SLAB EDGE-FT:	30.25
LAT. BTUH EQUIP LOAD:	0	HTG. & CLG. LOADS CALCULATED	

WALL	TYPE	ASHRAE-G	U-FACTOR	COLOR	HEIGHT	WIDTH	WALL-AREA	DIRECTION
1.	2	E	0.040	MEDIUM	9.33	16.00	149.3	W - 270
2.	1	E	0.187	MEDIUM	9.33	14.60	136.2	N - 0

GLASS	TYPE	SUM-UFAC	SHD.COEF	HEIGHT	WIDTH	QUANTITY	AREA	SHD	TILT	REF
1.	2	1.040	0.940	6.00	5.00	1.000	30.0	0	90	1

LOAD DESCRIPTION	UNIT QUAN	-SC- CLTD CFAC SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
1. m bed room SYS# 1 PEAK TIME 10 AM AUG. (19 X 16) - 304 SF							
ROOF-1-1-NO.CLG-L	304	0.500	44	0.030	192	1.620	492
E. WALL-2-E-M	109	0.830	24	0.040	85	2.160	235
E. GLS- 1- 90-TRANS	24	1.000	2	1.040	50	59.400	1426
OXS- 0- M- NS-SOLAR	24	0.940	216	0.510	2485		
LIGHTS-1	532.00	1.000	100%	3.410	1814		
PEOPLE-3	1.00	0.750		250/250	188	188	
SUMMER INFL	13			4.399	57	323	
WINTER INFL	21					58.309	1224
TOTAL					4,871	511	3,377
					X 1.10	X 1.10	X 1.10
					5,358	562	3,715
2. bed room # 2,2 &bath SYS# 1 PEAK TIME 5 PM AUG. (28.66 X 16) - 459 SF							
ROOF-1-1-NO.CLG-L	459	0.500	54	0.030	358	1.620	744
N. WALL-1-E-M	17	0.830	15	0.187	38	10.098	172
W. WALL-2-E-M	33	0.830	34	0.040	37	2.160	71
LIGHTS-1	803.00	1.000	100%	3.410	2738		
PEOPLE-3	2.00	1.000		250/250	500	500	
SUMMER INFL	10			14.297	143	267	
WINTER INFL	17					58.309	991
TOTAL					3,814	767	1,978
					X 1.10	X 1.10	X 1.10
					4,195	844	2,176
3. Bed room #4 SYS# 1 PEAK TIME 5 PM AUG. (12.33 X 12) - 148 SF							
ROOF-1-1-NO.CLG-L	148	0.500	54	0.030	115	1.620	240
N. WALL-1-E-M	103	0.830	15	0.187	233	10.098	1040
W. WALL-2-E-M	76	0.830	34	0.040	85	2.160	164
W. GLS- 1- 90-TRANS	24	1.000	11	1.040	275	59.400	1426
OXS- 0- M- NS-SOLAR	24	0.940	216	0.560	2729		
LIGHTS-1	259.00	1.000	100%	3.410	883		
PEOPLE-3	1.00	1.000		250/250	250	250	
SUMMER INFL	14			14.297	200	374	
WINTER INFL	20					58.309	1166
TOTAL					4,770	624	4,036
					X 1.10	X 1.10	X 1.10
					5,247	686	4,440

\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CFAC	CLTD SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
4. Den & Living rooms SYS# 1 PEAK TIME 12 PM AUG. (29.41 X 16) - 471 SF								
ROOF-1-1-NO.CLG-L	96	0.500	66	0.030	92		1.620	156
E. WALL-2-E-M	184	0.830	34	0.040	205		2.160	397
N. WALL-1-E-M	20	0.830	5	0.187	14		10.098	202
E. WALL-3-G-M	21	0.830	38	0.590	387		31.860	669
LIGHTS-1	824.00	1.000	100%	3.410	2810			
EQUIPMENT-2	300.00	1.000		3.410	1023	0		
PEOPLE-3	2.00	1.000		250/250	500	500		
SUMMER INFL	21			10.998	231	546		
WINTER INFL	35						58.309	2041
TOTAL					5,262	1,046		3,465
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					5,788	1,151		3,812
5. Dining room SYS# 1 PEAK TIME 3 PM AUG. (13 X 16) - 208 SF								
LIGHTS-1	364.00	1.000	100%	3.410	1241			
SUMMER INFL	9			16.497	148	220		
WINTER INFL	16						58.309	933
TOTAL					1,389	220		933
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					1,528	242		1,026
6. kitchen SYS# 1 PEAK TIME 6 PM AUG. (15.67 X 16) - 251 SF								
N. WALL-1-E-M	180	0.830	16	0.187	436		10.098	1818
W. WALL-2-E-M	119	0.830	41	0.040	160		2.160	257
W. GLS- 2- 90-TRANS	30	1.000	10	1.040	312		59.400	1782
OXS- 0- M- NS-SOLAR	30	0.940	216	0.550	3350			
LIGHTS-1	439.00	1.000	100%	3.410	1497			
EQUIPMENT-2	352.00	1.000		3.410	1200	0		
PEOPLE-3	1.00	1.000		250/250	250	250		
SUMMER INFL	11			12.098	133	274		
WINTER INFL	19						58.309	1108
TOTAL					7,338	524		4,965
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					8,072	576		5,462

Osage ave. housing

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\*\*\*\*\* DETAILED PROJECT ZONE LOAD CALCULATIONS \*\*\*\*\*

LOAD DESCRIPTION	UNIT QUAN	-SC- CFAC	CLTD SHGF	U.FAC -CLF-	SEN. GAIN	LAT. GAIN	HTG. MULT.	HTG. LOSS
7. crawl space SYS# 1 PEAK TIME 3 PM AUG.						(19 X 16) - 304 SF		
LIGHTS-1	2.00	1.000	100%	3.410	7			
SUMMER INFL	1			16.497	16	24		
WINTER INFL	2						58.309	117
FLOOR SLAB	18.00						27.000	486
TOTAL					23	24		603
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					25	26		663
8. Rec. room SYS# 1 PEAK TIME 3 PM AUG.						(18.25 X 16) - 292 SF		
LIGHTS-1	511.00	1.000	100%	3.410	1743			
SUMMER INFL	3			16.497	49	73		
WINTER INFL	6						58.309	350
TOTAL					1,792	73		350
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					1,971	80		385
9. Laundry room SYS# 1 PEAK TIME 3 PM AUG.						(13 X 16) - 208 SF		
LIGHTS-1	364.00	1.000	100%	3.410	1241			
SUMMER INFL	2			16.497	33	49		
WINTER INFL	4						58.309	233
TOTAL					1,274	49		233
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					1,401	54		256
10. Family Room SYS# 1 PEAK TIME 6 PM AUG.						(15.67 X 16) - 251 SF		
W. WALL-2-E-M	119	0.830	41	0.040	160		2.160	257
N. WALL-1-E-M	136	0.830	16	0.187	329		10.098	1373
W. GLS- 2- 90-TRANS	30	1.000	10	1.040	312		59.400	1782
OZS- 0- M- NS-SOLAR	30	0.940	216	0.550	3350			
LIGHTS-1	439.00	1.000	100%	3.410	1497			
EQUIPMENT-2	500.00	1.000		3.410	1705	0		
SUMMER INFL	11			12.098	133	274		
WINTER INFL	19						58.309	1108
FLOOR SLAB	30.25						27.000	817
TOTAL					7,486	274		5,337
					X 1.10	X 1.10		X 1.10
					-----	-----		-----
					8,235	301		5,871

Osage ave. housing

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\*\*\*\*\* AIR SYSTEM # 1 (constant volume) ZONE SUMMARY \*\*\*\*\*

ZN. NO.	ZONE - DESCRIPTION PEAK TIME & MONTH	FLOOR AREA	HTG. LOSS O.A. CFM	SEN. GAIN O.A. CFM	LAT. GAIN EXH. CFM	HTG. CFM CFM/SF.	CLG. CFM CFM/SF.
1	m bed room 10 AM AUGUST	304	3,715 32	5,358 32	562 0	286 0.94	275 0.90
2	bed room # 2,2 6ba 5 PM AUGUST	459	2,176 50	4,195 50	844 0	168 0.37	215 0.47
3	Bed room #4 5 PM AUGUST	148	4,440 17	5,247 17	686 0	342 2.31	269 1.82
4	Den & Living rooms 12 PM AUGUST	471	3,812 53	5,788 53	1,151 0	294 0.62	297 0.63
5	Dining room 3 PM AUGUST	208	1,026 15	1,528 15	242 0	79 0.38	78 0.38
6	kitchen 6 PM AUGUST	251	5,462 28	8,072 28	576 0	421 1.68	414 1.65
7	crawl space 3 PM AUGUST	304	663 1	25 1	26 0	51 0.17	1 0.00
8	Rec. room 3 PM AUGUST	292	385 33	1,971 33	80 0	30 0.10	101 0.35
9	Laundry room 3 PM AUGUST	208	256 15	1,401 15	54 0	20 0.10	72 0.35
10	Family Room 6 PM AUGUST	251	5,871 28	8,235 28	301 0	453 1.80	422 1.68
ZONE PEAK TOTALS		2,896	27,806	41,820	4,522	2,144	2,144
TOTAL ZONES: 10			272	272	0	0.74	0.74

AIR HANDLER DESC: constant volume WITH CV (PROPORTION) TERMINALS  
 SUPPLY AIR FAN: BLOW-THRU WITH PROGRAM ESTIMATED HORSEPOWER OF 0.78 HP.  
 FAN INPUT: 65% COMBINED FAN AND MOTOR EFF. WITH 1.50 IN WATER ACROSS THE FAN  
 SENSIBLE HEAT RATIO: 0.91 ----- THIS SYSTEM OCCURS 1 TIME(S) IN THE BUILDING

AIR SYSTEM PEAK TIME: 6 PM IN AUGUST  
 OUTDOOR CONDITIONS: 86 DB, 73 WB, 101.25 GRAINS INSIDE: 75 DB, 50% RH

SUMMER: VENT CONTROLS OUTSIDE AIR ----- WINTER: VENT CONTROLS OUTSIDE AIR

ZONE SPACE	SEN.LOSS:	17,607 BTUH	
INFILTRATION	SEN.LOSS:	10,199 BTUH (	159 CFM)
OUTSIDE AIR	SEN.LOSS:	15,860 BTUH (	272 CFM)
SUPPLY DUCT	SEN.LOSS:	4,631 BTUH	
RETURN DUCT	SEN.LOSS:	1,158 BTUH	
TOTAL SYSTEM	SEN.LOSS:		49,455 BTUH

SUPPLY AIR:	32,437 / (1.000 X 1.08 X 14) -	(	2,144 CFM)
WINTER VENT OUTSIDE AIR (12.7% OF SUPPLY):	(		272 CFM)

ZONE SPACE	SEN.GAIN:	38,863 BTUH	
INFILTRATION	SEN.GAIN:	1,263 BTUH (	95 CFM)
DRAW-THRU FAN	SEN.GAIN:	0 BTUH	
SUPPLY DUCT	SEN.GAIN:	4,717 BTUH	
TOTAL SEN.GAIN ON SUPPLY SIDE OF COIL:			44,808 BTUH

SUPPLY AIR:	44,808 / (1.000 X 1.10 X 19) -	(	2,144 CFM)
SUMMER VENT OUTSIDE AIR (12.7% OF SUPPLY):	(		272 CFM)

RETURN DUCT	SEN.GAIN:	1,179 BTUH	
RETURN PLENUM	SEN.GAIN:	0 BTUH	
OUTSIDE AIR	SEN.GAIN:	3,290 BTUH (	272 CFM)
BLOW-THRU FAN	SEN.GAIN:	1,976 BTUH	
TOTAL SEN.GAIN ON RETURN SIDE OF COIL:			6,445 BTUH

TOTAL SEN.GAIN ON AIR HANDLING SYSTEM: 51,253 BTUH

ZONE SPACE	LAT.GAIN:	1,926 BTUH	
INFILTRATION	LAT.GAIN:	2,600 BTUH (	95 CFM)
OUTSIDE AIR	LAT.GAIN:	6,768 BTUH (	272 CFM)
TOTAL LAT.GAIN ON AIR HANDLING SYSTEM:			11,294 BTUH

TOTAL SYSTEM SENSIBLE AND LATENT GAIN: 62,547 BTUH

TOTAL TONNAGE REQUIRED WITH OUTSIDE AIR: 5.21 TONS

SYSTEM LOAD ANALYSIS	LATENT	GRAINS	SENSIBLE	TEMP	CFM
LEAVING COIL CONDITION		61.548		56.000	
DRAW-THRU FAN			0	0.000	0
MISC LOAD ON SUPPLY SIDE			0	0.000	0
SUPPLY AIR DUCT			4,717	2.000	226
ZONE LOADS	4,526	3.104	40,126	17.014	1,920
ZONE CONDITION	4,526	64.652	44,808	75.000	2,144
RETURN AIR DUCT			1,179	0.500	
RETURN AIR PLENUM			0	0.000	
MISC LOAD ON RETURN SIDE			0	0.000	
VENT AIR 272 CFM	6,768	4.642	3,290	1.395	
BLOW-THRU FAN			1,976	0.838	
ENTERING COIL CONDITION	11,294	69.295	51,253	77.733	2,144

GENERAL PSYCHROMETRIC EQUATIONS USED IN ANALYSIS:

- PR - (BAROMETRIC PRESSURE OF SITE / STANDARD ASHRAE PRESSURE OF 29.921)
- TSH - PR X 1.10 X CFM X (DB. ENTERING - DB. LEAVING)
- TLH - PR X 0.68 X CFM X (GRAINS. ENTERING - GRAINS. LEAVING)
- GTH - PR X 4.50 X CFM X (ENTHALPY. ENTERING - ENTHALPY. LEAVING)

TSH - 1.000 X 1.10 X	2,144 X ( 77.733 - 56.000 ) -	51,254 BTUH
TLH - 1.000 X 0.68 X	2,144 X ( 69.295 - 61.548 ) -	11,294 BTUH
SUM -		62,548 BTUH
GTH - 1.000 X 4.50 X	2,144 X ( 29.503 - 22.989 ) -	62,840 BTUH
TOTAL SYSTEM LOAD	-	62,547 BTUH

CHILLED-HOT WATER FLOW RATES:

COOLING GPM -	62,840 / ( 10.0 X 500 )	-	12.6 GPM
HEATING GPM -	49,455 / ( 20.0 X 500 )	-	4.9 GPM

ENTERING COOLING COIL CONDITIONS:

DRY BULB TEMPERATURE:	77.73
WET BULB TEMPERATURE:	64.46
RELATIVE HUMIDITY(%):	48.89
ENTHALPY:	29.50 BTU/LBM

ENTERING HEATING COIL CONDITIONS:

DRY BULB TEMPERATURE:	60.65
-----------------------	-------

LEAVING COOLING COIL CONDITIONS:

DRY BULB TEMPERATURE:	56.00
WET BULB TEMPERATURE:	54.70
RELATIVE HUMIDITY(%):	92.28
ENTHALPY:	22.99 BTU/LBM

LEAVING HEATING COIL CONDITIONS:

DRY BULB TEMPERATURE:	82.01
-----------------------	-------

ENVELOPE REPORT USING SUMMER U-FACTORS:

MATERIAL TYPES		GROSS AREA	GLASS AREA	NET AREA	-U-FACTOR	AREA x UFACTOR	AVERAGE UFACTOR
ROOF	1	1006.5	0.0	1006.5	0.030	30.196	0.030
WALL	1	455.2	0.0	455.2	0.187	85.120	0.187
	2	749.1	108.0	641.1	0.040	25.645	0.040
	3	21.0	0.0	21.0	0.590	12.390	0.590
TOT.WALL		1225.3	108.0	1117.3	N/A	123.155	0.110
GLASS	1	48.0	N/A	48.0	1.040	49.920	1.040
	2	60.0	N/A	60.0	1.040	62.400	1.040
TOT.GLAS		108.0	N/A	108.0	N/A	112.320	1.040
-----				-----			
TOTALS				2231.8	N/A	265.671	0.119

WALL DIRECTION	WALL AREA	GLASS AREA	WALL NET AREA	W.AVG U-FAC	GLASS AVG U-FACTOR	GLASS AVG SHD. COEFF	
N	455.2	0.0	455.2	0.187	0.000	0.000	
NE	0.0	0.0	0.0	0.000	0.000	0.000	
E	338.3	24.0	314.3	0.077	1.040	0.940	
SE	0.0	0.0	0.0	0.000	0.000	0.000	
S	0.0	0.0	0.0	0.000	0.000	0.000	
SW	0.0	0.0	0.0	0.000	0.000	0.000	
W	431.8	84.0	347.8	0.040	1.040	0.940	
NW	0.0	0.0	0.0	0.000	0.000	0.000	
-----		-----		-----		-----	
TOTALS	1225.3	108.0	1117.3	0.110	1.040	0.940	



\*\*\*\*\* TOTAL BUILDING LOAD SUMMARY \*\*\*\*\*

BUILDING PEAKS IN AUGUST AT 6 PM

BLDG. LOAD DESCRIPTIONS	AREA QUAN	SEN. LOSS	XTOT LOSS	LAT. GAIN	+	SEN. GAIN	-	TOTAL GAIN	XTOT GAIN
ROOF	1,007	1,795	3.63	0		631		631	1.01
WALL	1,117	7,321	14.80	0		2,288		2,288	3.66
GLASS	108	7,058	14.27	0		12,679		12,679	20.26
FLOOR SLAB	48	1,434	2.90	0		0		0	0.00
SKIN LOADS	2,232	17,608	35.60	0		15,598		15,598	24.92
LIGHTING	4,537	0	0.00	0		17,018		17,018	27.19
EQUIPMENT	1,152	0	0.00	0		4,321		4,321	6.90
PEOPLE	7	0	0.00	1,925		1,925		3,850	6.15
PARTITION	0	0	0.00	0		0		0	0.00
VENT 272	272	15,860	32.07	6,768		3,291		10,059	16.07
INFL 159	95	10,199	20.62	2,600		1,263		3,863	6.17
DRAW-THRU FAN		0	0.00	0		0		0	0.00
BLOW-THRU FAN		0	0.00	0		1,976		1,976	3.16
SUPPLY DUCT		4,631	9.36	0		4,717		4,717	7.54
RETURN DUCT		1,158	2.34	0		1,179		1,179	1.88
BUILDING TOTALS		49,456	100.00	11,293		51,288		62,581	100.00

BUILDING SUMMARY LOAD DESCRIPTIONS	SEN. LOSS	XTOT LOSS	LAT. GAIN	+	SEN. GAIN	-	TOTAL GAIN	XTOT GAIN
VENTILATION	15,860	32.07	6,768		3,291		10,059	16.07
INFILTRATION	10,199	20.62	2,600		1,263		3,863	6.17
ZONE LOADS	17,608	35.60	1,925		38,862		40,787	65.17
PLENUM LOADS	0	0.00	0		0		0	0.00
FAN & DUCT LOADS	5,789	11.71	0		7,872		7,872	12.58
BUILDING TOTALS	49,456	100.00	11,293		51,288		62,581	100.00

TOTAL BUILDING SUPPLY AIR (BASED ON A 19 TD): 2,144 CFM  
 TOTAL BUILDING VENT AIR (12.68% OF SUPPLY): 272 CFM

TOTAL CONDITIONED AIR SPACE: 2,896 SQ. FT  
 SUPPLY AIR CFM/SQ. FT. OF CONDITIONED SPACE: 0.7403 CFM/SQ. FT  
 SQ. FT OF CONDITIONED AIR SPACE PER TON: 555.3123 SQ. FT/TON  
 TONNAGE PER SQ. FT OF CONDITIONED AIR SPACE: 0.0018 TONS/SQ. FT

TOTAL HEATING REQUIRED WITH OUTSIDE AIR: 49.46 MBH  
 TOTAL TONNAGE REQUIRED WITH OUTSIDE AIR: 5.22 TONS

PARTY WALL FOOTING.

CONCRETE SLAB WT. - 150 pcf

BASEMENT SURCHARGE LOAD - 40 pcf

ASSUME PERMISSIBLE SOIL PRESSURE - 2500 pcf

12" CMU wall	- 70 pcf	} DEAD LOAD.
8" CMU wall	- 50 pcf	
1/2" GWB	- 4 pcf	
3/4" INSULATION	- 4 pcf	
2ND & 3RD FLOOR	- 14 pcf	

D.L.: WALLS  $70(10') + 50(21.66') = 1783 \text{ plf}$

1/2" GWB + INS.  $(4+4)(8.33) \underset{\text{FLRS}}{(3)} \underset{\text{SIDES}}{(2)} = 400 \text{ plf}$

ROOF  $(16)(18') = 288 \text{ plf}$

FLOORS  $14(18')(2) = 504 \text{ plf}$

TOTAL D.L. = 2975 plf

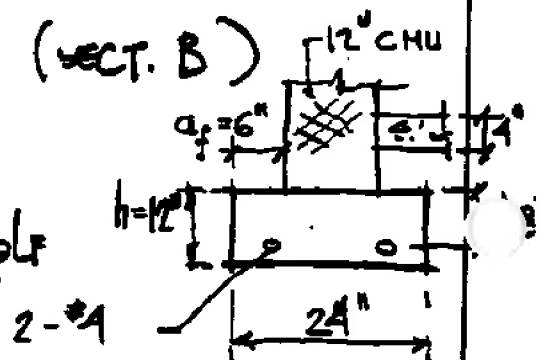
TOTAL WT. OF SURCHARGE AND SLAB (DWG. #2 R.P. ROSEN)

4" SLAB -  $150(4/12) = 50 \text{ pcf}$

SURCHARGE  $100(16/12) = 133 \text{ pcf (SECT. B)}$

$P_{NET} = 2500 - 50 - 133 = 2317 \text{ pcf}$

L.L. =  $(.7) \underset{\text{REDUCT. FACTOR}}{(40 \text{ pcf})} (18') \underset{\text{FLRS}}{(3)} = 1512 \text{ plf}$



$$A_f = \frac{D.L + L.L}{P_{NET}} = \frac{2975 + 1512}{2317} = 1.94 \text{ ft}^2 \text{ say } 2 \text{ ft}^2$$

$$P_u = 1.4(2975) + 1.7(1512) = 6736 \text{ plf}$$

$$q_s = \frac{P_u}{A_f} = \frac{6736}{2} = 3368 \text{ psf}$$

$$M_u = q_s (b) (a_f)^2 / 2 = 3368 (1') (.5')^2 / 2 = 421 \text{ ft-lb}$$

$$R_n = \frac{M_u}{\phi b d^2} = \frac{421 (12)}{.9 (12) (8)^2} = 7.3 \text{ psi}$$

$$\rho = \frac{.85 f'_c}{f_y} \left[ 1 - \sqrt{1 - \frac{2 R_n}{.85 f'_c}} \right] = \frac{.85 (3)}{60} \left[ 1 - \sqrt{1 - \frac{2 (7.3)}{.85 (3000)}} \right] = .00012$$

$$\rho_{(gross area)} = \frac{d}{h} \rho = \frac{8}{12} (.00012) = .00008$$

$$\rho_{min} = .0018 > .00008 \text{ N.G.}$$

$$A_s (req'd) = \rho b d = .0018 (12) (8) = .1728 \text{ in}^2$$

Check as a plain concrete FTG.

$$\phi M_n \geq M_u \quad \phi = .65 \quad S = \frac{b h^2}{6}$$

$$\phi M_n = 5 \phi \sqrt{f'_c} S = 5 (.65) \sqrt{3000} \cdot \frac{24 (12)^2}{6} \cdot \frac{1}{12} = 8544 \text{ ft-lb} > 421 \text{ ft-lb}$$

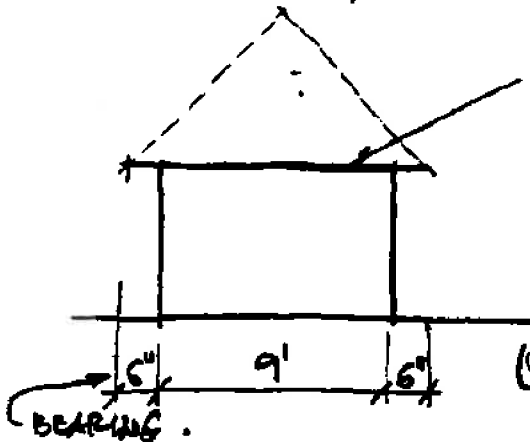
O.K.

As per Telcon with R.R. Rosen no information available re contractor built party wall FTG. per designed DWG.

Wall footing structurally sound and caused no problem for crack appearance



CHECK EXIST. LINTEL ABOVE GARAGE DOOR OPNNG.



6 x 3 1/2 x 1/2 (FIELD MEASUR.)

WT. OF BRICK ABOVE LINTEL :

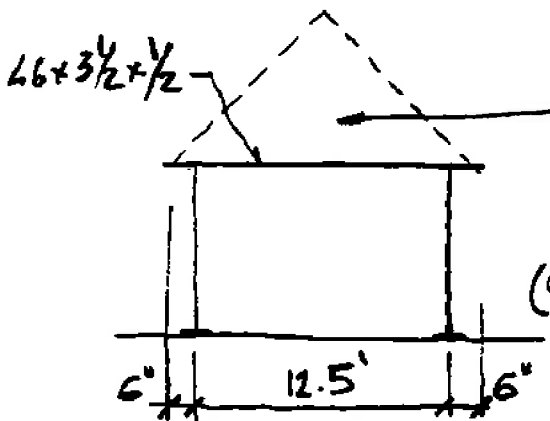
$$W = \frac{WL^2}{4} = \frac{(40)(10)^2}{4} = 1000 \# = 1 \text{ K}$$

(CONVERT.)

$$\Delta_{max} = \frac{WL^3}{60EI} = \frac{1(120)^3}{60(29)(10)^3(16.6)} = .06"$$

$$\Delta_{ALL} = \frac{L}{600} = \frac{(10)(12)}{600} = .2" > \Delta_{max} = .06" \text{ O.K.}$$

GARAGE DOOR OPNNG. @ #6245 OSAGE AVE.



6 x 3 1/2 x 1/2

$$W = \frac{40(13.5)^2}{4} = 1823 \# = 1.823 \text{ K}$$

(CONVERT.)

$$\Delta_{max} = \frac{1.823(13.5 \times 12)^3}{60(29)(10)^3(16.6)} = .27"$$

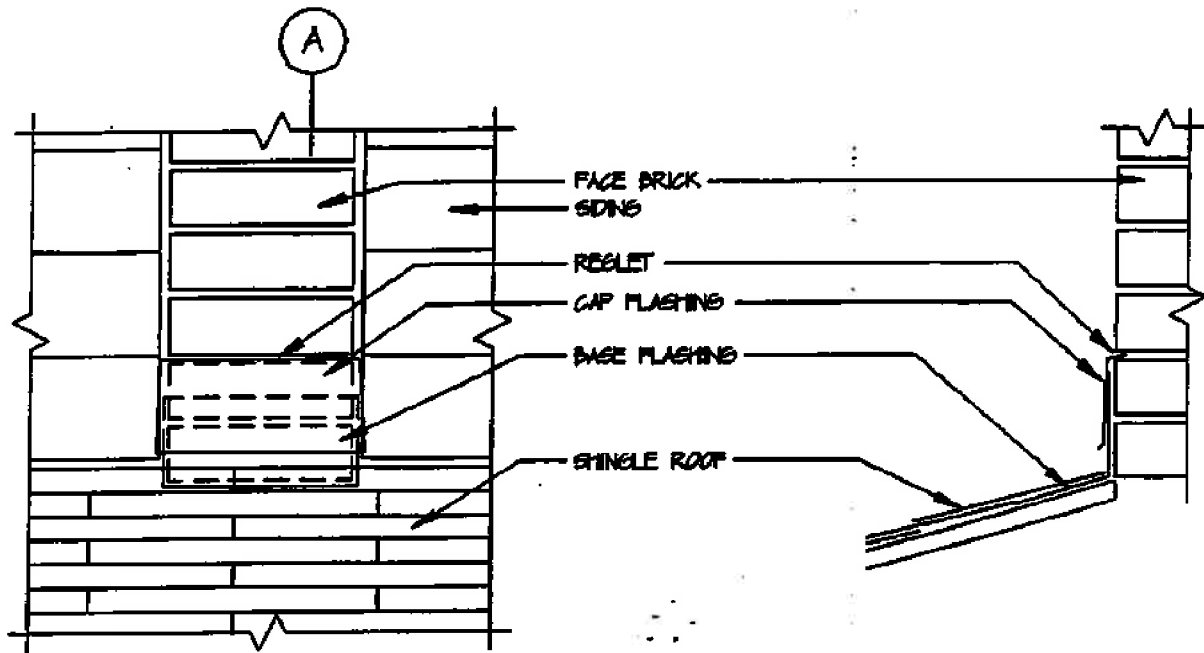
$$\Delta_{ALL} = \frac{13.5(12)}{600} = .27"$$

$$\Delta_{ALL} = \Delta_{max} = .27" \text{ O.K.}$$

22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS



**APPENDIX D**  
**FIGURES**

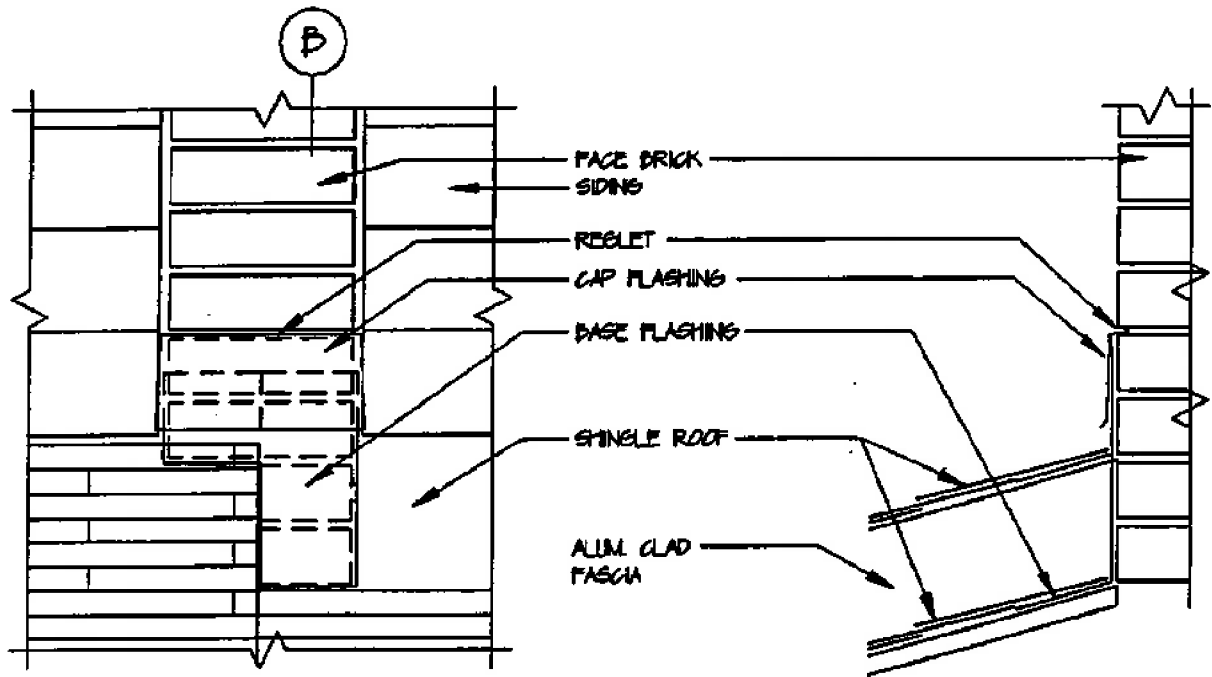


FLASHING AT ROOF

H/2" = 1'-0"

A SECTION

H/2" = 1'-0"



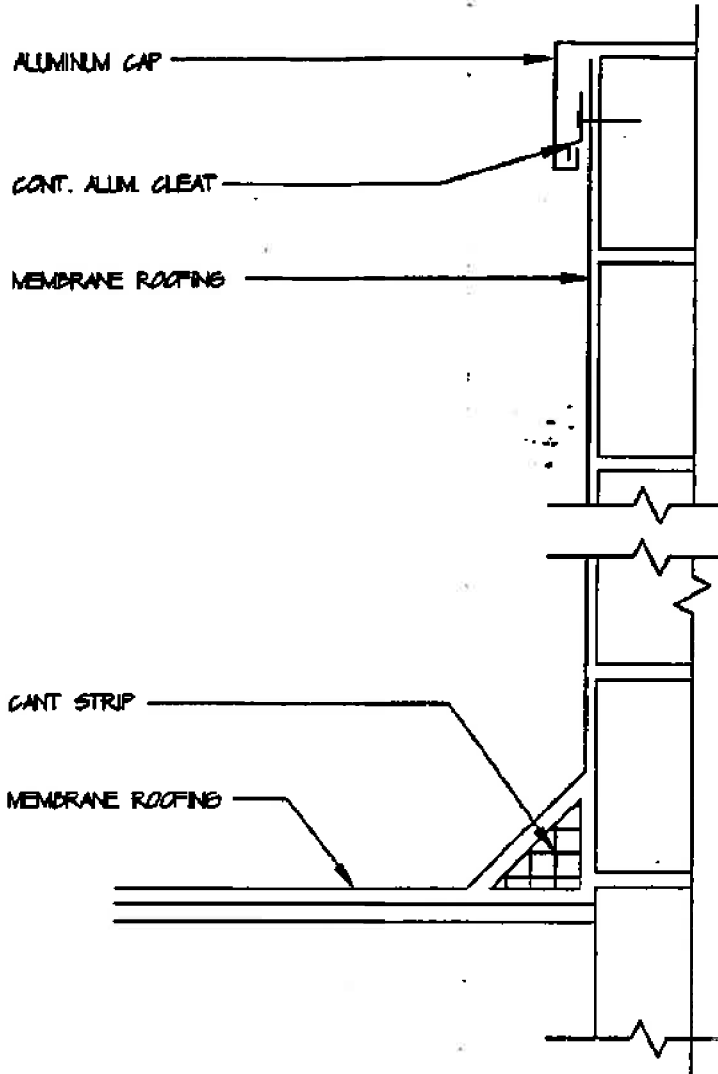
FLASHING AT ROOF STEP

H/2" = 1'-0"

B SECTION

H/2" = 1'-0"

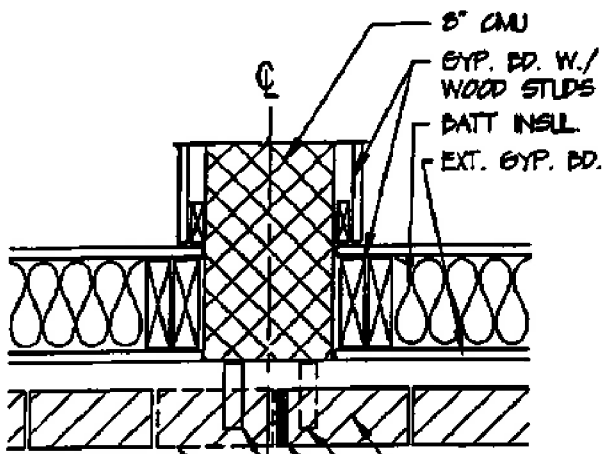
DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
AUG 1957	OSAGE/PINE STREET INSPECTIONS	ROOFS ABOVE DEN	1
DESIGNED BY: S.W.	FLASHING DETAILS		
SCALE: H/2" = 1'-0"			



TYPICAL PARAPET DETAIL

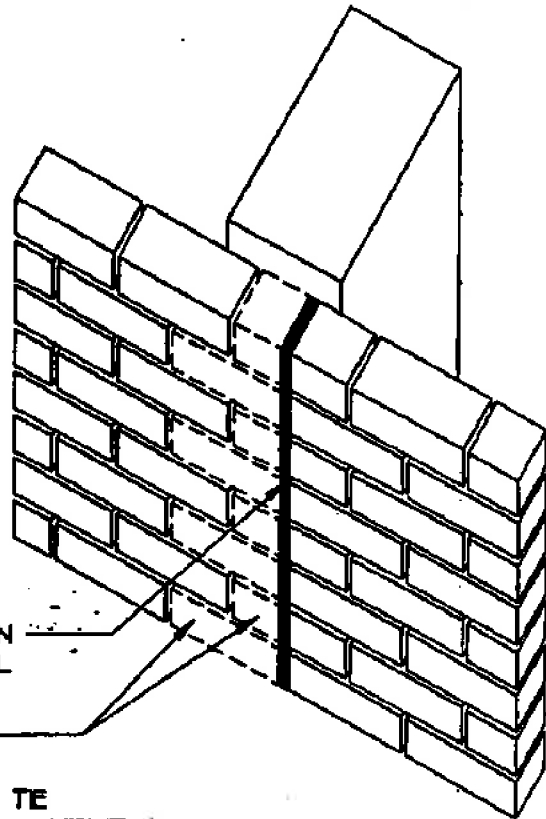
1/2" = 1'-0"

DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
AUG 1997	OSAGE/PINE STREET INSPECTIONS ROOF REPAIRS	PARAPET FLASHING/CAPPING DETAIL	2
ARCHITECT SJM			
SCALE 1/2" = 1'-0"			



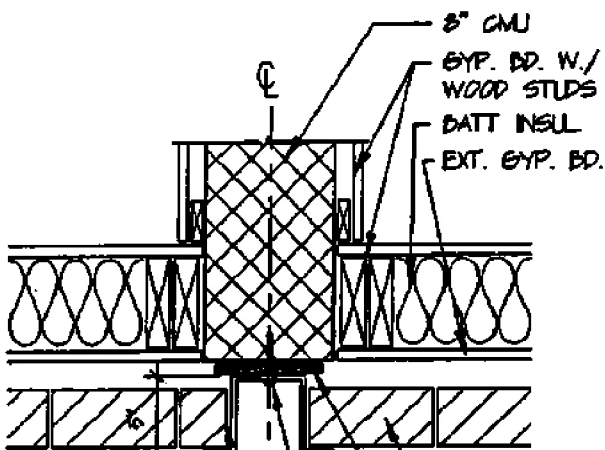
SCHEME 1  
BRICK EXPANSION JOINT PLAN

1 = 1/8"



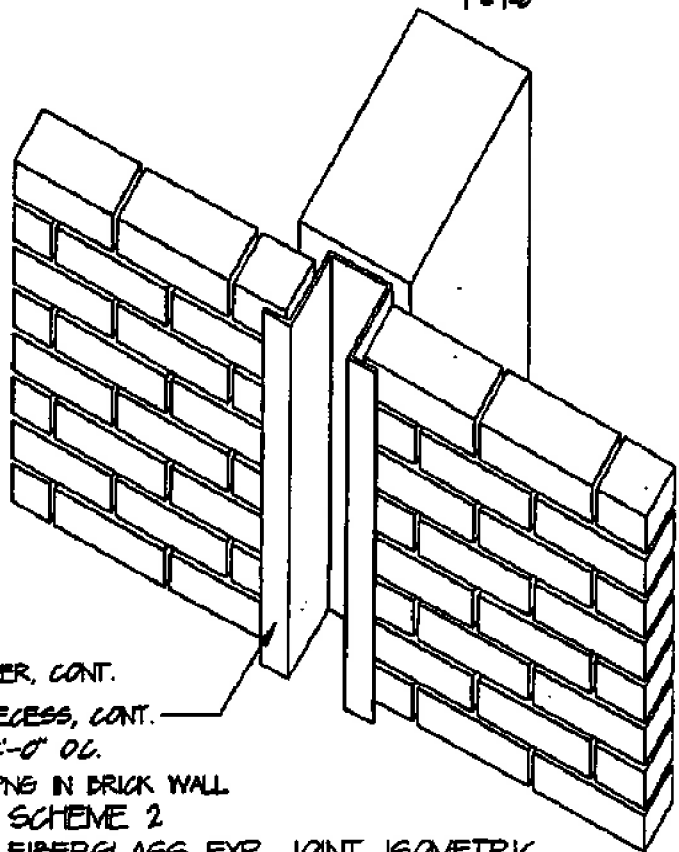
SCHEME 1  
BRICK EXPANSION JOINT ISOMETRIC

1 = 1/8"



SCHEME 2  
FIBERGLASS EXP. JOINT PLAN

1 = 1/8"

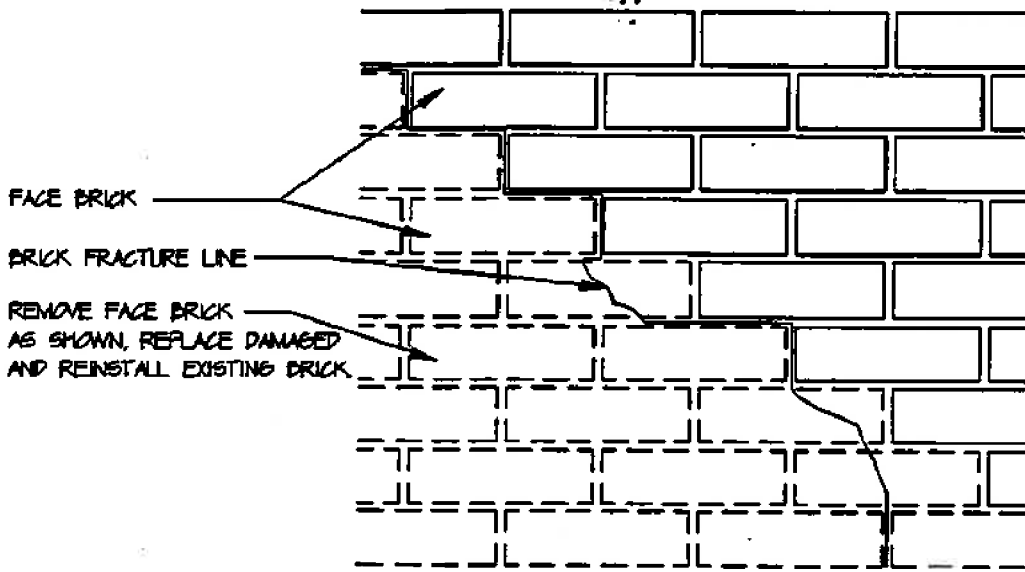


SCHEME 2  
FIBERGLASS EXP. JOINT ISOMETRIC

1 = 1/8"

NO.	DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
1	AUG 1987	OSAGE/PINE STREET INSPECTIONS EXPANSION JOINT DETAIL	NORTH SIDE OSAGE AVENUE REAR ELEVATIONS	3
DESIGNED BY	GW			
SCALE	1 = 1/8"			

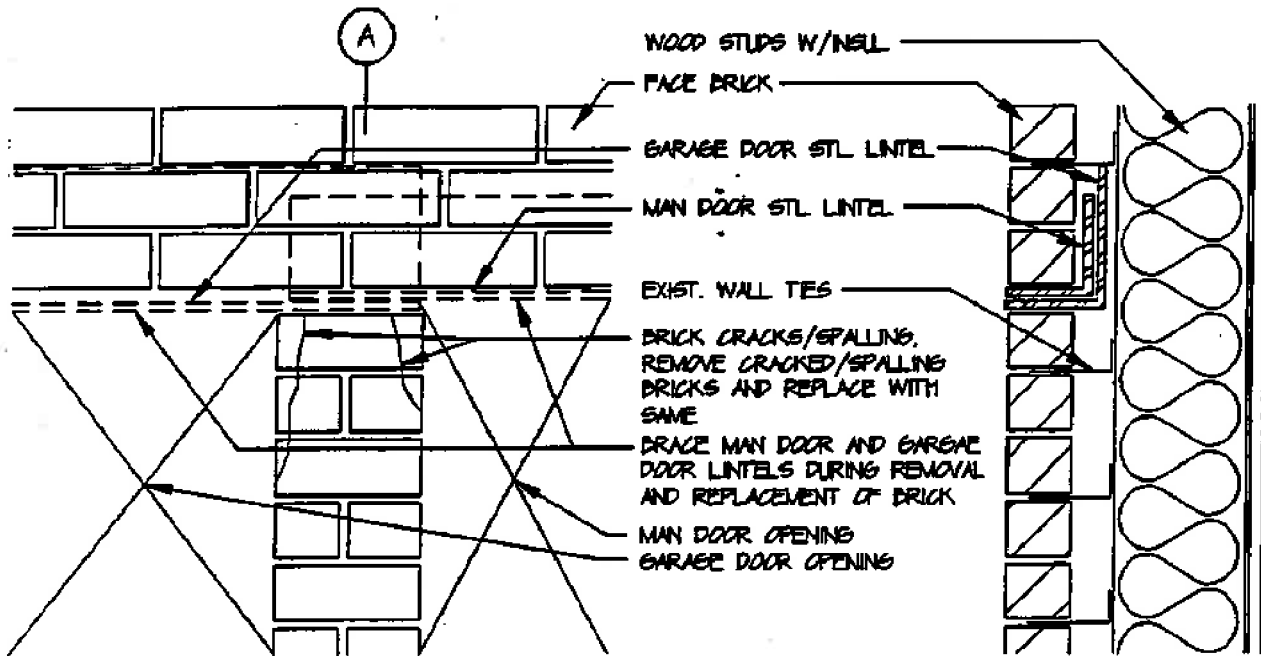




TYPICAL BRICK REPAIR

1/2" = 1'-0"

DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
AUG 1997	OSAGE/PINE STREET INSPECTIONS BRICK REPAIR DETAILS	NORTH SIDE OSAGE AVENUE REAR ELEVATIONS	4
SCALE			
1/2" = 1'-0"			



- WOOD STUDS W/NEEL
- FACE BRICK
- GARAGE DOOR STL LINTEL
- MAN DOOR STL LINTEL
- EXIST. WALL TIES
- BRICK CRACKS/SPALLING, REMOVE CRACKED/SPALLING BRICKS AND REPLACE WITH SAME
- BRACE MAN DOOR AND GARAGE DOOR LINTELS DURING REMOVAL AND REPLACEMENT OF BRICK
- MAN DOOR OPENING
- GARAGE DOOR OPENING

NOTE:  
 WOOD DOOR FRAMES NOT SHOWN FOR CLARITY.  
 WOOD DOOR JAMB/HEAD SHALL BE REMOVED  
 FOR INSTALLATION OF NEW BRICK WOOD JAMB/  
 HEAD SHALL BE REINSTALLED, SEALED, AND PAINTED.

BRICK @ GARAGE DOOR LINTEL  
 1/2" = 1'-0"

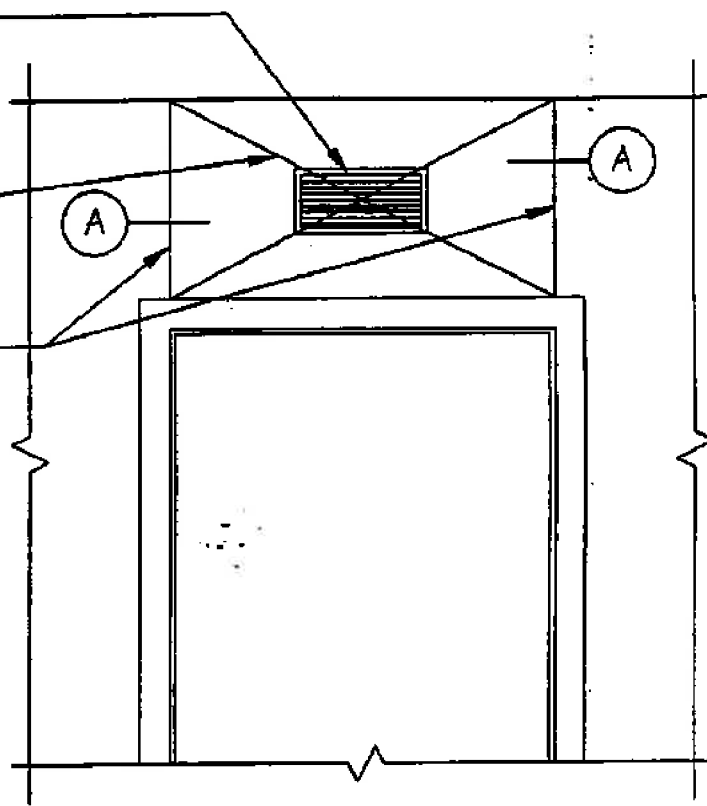
A SECTION  
 1/2" = 1'-0"

DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
AUG 1997	OSAGE/PINE STREET INSPECTIONS	NORTH SIDE OSAGE AVENUE	5
ARCHITECT: SJV	BRICK REPAIR DETAILS AT GARAGE	REAR ELEVATIONS	
SCALE: 1/2" = 1'-0"			

REMOVE AND REINSTALL  
TRANSFER REGISTER

REMOVE GYPSUM BOARD  
AND REPLACE WITH NEW

PROVIDE GALV. STEEL CONTROL  
JOINT, BOTH SIDES OF DOOR  
AND BOTH SIDES OF WALL



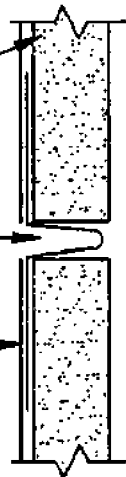
DOOR/WALL ELEVATION

NTS.

GYPSUM BOARD

GALV. STEEL CONTROL JOINT

SPACKLING



NOTE: CUT NOTCH IN GYPSUM BOARD TO ACCOMMODATE  
CONTROL JOINT

METAL RAILING

TRIM/CARPET

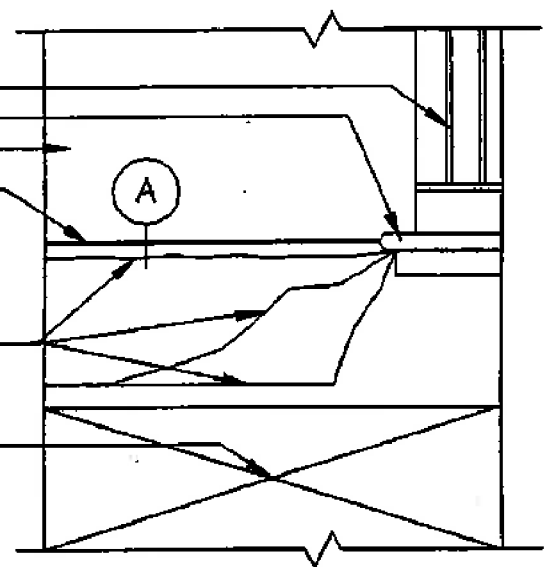
GYPSUM BOARD

GALV. STEEL

CONTROL JOINT

TYPICAL CRACKING,  
REPAIR

STARWAY



STAIR WELL ELEVATION

NTS.

**A** GYPSUM BOARD CONTROL JOINT

NTS.

DATE	PROJECT & SHEET TITLES	DESCRIPTION	FIGURE
AUG 1997	OSAGE/PINE STREET INSPECTIONS WALL CRACKING	GYPSUM BOARD CONTROL JOINT	6
ARCHITECT: GJW			
SCALE: NTS.			

**APPENDIX E**  
**TRIP REPORTS**



## MEMORANDUM FOR FILES

**SUBJECT:** Trip Report and Geotechnical/Foundation Evaluation of Osage Avenue and Pine Street Homes, 29 April 1997 and 10 June 1997.

1. On 29 April 1997, Mr. Anthony DePasquale, P.E. visited the subject homes on Osage Avenue and Pine Street. The purpose of the visit was to inspect the homes exteriors for signs of foundation distress. The homes inspected include 6213 through 6246, 6248, 6250, 6252, 6254, and 6256 Osage Avenue, and the even addresses from 6212 through 6254 Pine Street. A photographic record of the inspection is contained in this report.
2. Findings: Visual inspection of the exteriors of the above properties noted the following deficiencies possibly related to foundation or structural problems.
  - a. Pine Street: The properties on Pine Street showed no signs of foundation distress, cracking or settlement.
  - b. Osage Avenue, even addresses: The even-address properties on Osage Avenue demonstrated no visible signs of foundation distress, cracking or settlement.
  - c. Osage Avenue, odd addresses:
    - (1) The rear wall of 6245 Osage Avenue contains a crack in the brick mortar extending through the vent in the wall. The crack contains a monitoring gage previously installed by others.
    - (2) At 6243 Osage Avenue, a crack extends from the ground near the door up 5 feet and across toward 6241 Osage Street.
    - (3) At 6241 Osage Avenue, a crack extends from just above the ground on the west side of the property, across and up to the door header.
    - (4) At 6219 and 6217 Osage Avenue, a crack extends from the base of the door on 6217 Osage Avenue up above the door on 6219. The crack does not extend to the ground.
    - (5) Similar cracks as noted above were found in the rear wall brick mortar at 6237, 6239, 6223, 6221, 6213, and 6215.
3. No intrusive examination was performed as part of this evaluation. In May of 1995, Mitra & Associates performed a series of test pits, exposing the foundation of the properties in question. Photographs of this investigation were examined and indicated some loose soil and voids under the foundation beam. The homes were built on existing foundations of demolished houses. No visible signs of foundation settlement were observed in any of the 29 test pits.
4. The interior of the home at 6219 Osage was inspected on 10 June 1997. This address has visible cracks in its exterior rear brick wall. Examination of the block wall in the front and rear of the property in the crawl space and garage showed no signs of distress. The garage slab was level and had no cracks. There was no separation between the slab and the walls. Some settlement cracks were observed in the rear bedrooms of the second floor.

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SUBJECT: Trip Report and Geotechnical/Foundation Evaluation of Osage Avenue  
and Pine Street Homes, 29 April 1997

5. **Conclusions and Recommendations:** Based on the visual inspection of the properties and results of the 1995 test pits, it is the professional opinion of the undersigned that the cracking in the brick fascia is not due to settlement of the foundation, but can be attributed to the lack of expansion joints in the brick. Most of these cracks do not extend completely to the ground. Localized cracking found in the interior of some of the homes is common in any 11 year old residential construction. Much of this interior distress is likely to be the result of drying of the framing lumber. The subject homes do not appear to have any foundation problems that require remediation. Since the homes are supported by the previous foundation constructed over 50 years ago, it is not anticipated that future settlement will become a problem.

6 If there are any questions, please contact Mr. Anthony J. DePasquale P.E. at X-6669.



ANTHONY J. DEPASQUALE, P.E.  
Chief, Civil and Structural Section

## MEMORANDUM FOR FILES

**SUBJECT:** Trip Report and Structural Evaluation of Osage Avenue and Pine Street Homes, 29 April 1997 and 13 May 1997.

1. On 29 April 1997, Mr. Paul Balibar visited the subject homes on Osage Avenue and Pine Street. The purpose of the visit was to inspect the exterior of the homes for indicators of structural distress. This inspection was conducted concurrently with the geotechnical inspection conducted by Mr. Anthony DePasquale, P.E.. The homes inspected include 6213 through 6246, 6248, 6250, 6252, 6254, and 6256 Osage Avenue, and the even addresses from 6212 through 6254 Pine Street.
2. Findings: Visual inspection of the exteriors of the above properties noted the following deficiencies possibly related to foundation or structural problems.
  - a. Pine Street: The properties on Pine Street showed no signs of foundation distress, cracking or settlement.
  - b. Osage Avenue, even addresses: The even-address properties on Osage Avenue demonstrated no visible signs of foundation distress, cracking or settlement.
  - c. Osage Avenue, odd addresses:
    - (1) The rear wall of 6245 Osage Avenue contains a crack in the brick mortar extending through the vent in the wall. The crack contains a monitoring gage previously installed by others.
    - (2) At 6243 Osage Avenue, a crack extends from the ground near the door up 5 feet and across toward 6241 Osage Street.
    - (3) At 6241 Osage Avenue, a crack extends from just above the ground on the west side of the property, across and up to the door header.
    - (4) At 6219 and 6217 Osage Avenue, a crack extends from the base of the door on 6217 Osage Avenue up above the door on 6219. The crack does not extend to the ground.
    - (5) Similar cracks as noted above were found in the rear wall brick mortar at 6237, 6239, 6223, 6221, 6213, and 6215.
    - (6) Cracking and spalling of brick at garage door lintel terminations was also noted at several of the odd numbered properties on Osage Avenue.
3. Possible Causes: Visual inspection combined with review of design drawings indicate possible factors contributing to the cracking noted in paragraph 2 above.
  - (1) The long, straight rear face of North Osage Avenue properties lacks brick expansion joints. Thermal expansion and contraction of brick will result in cracking due to the lack of expansion joints.
  - (2) The deflection of the steel lintel over garage doors were checked for allowable deflection based on design drawing conditions. Computed deflection does not exceed allowable. However, initial deflection is likely contributor to cracking and spalling at lintel terminations.
  - (3) Design drawings call to question proper framing of garage door opening. During the 13 May site visit limited destructive investigations were conducted to determine actual conditions at this



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location at 6221 Osage Avenue. Investigations revealed proper reinforcement of the garage door frame at this location (a double header and trimmer). It is assumed that garage door framing is consistent for all other properties. Garage door framing condition does not appear to contribute to brick cracking.

- (4) Settlement of exterior wall or party wall foundations would contribute to brick cracking. Test pit logs of previous investigations do not indicate settlement of exterior wall foundations (see geotechnical site report). Data from overall interior investigations does not generally correlate exterior brick cracking with interior cracking indicative of settlement. Design drawings indicate party wall foundation at 16" below grade. The actual constructed depth is unknown. The frost penetration line for this geographic area is 30"; and all foundation walls should be constructed below this line. If constructed per design, this condition could potentially contribute to cracking. However, once again, interior architectural inspections do not support such a conclusion.

4. Conclusions and Recommendations: Based on the visual inspection of the properties and calculations, combined with geotechnical review, it is the professional opinion of the undersigned that the cracking in the brick fascia is not due to foundation conditions or structural deficiencies, but can be attributed to the lack of expansion joints in the brick. Most of these cracks do not extend completely to the ground. Localized cracking found in the interior of some of the homes is common in any 11 year old residential construction. Much of this interior distress is likely to be the result of drying of the framing lumber. Expansion joints should be added to stem the progress of this condition. Portions of the brick veneer wall containing mortar joint cracks and brick fractures should also be removed and replaced.

6 If there are any questions regarding the information contained herein, please contact Mr. Paul Balibar, Structural Engineer.



PAUL BALIBAR  
Structural Engineer

**APPENDIX F**  
**SUBSURFACE INVESTIGATION DATA**





# **mitra & associates, inc.**

## Site Visits/Inspection

The following list indicates Site Visits/Inspection dates of the houses:

- January 18, 1995 with Lance Rothstein and Anthony Lucarini of the Redevelopment Authority (RDA)
- January 31, 1995 with John Vacara, Anthony Lucarini of RDA
- April 11, 1995 with Anthony Lucarini and Frank Salera of RDA
- April 21, 1995 with Lance Rothstein
- May 3, 1995 with Lance Rothstein
- May 11, 1995 with Lance Rothstein
- May 23, 1995 with Lance Rothstein

## Meetings

- Numerous meetings with RDA personnel at their office.
- Osage Avenue Community meeting at community hall.

## Observations:

Wall Cracks: Several walls were observed to have diagonal-stepped cracks, starting from the door jamb height and travelling towards the ground, a typical crack pattern can be seen in Photo 3.

Gages to measure crack propagation were installed at several locations. Some of these cracks were noted to have increased by 0.5 mm to 2.0 mm since the gages were installed about 6 months ago.

It is noted that most of the crack movement occurred through the mortar joints although occasional bricks had been fractured.

Foundation beam and soil: Extensive visual inspections had been performed on the condition of the foundation beam and the type, compaction and moisture content of the soil under these beams. These observations were made from a 4ft. x 3ft. hole dug into the ground.

The following observations are presented here:

Osage:

- |                 |  |
|-----------------|--|
| @ back of 6213: | Moist, sandy silty soil loosely compacted.<br>No visible crack in beam; concrete condition appeared satisfactory.<br>No visible crack in wall above. |
| " " 6215:       | Wet but similar soil condition. Void under beam for 12" back. Concrete & beam as above.<br>Visible crack on wall above.                              |
| " " 6217:       | Same as in 6215.<br>Loose soil under beam for 8" back.<br>Visible crack in wall above.   |

66303-00



# **mitra & associates, inc.**

- " " 6219: Moist but similar soil condition with some clay. Loose soil under beam for 6" back. Large void toward party wall with 6217. Concrete & beam as above. Visible crack as above.
- " " 6221-23: Wet but similar soil as above. Similar state of soil @ party wall; compaction as above. Concrete and beam as above. Visible crack as above.
- " " 6225: Wet, dense sandy silty soil with medium compaction. Concrete & beam as above.
- " " 6227: Same soil type. Void under beam at the party wall with 6225. Concrete & beam as above.
- " " 6229: Same soil mixed with some clay, loosely compacted; very moist. Concrete & beam as above.
- " " 6231: Same as above, very moist.
- " " 6233: Same as above, but mixed with more clay. Very moist. No voids. Concrete & beam as above.
- " " 6235: Moist sandy silty soil. Void under and around the lateral for at least 4 ft. Very loosely compacted otherwise. Concrete & beam as above.
- " " 6237-39: Loose sandy silty soil, normal moist. Concrete & beam as above. Visible crack in wall above.
- " " 6241-43: Same as above with traces of shale, normal moist. Concrete & beam as above. Visible crack in wall above.
- @ front of 6241: Compacted sandy fill with bricks, blocks, etc., normal moist. Concrete & footing satisfactory.
- " " 6250: Compacted virgin soil, normal moist. New footing over existing foundation. No visible crack in wall above.
- @ back of 6250: Compacted virgin soil, normal moist. Concrete & beam as above.

66303-00



# mitra & associates, inc.

" " 6255: Well compacted virgin soil with shale. Void under-rain water conductor to lateral. Observed hole in rain water conductor. Concrete & beam as above. Visible crack in wall above.

## Pine:

@ back of 6212-14: Well compacted, virgin soil, normal moisture.  
" " 6216-18: Same as above.  
" " 6220-22: Same as above.  
" " 6224-26: Same as above.  
" " 6228-30: Not observed.  
" " 6232-34: Sandy silty soil fill with loose compaction, normal moist.  
" " 6236-38: Not observed.  
" " 6240-42: Not observed.  
" " 6244-46: Not observed.  
" " 6248-50: Well compacted virgin soil, normal moist.  
" " 6252-54: Same as above.  
@ Front 6252-54: Same as above.



**Note: “Appendix G: Preliminary Cost Estimate”  
has been intentionally removed**



**APPENDIX H**  
**REVIEW COMMENTS AND RESPONSES**

## COMMENTS AND RESPONSES

1. **6218 Osage Avenue - Concrete is pulling away from rear of house. This condition is fairly typical of all residences and is addressed on page 6, paragraph 3.1.11 of the report. There is no action recommended.**
2. **6219 Osage Avenue - This property was unavailable for reinspection. However the majority of the comments are apparently maintenance items.**
  - **Appliances: Stove and heater have been replaced/repared. This is considered to be a normal homeowner responsibility unrelated to the design or construction of the property. Fireplace is hard to ignite. Fireplace should not be difficult to ignite. Recommend checking with maintenance personnel on site.**
  - **Powder Room: Cabinet under sink warped from leaks. Faucet leaks are considered a maintenance item and homeowner responsibility.**
  - **Skylight: Screen Malfunctions. Unclear. Screen not designed to move.**
  - **Master Bath: Omission of the master bath was apparently a change madeto the construction contract and not reflected on the design plans available for review.**
3. **6235 Osage Avenue - Residence was reinspected to address specific comments below.**
  - **Bathroom: Low flow in shower, sink faucet leak and dampness under sink. Recommend owner replace economy shower head. Faucet leak is a maintenance item as is resulting dampness under cabinet.**
  - **Dining Area ceiling: Apparent leaks from bathroom coming through ceiling. Gypsum board is dry to touch indicating old problem. Recommend homeowner check periodically to see if leak has become active.**
  - **Kitchen Area: Stove malfunctions, dampness under sink. Stove is a maintenance item. Signs of past leak under sink, apparently inactive. No action recommended.**
  - **Bedrooms: Improper HVAC vents/circulation. Rebalancing the entire HVAC system for all properties is recommended by the report. This along with window and door replacement should improve current conditions.**
4. **6237 Osage Avenue - Residence was reinspected to address concerns over squeaky upper staircase and kitchen floor by stove. Recommend shimming stair when wall opened for joist repair. Slight squeak observed in kitchen. No action is recommended.**

5. **6246 Osage Avenue - Residence was reinspected to address concern over periodic electrical service interruptions and site drain back-ups. PECO was contacted to determine what, if anything they have done about the situation. Calls were not returned by appropriate personnel. No apparent problem with interior electrical from main to house panel. Assume problem is with underground service connect. Recommend PECO uncover connection and investigate. Drain trap replacement has not rectified reported back-up problem. Suspect collapse in line of slope problem. Recommend additional investigations to see where "roto-router" hits blockage. Repair recommendation 24a of the report may be required.**
  
6. **6218 Pine Street - Residence was reinspected to address the specific comments listed below.**
  - **Screen missing on back room window. Recommend all windows be replaced as indicated on page 6, paragraph 3.2.1 of the main report (Repair Item 12).**
  - **Sliding doors are difficult to operate. Recommend sliding doors be replaced as indicated on page 7, paragraph 3.2.2 of the main report (Repair Item 13a).**
  - **Bathroom skylight leaking. Leak due to improper roof flashing. Roof replacement recommended on page 5, paragraph 3.1.4 of the main report (Repair Item 4) will resolve problem.**
  - **Front pavement is uneven. Some sections of sidewalk have a two inch drop. Recommend repairing in accordance with Repair Item 9. This information is now reflected on page 6, paragraph 3.1.11 of the main report.**
  - **Doors are racked/out of plumb and not flush. Doors have been shaved too close but operate properly. No action is recommended.**
  - **Upstairs hallway floor appears warped. Observed a slight warp in front of the bathroom door. Condition not apparently progressive. No action recommended.**
  - **Basement floor uneven. Condition not observed.**
  - **Light fixture installed incorrectly. Screw missing. Fixture requires refastening.**
  - **Stove does not maintain accurate temperature. This is considered a homeowner responsibility independent of design or construction issues.**

- **Bathroom toilet runs continuously and shower head drips. These are considered routine maintenance items.**
  - **Kitchen floor squeaks. Condition is minor. No action is recommended.**
7. **6228 Pine - Residence was inspected to address specific concerns over water back ups with dishwasher use and nail pops throughout property. Gasket is missing from disposal. Recommend resident address. Nail pops are similar to other properties and do not warrant action.**
  8. **Floor tile cracked in bathroom and powder room. Cracks in two tiles in bathroom appear to be due to overtightning toilet bolts (no subfloor problem indicated). Vinyl tile in powder room appear to be from previous toilet back-up(s). Both are considered normal maintenance items.**

