#### **ENGINEER'S REPORT**

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Inspection No. 20130143

Date of Inspection: January 22, 2013

The seal appearing on this document was authorized by John M. Mulvahill, P.E. 62080 on January 22, 2013. The signed original is maintained in our file if not delivered to the client.

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#### INTRODUCTION

The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Thus, it discusses many things beyond those that are of immediate concern. Therefore, the report needs to be read in its entirety to understand fully all the information that has been obtained.

At your request, a **limited** structural and mechanical inspection was performed on the above property. The report that follows has been prepared based on that inspection. This inspection was performed by and report written by John Mulvahill, P.E.

Our primary purpose is to provide an understanding of the house you are considering and the conditions existing at the time of the inspection. This report is based on an examination of the major systems in this building; specifically, the heating, air-conditioning, plumbing, electrical, and structural systems. This report is an opinion about the condition of this building. It is based on visual evidence available during a diligent inspection of all reasonably accessible areas. No surface materials were removed, no destructive testing undertaken, or furnishings moved. It is not uncommon for occupied properties to have some interior and exterior walls, interior spaces (e.g. closets and under sinks) and windows obscured from view and inspection structurally and mechanically due to wall coverings, stored items, debris, window treatments, boxes, clothing and furnishings, etc. We strongly recommend visually rechecking the interior and exterior walls, windows and mechanical/electrical/plumbing components for previously hidden defects or deficiencies when the home is vacated and obstructions are removed. We have included a pre-title check sheet to help facilitate this inspection. In addition, insulation in the attic can cover some structural, electrical, mechanical and plumbing components, which can preclude the inspection of these hidden items. We do, of course, look for problems, particularly those we would consider major deficiencies. Please keep in mind that we generally define a major deficiency as one that would cost approximately \$1,000.00 or more to correct. Any house will have minor items deserving attention. Often these are matters of personal preference. It is not the intent of our inspection to detail every minor defect we might find.

This inspection and report do not include code compliance, mold investigations, environmental investigations, indoor air quality analysis, municipal regulatory compliance, subsurface investigation, verification of prior uses, or records research related to this building. This report is **not** an exhaustive technical evaluation. Such an evaluation would cost many times more.

Our inspection does not make any attempt to know or verify the prior uses of this property and cannot determine whether or not illegal activities have been engaged in, on or near the property, including but not limited to, the use or manufacture of illegal substances, criminal events or the presence of substances banned or controlled by federal, state or local law. If this is of concern to you, we recommend that you make appropriate inquiries into past uses to resolve your concerns.

Owning any building involves some risk. Even the most comprehensive inspection cannot be expected to reveal every condition you may consider relevant to your ownership. Further, without disassembling the building, not everything can be known. The report is not to be considered a guarantee of condition and no warranty is implied.



You, as a responsible buyer, should examine the portions of this building for which you are most able to judge acceptability. This includes such things as floor coverings, interior wall finishes, appliances, etc.

As Professional Engineers, it is our responsibility to evaluate available evidence relevant to the major systems in this building. We are not, however, responsible for conditions that could not be seen or were not within the scope of our service at the time of the inspection. This inspection and report have been conducted in compliance with the standards of practice of Criterium-Farrell Engineers and in a manner consistent with that level of care and skill that is ordinarily exercised by members of the profession practicing under similar conditions at the time the services are performed.

This inspection of the foundation of this building was limited to a "Level B" evaluation as defined by the Texas Board of Professional Engineers through their recognition of the document titled "Guidelines for the Evaluation and Repair of Residential Foundations" as issued by the American Society of Civil Engineers, January 1, 2003 as well as the document titled Guidelines for the Evaluation of Foundations for Residential and Other Low-Rise Building" as issued by the Foundation Performance Association, July 15, 2007.

Any home, regardless of code compliance requirements, should satisfy basic engineering principles and good construction practice. We have considered these principles when evaluating the capacity of the framing, the adequacy of the heating and air conditioning system, and other components where the choice of materials, their capacity, and their installation are relevant to future performance of this home.

Texas law allows only persons who possess a valid "Structural Pest Control Business License" to inspect or make reports with respect to pest infestations including wood destroying insects and other organisms such as fungus (causing wood rot). This report is not a termite inspection and no responsibility is assumed for any damage caused by wood-destroying organisms.

For your reference while reading the report that follows, the following definitions may be helpful:

Excellent Component or system is in "as new" condition requiring no rehabilitation and should perform in accordance with expected performance.

Good Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further

deterioration or to prolong expected life.

Fair

Poor

Component or system either has failed or cannot be relied upon to continue performing its original function because of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality homes where such details of workmanship and materials typically become more relevant.

We will be discussing many different subjects in this report as well as offering suggestions for changes and improvements to this home. As you read the report, pay particular attention to our notes regarding the fact that many of our observations and suggestions are typical of many homes we look at. Thus, while it may seem that there is some work to do during the next five to ten years, keep in mind that no home is perfect and all deserve some care, attention and upgrading.

Kindly note that we may bold or italicize certain observations for your attention. However, you should not assume that these are the only observations of importance in the report. Please be sure to read our report thoroughly and completely.

This written report is the complete response to your request for an inspection of this property and should be read in full. Any verbal statements made during the inspection are made as a courtesy only and are not considered a part of this report. If you have any questions about this report or our inspection, please call our office immediately for clarification. If there is any area of this property where you have a particular concern based either on this report or on your own personal observations, we recommend a more exhaustive technical evaluation.

#### **DESCRIPTION**

This house is a two-story residence with brick veneer and wood siding on the exterior walls and an asphalt composition shingle roof surfacing that was apparently built about 1983. The house was occupied at the time of inspection.

For purposes of this report, all directions (left, right, rear, etc.) are taken from the viewpoint of an observer standing in front of the building and facing it; or, when discussing a specific item, from the viewpoint of standing in front of that component (doorframe, window, etc.).

#### SITE

#### General

In many areas of southeast Texas, soils have high contents of expansive clays that swell when wet and shrink when dry<sup>1</sup>. Building foundation and structural damage can result from the shrink-swell pressure exerted by the soil. More or less uniform moisture levels can help preclude cyclic expansion and contraction of the soil with its resulting foundation movement.

#### **Observations and Recommendations**

Topography of the lot is generally level with a steep slope to the bayou at the rear. The lot drains to the front and rear and to area catch basins. Drainage of the property and surrounding area was relatively good. All low spots where excess water can accumulate should be filled and sloped so

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<sup>&</sup>lt;sup>1</sup> United States Department of Agriculture Soil Conservation Service, "Soil Survey of Harris County", 1976

water drains naturally away from the foundation. We mention this because poor drainage is a frequent contributor to differential movement.

There is an underground drain system into which some of the downspouts empty. It appears that the system drains to the street or storm drains, and that it is functioning properly. You should plan to perform periodic maintenance on this drain system to keep it functioning properly.

Trees were observed within 9 feet of the foundation at the left front. Trees can contribute to differential movement in a foundation in two ways. The roots of trees consume large quantities of moisture from the soil, causing the soil to dry and shrink much faster than other areas. In some cases, tree roots will undermine the grade beam foundation, lifting and cracking the foundation. We normally do not recommend removal of mature trees (unless observations indicate obvious foundation damage) because the decaying roots may have a more detrimental effect.

### Additional Deficiency Noted:

• We noted an insect damaged tree at the rear which overhangs the deck. For safety we recommend an arborist evaluate the health of the tree.

#### **STRUCTURE**

#### General

Our evaluation of this structure is based on many indirect observations. We cannot see most of the framing. We look for cracks, bulges, and other evidence of distress or deterioration to help us evaluate the condition. As with any limited inspection, it is possible that there are structural deficiencies that cannot be known.

#### **Observations and Recommendations**

The following areas were inaccessible or not visible, and this limited the extent of our structural inspection:

- Portions of the attic area at the far perimeters
- Most of the foundation system and slab (underground)
- Wall framing (concealed)
- The edge of the slab in some areas
- Roof framing below the flat roofs

According to drawings available at the inspection, the house has a concrete slab on drilled piers foundation. The type and amount of steel reinforcing in the slab cannot be determined by a visual inspection. However, it is most likely conventionally reinforced with steel reinforcing bar spaced uniformly throughout the slab. Grade beams under load bearing portions of the house provide the home's foundation. Drilled piers are located at strategic points under the grade beams and extend a number feet into the soil. These piers provide a generally stable base for the foundation. The grade beams are deeper than the rest of the slab and they contain additional steel reinforcing. The exterior and interior walls rest on the slab. The roof framing is supported by exterior and interior bearing



walls and beams. This is a standard method of construction.

The garage floor is carpeted and therefore we were unable to determine if there was any cracking in the concrete slab in the garage. It should be noted that many slab foundations develop cracks.

We performed a survey of the floor elevations in the home using an electronic level, which the manufacturer states is reliably accurate to within 1/8<sup>th</sup> of an inch over a vertical range of plus or minus twenty feet. The majority of measurements obtained were around the perimeter of the home. Adjustments were made to accommodate for steps, changes in floor coverings, and other built-in variances.

We noted minor elevation variances throughout much of the home with a maximum change of about 1.1 inches in 15 feet, measured from the left front of the kitchen to the left front of the gameroom. In general, we consider differentials of less than 1 inch in 10 feet to be acceptable. The measured differential is within that parameter.

We noted no patterns of cracking in veneer or drywall, sticking doors, abnormal cracks in concrete grade beams, or floor unevenness that would indicate a problem with differential movement of the foundation.

Based on visible evidence, the structural condition of this foundation is average. We consider the home structurally sound. With normal care, and attention to maintenance of a stable moisture content in the soil surrounding the foundation, the slab should continue to be structurally sound for the foreseeable future. Although no damage was observed at the time of the inspection, soil conditions in this area are known to be unstable. No warranty against future movement can be made.

We do recommend a program of conscientious moisture management of the soil in close proximity to the foundation in an effort to stabilize the moisture content and thus stabilize foundation movement caused by soil expansion and contraction.

It should not be assumed that no rot exists in any of the inaccessible areas. Rot can result from moisture accumulating underneath the siding, behind trim, or within the wall cavities should insulation or other obstacles restrict the normal drying process. Therefore, it is possible that you will encounter some rot should you at any time undertake any projects that involve disassembly of the portions of this structure normally inaccessible to visual inspection. This is typical for any home.

Although not visible, no significant permanent deflection of the ceiling joists was observed and they appeared to be firm and generally level. Based on areas accessed, no major structural problems were observed in the visible framing members, except as noted below.

#### Additional Deficiencies Noted:

- Roof sag (roof rafter deflection) was noted at the right front roof slope. The rafter sag is visible in the interior sloped ceiling of the room above the garage. In our opinion, the degree of sag is not considered a significant structural deficiency.
- We measured significant deflection in the floor of the room above the garage. The midspan deflection exceeds allowable limits. While the floor deflection is noticeable (a serviceability issue), in our opinion it is not considered a significant structural deficiency. However, we do recommend limiting the amount of furniture etc. placed in the center and



#### **ROOFING**

#### General

The roof is a system that must work well together to provide weather protection for the house. The major elements in this system include the roofing or roof covering (shingles, tile, membrane), the underlayment (impregnated felt or paper, ice and water shield), metal flashing (lead, copper, aluminum, galvanized steel), sheathing (plywood, waferboard, dimensional lumber boards), and the roof rafters themselves.

#### **Observations and Recommendations**

The roof was examined from walking on the surface and viewing surfaces from a ladder.

The roof covering of this home is a combination of asphalt composition shingle on the pitched roof slopes and modified bitumen rolled roofing on the flat (low sloped) roofs. The roofing is in good condition, except as noted below. The pitched shingle roof surfacing is approximately 16 years old. Roofs of this type typically last about 15 years to 20 years before major roofing repairs or replacement is required. The flat roof surfacing is approximately 1 year old. Roofs of these types typically last about 7 years to 10 years before major roofing repairs or replacement is required. Flat roofs are much more prone to develop leaks than pitched roofs. We recommend that the flat roof surfaces be regularly inspected.

From our observations of the ceiling and attic, there is no evidence of past leaks. With any roof, regardless of age, minor leakage should be expected from time to time, especially during periods of heavy rain. This can occur along the edges of the roof, at joints between different roof surfaces, and around penetrations through the roof. Normally, these repairs are easily accomplished.

The valleys use an overlay pattern with the shingles called a closed-cut valley. This is a common method of shingling valleys.

Tree branches were observed to be overhanging the roof surface, which can lead to premature aging of the roofing surface. We recommend trimming back the branches away from the roof surface.

Accumulations of tree debris (leaves, needles, twigs, etc.) are present in the roof valleys and gutters. These areas are subject to water backing up under the shingles causing leaks, shingle staining and fungus. You should anticipate frequent roof maintenance to remove these accumulations.

At the two chimneys and/or other penetrations, the flashing that is visible from the ground appears to be in good condition. This is typically a weak point in a roof system and periodic leaks and maintenance should be anticipated.

This home is equipped with a gutter and downspout system. While this system was generally operational at the time of inspection, frequent maintenance and periodic repairs should be expected. The gutter downspouts should be made to discharge ten to fifteen feet away from the house if



practical.

This building is equipped with one skylight. Although there was no evidence of leakage at the time of inspection, you should keep in mind that skylights are vulnerable to leakage and should be inspected and maintained regularly.

A satellite dish is mounted on the roof. Over time this type of mounting could loosen, creating a leak in the roof. This area should be kept under observation.

#### Additional Deficiencies Noted:

- We observed ridge row shingles which are deteriorated along the roof ridges. We recommend these shingles be replaced.
- We noted one roof vent on the right side with corroded flashing.

#### **VENTILATION**

#### General

Ventilation is very important for all buildings. Attic ventilation will reduce the amount of moisture that can develop in insulated attics and can increase roof shingle life by reducing heat and condensation. Good ventilation yields a healthier living environment as well, as it reduces the accumulation of offensive and/or toxic fumes.

#### **Observations and Recommendations**

Attic ventilation is provided by soffit and ridge vents. The amount of ventilation appears to be adequate, and there is no evidence of excessive moisture in the attic. It is important that the attic ventilation be kept open and clear the year around.

Several bathroom fans are vented into the attic. This can put an unreasonable demand upon normal attic ventilation. This fan should be ducted to outside air. This can be accomplished with ducts through the roof or through the attic end wall. Due to the size and ventilation in the attic itself, it is unlikely this condition will pose a problem in your attic.

Indoor air quality is a growing concern. Mold and mildew, fostered by moisture accumulation, can lead to respiratory discomfort and aggravate allergies and other respiratory conditions for some people. While we may comment on readily visible evidence of mold infestations (see the "Environmental" section), this inspection and report should not be considered a mold investigation of any kind. Such an investigation, if desired, should be undertaken by individuals specifically trained and qualified for such work.



#### **EXTERIOR**

#### **Observations and Recommendations**

The exterior walls of this house appear to be standard wood-frame construction. The visible exterior brick is a veneer that has been installed over the wood framing. These walls and the veneer appear to be in good condition.

There is also a secondary wood siding in less visible areas of the house that is in good condition. This siding is dense and tough, but is quite vulnerable to moisture penetration and deterioration. This siding should be kept well maintained and, in particular, all joints and edges should be kept well caulked to minimize moisture penetration.

Wood rot was observed at, but not limited to, the bottom of the gameroom back door frame and wall, the deck support post at the left rear stair to the backyard, and the deck stair at the left rear stair to the backyard. Bulkhead timbers are rotted under rear deck. Rot is caused by decay fungi that grows and develops under moist wood conditions (moisture content > 20%) and moderate to warm temperatures. If the moist conditions are removed, the fungi cannot grow and further decay will be arrested.

Some rear deck wood support posts are in contact with the soil. Even pressure treated wood will deteriorate more rapidly under these conditions. The wood/soil contact also provides a direct avenue for termite access. You should keep this area under careful observation.

The window lintels are steel and appear to be adequate and in good condition.

All openings, cracks, etc., in the exterior veneer or siding, or in any location on the exterior envelope of the building, should be caulked or otherwise sealed to prevent water or moisture from entering the building.

The caulking compound around the window frames and doorframes is generally serviceable.

The paint on the exterior of this house is in good condition, except as noted below. Repainting is typically needed every five years. This can vary depending on the type of walls or siding, the quality of the paint used, how well the walls were prepared for repainting, the exposure to direct sunlight, the closeness of trees and bushes to the side walls, etc.

Exterior doors are in good operating condition.

The windows in this house are aluminum-framed, single-hung, fixed, double pane windows. They are generally in good operating order. The windows in this home are above average quality. While some maintenance and repairs (see Deficiencies below) will always be needed, these should be serviceable for many years to come.

During our inspection, fogged double-pane windows were observed at the right side above the garage, the study, and the kitchen. It should be noted that we are not always able to verify the seal integrity of all double-pane windows. There is a possibility that fogging, which is an indication of broken seals, is being masked by dirty windows or atmospheric conditions. Double-pane window fogging could show up when the windows are washed or immediately following a heavy rain. When the seals on insulated glass windows fail, this allows moist air between the glass



panes, where it condenses. In addition, visual inspection of the double pane windows may have been limited and/or obstructed due to either the placement of window screens, drapery, furniture or windows located at a high level. Since dirty windows can mask any fogging, we recommend the windows be cleaned and observed for any fogging.

Homeowners should examine the window, frame and seals periodically. Separated sash frames, which allow moisture to reach the seals, and deteriorating perimeter seals, can be caulked to increase the longevity of insulating glass. You can also help protect your double-pane windows by preventing excess moisture from accumulating on them. The best way to do this is to ensure good air circulation both inside and out. In addition, keeping the windows clean and well sealed with paint will also help.

Some evidence of past moisture accumulation from condensation was noted on some of the aluminum window frames. This is a common phenomenon with aluminum windows in this area. Some minor damage was noted on windowsills in those areas.

#### Additional Deficiencies Noted:

- Surface mildew growth was noted under the soffits in locations.
- One game room left rear side window pane is damaged and one right rear bedroom window pane is damaged.
- We noted excessive caulking/sealant around the window frame of the front right bedroom window.
- Early stage corrosion was noted on the driveway gate.
- The rear slope rip rap paving blocks are dislodged in locations under the deck.
- Debris accumulation was noted in the middle rear storm drain catch basin.
- The left rear gate latch is inoperable.
- The front left gate glass is cracked.

#### **ELECTRICAL**

### Limitations

Our investigation of the electrical system is limited to the visible components, the entrance cable, meter box, service panel, outlets and switches, and the visible portions of the wiring. A larger portion of the electrical system is hidden behind walls and ceilings, and, obviously, not all the conditions relating to these unseen areas can be known. Where possible, the cover of the service panel is removed to investigate the conditions in it.

While some deficiencies in the system are readily discernible, not all conditions that can lead to the interruption of electrical service, or that are hazardous, can be identified.

#### General

A typical electrical system consists of two distinct components: (1) the electric service entrance, and (2) the electric circuits. The service entrance determines the capacity of the electric power available to the home. The electric circuits distribute the power through the home.



Electrical devices in a home typically use either 120 or 240 voltage electricity. The major appliances such as clothes dryers, kitchen ranges, water heaters, air conditioners, and electric heating units require 240 volts. General-purpose circuits (lighting, outlets, etc.) require 120 volts.

#### **Observations and Recommendations**

The electrical system for this house consists of a three-wire, 120/240-volt service. It is adequate to serve the needs of this house as it now stands.

Where visible, the general condition of the wiring and fixtures is good.

The main electric service cable comes to the house underground. This cable should be checked periodically by an electrician to be sure it is sound and in good condition. No excavation on or near the property should be done unless the electric utility has been consulted.

The ground wire for the electrical panel was not visible at the time of inspection; therefore we were unable to determine whether it is securely attached to a ground rod. We recommend that this be further investigated by a competent licensed electrician and corrected as necessary.

Two main electrical panels are located in the garage, with 40-amp and 200-amp disconnect panels also located in the garage.

The service at this home provides 300 amps, which is adequate for the home.

The service panels had a main breaker, there were no unused breaker openings in the panel, there were no apparent oversized breakers, there was no visible aluminum wiring in the branch circuits, and there were no "piggy back" breakers. The circuits are identified.

This house is equipped with ground fault circuit interrupters (GFCI) in some recommended locations. The purpose of a GFCI circuit is to provide positive protection against a shock hazard since it will "trip" almost instantaneously, thus protecting you. Should a GFCI circuit interrupter "trip," simply reset it for continuing operation. Periodically, you should test the GFCI circuit interrupter for proper operation. These circuit interrupters are more sensitive than normal circuit breakers and therefore provide far better protection for you in these high-risk areas. This home currently has GFCIs only in the bathrooms. Installation in other high-risk locations, especially near sinks is recommended.

Light fixtures in right rear bath shower and the dining room were observed that were non-functional when the switch was turned on. The problem may be a burned out bulb, a defective light fixture, or defective switch.

Unidentified switches were noted at the dining room.

Some exterior lights appear to operate on timers or a photo cell and could not be tested for operability.

#### Deficiencies Noted:

- An exterior flood light is missing a bulb on the right side.
- An exterior flood light is detached at the rear.



- We observed an exposed extension cord to the fountain pump at the front.
- Unidentified electrical components were noted in the right side attic with exposed wiring connections.

#### **PLUMBING**

#### General

A plumbing system consists of three major components, the supply piping, the waste or drain piping, and the fixtures. The distribution piping brings the water to the fixture from a private well or public water main, and the waste piping carries the water from the fixture to a private septic system or to a public sewer line. While some water was run down the drains, this cannot simulate the waste flows characteristic of full occupancy. There may be partial blockage of the sanitary drain lines from debris, broken pipes or tree roots that cannot be detected at the time of the inspection. Examination of such partial blockage is beyond the scope of this inspection.

The distribution piping is smaller diameter piping that operates under pressure. These pipes must be watertight. The drain or waste piping does not operate under pressure, instead typically uses gravity to drain the water from the fixture to the septic tank or sewer. Thus, these pipes must slope in order to work properly.

#### **Observations and Recommendations**

Where visible, the plumbing distribution piping in this home consists of copper. The water was shut off to the left side of the house at the time of inspection. This prevented us from determining operability of the plumbing fixtures in this area including the master bath fixtures, etc. Where the water was on (right side of house), all tested plumbing fixtures are in operating order, except the kitchen hot water dispenser which was not operable.

Water pressure was gauged at the exterior hose bib and found to be 60 psi. Acceptable pressure ranges are 20 to 80 psi.

The drain lines in this home are PVC piping. Where visible, this system was in good condition at the time of the inspection.

Two gas-fired water heaters, located in the attic, provide domestic hot water for this home. The 7-year-old water heater located at the right side of the attic was in operation at the time of the inspection; however, the 5-year-old water heater at the left side had the water shut off and was not operating. According to the nameplates, each water heater has a capacity of 50 gallons. In general, water heaters can be expected to last about ten years. When fully operating, the capacity of the hot water system appears adequate for the normal needs of this size house.

A water heater is equipped with a pressure/temperature relief valve. Due to the likelihood this valve would not reseat if discharged, it was not tested. This is an important safety device that is required by most codes. Appropriate discharge piping is installed on this device to direct the discharge from any blow-off to a safe location.

It appears that the gas-fired water heaters in this house are properly vented.



Water heaters should be flushed every year or as recommended by the manufacturer to remove sediments that collect at the bottom of the tank. This is done by attaching a hose to the drain valve at the bottom of the heater, directing the discharge to a safe location and turning on the valve. When the water coming out of the hose turns clear then the process is complete.

The water was shut off to the left side of the house at the time of inspection; therefore the operability of the whirlpool bath is unknown.

There was no access to the mechanical equipment related to this whirlpool bath; therefore it could not be checked for proper installation.

The 12-zone underground lawn sprinkler system was not operating at the time of inspection. It should be realized that no excavations or diggings were made as part of this inspection; therefore, no comment can be made on the condition of buried pipes. The timer was not tested. Sprinklers should not spray on the house; especially on windows and doors.

The home is equipped with a fire sprinkler system. It was not tested for operability.

#### Additional Deficiencies Noted:

- The game room bar sink cold water was not operating at the time of inspection.
- We noted a leaking hose bib at the front entry. The hose bib valve is missing a handle.



#### **HEATING & AIR CONDITIONING**

DistributionZones (separate systems)	

#### **Observations and Recommendations**

Split system air conditioners and gas furnaces provide heating and cooling for these premises. A split system air conditioning/heating system consists of two basic elements: The compressor/condensing unit, which is located outside, and the air handler/evaporator coil/gas furnace unit, which is located in the attics.

During the hot summer months, the compressor/condensing unit, in conjunction with the evaporator coil, removes heat from the house and rejects it to the outside. During the cooler winter months, the furnace heats the inside air. For both the heating and cooling processes, the air handler circulates air through the house.

The left side cooling system was operating properly and delivering sufficiently conditioned air to the outlets at the time of the inspection.

The right side cooling systems (upstairs and down) were not operating properly at the time of the inspection, as noted in the deficiencies below. The systems should be check/repaired by a qualified HVAC technician.

The left side heating system was not operating properly at the time of the inspection. The systems should be check/repaired by a qualified HVAC technician. The right side furnaces (upstairs and down) were operating, the burner flames looked normal and limit switches appeared to function properly. Please be aware that the heat exchanger (which is the central and most critical part of a hot air furnace) could only be viewed to a limited extent. Those areas that were visible appeared to be serviceable. You should understand that this is a very limited examination and not a conclusive evaluation of the heat exchanger. A conclusive evaluation can only be done either visually by at least a partial dismantling of the furnace or by a smoke test or other tests that would identify combustion products in the heated air.

In the cooling mode, this system, when operating properly, can produce approximately 10.0 tons of cooling. According to our calculations, this will be adequate for this size house.



It should be kept in mind that the average life of an air conditioner compressor/condenser is approximately 12 to 15 years. According to each unit's nameplate, the left side (outdoor) compressors are approximately 4 years old. The operating right side compressor is approximately 10 years old. The average life of the air handler/evaporator coil/gas furnace units (in the attic) is approximately 15 to 20 years. The nameplates are missing on most of the components and therefore the age of these units is unknown. It should be determined from the present owner if any system components have been recently repaired or replaced.

Our visual inspection of the air conditioning system does not check for proper refrigerant charge or test for leaks in the system. The evaporator coil needs cleaning and maintenance periodically. The coil should be cleaned, serviced and inspected if the owner's records do not indicate that this service has been performed within the last year.

This heating and cooling equipment should be cleaned, serviced and adjusted each year prior to the start of the heating and cooling seasons. This servicing should include the compressor, motor-blower units, filters, and any other component, including electrical controls and devices for starting and operating, etc.

The cleaning and/or changing of filters every 6 to 8 weeks in the heating and cooling seasons is strongly recommended. This will go a long way towards keeping the units running efficiently. Filters are usually located at the return air vents or inside the air handlers.

The ductwork used in this house is primarily the rigid type.

#### Additional Deficiencies Noted:

- The right side A/C units do not produce sufficient temperature drop. This is likely due to being low on Freon; however, could be caused by a variety of other more serious problems. We recommend that the system be serviced to determine the exact cause.
- Insulation deterioration was noted on the Freon line at the outside A/C units.
- Flexible gas pipe extends from the furnace housings on both of the right side units. This should be rigid pipe.
- We noted two A/C compressors on the right side which appear to be abandoned in place. We recommend that an HVAC technician be contacted to check the operation of all systems.

#### **INTERIOR**

### General

As a responsible owner, you are best able to judge the condition of the interior finish of the rooms. In this section of the report, we are concerned with those things that are technically and financially significant. For example, stains which might indicate roof or plumbing leaks, older wall or ceiling material which may require repair/replacement; the use of substandard materials on interior walls or ceilings; or the quality and condition of such items as the doors, windows, and cabinetry are those things which can affect the overall quality and condition of a home.



#### **Observations and Recommendations**

Generally, the interior walls and ceilings of this home are finished with drywall, paint, cedar and fabric. The floors are finished with carpet, tile and wood.

The quality of the materials used in this home is good and the interior condition of this home is average. For all practical purposes, there were few, if any, cracks observed in the drywall. Few, if any, doors were askew and sticking or not aligned with strike plates.

In addition to general wear and tear, we observed the following deficiencies:

- Drywall cracks were noted at the room addition above the garage, the gameroom, and the 2<sup>nd</sup> floor stair landing.
- We noted cracked floor tile in the foyer.
- There is a corroded drain box in the laundry room.
- The cooktop downdraft was not operating at the time of inspection.
- The kitchen hot water dispenser, the gameroom refrigerator, the master bath steam unit, and the bar trash compactor, ice maker and refrigerator were not operating at the time of inspection.

Bathroom caulking should be inspected regularly and kept in good condition since water leaks can lead to other structural deterioration. Particularly important and often overlooked, is the joint between the tub and the floor.

We noted some audible creaking on the second floor. Squeaking floors are typically the result of a loose sub-floor, which can be minimized by nailing or shimming.

A general operational check of the appliances indicated that they are in operating order, except as noted above.

All appliances and equipment that remain should be in operating condition when this property is taken over. Since the condition of this equipment can change unexpectedly, we suggest that you visit this home at least one more time before taking ownership to confirm that everything is operating properly. We have included a *Pre-Title Checksheet* for your use during this final visit.

Security systems, central vacuum systems, and intercom systems are not tested as part of our standard home inspection.

#### **SAFETY**

#### Limitations

While some references to code compliance may be made, our report is not a code compliance investigation. Such an investigation is beyond the scope of this inspection.



#### **Observations and Recommendations**

Where visible, the chimneys appear to be in good condition and structurally stable. Where possible, the interiors of the chimneys were examined and found to be sound. You should be aware, however, that our interior examination of the flue is very limited, and that a comprehensive examination can only be made by a qualified and fully equipped chimney sweep. From all evidence available, the chimneys appear to be brick/tile.

A limited investigation of the fireplaces was undertaken, and, to the extent visible, the fireplaces appeared to be in satisfactory condition, except as noted below. They were equipped with flue dampers, which were operating properly.

The fireplace dampers are not equipped with damper stops. Any fireplace that is equipped with gas should have the damper set in a permanently open position to prevent accidental carbon monoxide poisoning. This can be easily accomplished with a damper stop that can be purchased at most hardware stores.

This home is equipped with smoke detectors. We recommend that you test them monthly for proper operation.

There is a security/fire alarm system in this home. Exactly how well this system is functioning and what areas it serves are not known at this time. We suggest that you spend some time with the current owner to further understand the operation of this system and, if possible, to obtain all manufacturer's literature. Also, keep in mind that most of these systems do require regular maintenance to assure proper and dependable operation.

The garage doors are equipped with electric garage door openers. They were operating at the time of the inspection, except as noted below, and did reverse when resistance was encountered. The openers should be tested regularly to be sure they stop or reverse when the door strikes an obstruction or when a person or object passes beneath while closing.

The reversing sensors are located at the proper height for the middle garage door only. The other doors are not equipped with sensors. These sensors should be located within 6 inches of the floor.

#### Additional Deficiencies Noted:

- The left side door opener was not operating at the time of inspection.
- The fireplace gas burners were deteriorated and not operable.

#### **ENERGY EFFICIENCY**

#### General

In any home in this climate, the three most important areas for enabling optimum energy efficiency are conduction, solar heat gain, and infiltration gains and losses. Conduction (or direct heat gain or



loss through the walls and ceiling) is primarily controlled by insulation. Infiltration loss or gain (drafts or air leakage) is controlled by caulking and weather stripping. Solar heat gain is controlled by the external shading of windows exposed to the sun or reflected sun.

Typically, the attic space in a home in Texas is the most important area for insulation. There should be at least six inches of insulation in the "floor" of an attic. For reasonable fuel conservation, however, ten to twelve inches of insulation is better and is the current code requirement.

#### **Observations and Recommendations**

Where visible, attic insulation consisted of batt insulation. This essentially conforms to present standards of heat conservation practice.

The presence of insulation within the walls could not be confirmed from visual evidence; however, it is likely that the walls are insulated with about 3 to 4 inches of fiberglass or rigid foam boards.

In addition to controlling conduction, infiltration losses and solar heat gains, the next most important area to assure maximum energy efficiency is the efficiency of your heating and cooling unit itself. The newer heating and/or cooling equipment in use in this home is more efficient than the older equipment.

To be sure you are not wasting energy on the production of hot water, you should check the temperature of the hot water produced. If it is above 120 degrees, we recommend that you reduce it to that level to minimize your hot water energy requirements. To be most accurate, use a thermometer at the hot water faucet.

#### **ENVIRONMENTAL SCAN**

#### Limitations

While some references to hazardous materials may be made, our report is not a complete investigation for toxic wastes in the building or adjacent soils, hazardous materials, or public records affecting this property. Such an investigation would be much more costly and is beyond the scope of this inspection.

#### **Observations and Recommendations**

Mold is a growing concern. For some individuals, the presence of mold may aggravate certain respiratory conditions. And, for still a smaller group, may actually be toxic. Organizations like the Environmental Protection Agency (EPA) and the Centers for Disease Control (CDC) have not established any levels considered to be safe or unsafe for mold. This is not for lack of trying, it is a matter of complexity. If you find mold, it often can be removed effectively using a chlorine solution (e.g. diluted Clorox) and then monitoring the area to determine if it returns. Mold is usually the result of moisture. Controlling moisture penetrations will typically eliminate the opportunity for mold to survive. For more information about mold, you might want to consider visiting one or more of the following websites:

• www.iaqa.com



- www.epa.gove/iag/molds/index.html
- www.cdc.gov (search on mold)

No readily visible evidence of mold was noted during our inspection. However, some evidence of moisture accumulation was noted which could encourage the growth of mold. This was noted at the gameroom door frame and wall. These areas should be monitored for mold growth and/or other moisture related deterioration.

A benefit of buying a home built after 1978 is the knowledge that the home is most probably free of asbestos containing materials, urea-formaldehyde, and lead in paint. However, this can only be confirmed by performing testing of the relevant building materials. We observed no visual evidence that would cause us to recommend these tests.

There is an increased concern about radon contamination from homebuyers. Radon is a hazardous substance that is released into the atmosphere as part of the natural decay of radioactive materials in the earth's crust and, when inhaled over extended periods of time, can cause lung cancer. Average radon concentrations in homes in Southeast Texas rarely exceed EPA recommended action levels.

This house was apparently constructed and painted after 1977. Since Federal regulations governing the amount of lead used in paint went into effect then, it would suggest that the risk of lead paint in this house is minimal. This cannot be guaranteed, however, without specific analysis of the actual paint in this home.

Any copper plumbing in this building is probably joined with lead-based solder. In 1986, Federal law prohibited the use of leaded solder on pipes that carry drinking water. In addition, many plumbing fixtures, such as chrome-plated faucets, are made of brass, which contains lead. When water stands for several hours or more in plumbing systems containing lead, the lead may dissolve into the drinking water.

#### DETACHED STRUCTURES AND MISCELLANEOUS COMMENTS

The following are a few additional comments that may be of interest to you regarding this home:

The entry stoop is generally in good condition with no structural problems indicated.

The patio at the rear is tiled concrete slab-on-grade that is in good condition.

The exterior wood deck is generally sound, except we noted some deck boards which are loose in locations (see Exterior section for wood rot locations). This deck, however, will deteriorate much more rapidly than the rest of the home and should be kept under regular observation. In particular, floorboards, anchorage points for the railing and the joint along the house are most likely to be areas where rot will develop. Annual pressure washing and application of a water sealant will extend the life of the deck considerably.

The driveway and sidewalk are in good condition. Minor cracking was noted, typical of driveways and sidewalks in this area.



#### **CONCLUSION**

In summary, we consider this home to be in average condition when compared to others of similar age and construction type. While there is work to do, most of it is maintenance related and, thus, is common for most homes.

There is no one way to build, renovate or remodel a home. As a result, you may encounter contractors whose opinions about the condition of this home will differ from ours. We cannot be responsible for any action you may take based on those opinions unless we have the opportunity to review the situation and examine the relevant conditions before any repairs and/or modifications are made.

This report has been prepared in strict confidence with you as our client. No reproduction or re-use of this report for the benefit of others is permitted without expressed written consent, except as may be required by Texas real estate regulation. Further, except as required by regulation, we will not release this report to anyone without your permission.

As noted, the inspection represented by this report focuses on the major systems in this home. While a spot check of things like electrical switches, outlets, appliances and other equipment was made, the condition of these things can change unexpectedly. Therefore, we recommend that you visit this home at least one more time before taking ownership to confirm that everything is in operating order. Enclosed is a pre-title checklist we have developed for your use during this final visit.

If you have any questions about this report or inspection, please feel free to call our engineer for clarification. There is no additional charge for a reasonable number of phone consultations. Should an additional visit to the home be necessary, however, an additional fee will be charged.

Thank you for the opportunity to be of assistance to you.



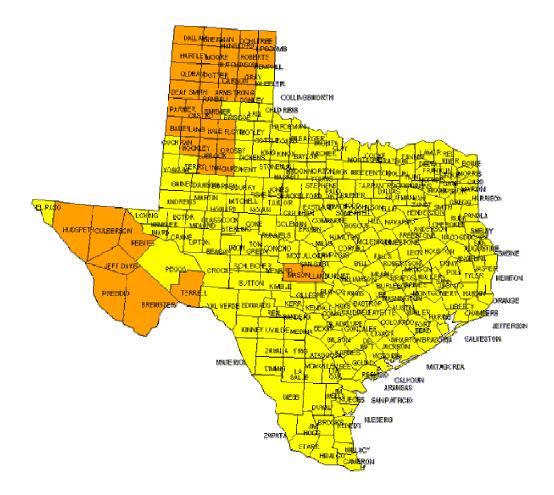
### **TEXAS - EPA Map of Radon Zones**

The U.S. EPA and the U.S. Geological Survey have evaluated the radon potential in the U.S. and have developed this map is to assist National, State, and local organizations to target their resources and to assist building code officials in deciding whether radon-resistant features are applicable in new construction. This map is not intended to be used to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones. All homes should be tested regardless of geographic location. The map assigns each of the 3,141 counties in the U.S. to one of three zones based on radon potential. Each zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without the implementation of radon control methods. The radon zone designation of the highest priority is Zone 1.

**Zone 1** Highest Potential (greater than 4 pCi/L)

**Zone 2** Moderate Potential (from 2 to 4 pCi/L)

**Zone 3** Low Potential (less than 2 pCi/L)



#### **Pre-Title Check Sheet**

The attached report is intended to focus on the major engineering systems (structure, heating & cooling, plumbing and electric) in the building you are considering. While spot checks of many components (such as switches, outlets, fixtures, etc.) were made during the inspection and any significant deficiencies noted in this report, it is important to understand that the condition of these components can change at any time. Therefore, we highly recommend at least one more visit be made to these premises before taking title. This checklist is offered as a guide for that final visit.

Allow sufficient time to comfortably complete the list. Please note that not all of these items will apply to every building.

	OK	Not OK		OK	Not OK
DISHWASHER		<u></u>	WINDOW LOCKS		
GARBAGE DISPOSAL			LAWN SPRINKLER		
KITCHEN STOVE			SWIMMING POOL EQUIP		
REFRIGERATOR			SIDEWALKS		
CLOTHES WASHER			DRIVEWAY		
CLOTHES DRYER			SEPTIC/WASTE SYSTEM		
WATER PUMP			AIR CONDITIONING		
WATER HEATER			GARAGE DOOR OPENER		
LIGHT FIXTURES			ELECTRICAL OUTLETS		
PLUMBING FIXTURES			SUMP PUMP		
FIREPLACE/STOVE			HEATING SYSTEM		
BROKEN GLASS			SECURITY SYSTEM		
LEAKS (WALL, CEILING)			TILE WORK IN BATH		
ALL WINDOW SCREENS			DOOR LOCKS AND LATCHES		
AVAILABLE			(ALL KEYS AVAILABLE)		
MICCELL ANTEOLIG PERMIC	ANID	NOTE			

Often weeks and months pass between our initial inspection and your closing on the property. Your involvement in making this final inspection will help assure you of the home you deserve.



**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





Description: Front view

**Photo Number** 

1



## **Description:**

Rear view

**Photo Number** 

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





**Description:** Right side view

Photo Number



## **Description:**

Left side view

**Photo Number** 

**Photo Taken by:** John Mulvahill, P.E.. Date: January 22, 2013





**Description:** Damaged tree at rear. Recommend an arborist evaluate

**Photo Number** 



**Description:** View of flat roof surfacing over living room

**Photo Number** 

Photo Taken by: John Mulvahill, P.E.. Date: January 22, 2013





# **Description:** View of flat roof

surfacing over foyer and dining room

**Photo Number** 



**Description:** View of flat roof surfacing above gameroom

**Photo Taken by:** John Mulvahill, P.E.. Date: January 22, 2013





Description:
View looking west

**Photo Number** 



**Description:** View of satellite dish on roof

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





**Description:**Roof sag noted in front right roof slope

 $\begin{array}{c} \textbf{Photo Number} \\ \textbf{11} \end{array}$ 



<u>Description:</u>
Deteriorated ridge row shingles (typical)

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





**Description:**Roof vent flashing corroded at right side

Photo Number 13



Description:
Debris
accumulation in rear catch basin

Photo Taken by: John Mulvahill, P.E..

Date: January 22, 2013





**Description:** Wood rot and water damage in gameroom wall and door frame

> **Photo Number 15**



**Description:** Localized wood rot in deck stair at left rear stair to backyard

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





<u>Description:</u>
Localized wood rot in deck support post at left rear stair to backyard

Photo Number 17



## **Description:**

Left rear gate latch inoperable

 ${18 \atop 18}$ 

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





**Description:** Front left gate glass cracked

Photo Number 19



## **Description:**

Excessive window caulking in 2nd story front right bedroom

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





Description:
Early stage
corrosion noted on
driveway gate
frame

Photo Number 21



## <u>Description:</u> Surface mildew noted under soffits

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





## **Description:**

Slope rip rap paving dislodged in locations beneath rear deck (typical)

Photo Number

23



## **Description:**

View under rear deck

Photo Number

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





Description:
Bulkhead timbers
rotted under rear
deck

Photo Number 25



## **Description:**

Exterior flood light missing bulb at right side

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





**Description:** 

Exterior flood light detached at rear

Photo Number 27



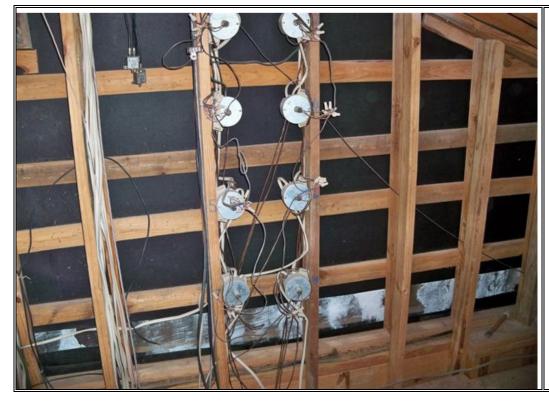
## **Description:**

Exposed extension cord to fountain pump at front

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





## **Description:**

Unidentified electrical components in right side attic with exposed wiring connections

**Photo Number** 

**29** 



## **Description:**

Leaking hose bib at front entry.
Valve missing handle

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





## **Description:**

Ceiling drywall crack in bathroom above garage

Photo Number 31



## **Description:**

Corroded drain box in laundry room

**Photo Number** 

**Photo Taken by:** John Mulvahill, P.E..

Date: January 22, 2013





Description:
Fireplace gas
burners

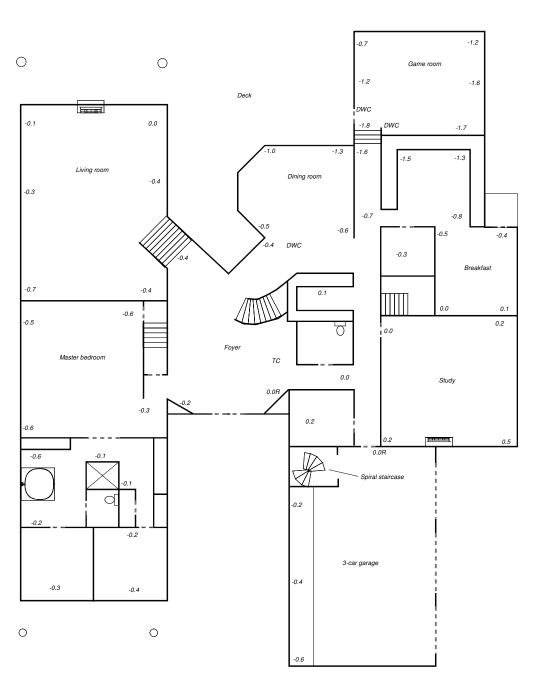
deteriorated typical both fireplaces

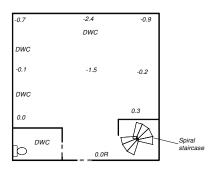
Photo Number 33



## **Description:**

Deck boards loose in locations





Partial plan Room addition above garage

#### 11 Windermere Lane Houston, TX 77063

Sep = Separation TEJ = Tapered Expansion Joi

TC = Tile Crack

DS = Downerout at foundation

CS = Corner Spall LS = Low Spot PD = Poor Drainage

HS = High Soil AC = AC Drain at Foundation DWC = Drywall Crack SC = Slab Crack

SC = SIAD CTACK
DT = Distorted Trim
MS = Material Separation
0.0R = Zero Reference Point
X = Approximate repair pier loc

Not To Scale

Relative Foundation Elevations

Criterium-Farrell Engineers 6046 FM 2920 #230 Spring, Texas 77379

Date: 1/22/13 Drawn By: CR Job No: 20130143 Amjad Dwg No: SK-1 Rev: 0

Dwg No: SK-1

### CRITERIUM-FARRELL ENGINEERS - SERVICES AGREEMENT Residential Engineering Inspection

PAGE 1 of 2

This is the complete agreement regarding professional engineering services to be provided by Criterium-Farrell Engineers (ENGINEER) related to the property described below. This is intended to be a legally binding agreement. Please read it carefully and sign where indicted.

Return signed Services Agreement: Fax (281) 763-2674 or scan/email to Dana@criterium-farrell.com

_	
C	CLIENT: Adnan Amjad
P	ROPERTY LOCATION: 11 Windermere Lane, Houston, TX 77063
I	NSPECTION SCHEDULED: DATE (weather permitting): 1/22/2013 TIME (approximate): 10:00 a.m.
P	ROPERTY DESCRIPTION: Built 1983 Approximate size: 6883 sq ft Additional Buildings ⊠ No ☐ Yes
I	NSPECTION SERVICES TO BE PROVIDED (see page 2 for descriptions; X below indicates services requested):  STANDARD STRUCTURAL & MECHANICAL INSPECTION  SLAB □ PIER & BEAM □ POOL □ SPRINKLER  TERMITE To be performed by an independent third party licensed pest control professional
T	ESTING SERVICES TO BE PROVIDED: No tests requested.
	<ul> <li>**To guarantee this appointment, the signed Services Agreement must be returned 1/19/2013 , unless prior arrangements are approved by the Office Manager.</li> <li>**A 24-hour notice of cancellation is required. Otherwise, a minimum cancellation fee of \$200 will apply.</li> <li>*If a return trip is required for any reason outside of our control (i.e. utilities not on, no access to property, etc.) there will be a minimum fee of \$300.00.</li> <li>*If upon arrival, the engineer is informed of an additional building for inspection (pool house, garage apartment etc.), an additional fee of \$200.00 will be added to the total amount previously quoted.</li> <li>*Fee to be paid at or before the inspection – check or cash.</li> </ul>
ti	Il inspections are performed in accordance with the Standards of Practice of Criterium-Farrell Engineers and in a manner consistent with that level of care and skill that is ordinarily exercised by members of the profession practicing under similar conditions at the me the services are performed. While we will report readily visible evidence of mold infestations, this inspection should not be considered a specific mold investigation of any kind.
s p a d	You are encouraged to be at the inspection to discuss your questions and concerns. However, the written report is the exclusive purce of information regarding our observations at the time of inspection and our professional opinion of the condition of the roperty. The results of the inspection will be provided in a written report prepared exclusively for your benefit. Reports are typicall vailable within 2 business days following the inspection, unless prior arrangements are made. Some reports may take longer. A iscussions that occur at the inspection are preliminary in nature and should not be the basis for any final decisions regarding this roperty. Further, owning any property involves some risk. No inspection can reveal everything that might be of interest of ignificance to you regarding this property.
	f the information on page 1 & 2 of this agreement is correct, understood & accepted, then please sign below &
1	nitial where indicated on page two.
	Client Signature tome signature binds all parties) (Date)
	Dana M. Len 1-21-13

Company Signature

(Date)

### CRITERIUM-FARRELL ENGINEERS - SERVICES AGREEMENT **Residential Engineering Inspection**

After reviewing these descriptions, both the client and company representative should initial where noted, to indicate the type of inspection chosen. As our client, you are making a choice of services to be provided. If you have any questions, please contact us immediately (281) 444-9580.

Please initial only where indicated beside the chosen service.

	1 louise	integral vinty whole indicated contact the chosen convicts
	(int'l)	CE OF INSPECTION SERVICES:  STANDARD STRUCTURAL AND MECHANICAL INSPECTION: A limited visual inspection to identify opinions of significant deficiencies and/or repairs needed in the major systems (structural, heating, air conditioning, plumbing, electrical, roof, interior/exterior) as well as provide a general understanding of the
	(int'l)	property. This is a limited inspection based on visible evidence readily available during the inspection (without moving furnishings, removing finishes, etc.) and is the <u>opinion</u> of the engineer performing the inspection. This full home inspection <u>does not include</u> items such as: home stereo systems, central vacuum systems, pest control systems, intercoms, outdoor lighting (landscape), electric gates, fences, water softener or any other item that is not a part of the home itself.
	$\frac{\overline{(int'l)}}{\overline{(int'l)}}$	<b>LIMITED STRUCTURAL INSPECTION</b> : An inspection and evaluation that is limited to reasonably available and visible structural components and interior/exterior surfaces and is the <u>opinion</u> of the engineer performing the inspection. No soils investigation or invasive testing is included. Further, no inspection of evaluation of any other systems such as plumbing, electrical, mechanical is included.
	(int'l) (int'l)	<b>EXHAUSTIVE INSPECTION:</b> A STANDARD INSPECTION PLUS invasive testing and/or equipment disassembly as approved by client and property owner, in advance, to gather all reasonably available and relevant information about the property. This inspection is specifically <b>not limited</b> to readily available visible evidence and requires invasive testing which may include moving furnishings, removing wall coverings and/or drilling into wall cavities (to check for structural damage, for example) and requires the current owner's written permission. It is not a guarantee or warrant regarding the condition of this building. Our maximum liability is our inspection fee or \$10,000.00, whichever is greater. The results of the inspection will be provided in a written report, typically available within 10 business days after the inspection is completed unless prior arrangements are made. Some test results may take longer.
>	$\frac{(int'l)}{(int'l)}$	Our inspection is not a guarantee or warranty regarding the condition of this building. Except a otherwise noted herein, our maximum liability for loss suffered by the CLIENT due to any cause is limited to our inspection fee. If you bring an action against the COMPANY/ENGINEER and the COMPANY/ENGINEER prevails, COMPANY/ENGINEER shall be entitled to recover costs and expenses, including reasonable attorneys' fees and costs.
	substan	<b>EXCLUSION</b> : This inspection is not for the specific purpose of determining the presence of organical news in the building. If, however, during the inspection, we knowingly encounter such substances on a readily and visible surface, we will notify you of the presence of these substances without accepting any liability over for any damage or harm caused by the substances. It is your responsibility to determine if further testing

is required and to retain an independent, qualified professional to perform such tests.

As a courtesy, we will email your report to others you designate (i.e. your realtor). Reports are ONLY released with your written authorization. This is a legal agreement with the client only, we cannot release report with a verbal request.

S. ADNAN AM JAD

CLEARLY PRINT RECIPIENT'S NAME

CLEARLY PRINT EMAIL

NAM JAD

CLEARLY PRINT EMAIL

Return signed Services Agreement: Fax (281) 763-2674 or scan/email to Dana@criterium-farrell.com