

## FANNIE MAE MULTIFAMILY

### INSTRUCTIONS FOR THE PNA PROPERTY EVALUATOR

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## INSTRUCTIONS FOR THE PNA PROPERTY EVALUATOR

### 1. INTRODUCTION

#### 1.01. Physical Needs Assessment

The Physical Needs Assessment (“PNA”) is an underwriting tool that provides information necessary for the Lender and Fannie Mae to assess the overall physical condition and risk of a multifamily property securing a Mortgage Loan to be financed by the Lender and purchased by Fannie Mae. The PNA provides:

- an assessment of the Property’s current physical condition;
- for each of the Property’s systems and components, an estimate of (i) the effective age, and (ii) the remaining useful life;
- an evaluation of past and current operating and maintenance practices at the Property, and suggestions for future operating and maintenance practices; and
- an identification of current and future physical needs, including all significant (i) capital replacement costs, and (ii) maintenance costs required at the Property during the Mortgage Loan term.

#### 1.02. Instructions to the Property Evaluator

These “Physical Needs Assessment Instructions for the Property Evaluator” (the “Instructions”) provides the directions for the firm or individual conducting the PNA (the “Property Evaluator”) and preparing the report documenting the findings of the PNA (the “PNA Report”). The Instructions are not intended to take away from the professional judgment of the Property Evaluator. Rather, these Instructions will provide the Property Evaluator with:

- the minimum scope of assessment for all asset classes of multifamily properties that may secure a Fannie Mae Mortgage Loan; and
- a standardized format for the PNA Report meeting the specifications of the Lender and Fannie Mae.

The Lender may have additional requirements for the PNA and PNA Report that the Property Evaluator must meet in addition to these Instructions. Any additional Lender requirements must be detailed in the contract between the Lender and the Property Evaluator. The Property Evaluator is responsible for using its best judgment in determining whether additional property components beyond those specified in these Instructions should be assessed in the PNA and included in the PNA Report.

### **1.03. Requirements and Qualifications of Property Evaluator**

#### **A. Property Evaluator Selection by Lender; Reliance by Fannie Mae**

The Lender will select and retain the Property Evaluator. By entering into the agreement with the Lender to conduct the PNA in accordance with these Instructions, the Property Evaluator agrees and acknowledges that Fannie Mae is an intended third-party beneficiary of the PNA and the PNA Report and will act in reliance on the PNA and the PNA Report.

#### **B. Property Evaluator Independent Third Party Status**

The Property Evaluator, its personnel and any subcontractors hired by the Property Evaluator must be independent third-parties. The Property Evaluator, its personnel and its subcontractors must be unrelated to, and not have any financial or economic interest in, the Property, the Property Owner, or any Affiliate of the Property Owner. The Property Evaluator must disclose in the PNA Report if the Property Evaluator is an employee or affiliate of the Lender.

#### **C. Property Evaluator Qualifications**

The Property Evaluator must not be under suspension or debarment by HUD or Fannie Mae, involved as a defendant in criminal or civil action with HUD or Fannie Mae, and not be an FHFA prohibited party. The Property Evaluator, individually or collectively, must meet the minimum qualifications, professional education, training and experience set forth below to perform site visits, evaluate multifamily property components and building systems, and prepare the PNA Report to the specifications set forth in these Instructions. The Property Evaluator must be in compliance with these qualifications from the time of engagement by the Lender through the delivery of the final PNA Report. The Property Evaluator shall include its qualifications in Exhibit F to the PNA Report. The minimum qualifications of the Property Evaluator are set forth below.

- 1. Education.** A qualified Property Evaluator must have a Bachelor of Science degree in engineering, architecture, construction management, historic preservation, construction/building science, or building facilities management.
- 2. Professional Experience.** A qualified Property Evaluator must have the following minimum professional experience:
  - 5 years of professional experience in one or more of the following disciplines:
    - architecture;
    - engineering (structural, mechanical or civil); or
    - construction management and cost estimating.

- 3 years experience performing physical needs assessments and property inspections at multifamily properties;
- completion of 5 or more physical needs assessment reports for multifamily properties within the past 3 years;
- prior experience evaluating multifamily properties with comparable building systems and components;
- knowledge and experience with ASTM E2018-08 “Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process” or most current version; and
- knowledge of applicable federal, state and local building codes and regulations of the Property jurisdiction.

3. **Professional Certifications, Registrations and Training.** A qualified Property Evaluator must possess or have successfully completed one of the following current professional certifications, registrations or training programs:

- Real Estate Assessment Center (“REAC”) for the Department of Housing and Urban Development (“HUD”) as a Certified Home Inspector;
- Building Performance Institute (BPI);
- American Society of Home Inspectors (“ASHI”);
- International Association of Certified Home Inspectors (“InterNACHI”);
- a 2-year Associates Degree program in Construction, Building Science, Building Facilities Management, or other certifications in technical multifamily real estate evaluation related programs; or
- other Fannie Mae approved professional certifications, registrations or training.

In addition, the representative of the Property Evaluator performing the site visit is required to have:

- met the minimum required standards for professional experience set forth above (other than the requirement of 5 years of professional experience in architecture, engineering, or construction management and cost estimating);
- met the minimum required standards for professional certifications, registrations and training set forth above; and
- completed a minimum of 5 PNA site visits for multifamily properties.

The PNA Report delivered to the Lender must be reviewed and certified by a professional engineer or by a licensed or registered architect, in good standing, or by an individual with appropriate experience and certifications in the construction field. The PNA Report should be signed by an employee of the Property Evaluator with experience (i) commensurate with the

subject property type and scope (i.e., size, complexity, etc.), and (ii) in the preparation of PNA Reports, and who is not a subcontractor of the Property Evaluator.

#### **D. Property Evaluator Insurance Requirements**

The Property Evaluator must have the following insurance coverage in place:

- Commercial General Liability (CGL) insurance with limits of at least \$1 million per occurrence and \$2 million aggregate with a maximum deductible amount of \$35,000;
- Professional Liability Insurance with limits of \$1 million per claim and \$2 million aggregate with a maximum deductible amount of \$100,000;
- Worker's Compensation insurance; and
- Automobile liability insurance for all owned (if any), non-owned and hired vehicles of \$1 million per accident.

The above policies must be issued by an insurance carrier rated by AM Best A-VI or higher. The Property Evaluator should have appropriate insurance coverage in place for traveling to and from the Property and conducting work at the Property.

Fannie Mae and the Lender must be listed as an additional insured on the Property Evaluator's commercial and general liability insurance. The Property Evaluator must deliver proof of the required insurance coverage to the Lender.

## **2. OVERVIEW OF THE PHYSICAL NEEDS ASSESSMENT**

### **2.01. Base PNA**

The Base PNA includes the minimum areas of due diligence, observation, evaluation and reporting by the Property Evaluator for any Property securing a Mortgage Loan to be financed by the Lender and purchased by Fannie Mae. Please see Section 3 of these Instructions for the specific assessment requirements for the Base PNA.

### **2.02. Streamlined Physical Needs Assessment**

In certain circumstances, the Lender may instruct the Property Evaluator to use an abbreviated or Streamlined PNA Report in place of the standard PNA Report. The Streamlined PNA requires the Property Evaluator to:

- observe all of the same components and characteristics at the property outlined in Section 3 of the PNA Report as set forth in these Instructions; and
- report on the Cost Estimates of any needed (i) Immediate Repairs (including Life Safety, Critical Repairs, Deferred Maintenance and Items of Note), and (ii) Replacements of Capital Items.

The Property Evaluator is not generally required to include the same level of detail within the Streamlined PNA Report as in the standard PNA Report. Appendix A to these Instructions, “Streamlined PNA Report”, includes an outline of the minimum required components for the Streamlined PNA Report. The Property Evaluator should note that the Lender may require additional scope of work beyond that required by the Streamlined PNA.

### **2.03. PNA Modules**

In addition to the Base PNA required for all Property types, specific Modules may be required by the Lender. The Modules address unique Property qualities and uses, program financing requirements or other Fannie Mae requirements.

If specific Modules were not requested by the Lender at the time of engagement but would be required based on the Property Evaluator’s findings or determination, the Property Evaluator must contact the Lender immediately and identify any additional needed Modules. The Property Evaluator must satisfy the entire scope and qualifications of the Instructions for preparing the Base PNA and each applicable Module.

Module findings are integrated into the PNA Report and are required for the following Property types, Fannie Mae financing product or as otherwise required by the Lender:

- Student Housing Properties;
- Seniors Housing Properties;
- Manufactured Housing Communities;
- Cooperative Properties;
- Properties with multifamily residential mixed with commercial or retail use;
- Properties requiring an Integrated Pest Management Plan (IPMP); and
- Mortgage Loans secured by a Property requiring a High Performance Building (HPB) Evaluation.

## **3. PNA SCOPE OF WORK**

The PNA consists of three core phases with the minimum requirements for each phase described in this Section.

- PHASE 1: Preliminary Due Diligence
- PHASE 2: Site Visit
- PHASE 3: PNA Report

### **3.01. PHASE 1: Preliminary Due Diligence**

#### **A. Data Collection and Document Review**

Prior to Property Evaluator's site visit or during the assessment process, the Property Evaluator shall perform preliminary due diligence by reviewing sufficient information and available documentation as necessary to gain an overall understanding of the Property, its past and current operation and performance, which may include the following:

- previously completed reports on the Property condition, including any prior PNA and seismic reports;
- information and warranties related to maintenance, repair and replacement of the Property's capital items;
- maintenance reports and contracts and repair receipts for repairs completed and capital items replaced within the past 12 months, including any contracts in place for repairs or planned maintenance;
- elevator, boiler and safety inspection records and certificates;
- all applicable Operating and Maintenance Plans;
- a listing of any planned capital improvements, the scope of work, and project timeline for such improvements.

#### **B. Special Hazards, Zoning, Building Code Violations and Regulatory Compliance**

Before the site visit or during the assessment process, the Property Evaluator must make appropriate inquiries to obtain and review all relevant information relating to the Property from the local governmental agencies and departments having jurisdiction over the Property (which is typically reproduced and provided upon request to the municipality). The review of governmental records and additional inquiries by the Property Evaluator will allow the Property Evaluator to reasonably determine whether the Property has any existing code violations, including building, health, fire, regulatory, and zoning compliance violations. The Property Evaluator will include copies of any such documentation in Exhibit E to the PNA Report.

#### **C. Pre-Site Visit Questionnaire**

Prior to the Property Evaluator's site visit, the Lender or the Property Evaluator should deliver a pre-site visit questionnaire to the Property Owner or the Property Owner's Property Manager for completion. The pre-site visit questionnaire will provide the Property Evaluator with an understanding of the components and systems at the Property and facilitate an effective site inspection. (See Appendix B attached to these Instructions, "Pre-Site Visit Questionnaire" for a sample pre-site visit questionnaire.). If necessary after reviewing the pre-site visit questionnaire, the Property Evaluator should interview the individual who completed the on-site visit questionnaire for the Property Owner to address any needed clarifications and coordinate the on-site scope of work.

### 3.02. PHASE 2: Site Visit

The site visit will provide the Property Evaluator with the comprehensive understanding of the overall condition of the Property as well as its systems and components needed to make a reasonable determination of the Property's functionality and sustainability. The site visit is to be a visual and non-invasive inspection of observable and accessible areas of the Property by the Property Evaluator. The Property Evaluator shall use its professional experience, combined with recognized industry standards, to determine the quality and maintenance of existing Property systems and components, taking into account the local climate and the use of the Property. The Property Evaluator shall compare the effective age of the Property's systems and components to the year the Property was constructed (including identification of the phases of construction with consideration for significant renovations) as a tool to assess past and current maintenance practices and for the suggestion of changes in future maintenance practices.

#### A. Site Visit Approach

The Property Evaluator will conduct a walkthrough of the Property to observe the Property's systems and components to identify deferred maintenance items, physical needs and unusual or unique features. The Property Evaluator is not required to perform diagnostic testing as part of the PNA unless otherwise specifically stated in these Instructions or as required by the Lender. All building exterior surfaces must be observed unless inaccessible. If portions of building exteriors are not accessible, the Property Evaluator will describe the limitations or obstacles to access. The Property Evaluator should use its judgment regarding additional systems and components that should be observed in order for the Property Evaluator to complete the PNA.

#### B. Interviews

The Property Evaluator shall conduct on site interviews with persons determined to be knowledgeable of the Property's history, documenting the years of relevant multifamily experience and employment at the Property of such individuals. The Property Evaluator should collect and review a pre-site visit questionnaire, if not already completed prior to the site visit, and address any missing information where appropriate. **The Property Evaluator must interview the maintenance supervisor and the Property's on-site manager. If these individuals are not available or accessible, the Property Evaluator is to document this as a limitation in the PNA Report.** If the Property Evaluator receives the Property Owner's consent in advance,, residents may be interviewed to determine if conditions of their individual units are acceptable and meet their expectations for physical conditions, heating, cooling, utility expenses, noise control and scent or odor penetration. The PNA Report will document all contacts made by Property Evaluator as part of the site investigation.

### C. Observation of Dwelling Units

The Property Evaluator shall select and inspect a sufficient number of each dwelling unit type and the systems in each to state with confidence the present and probable future condition of the dwelling units and their systems. **It is the Property Evaluator's responsibility to select units for inspection based on a random distribution of floors and buildings.** The PNA Report shall identify the dwelling units inspected, including building and unit number, unit type, occupancy status and floor. The following schedule is the minimum number of dwelling units required to be accessed and inspected:

- (i) Properties with 5 to 50 units:
  - A minimum of 5 occupied units will be surveyed.
  - Survey all vacant units, up to a maximum of 15, including all units that have been vacant longer than 90 days. If all inspected units do not exhibit a clear and consistent pattern of maintenance and age of components, additional vacant units should be inspected.
  - Survey all "down" units (i.e., units not currently in rentable condition).
- (ii) Properties with 51 to 300 units:
  - Survey a minimum of 10% of all units (occupied or vacant).
  - Survey all units that have been vacant longer than 90 days. If all inspected units do not exhibit a clear and consistent pattern of maintenance and age of components, additional vacant units should be inspected.
  - Survey all "down" units.
- (iii) Properties with more than 300 units:
  - Survey a minimum of 5% (but not less than 30) of all units (occupied or vacant).
  - Survey all units that have been vacant longer than 90 days. If all inspected units do not exhibit a clear and consistent pattern of maintenance and age of components, additional vacant units should be inspected.
  - Survey all "down" units.

### D. Photographic Documentation

The Property Evaluator shall provide photographs of the Property, sufficient in number and quality as required to document the Property's condition, including its equipment and structure. The photographs shall depict the general condition of the Property, site improvements, amenities and typical interior dwelling units, including unit appliances and fixtures. **The PNA Report must include photographs of all major repair items clearly depicting the nature and scope of the required repairs. Major building systems and nameplates and representative**

**appliance labels must be photographed and included in the PNA Report.** Photographs shall be mounted and identified with written description and location of each.

### **3.03. PHASE 3: PNA Report**

The PNA Report must provide definitive guidance for each deficiency identified by the Property Evaluator and a recommended course of action that the Lender require from the Property Owner.

The PNA Report delivered to Fannie Mae must conform to the following format, incorporating the findings of the applicable Module within the appropriate section of the PNA Report. The requirements of the PNA Report are discussed in greater detail in Section 4 of these Instructions.

**Section 1: Executive Summary**

- 1.1 Summary of PNA
- 1.2 Property Useful Life Table
- 1.3 Cost Estimate Summary
- 1.4 Members of Property Evaluator Team

**Section 2: Cost Estimates: Immediate Repair and Replacement Repair Items**

- 2.1 Immediate Repair Items: Life Safety, Critical Repair, Deferred Maintenance Items and Items of Note
- 2.2 Replacement Repair Items (Physical Needs over the Term)

**Section 3: Property Characteristics**

- 3.1 Site Components
- 3.2 Architectural Components
- 3.3 Mechanical/Electrical/Plumbing Components
- 3.4 Dwelling Unit Components

**Section 4: Moisture and Microbial Growth and Pest Management**

- 4.1 Moisture and Microbial Growth
- 4.2 Pest Management

**Section 5: Special Hazards, Zoning, Building Code Violations and Regulatory Compliance**

- 5.1 Special Hazards
  - 5.1.1 Peak Ground Acceleration (PGA)
  - 5.1.2 Hazards/Geographic Conditions/Catastrophic Loss Potential
  - 5.1.3 Flood Zone
- 5.2 Zoning
- 5.3 Building Code Violations
- 5.4 Regulatory Compliance

**Section 6: Areas of Additional Assessment**

- 6.1 Known Problematic Building Materials
- 6.2 Work In Progress

**Section 7: Reporting Procedures and Limitations**

- 7.1 References used by the Property Evaluator for Preparation of PNA Report
- 7.2 Assessment Methodology
- 7.3 Limitations

**Exhibits**

- Exhibit A: Photo Documentation
- Exhibit B: Location Map, Aerial Photo and Site Plan (if available)
- Exhibit C: Structural Risk Evaluation Questionnaire
- Exhibit D: Pre-Site Visit Questionnaire
- Exhibit E: Record of all Documents Reviewed, Interviews, and Supporting Information
- Exhibit F: Property Evaluator Qualifications
- Exhibit G: Statement of Energy Performance (if required)

**4. PNA REPORT**

The PNA Report consists of seven sections, as well as required exhibits. The specific requirements of the information to be included in each section of the PNA Report by the Property Evaluator are detailed below.

**4.01. PNA Section 1: Executive Summary**

**A. Summary of the PNA**

The PNA Summary section will:

- indicate that the report is a Physical Needs Assessment;
- state the purpose of the Physical Needs Assessment;
- state which Modules are being incorporated;
- provide a summary description of the Property, including:
  - name of the Property;
  - location;
  - use;
  - size (including number of buildings, square footage and number of dwelling units);
  - age;

- construction type;
  - visibility and accessibility from major or public roadways; and
  - occupancy type;
- describe which standards and protocols were used for preparation of the PNA Report and a certification by the Property Evaluator that required minimum protocols and standards were met;
  - state the site visit date;
  - state the name of the individual from the Property Evaluator inspecting the Property and the name and position of the person from the Property escorting the Property Evaluator;
  - describe the weather and conditions at the time of the site visit;
  - identify whether any deviations or constraints prevented the Property Evaluator from performing the entire required scope of the PNA as set forth in these Instructions; and
  - provide a concise summary of the conclusions reached by the Property Evaluator concerning the overall condition of the Property, its future prospects, and the quality of the current maintenance programs.

## **B. Property Useful Life Table**

The completed Property Useful Life Table (See Appendix D to these Instructions, “Property Condition Standards and Ratings and Instructions for Useful Life Table”, and Tab 1 on Appendix E to these Instructions, “Property Useful Life Table and Cost Estimate Schedules”) will be included in the Executive Summary section of the PNA Report. Included in the Property Useful Life Table will be the Property Evaluator’s opinion of the effective age of the Property’s systems and components, as well as the identification of environmental, geographic, maintenance, resident or other factors, beyond normal wear and tear, that may impact the Effective Age (“Eff Age”) and Remaining Useful Life (“RUL”) of the Property’s systems or components. To complete the Property Useful Life Table, the Property Evaluator must use as a reference the standard useful life tables for multifamily property systems and components set forth in Appendix F to these Instructions, “Estimated Useful Life Tables”.

Any Property Component with a Remaining Useful Life that does not extend for a period of two years beyond the term of the Mortgage Loan must be addressed in the Cost Estimate Schedule for Immediate Repairs or for Replacement of Capital Items. The Cost Estimate Schedule for Replacement of Capital Items should correspond to the Property Useful Life Table (i.e., any capital item having a Remaining Useful Life that does not extend for the period of the Mortgage Loan term plus two years must be included on the Cost Estimate Schedule). If the Remaining Useful Life of a particular Property system or component varies significantly (e.g., the Property consists of four separate buildings, and the roof is in excellent shape on three of the buildings and in need of replacement on the fourth), the Property Evaluator will categorize the Remaining Useful Life of such component or system based on the average of each observed part

of such system or component (e.g., in the preceding example, if the roof on three buildings would be rated a “1”, and the roof on the fourth building would be rated a “5”, the overall rating for the roof system at the Property would be a “2”). However, the Property Evaluator should footnote in the Property Useful Life Table any system having multiple parts showing significant variances in their Effective Age.

### **C. Cost Estimate Summary**

The Executive Summary will also include, in table format, a Cost Estimate Summary of (i) the aggregate cost for each Immediate Repair category (Life Safety, Critical Repair and Deferred Maintenance), and (ii) the total cost of all recommended Replacements of Capital Items (listed at both the current cost to replace the item and the cost adjusted for inflation (see Section 4.02.C of these Instructions) at the time the item is expected to be replaced, on a per dwelling unit basis, for the period of the Mortgage Loan term plus 2 years. (See Tab 2 on Appendix E for the Cost Estimate Executive Summary Table.)

### **D. Members of Property Evaluator Team**

The Executive Summary will also list the names, titles and certifications of the individuals who actively participated in the PNA and the preparation of the PNA Report, followed by the signatures of each qualified participants.

## **4.02. PNA Section 2: Cost Estimates: Immediate Repairs And Replacements Of Capital Items**

The PNA Report will present the Property Evaluator’s conclusion of the probable cost, including installation, for each (i) item needing immediate repair (an “Immediate Repair”), and (ii) capital item reasonably expected to need replacing (a “Replacement of Capital Item”) during the period of the Mortgage Loan term plus 2 years. All cost estimates provided as part of the PNA must reference the source) of each cost estimate.

### **A. Estimation of Costs**

When estimating the costs of repairs or the required replacement of a capital item, the Property Evaluator should consider:

- reviewing data from contractors and vendors on unit pricing and labor costs;
- obtaining base materials and labor costs from the R.S. Means handbook or other industry standard estimating guide (the Means or other handbook used should be no more than two years in age, and the Property Evaluator should (i) inflate costs 3% per year for each year out of date, and (ii) use City Indices, as the differences between cities can be significant);
- accounting for associated demolition, construction and finishing work that may be required for installations;

- including “hidden costs” (i.e., asbestos or lead abatement, sidewalk bridges and scaffolding for window repair/replacement, etc.) or explicitly state otherwise and recommend if an additional assessment is necessary;
- including design, analysis and construction management costs, to the extent reasonable, and overhead and profit (O&P), as appropriate, in the cost estimate (e.g., if design of a new heating system is required, the cost of this design must be included as part of the cost of the heating system, allowing for the cost effectiveness of measures to be more fairly and accurately assessed); and
- including construction management and third party inspector fees, if required, in the overall project costs.

In all instances, the cost estimates for the repair or replacement of all systems or components are to be based on parts and equipment that meet the most stringent of (i) minimum specifications mandated by applicable federal, state and local building codes and regulations for renovations, (ii) the minimum guidelines established by the Environmental Protection Agency (EPA), or (iii) other Fannie Mae approved sources. (See Tab 3 on Appendix E for the Cost Estimate Schedule for Immediate Repairs, and see Tab 4 on Appendix E for the Cost Estimate Schedule for Replacements of Capital Items.)

#### **B. Cost Estimates for Immediate Repair**

The Cost Estimates for Immediate Repairs section of the PNA Report shall include, at a minimum, a description of the repair required and all costs associated with:

- Immediate Repair Items, including Life Safety Items;
- Critical Repair Items;
- Deferred Maintenance items; and
- Items of Note.

#### **C. Cost Estimates for Replacement of Capital Items**

The Cost Estimates for Replacement of Capital Items section of the PNA Report shall include, at a minimum, a description of all of the Property’s expected capital items requirements for a period of the Mortgage Loan term plus two years. The cost estimates for Replacement of Capital Items will not include the cost estimates for repairs included as Immediate Repair Items unless additional recurring maintenance to these same items will also be required during the period of the Mortgage Loan term plus two years.

The PNA Report should provide necessary detail on the location and nature of the identified capital items to be replaced. Each capital item identified must include sufficient detail for the Property Owner to identify, and make the necessary repairs or replacements as needed. The Cost Estimate schedule for the Replacement of Capital Items should include:

1. the total of all itemized amounts at the current replacement cost, for each year during the period of the Mortgage Loan term plus two years;
2. the total of all replacement costs, adjusted for inflation, by multiplying the annual result in item 1 above by 103% for each year from the date of the PNA Report through the expected date of the replacement of the capital item (e.g., if a roof itemized above will need to be replaced in Year 3, with a current cost of \$10,000, the cost adjusted for inflation would be \$10,609, or  $\$10,000 \times 1.03 \times 1.03$ ); and
3. the Cumulative Total, with the Property Evaluator inserting the total current cost from item 1 above and the total cost, adjusted for inflation from item 2 above for each year and for all prior years.

#### **4.03. PNA Section 3: Property Characteristics**

The PNA Report will include a description and condition of the Property systems and components, including recommendations for repairs, replacement, maintenance, estimated remaining useful life and scope of work for repair or replacement if recommended. The physical condition of the Property, systems and related components will be evaluated and rated, based on a 1 (best) through 5 (worst) scale, with the ratings inserted on the Property Useful Life Table. If an individual system or equipment is not applicable or not accessible, item should be identified as such (“NV” for not visible, or NA for not applicable). Property Condition Standards and Ratings are further defined in Appendix D to these Instructions.

The Property Characteristics section of the PNA Report should be in the format below and include the following assessments and evaluations by the Property Evaluator.

##### **A. Site Components**

1. Configuration and Size: Report on the number of separate parcels of land, shape and acreage, and if all parcels are not contiguous.
2. Site Landscaping, Grading and Drainage: Observe the site topography and any unusual conditions. Report the storm water collection and drainage system, and the presence of water features on the site, including detention and retention ponds. Observe landscaping, noting types and extent of trees, ornamental shrubberies, and landscape planting areas. Identify landscape irrigation systems and observe if systems provide adequate irrigation to maintain plantings and lawn areas.
3. Water and Sanitary Lines: Observe material types of site main water and sanitary lines (utility provided). Identify replacements and anticipated operations and maintenance, as well as the suspected presence at the Property of any known problematic building materials or design issues identified in Appendix G to these Instructions, “Known Problematic Building Materials”.
4. Flatwork, Parking Areas, and Walkways: Observe ingress and egress to the site. Observe drive and parking area material, paving, and curb systems. Interview building maintenance personnel to obtain a general idea of the maintenance and

performance history of the drive and parking areas. Visually examine all accessible portions of the pavement surface to evaluate overall conditions and to identify the type, extent, and severity of existing problems. Analyze the field information obtained to identify any serious underlying deficiencies, to rate the overall condition of the various areas of pavement, and to determine the general types of repairs that are needed to restore or maintain a serviceable pavement. Observe sidewalks, pool decks, and patios. Identify the presence of bicycle parking/storage areas. Identify if walkways are pervious or impervious to moisture. Identify if Property is located in a walkable neighborhood and if site sidewalks and pathways are connected to neighborhood walkways.

5. Site Fencing and Retaining Walls: Observe types, locations, and conditions of site fencing and retaining walls.

## **B. Architectural Components**

1. Apartment Structures: Observe the number, stories and exteriors of all apartment buildings. Observe every structure, including offices, clubhouses, garages, and maintenance buildings. Observe different ages or phases of construction and different construction materials. Determine the age of the Property through the review of building permits and certificates of occupancy; identify phases of construction and significant renovations to assist in establishing the effective age of the Property's systems and conditions to determine the remaining useful life.
2. Foundations: Observe type of foundation noting the presence of basements or crawl spaces. Observe conditions identifying signs of movement or distress. Inspect crawl space for finish, insulation, cracks, and moisture. If crawl space is not accessible, explicitly state that crawl space is not accessible.
3. Framing: Identify the basic type of structure (e.g., wood frame, steel frame, concrete frame, CMU frame). Describe floor and roof framing systems, including condition.
4. Cladding (i.e., Exterior Wall Finishes): Observe building envelope noting types of exterior cladding (e.g., brick, wood, composite, vinyl, cement fiber, etc.). Exterior conditions are generally viewed from ground level. Observe conditions and maintenance practices as well as the presence of graffiti or evidence of vandalism. If information or documentation is readily available, the PNA Report must document type and age of insulation at the Property.
5. Roof Systems: Observe roof type, noting access, slope, coverings, color, and flashing, including copings, parapets, and chimneys. Look for evidence of damage, leaks, or ponding of water on the roof systems. Indicate whether roof access is permitted by residents. Report roof age and remaining term of roof warranty. Document capability to observe roofing insulation and include type and age. If not available, inquire with the Property Owner point of contact. Identify if roof utilizes "green" technologies such as roof top gardens and "cool roofs" that

can deliver high solar reflectance, or have a solar reflectance index (SRI) rating, etc.

6. Appurtenances: Observe all exterior stairways, balconies, railings, patios, and breezeways. Identify type of construction (e.g., wood, steel, concrete, etc.) and report conditions. Observe and comment if overt signs of loitering, including graffiti, are identified that may impact the Property.
7. Doors and Windows: Observe a representative number of windows and doors, noting material types, hardware, and condition of weather-stripping and door sweeps.
8. Amenities: Observe and report on all building amenities and structures, (including leasing office, clubhouse, laundry facilities, swimming pools, car washes, sports courts, tot lots), Wi-Fi accessibility, etc. Report existence of ENERGY STAR<sup>®</sup> and/or WaterSense<sup>®</sup>-rated appliances and ratings of appliances, if available, and other observed equipment.
9. Common Area Finishes: Identify and observe conditions of all interior finishes (e.g., floor and wall coverings, etc.) in common areas. Identify common area furniture, fixtures, and equipment.
10. Site Lighting: Identify and observe all site lighting systems and effectiveness. Identify system controls such as programmable timers, occupancy sensors and photocell technology. Observe whether common area lighting utilizes dark sky technology that protects the night sky by “containing” the light and minimizing light pollution. Where appropriate, recommend the replacement of existing lighting with higher efficiency ENERGY STAR<sup>®</sup> rated lighting. A night inspection of the Property is outside the scope of work of these Instructions.

### **C. Mechanical/Electrical/Plumbing Components**

If the number or percentage of mechanical, electrical and plumbing components or systems to be inspected is not specified by the Lender, the Property Evaluator should inspect sufficient site systems to state with confidence the present and probable future condition of each system at the Property.

1. Water Distribution and Domestic Hot Water System: Identify and observe the plumbing system materials (domestic hot and cold water). Observe and report on water fixture and device flow rates. Identify and observe hot water equipment and any special equipment such as water softeners. Observe presence and condition of insulation at supply lines. When appropriate, recommend:
  - installation of low-flow devices, including toilets, shower heads, faucets, or faucet aerators or
  - insulation of all hot water supply lines or steam pipes.

2. Sanitary Waste and Vent: Observe and identify the sanitary system components and materials. Determine performance based upon interviews and physical observations. All public underground utilities must comply with local conditions and code requirements. The Property Evaluator should alert the Lender to contact Fannie Mae immediately if a private sewage treatment plant, septic system, or private water is present. Identify components and estimate cost for maintaining the systems. Private water and sewage treatment plants are subject to the following conditions:
- The facility must not be owned by a separate entity.
  - The facility's historic performance must be evaluated to ensure satisfactory compliance with all applicable state and local government requirements. Verify that any historical violations were minor in nature and that corrective actions have been properly and permanently implemented.
  - The facility and its operator, including its employees and contractors, must meet or exceed all applicable federal, state and local government requirements necessary to perform the facility's ongoing operation and maintenance. If the operator of the facility is a related entity of the Property Owner, the Property Evaluator should verify the availability of a local, qualified vendor that could be retained if it is necessary to obtain substitute services.
  - After exercising reasonable due diligence, including contacting municipal agencies, the Property Evaluator shall determine if the Property has been required to connect to a municipal water and sewage system by some future date, or if not yet required, the probability of the Property being required to connect to a municipal water and sewage system over the Mortgage Loan term, as well as the Cost Estimate to comply with any current (or likely future ) requirement to connect to a municipal water and sewage system.
3. Heating/Cooling System and Controls: Observe and identify the basic HVAC and renewable energy systems using nameplate analysis and include types of units, size of units, capacity of units, distribution systems, and thermostats. Determine the age of the components and any apparent upgrades and replacement components. Report on operation and maintenance practices, such as condition of mechanical rooms, filter replacements, preventative maintenance, etc. Observe and report ENERGY STAR<sup>®</sup> rating of system equipment, if available. Observe and report the presence of programmable thermostats and Equipment Management Systems (EMS). If programmable thermostats are not present, the Property Evaluator may recommend the installation of ENERGY STAR<sup>®</sup> programmable thermostats for individually controlled heating and cooling units where user controlled temperature set-point inputs exist. Also, the Property Evaluator may recommend that programmable thermostats be preprogrammed with typical occupied and unoccupied set-points and weekly schedules. If

programmable thermostats are present, the Property Evaluator shall determine whether the thermostats have been pre-programmed. The determination should be made through a combination of site observations and interviews with site managers and maintenance staff.

4. Ventilation Systems: Observe and comment on the adequacy of ventilation system. Address the following ventilation items within the PNA Report. [Note: these Instructions do not require the diagnostic testing of the ventilation system.]:
  - Observe and report whether ventilation vents appear to have excess dust or dirt build up.
  - Report whether the Property utilizes roof fans. If the Property has roof fans and they are accessible, confirm that roof fans are operational.
  - Observe and document the Property's smoking policy. Identify whether there are smoke-free areas, such as buildings, playgrounds, common areas, etc.

Following is a list of additional items recommended for review and observation of ventilation systems. Non-observable items may be excluded. The on-site survey is intended to be a visual non-invasive observation of visible and accessible areas of the Property.

- Determine whether the ventilation system is operating in the manner in which it was intended and appears to be properly installed.
  - Identify the type of controls by which the ventilation is run, including whether the ventilation system is on a timer or if the system runs continually. Observe estimated ventilation speed (i.e., maximum, high, medium low, off).
  - If observable, verify air ducts are sealed and free from cracks and gaps.
  - If observable, verify the connection between building duct work and sheetrock or plaster is tight.
5. Electrical Service: Identify the service size and the distribution system including, transformers, meters, distribution panels, lighting systems, and other electrical equipment or systems. **For individually metered properties, Fannie Mae requires a minimum amperage (as measured from the breaker located near the individual electric meter) of 60 amperes for each dwelling unit. The minimum amperage identified at the Property for dwelling units must be included in the PNA Report and may be determined by the Property Evaluator based on a representative sample of dwelling units and must be included in the PNA Report.** . The amperage measurement must be obtained from the breaker located near the individual electric meter.

- **NOTE:** Adding all of the individual breakers at the dwelling unit level subpanel is not adequate. The amperage must be a minimum of 60 amps. If the amperage is below 60 amps, evaluation of this inadequacy may include discussion of items such as unit sizes, fuel sources for the mechanical equipment, cooking and typical living styles at the Property. All dwelling units must have circuit breakers, not fuses, as circuit overload protection. If fuses are identified in units, fuses must be tamperproof, local code compliant and not a life safety issue for the Property. If aluminum wiring is present, see Appendix G to these Instructions for further discussion of Aluminum branch wiring and fused subpanels, and appropriate remediation.
6. Fire and Life Safety Systems: Identify and observe condition and age of life safety and fire protection systems and equipment, including sprinklers, hydrants, alarm systems, water storage, smoke detectors, extinguishers, emergency lighting, and carbon monoxide detectors. Carbon monoxide detectors are required in dwelling units and common areas with attached garages or a fossil fuel source (e.g., natural gas, heating oil, propane, etc.).
  7. Elevators: Identify equipment type, number of elevators, motor horsepower, and capacity. Observe condition of cabs and audible communication equipment. Identify maintenance contractor (if existing). Verify certifications are up to date and provide copies in the PNA Report and verify that no violations exist with the city, county or state governmental authorities. Identify components and costs if major replacements are anticipated during the period of the Mortgage Loan term plus two years.
  8. Site Security: Observe and identify security systems and components, including on-site guards, offsite contractors, cameras and alarms.

#### **D. Dwelling Unit Components and Observations**

1. Dwelling Unit Summary: Provide a summary table of unit count by unit type, including number of occupied units, vacant units, and down units (i.e., units not currently in rentable condition). Identify units inspected the during site visit.
2. Down or Vacant Units: Observe conditions and identify any needed repairs and cost estimates to restore down units to a rentable condition.
3. Unit Finishes: Observe and identify finishes and general conditions, and report on maintenance practices.
4. Cabinets, Counters and Sinks: Observe and identify materials and conditions. Consider age, noting history of replacement vs. refurbishment.

5. Appliances: Observe and identify appliance package, age, and condition. Estimate percent of ENERGY STAR<sup>®</sup> appliances, if any. Provide a recommendation for the appropriate Energy STAR<sup>®</sup> rated replacement appliances needed during the period of the Mortgage Loan term plus two years.
6. Cable or Internet Availability: Report on accessibility, type of access, provider and speed.

#### **4.04. PNA Section 4: Moisture and Microbial Growth and Pest Management**

The Moisture and Microbial Growth and Pest Management section of the PNA Report should be in the format below and include the following scope of work.

##### **A. Moisture and Microbial Growth**

The PNA Report must address the presence of moisture intrusion and microbial (mold) growth in the areas requiring inspection. The Property Evaluator shall:

- search for visual and olfactory evidence of microbial growth;
- make inquiries regarding current moisture intrusion or any known microbial growth issues;
- make inquiries regarding tenant complaints pertaining to mold or microbial growth;
- inspect all areas reported to have moisture intrusion, mold, or microbial growth; and
- identify any defective or problematic material that will result in water intrusion.

Determine if a Moisture Management Plan is in place. If a Moisture Management Plan is in place, obtain a copy, review and report on its adequacy. Verify that any Moisture Management Plan currently in place is being implemented. If a Moisture Management Plan is not in place but needed, recommend that a Moisture Management Plan be instituted.

##### **B. Pest Management**

Observe for the presence of pests and vermin. If pests are observed, recommend appropriate pest control measures. Determine if there is a site pest management plan incorporating a range of practices for economical control of pests. If pests are observed and a plan is in place, review the plan and implementation practices to determine and correct any deficiencies. Observe for the presence of termites and other wood destroying organisms. Identify any need for additional assessments or inspections if evidence of termites is observed.

#### **4.05. PNA Section 5: Special Hazards, Zoning, Building Code Violations and Regulatory Compliance**

##### **A. Specials Hazards**

###### **1. Peak Ground Acceleration (PGA):**

Determine the Peak Ground Acceleration (PGA) range (maximum and minimum) for the zip code in which the Property is located. If the Property Evaluator is not able to identify the PGA range for the Property, an approximate PGA range based on the Property's county or state is acceptable. The Peak Ground Acceleration (PGA) represents the shaking or ground motion from an earthquake, expressed as a percentage of g, with g being the acceleration of a falling object due to gravity. The Property Evaluator must state whether the Property is located in an area having a 10% or greater probability of the Peak Ground Acceleration (PGA) being greater than 0.15g in a 50 year period (as shown by the most recent United States Geological Service data for the area Peak Ground Acceleration). If the Property is located in such an area, the Property Evaluator must then determine the actual probability of the Peak Ground Acceleration being greater than 0.15g in a 50 year period (as shown by the most recent United States Geological Service data for the area Peak Ground Acceleration). The exact PGA must be identified using the Property's address or its latitude and longitude, as an approximated PGA based on the Property's county or state is not acceptable in this instance.

###### **2. Hazards/Geographic Conditions/Catastrophic Loss Potential:**

(a) Identify whether the region has a propensity toward any of the events below and, if so, (i) comment on the construction types located at the Property and their expected performance in such event, and (ii) identify conditions that may impact the performance of the Property during such catastrophic event, such as expansive soils.

- Earthquake;
- Volcanic activity;
- Flood;
- Hurricane;
- Tornado;
- Wind; or
- Wildfire.

(b) A Structural Risk Evaluation (SRE) Questionnaire (see Appendix C to these Instructions, "Structural Risk Evaluation Questionnaire") must be completed for the Property.

3. Flood Zone: Review FEMA flood map and provide the flood zone or zones in which all portions of the Property are located. Identify the map number and date of publishing.

## **B. Zoning**

Identify the zoning code and zoning code requirements applicable to the Property, and any zoning code violations that may exist.

## **C. Code Violations**

1. Building Codes: Identify violations observed during the site walk through and request information for all building code violations cited by the local governmental authority that have not been remedied. Determine the timing and costs to remediate any such open code violations and make recommendation to achieve compliance. Documentation of all violations must be included in Exhibit E to the PNA Report.
2. Fire Codes: Identify violations observed during the site walk through and request information relative to violations cited by the fire department that have not been remedied. Determine timing and costs and make recommendation to achieve compliance.

## **D. Regulatory Compliance**

1. Americans with Disabilities Act (ADA) and Fair Housing Act (FHA): Perform a visual survey of the Property's compliance to the extent applicable with the ADA, FHA, and similar state and local laws. The ADA visual survey should include, but not be limited to: (a) number of on-site ADA-designated parking spaces, (b) overall accessibility, including, but not limited to, sidewalks, entrances, restrooms, and access to common areas such as the leasing office and property amenities, and (c) elevator controls, notices and safety features.
2. Energy Retro-Commissioning. Evaluate compliance with local, state or federal retro-commissioning, energy audit or other energy benchmarking compliance actions.
3. Energy Risk Score: For a Property subject to federal, state, or local energy consumption reporting requirements, the PNA Report must include an energy benchmark for the Property's energy consumption. This energy benchmark will be a numeric metric measuring the combined energy consumption by the Property's systems and equipment for the same 12 month period as used by the Property of reporting its annual financial information, and will be calculated using ENERGY STAR® Portfolio Manager ([www.ENERGYSTAR.gov](http://www.ENERGYSTAR.gov)).

If available, this benchmark score will be the Property's ENERGY STAR® rating on a 1 to 100 scale. If the energy benchmark score is below 50, the PNA Report should attempt to identify causes for the low performance and remediation opportunities for improvement. If an ENERGY STAR® 1 to 100 rating is not available, ENERGY STAR® will instead calculate the Energy Use Intensity (EUI) as the benchmark for the Property's energy consumption. The EUI is equal to the property's total kBtu for the 12 consecutive months divided by the same square footage of reported kBtu. If the EUI is above 130, the PNA Report should attempt to identify causes for the low performance and remediation opportunities for improvement.

For a Property subject to federal, state or local energy consumption reporting requirements, a copy of the current Statement of Energy Performance from the Property's account in ENERGY STAR® Portfolio Manager Account must be included as Exhibit G to the PNA Report.

#### **4.06. PNA Section 6: Areas of Additional Assessment**

##### **A. Known Problematic Building Materials**

The PNA Report must identify known problematic building materials or design issues currently installed, in use at or located on the Property. (See Appendix G to these Instructions for a partial list.)

##### **B. Work in Progress**

The PNA Report will include all relevant information concerning any work is observed to be underway at the Property during the site visit or that is known to be under contract. For purposes of the Cost Estimate schedule, such work should be assumed to be complete, unless observed to be unacceptable in quality or scope or estimated completion time of work is more than 6 months from the date observed. Work will only be considered complete when all work is done, paid in full and lien-free.

#### **4.07. PNA Section 7: Report References, Procedures And Limitations**

##### **A. References used by the Property Evaluator for Preparation of PNA Report**

The Property Evaluator shall reference in the PNA Report the use of the Fannie Mae Instructions for the Property Evaluator, including the date of the Instructions and version number. The Property Evaluator will further certify that the PNA Report is prepared in accordance with the Fannie Mae Instructions for the Property Evaluator.

The Property Evaluator shall also reference any federal, state or local codes used in connection with preparation of the PNA Report.

**The PNA Report must disclose all documentation and sources used in preparation of the PNA Report including the Cost Estimate Schedules for Immediate Repairs and Replacement of Capital Items in Exhibit E of the PNA Report.** If a source used by the Property Evaluator is not a commercially recognized source, the PNA Report must include documentation supporting the cost estimates derived from such source. The Property Evaluator shall have available, at the Lender's request, electronic copies of all relevant documentation used in preparation of the PNA Report. All documentation requested by the Property Evaluator but not received from the Property Owner or the Lender will also be documented in Exhibit E to the PNA Report.

All calculations and models used in preparation of the PNA Report must be transparent, consistent with industry standards and supportable.

#### **B. Assessment Methodology**

The Property Evaluator shall reference the methodology applied to the Property Evaluator's conduct of the PNA and its preparation of the PNA Report.

#### **C. Limitations**

The Property Evaluator shall also describe all limiting conditions encountered during the conduct of the PNA and the preparation of the PNA Report.

### **4.08. Exhibits to The PNA Report**

The PNA Report will contain the following Exhibits.

- Exhibit A: Photo Documentation
- Exhibit B: Location Map, Aerial Photo and Site Plan (if available)
- Exhibit C: Structural Risk Evaluation Questionnaire
- Exhibit D: Pre-Site Visit Questionnaire
- Exhibit E: Record of all Documents Reviewed, Interviews, and Supporting Information
- Exhibit F: Property Evaluator Qualifications
- Exhibit G: Statement of Energy Performance (if required)

## **5. PNA MODULES**

### **5.01. General**

#### **A. Additional Scope of Work**

A PNA Module requires additional assessment by the Property Evaluator, building on the findings of the Base PNA. The findings of the PNA Module are integrated directly into the PNA Report. Modules apply to specific asset classes or property uses, program financing requirements or otherwise as required by the Lender. For each required Module, the Property Evaluator must satisfy the additional required scope of work described below for that Module. For any Module type listed on the Estimated Useful Life Table (see Appendix F to these Instructions), the Property Evaluator must use the specific column for that Module from the Estimated Useful Life Table to determine the Remaining Useful Life of the particular system or component in arriving at the Cost Estimate Schedules for Immediate Repairs or Replacement of Capital Items.

#### **B. Additional Required Qualifications**

In addition to the qualifications required in Section 1.03 of these Instructions, a qualified Property Evaluator must have previous experience in performing physical needs assessments and property inspections for multifamily asset classes or in connection with loans having special product features comparable to those in the Module required for the Property's asset class or the special product feature or execution of the Mortgage Loan to be secured by the Property as required by the Lender or Fannie Mae. Additional qualifications may be specified in the specific PNA Module. The PNA Report must include a summary of Property Evaluator's prior experience completing each Module required for a Property.

### **5.02. MODULE: Student Housing Property**

A Student Housing Property requires specific components to be observed and reported that are specifically associated with these types of facilities, such as furniture, fixtures, and equipment.

In addition to the assessments and evaluations required in the Base PNA, the Property Evaluator must also:

- Observe and identify furniture in common areas.
- Observe and identify equipment such as televisions, computers, recreational equipment, wi-fi equipment, security equipment, etc.
- Observe and identify whether furniture, fixtures and equipment is Property owned, leased or other. If owned by the Property, include in Estimated Useful Life Table.

### **5.03. MODULE: Seniors Housing Property**

A Seniors Housing Property may include any of the following types of facilities:

- Independent Living Facilities;
- Assisted Living Facilities;
- Alzheimer's/Dementia Care Communities;
- Skilled Nursing Facilities; or
- Continuing Care Communities.

In addition to the Base PNA, the Senior Housing Module will require the observation and evaluation of specific systems and components appropriate to the specific type of Seniors Housing to determine the Cost Estimate Schedule for any Immediate Repairs or the Replacement of Capital Items for the period of the Mortgage Loan term plus two years. In addition to the assessments and evaluations required in the Base PNA, the Property Evaluator must evaluate the following components when assessing a Seniors Housing Property:

- furniture in common areas;
- equipment such as televisions, computers, physical therapy equipment, etc.;
- commercial kitchen equipment;
- facility required life safety equipment;
- the percentage of the common areas and units that have a sprinkler system and whether it is a wet or dry sprinkler system and
- whether furniture, fixtures and equipment is owned or leased by the Property Owner.

### **5.04. MODULE: Manufactured Housing Community**

A Manufactured Housing Community is a residential real estate development consisting of pads for Manufactured Homes, related amenities, utility services, landscaping, roads and other infrastructure. The residents, who own the Manufactured Homes, lease the pad in the Manufactured Housing Community where the Manufactured Homes are placed and connected to utility services.

All Manufactured Homes in the Manufactured Housing Community must conform to the requirements of the Federal Manufactured Home Construction and Safety Standards of 1974 ("HUD Code") (42 USC Chap. 70; 24 CFR Part 3280). The HUD Code requirements were implemented in 1976 and set a national building code for Manufactured Homes.

In addition to the Base PNA, the Manufactured Housing Module requires that the Manufactured Housing Community is evaluated based on certain qualitative criteria that are to

be observed and reported. The following are to be included when assessing Manufactured Housing Communities:

1. The number of Manufactured Homes that do not conform to the requirements of the Federal Manufactured Home Construction and Safety Standards of 1974 (“HUD Code”) (42 USC chap. 70; 24 CFR Part 3280). The HUD Code requirements set a national building code for Manufactured Homes and went into effect in 1976, so compliance cannot be assumed for all homes built after 1974. If a Manufactured Home is in compliance with the HUD Code, the following red tag should be present at the rear of the home. While the source of verification is up to the engineer, the following red tag at the rear of the home is usually present.



2. Whether the Manufactured Home Community is age-restricted or is open to residents of all ages.
3. Number of Manufactured Homes owned by the Property Owner.
4. Condition and type of Manufactured Home pads. Note surface components of patios and parking spaces. Note the type of entries to homes (e.g., patios, raise porches, etc.). Confirm Manufactured Home installation on the pads meets local and state requirements.
5. Number of Manufactured Home pads that will accommodate doublewide homes.
6. Number of Manufactured Home professional skirted and overall skirting condition.
7. Number of exposed hitches on a Manufactured Home.
8. Number of parking spaces per Manufactured Home pad. Note whether parking is on or off street. The standard is two on-site parking spaces for each Manufactured Home pad.
9. Number of Manufactured Home with exteriors or sites in poor condition and the number of abandoned Manufactured Homes.
10. Number of pads for Manufactured Homes and density of pads per acre.
11. Road surface and type of curbing, if any.

12. Condition and type of common area amenities.
13. Condition of landscaping, and quality and condition of signage.

#### **5.05. MODULE: Cooperative Property**

The Base PNA is utilized to assess and report the condition of a Cooperative Property. A Cooperative Property should be no different in appearance or condition than a conventional multifamily property. Cooperative properties are owned by a cooperative corporation or other legal entity, and are governed by legal documents that may include Articles of Incorporation, Bylaws, Subscription Agreement, Regulatory Agreement, and Recognition Agreement (collectively referred to as “Cooperative Governing Documents”). The Cooperative Governing Documents define the cooperative structure, operations and obligations of the cooperative entity and its members. The members, also referred to as resident owners, are typically responsible for the dwelling unit interior and systems and the cooperative entity is responsible for the land, building (outside of the interior units), building systems, and common areas. The PNA Report must clearly identify the scope of work that is being assessed and clearly identify the responsible party (i.e., the cooperative entity or the resident owner) for each Property component and system identified. The Cost Estimate Schedule for Immediate Repair Items and Replacement of Capital Items should only reflect those Property components that are the responsibility of the cooperative entity. The Property Evaluator is required to follow the same site visit protocol as required in the Base PNA and as set forth in Section 3 and Section 4 of these Instructions to identify systemic issues, such as repetitive plumbing leaks, roof leaks, etc.

#### **5.06. MODULE: Commercial/Retail Use**

A multifamily property with commercial or retail mixed use requires that specific components be observed and reported. The Commercial/Retail Module will evaluate the conditions of these specific components to determine the Cost Estimate Schedule for any Immediate Repairs or Replacement of Capital Items required for the period of the term of the Mortgage Loan plus two years. The Property Evaluator will inspect 100% of the commercial or retail areas. The following components are to be included in the Property Evaluator’s assessment of a multifamily property with mixed commercial or retail use:

1. **Leased Spaces.**
  - Identify number and size (square feet) of tenant spaces.
  - Identify differences in parking requirements for commercial tenants and residential tenants.
  - Observe and identify specific mechanical, electrical and plumbing systems for commercial tenants.
  - Observe and identify interior finishes of commercial spaces.
  - Identify potential future lease-up costs including tenant improvements and leasing commissions.

2. **Cost Estimates for Replacement of Capital Items.**

- Identify capital needs of commercial or retail spaces over the term of the Mortgage Loan plus two years.
- Estimate the cost per square foot of commercial space capital needs over the term of the Mortgage Loan plus two years.

**5.07. MODULE: Integrated Pest Management Plan**

The Integrated Pest Management Plan Module (IPMP Module) documents the pest condition at the Property and reviews any O&M Plan for pest management in place at the Property. The Integrated Pest Management Plan Module is required for:

- Mortgage Loans delivered under Green Refinance Plus; or
- other asset classes or product types as may be required by the Lender.

The Integrated Pest Management Plan does not replace a required Termite Report where applicable.

As part of the PNA, an Integrated Pest Management Plan may be required by the Lender. An Integrated Pest Management Plan is not required for all new Mortgage Loans and does not replace a Termite Report. In the Base PNA, the Property Evaluator is required to document the pest condition of the Property and review the pest management plan, if any, in place at the Property. The inspection of the current level of pest infestation may reveal the need for additional repairs or site changes that are to be included in the first year rehabilitation needs, including an evaluation of existing pest control practices and procedures.

**A. Evaluator Qualifications.** The Contractor completing the Integrated Pest Management Inspection must:

- be certified by QualityPro Green, GreenShield, or EcoWise;
- be trained to evaluate and treat the interior and exterior of multifamily (and commercial, if applicable) structures for pest infestations, in accordance with Integrated Pest Management standards;
- have the work performed by an employee who is licensed or certified by the state for residential pest control (if required), or be QualityPro Green certified and who has produced reports of this nature that are well regarded in the marketplace in terms of content, timeliness and responsiveness;
- not be under suspension or debarment by HUD or Fannie Mae, involved as a defendant in criminal or civil action with HUD or Fannie Mae, and not be an FHFA prohibited party; and
- Have the capacity to complete the project inspection and prepare the report in a time frame acceptable to the Lender.

**B. Statement of Work.**

1. The Contractor shall perform an Integrated Pest Management Inspection, provide the property manager and each tenant with information on glue traps, and prepare an Integrated Pest Management Inspection report for each location specified by the Lender and report the findings;

**NOTE:** These instructions assume the Contractor will make two visits to the Property, with the first used to interview property management about existing pest control practices and place the glue traps. During the second visit, the glue traps will be retrieved and the necessary unit and property inspections will be conducted. The Lender has the authority to modify these instructions to require only one visit by the Contractor in those situations where the Lender believes the onsite property management can place the glue traps correctly and provide the glue trap handout to the tenants.

2. The Contractor shall conduct the first onsite visit/inspection to:
  - obtain an understanding of the configuration of buildings.
  - obtain an understanding of the existing pest control practices.
  - review the “Using Glue Traps” handout with the property manager and provide it to each tenant or leave it in each unit where glue traps are placed (handout is available on [www.oahp.net](http://www.oahp.net));
  - place the glue traps to assess cockroach infestation within each unit and common areas such as laundry rooms, storage rooms, and interior trash handling areas;
  - advise the property manager that the contractor will retrieve the glue traps and set a date certain for that follow-up visit/inspection; and
  - observe and identify the presence of bed bugs or other pests that may be present.
3. The Contractor shall conduct the second onsite visit/inspection within 5 to 8 days of first onsite visit/ inspection to:
  - collect the glue traps from each unit, observe conditions in the units, and include in the report a unit-by-unit summary of the glue trap findings;
  - collect the glue traps from each unit, observe conditions in the units, and include in the report a unit-by-unit summary of the glue trap findings;
  - review the findings from the glue traps to help determine which units should be inspected, with the Contractor then conducting inspections of a minimum of 10% of all units (unless otherwise guided by the glue trap findings, units shall be randomly sampled while taking into consideration occupied and unoccupied units and the unit size mix, i.e., one bedroom,

two-bedrooms, etc. If a significant number of units are found to have infestations not reflected in the glue trap findings, the Lender may require that additional units be inspected at the time the glue traps are collected);

- inspect the exterior of all buildings for evidence of pest infestation or conditions which could attract or harbor pests, and inspect and identify all areas where the building envelope has been penetrated and all points of ingress or egress, looking for any entry points for pests. If identified, the Contractor must determine and document all corrective measures, both immediately and long-term; and
- inspect the trash disposal, laundry, common areas, office space, maintenance work area, and storage areas for evidence of infestations.

4. The Contractor shall prepare a narrative Integrated Pest Management Inspection report, that:

- identifies any pest infestations as a result of glue trap findings, a visual survey, a review of any pertinent documentation related to past infestations and pest control measures, or interviews with the property owner, management staff, and tenants;
- includes color photographs and a detailed narrative describing the Property's pest infestation, if any, and provide a corrective course of action for each infestation, and if needed, specific actions for serious infestations within individual units.
- includes a Glue Trap Summary which identifies in detail the quantity and variety of pest trapped, and any obvious general areas, floors, or structures with significant infestations (e.g., if a cluster of adjacent dwelling units appear to have a more severe infestation when compared to the overall building), and identifying groups of infested units as "High", "Moderate", or "Low" infestation and detail corrective measures for each; and
- details an immediate course of action, being specific as to physical items needed (e.g., door sweeps) and treatments needed, if any, and estimated costs to address the pest infestations for each identified group (see prior paragraph) and a continuing course of action for using Integrated Pest Management principles at the Property.

5. The Contractor shall prepare a report regarding existing pest control practices that:

- documents the existing pest control strategies, practices, and outcomes;
- evaluates the existing pest control strategies and practices;
- identifies the deficiencies in the existing pest control strategies and practices; and

- recommends practices consistent with Integrated Pest Management principles that will achieve better outcomes.

### **C. Green Refinance Plus Mortgage Loan Requirements.**

If the Integrated Pest Management Inspection is required as part of a Fannie Mae's Green Refinance Plus Mortgage Loan, it should also include the following subcomponents:

- acknowledgements of who conducted the inspection and prepared the Integrated Pest Management Inspection reports, the preparer's qualifications or a certification that the preparer meets the qualifications required in Section 5.07.A. of these Instructions, when the report was prepared, who received the report, and when the report was reviewed).
- Exhibits (color photographs, site plans, maps, etc.).

### **D. Subcontractor Requirements.**

If the services of a subcontractor were secured to inspect the Property and complete the Integrated Pest Management Inspection report, the Contractor shall review the inspection for quality, consistency, and agreed upon format and conformance with these requirements.

## **5.08. MODULE: High Performance Building Assessment**

### **A. Purpose; Module Scope and Methodology**

#### **1. Purpose**

The High Performance Building Module is required for:

- Mortgage Loans delivered under Green Refinance Plus; or
- other asset classes or product types as may be required by the Lender.

The High Performance Building Module (HPB Module) will identify cost effective opportunities to improve the operating performance of the Property's energy and water systems, by suggesting energy and water efficient solutions in lieu of the conventional suggestions otherwise included in the Cost Estimate schedules for Immediate Repairs and for the Replacement of Capital Items. The HPB Module will also suggest practical ideas to reduce energy and water consumption and that may be implemented as part of the operating and maintenance procedures at the property.

The opportunities for implementing energy and water efficient improvements at the Property may result in:

- reduced operating costs through increased energy and water efficiency measures (EWEM);
- reduced operating and maintenance (O&M) costs;

- increased or retained Property value;
- improved insulation against economic fluctuations in energy or water costs that may negatively impact the Property;
- reduced risk of structural or functional obsolescence of the Property structure, components and systems; and
- enhanced indoor air quality and resident comfort.

## 2. **HPB Module Scope of Work and Methodology**

The Property Evaluator must assess a minimum set of property conditions for energy and water efficiency opportunities and alternatives to conventional solutions for Immediate Repairs and Replacement of Capital Item. The Property Evaluator will identify all applicable and practical energy and water efficiency measures at the Property.

The HPB Module scope of work must be consistent with an American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Level 2 - Energy Survey Analysis, conducted according to the “Procedures for Commercial Building Energy Audits, Second Edition”, 2nd edition, 2011 (“ASHRAE Procedures”). The ASHRAE Level 2 analysis requires the completion of the Preliminary Energy-Use Analysis and Level 1 – Walk-Through Analysis, as defined in the ASHRAE Procedures.

The Property Evaluator must identify EWEM that result in a 20% or greater reduction in projected energy consumption over the Property’s energy consumption in the prior year. The same 20% reduction must be identified for water consumption. If the Property Evaluator is unable to identify EWEM opportunities that meet the 20% target for either or both energy and water consumption, the Property Evaluator must provide an explanation in the PNA Report of the inability to reach the target savings. The Property Evaluator shall deliver a PNA Report with a Cost Estimate Schedule of Immediate Repairs and Replacement of Capital Items reflecting the EWEMs agreed upon for implementation by the Lender and the Property Owner.

The calculation methodology and energy analysis tools used in the HPB Module to determine energy and water efficiency are critical to the ability of the Lender to appropriately assess risk and to the Property Owner’s ability to achieve projected results at the Property. All calculations and models within the HPB Module must be transparent, consistent with industry standards, supportable and must be able to be reasonably relied upon for projecting operating savings at the Property.

The following are approved software for use by the Property Evaluator to model the Property’s past energy and water performance and to estimate the annual efficiency and cost savings of energy and water efficiency measures:

- EnergyPro; and
- Treat.

All energy consumption and cost savings results from the energy model must be verified against known conditions and usage profiles existing at the Property and against industry standard values. Additional energy modeling software may be permitted by the Lender on a case-by-case basis.

## **B. Property Evaluator Qualifications; Standard of Conduct**

1. Property Evaluator Qualifications. The Property Evaluator completing the HPB Module must have the minimum skills, credentials and experience required to effectively perform the analysis described in this section. These qualifications are in addition to the qualifications set forth in Section 103.C of these Instructions for the Base PNA. These additional qualifications are required of the Property Evaluator as a whole, and not to any single individual.

The Property Evaluator shall have effectively completed not less than five multifamily PNA Reports within the prior two years that included the following scope:

- an energy audit according to the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Level 2 - Energy Survey Analysis, conducted according to the “Procedures for Commercial Building Energy Audits, Second Edition”, 2<sup>nd</sup> edition, 2011 (“ASHRAE Procedures”);
- an energy and water consumption and cost savings analysis by utilizing ENERGY STAR® or other energy modeling software;
- prior experience setting up or updating a building profile account in ENERGY STAR® Portfolio Manager, including property characteristics and energy and water consumption and cost data;
- a feasibility analysis for the installation of energy and water efficient property improvements;
- a construction cost estimation of energy and water efficient property improvements; and
- a financial analysis that generates sufficient information and data to support capital investment decisions by a property owner.

The Property Evaluator must hold at least one of the following professional designations, in good standing:

- Certified Energy Manager (CEM); or
- Building Performance Institute, Inc. (BPI) Multifamily Analyst.

2. Property Evaluator Conduct Standards. The Property Evaluator shall comply with applicable professional standards for ethics as defined by the Home Energy Rating System (HERS) Code of Ethics and/or the (BPI) Code of Ethics.

### **C. HPB Module Core Phases**

The HPB Module consists of four core phases (Phases 1, 2 and 3 correlate with the ASHRAE Procedures):

- PHASE 1: Preliminary Due Diligence (Preliminary Energy and Water–Use Analysis);
- PHASE 2: Site Visit (Level 1 Audit – Walk-Through Survey);
- PHASE 3: Energy and Water Survey Analysis (Level 2 Audit – Energy and Water Survey and Engineering Analysis); and
- PHASE 4: High Performance Building (HPB) Integration with the PNA Report.

#### **1. Phase 1: Preliminary Due Diligence (Preliminary Energy and Water Use Analysis).**

Prior to conducting the site visit as a part of the HPB Module, the Property Evaluator must do the “Preliminary Energy Use Analysis” as described in the ASHRAE Procedures. The Property Evaluator must use a methodology similar to the one described in the “Preliminary Energy Use Analysis” for the analysis of analyze water usage at the Property.

#### **2. Phase 2: Site Visit (Level 1 Audit – Walk-Through Survey).**

The site visit must include the components of an ASHRAE Level 1 – Walk-Through Survey and on site components further detailed in the ASHRAE Procedures. The Property Evaluator should use similar methodology for conducting the water use analysis as is provided in the ASHRAE Procedures for energy use analysis.

The on-site interview is an important component of the HPB Module. The purpose of the interviews is to discuss:

- property energy and water performance;
- operations and maintenance procedures and problems;
- resident complaints about comfort and health and safety concerns;
- any factors affecting energy and water performance; such as occupancy rates, resident behavior patterns, etc.; and
- historic repairs to, and replacements of, capital items, including issues created from previous underperforming, inadequately sized, or poorly maintained equipment.

The HPB site visit must include the following:

- review of energy and water systems, processes, and equipment;
- collection of existing nameplate information and controls strategies; and

- visual inspections of the building envelope, HVAC system, equipment, domestic water heaters and systems, controls, and lighting systems.

### **3. PHASE 3: Energy and Water Survey Analysis (Level 2 – Energy Survey and Engineering Analysis).**

#### **(a) Energy and Water Consumption and Cost Saving Analysis**

Generally accepted engineering calculations and methodologies are used to calculate projected savings. The PNA Report will clearly state any assumptions used in analyzing energy and water data. As part of the engineering calculations, an energy and water baseline model of the Property's pre-retrofit actual historical and post-retrofit projected or modeled performance shall be completed using building plans, and data collected during the site visit. Equipment operating hours and use will be based on relevant hours of operation, geographic location, resident type, and space use.

Key elements to be considered in the calculation methodology include:

- energy end use analysis;
- utility rate structures;
- EWEM interactions;
- EWEM life cycle;
- EWEM cost estimates; and
- weather data normalization and annualized results.

Energy and water metrics are to be calculated using the ENERGY STAR® Portfolio Manager ([www.ENERGYSTAR.gov](http://www.ENERGYSTAR.gov)). If an ENERGY STAR 1 to 100 rating is available, the Property's rating must be included in the PNA Report. The performance metrics must include 12 months of consumption and costs for all energy and water meters paid by the Property Owner. If tenants are billed directly by the utility, a 10% sampling of meters paid by tenants must be included in the performance metrics. If the property is being acquired, the performance metrics may be limited to 6 months of energy and water consumption and costs for meters paid by the Property Owner.

If the local utility serving the Property provides access to aggregated cost and consumption information for all meters paid for by the tenants (i.e., sub-metered information), the Property Evaluator will request such information from the utility. If local laws require reporting of energy and water metrics through ENERGY STAR®, the Property Evaluator will utilize the existing account and ensure that the information is up to date. If available, the Property Evaluator should use an existing ENERGY STAR® Portfolio Manager Property account. Otherwise the Property Evaluator may establish an ENERGY STAR® account on behalf of the Property Owner, enter the data into Portfolio Manager and report the calculated metrics and ENERGY STAR® rating in the PNA

Report. The Property Evaluator must transfer control of the account to the Property Owner upon completion of the PNA Report.

The Property Evaluator will also share the ENERGY STAR® Portfolio Manager building account with the Fannie Mae ENERGY STAR® Portfolio Account “FANNIEMAE”. The PNA Report must include a copy of the current Statement of Energy Performance from the Property’s ENERGY STAR® Portfolio Manager Account.

(b) Software modeling

If modeling software is used, the PNA Report will include an input assumptions table which reports an overview of all model inputs for both the baseline analysis and the projected energy or water analysis. This table should also highlight Property components that were analyzed as potential EWEM and those having greatest impact on final energy and water cost savings estimates.

All energy or water consumption and cost savings results from modeling must be verified against known conditions and usage profiles existing at the Property and against industry standard values. Additional modeling software may be permitted on a case-by-case basis.

(c) Utility Rate

The Property Evaluator shall use the current local utility rate schedules as verified during review of the utility bills to perform saving calculations and model the Property. PNA Report will include a description of local utility demand charges, block charges, time of use rates and charges applicable to the Property. EWEM will consider utility demand responses.

(d) Measure Interactivity

- (i) Independent Measures: capital investment, owner savings, tenant savings, and financial analysis using simple payback, life cycle cost analysis, owner’s return on investment, and estimated impact to asset value will each be evaluated, independent of each other measure, and presented in an ascending simple payback order.
- (ii) Interactive Measures: If the measures are interactive, the effect of each interactivity will be factored into the cost and consumption analysis. The interactivity between measures will be clearly identified within each detailed EWEM description. The PNA Report will also include a recommended sequence of implementation based on industry standards and unequivocally state that savings may differ based on the actual implementation sequence.

(e) Assumptions

All major assumptions used to perform the calculations and analysis must be clearly stated in the PNA Report with emphasis placed on the assumptions that have the most impact on estimated energy and water savings. All assumptions and calculations of equipment size, performance, efficiency, operating hours and energy and water use shall be clearly noted. Assumptions and calculations should be consistent with comparable properties and industry standards and if not, an explanation for deviating from standards.

(f) Rebates and Incentives

The PNA Report must include a list of rebates and incentives that may be applicable at the property for property equipment and system upgrades and energy and water efficiency measures. Property Owner is responsible for determining eligibility, applying and securing any rebates and incentives. Furthermore, the Property Owner is responsible for ensuring that their Property and proposed measures for installation meet the minimum requirements of any rebate or incentive programs.

Capital cost estimates and savings calculations should NOT include local utility rebates and federal tax credits and incentives.

**4. PHASE 4: High Performance Building (HPB) Integration with the PNA Report.**

(a) HPB Module Findings

The HPB Module findings and recommended measures are in addition to the requirements of the Base PNA previously described in these Instructions, and are to be incorporated into the PNA report producing one unified document.

(b) Integration with PNA Report

As further described below, the PNA report must include:

- A list of EWEM opportunities ordered by simple payback, and a description of two methods of implementation per opportunity, with one identified as “recommended” and the second as “alternative”. For the “recommended” implementation method, include the following information:
  - simple payback;
  - life cycle cost analysis;
  - return on investment;
  - capital cost estimates;

- reduction in energy and water costs paid by (i) the Property Owner, and (ii) tenants; and
  - annual energy or water consumption;
  - Two Replacement Repair Schedules reflecting:
    - the Replacement Repair items per the Base PNA requirements only; and
    - the Replacement Repair items incorporating the EWEM opportunities identified in the HPB Module;
  - A description of the methodology used for data collection, energy modeling software if applicable and assumptions used to make the projections; and
  - A description of quality assurance and verification guidelines for measures to be implemented.
- (c) HPB Module Revisions and Additions to PNA Report
- (i) PNA Report Section 1: Executive Summary. Section 1 of the PNA Report will be expanded to include:
- a certification by the Property Evaluator that the PNA Report meets the minimum ASHRAE Level 2 Energy Survey Analysis standards conducted according to the “Procedures for Commercial Building Energy Audits, Second Edition” 2011 and requirements and standards of the Instructions for this HPB Module; and
  - an adjustment to the Cost Estimate Summaries to include Immediate Repairs and Replacements of Capital Items based on the HPB Module assessment cost estimates and the total of planned EWEM mutually agreed upon by the Lender and the Property Owner (See Tab 1: “Summary of Costs” on Appendix H to these Instructions, “HPB Module Report Tables”).
- (ii) PNA Section 2: Cost Estimates for Immediate Repair and Replacement of Capital Items. Section 2 of the PNA Report will be expanded to include in the Cost Estimate summaries:
- Immediate Repair items for the EWEM mutually agreed upon by the Property Owner and the Lender to be completed within 12 months after the origination of the Mortgage Loan, along with any necessary adjustments to Cost Estimates for Immediate Repair items from the findings and recommendations of the Base PNA;
  - Replacement of Capital Items for the EWEM mutually agreed upon by the Property Owner and the Lender, that are typical of high performing buildings, and are to be completed more than 12

months after the origination of the Mortgage Loan, along with any necessary adjustments to Cost Estimates for Replacement of Capital Items from the findings and recommendations of the Base PNA;

- a table, titled “Historical Annual Energy and Water Costs”, summarizing the Property’s current energy and water cost by use (See Tab 2: “Historical Cost” on Appendix H to these Instructions); and
- a table, titled “Annual Projected Energy and Water Cost Savings”, summarizing projected energy and water savings by measure (See Tab 3: “Projected Savings” on Appendix H to these Instructions).

(iii) PNA Section 3: Property Characteristics. Section 3 of the PNA Report will be expanded to include additional HPB Module observations and information on the Property’s equipment and system performance, augmenting the Base PNA findings, as part of the site survey and documented in the appropriate sections of the PNA Report. When applicable, photos of labels, nameplates, and ENERGY STAR® logos should be included in the appropriate sections.

(iv) PNA Section 7: Property Equipment and System Performance. A new Section 7 of the PNA Report will be added to the PNA Report.

- Section 7: “Property Equipment and System Performance”, will include a comprehensive analysis of (1) historical and current energy and water consumption, and (2) projected energy and water consumption and savings at the Property. This section closely follows the guidance for an Audit Report as set forth in the ASHRAE Procedures. Although the ASHRAE Procedures do not specifically address water consumption and projected savings, the Property Evaluator should follow a similar approach for water analysis and reporting to that of the energy guidance in the ASHRAE Procedures. Information included in this section to be illustrated in tables, charts and graphs when capable.
- Section 7.01: “Historical Energy and Water Performance Metrics”, must include a copy of the current Statement of Energy Performance from the Property’s ENERGY STAR® Portfolio Manager Account.
- Section 7.01 must include additional metrics for the energy and water performance of the Property’s systems and equipment for the prior 12 months, as shown by the table, titled “Historical Annual Energy and Water Consumption and Costs”, summarizing the prior 12 months usage for each energy and water type (See Tab 4: “Cost and Consumption” on Appendix H to these Instructions).

- Section 7.02(a): “Projected Energy and Water Cost and Consumption Savings from Energy and Water Efficiency Measures (EWEM)”, will include a written Summary of Energy and Water Cost and Consumption Savings, and include two tables summarizing all recommended EWEM measures:
  - a table titled, “Projected Energy and Water Cost Savings per Energy and Water Efficiency Measure” (See Tab 5: “Cost Savings by EWEM” on Appendix H to these Instructions); and
  - a table titled, “Projected Energy and Water Consumption Savings” (See Tab 6: “Consumption Savings by EWEM” on Appendix H to these Instructions).
- Section 7.02(b): “Recommended Energy and Water Efficiency Measures (EWEM)”, will include a summary of each recommended EWEM, consistent with the guidelines described by the ASHRAE Procedures. The following additional information will be included in the summary as a narrative for each recommended EWEM:
  - EWEM Item Name and Number (must be listed here in the same order as HPB Module Cost Estimate Schedule for Capital Replacement Items;
  - detailed description of recommended EWEM;
  - rationale for recommendation;
  - recommendation for timing on implementing of the EWEM, whether making a repair or replacing a capital item;
  - description of any non-energy related benefits of the recommended EWEM (e.g., improved thermal comfort, enhanced indoor air quality, reduced waste and depletion of natural resources, healthier home environment for the residents, reduced negative impact on the environment);
- Section 7.02(c): “Energy and Water Efficiency Measures Not Recommended”, will include a short narrative of each EWEM investigated and reasons why it is not recommended.
- Section 7.02(d): “Feasibility Evaluation of Alternative Energy Measures”, will assess alternative energy measures to generate energy at the Property or, in the absence of alternative energy opportunities, an explanation why these were not recommended.
- Section 7.02(e) “Energy and Water Analysis Methodology”, will provide a summary of the energy and water calculations or modeling approach used in the HPB Module (including the name

and model of any modeling software used). If exceptional calculations were used to estimate energy and water consumption and savings, a brief narrative should be provided on the approach or methodology, including detailed calculations.

- Section 7.03: “Quality Assurance and Verification Plan”, will include recommended measurement and verification methods that will be required to determine the actual effectiveness of the recommended measures.

## **6. APPENDICES TO THE INSTRUCTIONS FOR THE PROPERTY EVALUATOR**

The following appendices are included with these Instructions to assist in the completion of the PNA, and for inclusion as Exhibits to the PNA Report, as required:

- Appendix A: Streamlined Physical Needs Assessment Report (Form 4099.A)
- Appendix B: Pre-Site Visit Questionnaire (Form 4099.B)
- Appendix C: Structural Risk Evaluation Questionnaire (Form 4099.C)
- Appendix D: Property Condition Standards and Ratings, and Instructions for Useful Life Table (Form 4099.D)
- Appendix E: Property Useful Life Table and Cost Estimate Schedules
- Appendix F: Estimated Useful Life Tables (Form 4099.E)
- Appendix G: Known Problematic Building Materials (Form 4099.F)
- Appendix H: HPB Module Report Tables (Form 4099.G)