



Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process¹

This standard is issued under the fixed designation E 2018; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 *Purpose*—The purpose of this guide is to define good commercial and customary practice in the United States of America for conducting a baseline *property condition assessment* (PCA) of the improvements located on a parcel of commercial real estate by performing a walk-through survey and conducting research as outlined within this guide.

1.1.1 *Physical Deficiencies*—In defining good commercial and customary practice for conducting a baseline PCA, the goal is to identify and communicate physical deficiencies to a user. The term *physical deficiencies* means the presence of conspicuous defects or material deferred maintenance of a subject property's material systems, components, or equipment as observed during the field observer's walk-through survey. This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc., and excludes de minimis conditions that generally do not present material physical deficiencies of the subject property.

1.1.2 *Walk-Through Survey*—This guide outlines procedures for conducting a walk-through survey to identify the subject property's material physical deficiencies, and recommends various systems, components, and equipment that should be observed by the field observer and reported in the *property condition report* (PCR).

1.1.3 *Document Reviews and Interviews*—The scope of this guide includes document reviews, research, and interviews to augment the walk-through survey so as to assist the consultant's understanding of the subject property and identification of physical deficiencies.

1.1.4 *Property Condition Report*—The work product resulting from completing a PCA in accordance with this guide is a PCR. The PCR incorporates the information obtained during the Walk-Through Survey, the Document Review and Interviews sections of this guide, and includes opinions of probable costs for suggested remedies of the physical deficiencies identified.

1.2 *Objectives*—Objectives in the development of this guide are: (1) define good commercial and customary practice for the PCA of primary commercial real estate improvements; (2) facilitate consistent and pertinent content in PCRs; (3) develop practical and reasonable recommendations and expectations for site observations, document reviews and research associated with conducting PCAs and preparing PCRs; (4) establish reasonable expectations for PCRs; (5) assist in developing an industry baseline standard of care for appropriate observations and research; and (6) recommend protocols for consultants for communicating observations, opinions, and recommendations in a manner meaningful to the user.

1.3 *Considerations Beyond Scope*—The use of this guide is strictly limited to the scope set forth in this section. Section 11 and Appendix X1 of this guide identify, for informational purposes, certain physical conditions that may exist on the subject property, and certain activities or procedures (not an all inclusive list) that are beyond the scope of this guide but may warrant consideration by parties to a commercial real estate transaction.

1.4 *Organization of This Guide*—This guide consists of several sections, an Annex and two Appendixes. Section 1 is the Scope. Section 2 on Terminology contains definitions of terms both unique to this guide and not unique to this guide, and acronyms. Section 3 sets out the Significance and Use of this guide, and Section 4 describes the User's Responsibilities. Sections 5 through 10 provide guidelines for the main body of the PCA, including the scope of the Walk-Through Survey, preparation of the Opinions of Probable Costs to Remedy Physical Deficiencies, and preparation of the PCR. Section 11 provides additional information regarding out of scope considerations (see 1.3). Annex A1 provides requirements relating to specific asset types, and where applicable, such requirements are to be considered as if integral to this guide. Appendix X1 provides the user with additional PCA scope considerations, whereby a user may increase this guide's baseline scope of due diligence to be exercised by the consultant. Appendix X2 outlines the ADA Accessibility Survey.

1.5 *Multiple Buildings*—Should the subject property consist of multiple buildings, it is the intent of this guide that only a single PCR be produced by the consultant to report on all of the buildings on the subject property.

¹ This guide is under the jurisdiction of ASTM Committee E50 on Environmental Assessment and is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions.

Current edition approved Dec. 10, 2001. Published March 2002. Originally published as E 2018–99. Last previous edition E 2018–99.



1.6 *Safety Concerns*—This guide does not purport to address all of the safety concerns, if any, associated with the walk-through survey. It is the responsibility of the consultant using this guide to establish appropriate safety and health practices when conducting a PCA.

TABLE OF CONTENTS

1	Scope	8	Walk-Through Survey
1.1	Purpose	8.1	Objective
1.2	Objectives	8.2	Frequency
1.3	Considerations Beyond Scope	8.3	Photographs
1.4	Organization of This Guide	8.4	Scope
1.5	Multiple Buildings	8.5	Additional Considerations
1.6	Safety Concerns	9	Opinions of Probable Costs to Remedy Physical Deficiencies
2	Terminology	9.1	Purpose
2.2	Definitions	9.2	Scope
2.3	Definitions of Terms Specific to This Standard	9.3	Opinions of Probable Costs Attributes
2.4	Abbreviations and Acronyms	10	Property Condition Report
3	Significance and Use	10.1	Format
3.1	Use	10.2	Writing Protocols
3.2	Clarification of Use	10.3	Documentation
3.3	Who May Conduct	10.4	Credentials
3.4	Principles	10.5	Executive Summary
3.5	Prior PCR Usage	10.6	Purpose and Scope
3.6	Rules of Engagement	10.7	Walk-Through Survey
4	User's Responsibilities	10.8	Document Reviews and Interviews
4.1	Access	10.9	Additional Considerations
4.2	User Disclosure	10.10	Opinions of Probable Costs
5	Property Condition Assessment	10.11	Qualifications
5.1	Objective	10.12	Limiting Conditions
5.2	PCA Components	10.13	Exhibits
5.3	Coordination of Components	11	Out of Scope Considerations
5.4	Consultant's Duties	11.1	Activity Exclusions
6	The Consultant	11.2	Warranty, Guarantee, and Code Compliance Exclusions
6.1	Qualifications of the Consultant	11.3	Additional/General Considerations
6.2	Staffing of the Field Observer	Annex A1	
6.3	Independence of the Consultant	A1.1	Multifamily Properties
6.4	Qualifications of the Field Observer	A1.2	Commercial Office Buildings
6.5	Qualifications of the PCR Reviewer	A1.3	Retail Buildings
6.6	The Field Observer and PCR Reviewer May Be a Single Individual	Appendix X1	
6.7	Not a Professional Architecture or Engineering Service	X1.1	Qualifications
7	Document Review and Interviews	X1.2	Verification of Measurements and Quantities
7.1	Objective	X1.3	Research
7.2	Reliance	X1.4	Flood Plain Designation
7.3	Accuracy and Completeness	X1.5	Recommended Table of Contents
7.4	Government Agency Provided Information	Appendix X2	
7.5	Pre-Survey Questionnaire	X2.1	Overview of The Americans with Disabilities Act
7.6	Owner/User Provided Documentation and Information	X2.2	Overview of the Americans with Disabilities Act Accessibility Guidelines (ADAAG)
7.7	Interviews	X2.3	Variable Levels of Due Diligence
		X2.4	Definitions of Terms Specific to Understanding the Americans with Disabilities Act
		X2.5	Presentation of Opinions of Probable Costs
		X2.6	Tier I: Visual Accessibility Survey
		X2.7	Tier II: Abbreviated Accessibility Survey
		X2.8	Tier III: Full Accessibility Survey

2. Terminology

2.1 This section provides definitions, descriptions of terms, and a list of acronyms, where applicable, for the words used in this guide. The terms are an integral part of the guide and are critical to an understanding of this guide and its use.

2.2 Definitions:

2.2.1 *architect, n*—designation reserved by law for a person professionally qualified, examined, and registered by the appropriate governmental board having jurisdiction, to perform architectural services including, but not limited to, analysis of project requirements and conditions, development of project design, production of construction drawings and specifications, and administration of construction contracts.

2.2.2 *building codes, n*—rules and regulations adopted by the governmental authority having jurisdiction over the commercial real estate, which govern the design, construction, alteration and repair of such commercial real estate. In some jurisdictions trade or industry standards may have been incorporated into, and made a part of, such building codes by the governmental authority. Building codes are interpreted to include structural, HVAC, plumbing, electrical, life-safety, and vertical transportation codes.

2.2.3 *building department records, n*—records maintained by or in possession of the local government authority with jurisdiction over the construction, alteration, use, or demolition of improvements on the subject property, and that are readily available for use by the consultant within the time frame required for production of the PCR and are practically reviewable by exercising appropriate inquiry. Building department records also may include building code violation notices. Often, building department records are located in the building department of a municipality or county.

2.2.4 *building systems, n*—interacting or independent components or assemblies, which form single integrated units, that comprise a building and its site work, such as, pavement and flatwork, structural frame, roofing, exterior walls, plumbing, HVAC, electrical, etc.

2.2.5 *component, n*—a fully functional portion of a building system, piece of equipment, or building element.

2.2.6 *dismantling, n*—to take apart or remove any component, device or piece of equipment that is bolted, screwed, secured, or fastened by other means.

2.2.7 *engineer, n*—designation reserved by law for a person professionally qualified, examined and licensed by the appropriate governmental board having jurisdiction, to perform engineering services.

2.2.8 *engineering, n*—analysis or design work requiring extensive formal education, preparation and experience in the use of mathematics, chemistry, physics, and the engineering sciences.

2.2.9 *fire department records, n*—records maintained by or in the possession of the local fire department in the area in which the subject property is located. These records should be practically reviewable and readily accessible for use by the consultant by exercising an appropriate inquiry within the time frame required for production of the PCR.

2.2.10 *guide, n*—a series of options and instructions that do not recommend a specific course of action.

2.2.11 *interviews, n*—discussions with those knowledgeable about the subject property.

2.2.12 *material, adj*—having significant importance or great consequence to the subject property's intended use or physical condition.

2.2.13 *practice, n*—a definitive procedure for performing one or more specific operations or functions that does not produce a test result.

2.2.14 *publicly available, adj*—the source of the information allows access to the information by anyone upon request.

2.2.15 *recreational facilities, n*—facilities for exercise, entertainment or athletics including, without limitation, swimming pools, spas, saunas, steam baths, tennis, volleyball, or basketball courts; jogging, walking, or bicycle paths; and playground equipment.

2.2.16 *structural frame, n*—the components or building system that supports the building's nonvariable forces or weights (dead loads) and variable forces or weights (live loads).

2.2.17 *standard, n—as used by ASTM*, a document that has been developed and established within the consensus principles of the Society and that meets the approval of the ASTM procedures and regulations.

2.2.18 *system, n*—a combination of interacting or interdependent components assembled to carry out one or more functions.

2.3 Definitions of Terms Specific to This Standard:

2.3.1 *actual knowledge, n*—the knowledge possessed by an individual rather than an entity. Actual knowledge, as used in this guide, is to be distinguished from knowledge provided by others, or information contained on documents obtained during the course of conducting a PCA.

2.3.2 *appropriate inquiry, n*—a request for information conducted by Freedom of Information Letter (FOIL), verbal request, or by other written request made either by fax, electronic mail, overnight courier, or U.S. mail. *Appropriate inquiry* includes a good-faith effort conducted by the consultant to obtain the information considering the time constraints to prepare and deliver the PCR.

2.3.3 *base building, n*—the core (common areas) and shell of the building and its systems that typically are not subject to improvements to suit tenant requirements.

2.3.4 *baseline, n*—the minimum level of observations, due diligence, inquiry/research, documentation review, and preparation of opinions of probable costs to remedy material physical deficiencies for conducting a PCA as described in this guide.

2.3.5 *building envelope, n*—the enclosure of the building that protects the building's interior from outside elements, namely the exterior walls, roof and soffit areas.

2.3.6 *commercial real estate, n*—improved real property, except a dwelling or property with four or less dwelling units exclusively for residential use. This term includes, but is not limited to, improved real property used for industrial, retail, office, hospitality, agriculture, other commercial, medical, or educational purposes; property used for residential purposes that has more than four residential dwelling units, and property with four or less dwelling units for residential use when it has

a commercial function, as in the operation of such dwellings for profit.

2.3.7 *commercial real estate transaction, n*—a transfer of title to or possession of improved real property or receipt of a security interest in improved real property, except that it does not include transfer of title to or possession of improved real property with respect to an individual dwelling or building containing four or less dwelling units.

2.3.8 *consultant, n*—the entity or individual that prepares the PCR and that is responsible for the observance of and reporting on the physical condition of commercial real estate in accordance with this guide. The consultant generally is an independent contractor; however, the consultant may be an employee of the user. The consultant may be an individual that is both the field observer and PCR reviewer as described in Section 6.

2.3.9 *dangerous or adverse conditions, n*—conditions, which may pose a threat or possible injury to the field observer, and which may require the use of special protective clothing, safety equipment, access equipment, or any other precautionary measures.

2.3.10 *deferred maintenance, n*—physical deficiencies that cannot be remedied with routine maintenance, normal operating maintenance, etc., excluding de minimis conditions that generally do not present a material physical deficiency to the subject property.

2.3.11 *due diligence, n*—the process of conducting a walk-through survey and appropriate inquiries into the physical condition of a commercial real estate's improvements, usually in connection with a commercial real estate transaction. The degree and type of such survey or other inquiry may vary for different properties and different purposes.

2.3.12 *easily visible, adj*—describes items, components and systems that are conspicuous, patent, and which may be observed visually during the walk-through survey without intrusion, removal of materials, exploratory probing, use of special protective clothing, or use of special equipment.

2.3.13 *expected useful life (EUL), n*—the average amount of time in years that an item, component or system is estimated to function when installed new and assuming routine maintenance is practiced.

2.3.14 *field observer, n*—the individual that conducts the walk-through survey.

2.3.15 *immediate costs, n*—opinions of probable costs that require immediate action as a result of any of the following: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that if left unremedied, have the potential to result in or contribute to critical element or system failure within one year or will result most probably in a significant escalation of its remedial cost.

2.3.16 *observation, n*—the visual survey of items, systems, conditions, or components that are readily accessible and easily visible during a walk-through survey of the subject property.

2.3.17 *observe, v*—to conduct an observation pursuant to this guide.

2.3.18 *obvious, adj*—plain, evident and readily accessible; a condition or fact not likely to be ignored or overlooked by a field observer when conducting a walk-through survey or that

which is practically reviewable and would be understood easily by a person conducting the PCA.

2.3.19 *opinions of probable costs, n*—determination of probable costs, a preliminary budget, for a suggested remedy.

2.3.20 *owner, n*—the entity holding the title to the commercial real estate that is the subject of the PCA.

2.3.21 *PCR reviewer, n*—the individual that both exercises responsible control over the field observer and who reviews the PCR prior to delivery to the user.

2.3.22 *physical deficiency, n*—conspicuous defects or significant deferred maintenance of a subject property's material systems, components, or equipment as observed during the field observer's walk-through survey. Included within this definition are material life-safety/building code violations and, material systems, components, or equipment that are approaching, have reached, or have exceeded their typical EUL or whose RUL should not be relied upon in view of actual or effective age, abuse, excessive wear and tear, exposure to the elements, lack of proper or routine maintenance, etc. This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc., and excludes de minimis conditions that generally do not constitute a material physical deficiency of the subject property.

2.3.23 *practically reviewable, adj*—describes information that is provided by the source in a manner and form that, upon review, yields information relevant to the subject property without the need for significant analysis or calculations. Records or information that feasibly cannot be retrieved by reference to the location of the subject property are not generally considered practically reviewable.

2.3.24 *primary commercial real estate improvements, n*—the site and building improvements that are of fundamental importance with respect to the commercial real estate. This definition specifically excludes ancillary structures, that may have been constructed to provide support uses such as maintenance sheds, utility garages, pool filter and equipment buildings, etc.

2.3.25 *property, n*—the site improvements, which are inclusive of both site work and buildings.

2.3.26 *property condition assessment (PCA), v*—the process by which a person or entity observes a property, interviews sources, and reviews available documentation for the purpose of developing an opinion and preparing a PCR of a commercial real estate's current physical condition. At the option of the user, a PCA may include a higher level of inquiry and due diligence than the baseline scope described within this guide or, at the user's option, it may include a lower level of inquiry or due diligence than the baseline scope described in this guide. Such deviations from this guide's scope should be disclosed in the PCR's executive summary.

2.3.27 *property condition report (PCR), n*—a written report, prepared in accordance with the recommendations contained in this guide, that outlines the consultant's observations, opinions as to the subject property's condition, and opinions of probable costs to remedy any material physical deficiencies observed.

2.3.28 *readily accessible, adj*—describes areas of the subject property that are promptly made available for observation

by the field observer at the time of the walk-through survey and do not require the removal of materials or personal property, such as furniture, and that are safely accessible in the opinion of the field observer.

2.3.29 *readily available*, *adj*—describes information or records that are easily and promptly provided to the consultant upon making a request in compliance with an appropriate inquiry and without the need for the consultant to research archive files.

2.3.30 *reasonably ascertainable*, *adj*—describes information that is publicly available, as well as readily available, provided to the consultant's offices from either its source or an information research/retrieval service within reasonable time, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.

2.3.31 *remaining useful life (RUL)*, *n*—a subjective estimate based upon observations, or average estimates of similar items, components, or systems, or a combination thereof, of the number of remaining years that an item, component, or system is estimated to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, component, or system, the quality of the initial installation, the quality and amount of preventive maintenance exercised, climatic conditions, extent of use, etc.

2.3.32 *representative observations*, *n*—observations of a reasonable number of samples of repetitive systems, components, areas, etc., which are conducted by the field observer during the walk-through survey. The concept of representative observations extends to all conditions, areas, equipment, components, systems, buildings, etc., to the extent that they are similar and representative of one another.

2.3.33 *short-term costs*, *n*—opinions of probable costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but require repairs or replacements that should be undertaken on a priority basis in addition to routine preventive maintenance. Such opinions of probable costs may include costs for testing, exploratory probing, and further analysis should this be deemed warranted by the consultant. The performance of such additional services are beyond this guide. Generally, the time frame for such repairs is within one to two years.

2.3.34 *shutdown*, *n*—equipment, components or systems that are not operating at the time of the field observer's walk-through survey. For instance, equipment, components, and systems that may be shutdown as a result of seasonal temperatures.

2.3.35 *site visit*, *n*—the visit to the subject property during which observations are made pursuant to the walk-through survey section of this guide.

2.3.36 *specialty consultants*, *n*—individuals or entities either in the fields of engineering or in any particular building component, equipment, or system that have acquired detailed, specialized knowledge and experience in the design, evaluation, operation, repair, or installation of same.

2.3.37 *subject building*, *n*—referring to the primary building or buildings on the subject property, and that are within the scope of PCA.

2.3.38 *subject property*, *n*—the commercial real estate consisting of the site and primary real estate improvements that are the subject of the PCA described by this guide.

2.3.39 *suggested remedy*, *n*—an opinion as to a course of action to remedy or repair a physical deficiency. Such an opinion may also be to conduct further research or testing for the purposes of discovery to gain a better understanding of the cause or extent of a physical deficiency (whether observed or highly probable) and the appropriate remedial or reparatory response. A suggested remedy may be preliminary and does not preclude alternate methods or schemes that might be more appropriate to remedy the physical deficiency or that may be more commensurate with the user's requirements.

2.3.40 *survey*, *n*—observations made by the field observer during a walk-through survey to obtain information concerning the subject property's readily accessible and easily visible components or systems.

2.3.41 *technically exhaustive*, *adj*—describes the use of measurements, instruments, testing, calculations, exploratory probing or discovery, or other means to discover, or a combination thereof, or troubleshoot physical deficiencies or develop architectural or engineering findings, conclusions, and recommendations, or combination thereof.

2.3.42 *timely access*, *n*—entry provided to the consultant at the time of the site visit.

2.3.43 *user*, *n*—the party that retains the consultant for the preparation of a baseline PCA of the subject property in accordance with this guide. A user may include, without limitation, a purchaser, potential tenant, owner, existing or potential mortgagee, lender, or property manager of the subject property.

2.3.44 *walk-through survey*, *n*—conducted during the field observer's site visit of the subject property, that consists of nonintrusive visual observations, survey of readily accessible, easily visible components and systems of the subject property. This survey is described fully in Section 8. Concealed physical deficiencies are excluded. It is the intent of this guide that such a survey should not be considered technically exhaustive. It excludes the operation of equipment by the field observer and is to be conducted without the aid of special protective clothing, exploratory probing, removal of materials, testing, or the use of equipment, such as scaffolding, metering/testing equipment, or devices of any kind, etc. It is literally the field observer's visual observations while walking through the subject property.

2.4 Abbreviations and Acronyms:

2.4.1 *ADA*, *n*—The Americans with Disabilities Act.

2.4.2 *ASTM*, *n*—ASTM International.

2.4.3 *BOMA*, *n*—Building Owners and Managers Association.

2.4.4 *BUR*, *n*—Built-up Roofing.

2.4.5 *EIFS*, *n*—Exterior Insulation and Finish System.

2.4.6 *EMF*, *n*—Electro Magnetic Fields.

2.4.7 *EMS*, *n*—Energy Management System.

2.4.8 *EUL*, *n*—Expected Useful Life.

2.4.9 *FEMA*, *n*—Federal Emergency Management Agency.

2.4.10 *FFHA*, *n*—Federal Fair Housing Act.

2.4.11 *FIRMS*, *n*—Flood Insurance Rate Maps.

2.4.12 *FOIA*, *n*—U.S. Freedom of Information Act (5 USC 552 et seq.)⁵ and similar state statutes.

2.4.13 *FOIL*—Freedom of Information Letter.

2.4.14 *FM*—Factory Mutual.

2.4.15 *HVAC*—Heating, Ventilating and Air Conditioning.

2.4.16 *IAQ*—Indoor Air Quality.

2.4.17 *NFPA*—National Fire Protection Association.

2.4.18 *PCA*—Property Condition Assessment

2.4.19 *PCR*—Property Condition Report.

2.4.20 *PML*—Probable Maximum Loss.

2.4.21 *RTU*, *n*—Rooftop Unit.

2.4.22 *RUL*, *n*—Remaining Useful Life.

2.4.23 *STC*, *n*—Sound Transmission Class.

3. Significance and Use

3.1 *Use*—This guide is intended for use on a voluntary basis by parties who desire to obtain a baseline PCA of commercial real estate. This guide also recognizes that there are varying levels of property condition assessment and due diligence that can be exercised that are both more and less comprehensive than this guide, and that may be appropriate to meet the objectives of the user. Users should consider their requirements, the purpose that the PCA is to serve, and their risk tolerance level before selecting the consultant and the level of due diligence to be exercised by the consultant. The user should also review or establish the qualifications, or both, of the proposed field observer and PCR reviewer prior to engagement. A PCR should identify any deviations or exceptions to this guide. Furthermore, no implication is intended that use of this guide be required in order to have conducted a property condition assessment in a commercially prudent and reasonable manner. Nevertheless, this guide is intended to reflect a reasonable approach for the preparation of a baseline PCA.

3.2 Clarification of Use:

3.2.1 *Specific Point in Time*—A user should only rely on the PCR for the point in time at which the consultant's observations and research were conducted.

3.2.2 *Site-Specific*—The PCA performed in accordance with this guide is site-specific in that it relates to the physical condition of real property improvements on a specific parcel of commercial real estate. Consequently, this guide does not address many additional issues in real estate transactions such as economic obsolescence, the purchase of business entities, or physical deficiencies relating to off-site conditions.

3.3 *Who May Conduct*—The walk-through survey portion of a PCA should be conducted by a field observer, and the PCR should be reviewed by a PCR reviewer; both qualified as suggested in X1.1.1.1 and X1.1.1.2, respectively.

3.4 *Principles*—The following principles are an integral part of this guide. They are intended to be referred to in resolving ambiguity, or in exercising discretion accorded the user or consultant in conducting a PCA, or in judging whether a user or consultant has conducted appropriate inquiry or has otherwise conducted an adequate PCA.

3.4.1 *Uncertainty Not Eliminated*—No PCA can wholly eliminate the uncertainty regarding the presence of physical deficiencies and the performance of a subject property's building systems. Preparation of a PCR in accordance with this guide is intended to reduce, but not eliminate, the uncertainty

regarding the potential for component or system failure and to reduce the potential that such component or system may not be initially observed. This guide also recognizes the inherent subjective nature of a consultant's opinions as to such issues as workmanship, quality of original installation, and estimating the RUL of any given component or system. The guide recognizes a consultant's suggested remedy may be determined under time constraints, formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the physical deficiency. The consultant's opinions generally are formed without detailed knowledge from those familiar with the component's or system's performance.

3.4.2 *Not Technically Exhaustive*—Appropriate due diligence according to this guide is not to be construed as technically exhaustive. There is a point at which the cost of information obtained or the time required to conduct the PCA and prepare the PCR may outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly and timely completion of a commercial real estate transaction. It is the intent of this guide to attempt to identify a balance between limiting the costs and time demands inherent in performing a PCA and reducing the uncertainty about unknown physical deficiencies resulting from completing additional inquiry.

3.4.3 *Representative Observations*—The purpose of conducting representative observations is to convey to the user the expected magnitude of commonly encountered or anticipated conditions. Recommended representative observation quantities for various asset types are provided in Annex A1; however, if in the field observer's opinion such representative observations as presented in Annex A1 are unwarranted as a result of homogeneity of the asset or other reasons deemed appropriate by the field observer, the field observer may survey sufficient units, areas, systems, buildings, etc. so as to comment with reasonable confidence as to the representative present condition of such repetitive or similar areas, systems, buildings, etc. To the extent there is more than one building on the subject property, and they are homogeneous with respect to approximate age, use, basic design, materials, and systems, it is not a requirement of this guide for the field observer to conduct a walk-through survey of each individual building's systems to describe or comment on their condition within the PCR. The descriptions and observations provided in the PCR are to be construed as representative of all similar improvements.

3.4.3.1 *User-Mandated Representative Observations*—A user may mandate the representative observations required for a given property. Such representative observations may be more or less than this guide's recommended representative observations as provided in Annex A1.

3.4.3.2 *Extrapolation of Findings*—Consultant may reasonably extrapolate representative observations and findings to all typical areas or systems of the subject property for the purposes of describing such conditions within the PCR and preparing the opinions of probable costs for suggested remedy of material physical deficiencies.

3.4.4 Level of Due Diligence is Variable—Not every property will warrant the same level of property condition assessment. Consistent with good commercial and customary practice, the appropriate level of property condition assessment generally is guided by the type of property, the age of the improvements, the expertise and risk tolerance level of the user, and the time available for preparing the PCR and reviewing the opinions to be contained in the PCR.

3.4.5 Comparison With a Subsequent PCR—It should not be concluded or assumed that a previous PCR was deficient because the previous PCA did not discover a certain or particular physical deficiency, or because opinions of probable costs in the previous PCR are different. A PCR contains a representative indication of the property condition at the time of the walk-through survey and is dependent on the information available to the consultant at that time; therefore, a PCR should be evaluated on the reasonableness of judgments made at the time and under the circumstances in which they are made. Time available, hindsight, new or additional information, enhanced visibility as a result of improved weather or site conditions, equipment visibility as a result of improved weather or site conditions, equipment not in a shutdown mode, and other factors influence the PCA and the opinions contained in the PCR.

3.5 Prior PCR Usage—This guide recognizes that PCRs performed in accordance with this guide may include information that subsequent users and consultants may want to use to avoid duplication and to reduce cost; therefore, this guide includes procedures to assist users and consultants in determining the appropriateness of using such information. In addition to the specific procedures contained elsewhere in this guide, the following should be considered:

3.5.1 Use of Prior PCR Information—Information contained in prior property condition reports may be used by the consultant if, in the consultant's opinion, it is relevant; however, users and consultants are cautioned that information from prior property condition reports should only be used if such information was generated or obtained through procedures or methods that met or exceeded those contained in this guide. Such information should serve only as an aid to a consultant in fulfilling the requirements of this guide and to assist the field observer in the walk-through survey, research, and the field observer's understanding of the subject property. Furthermore, the PCR should identify the previously prepared property condition report if information from the prior report was used by the consultant in preparing the PCR.

3.5.2 Conducting Current Walk-Through Surveys—Except as provided in 3.5.1, prior property condition reports should not be used without verification. At a minimum, for a PCR to be consistent with this guide, a new walk-through survey, interviews, and solicitation and review of building and fire department record for recorded material violations should be performed.

3.5.3 Actual Knowledge Exception—If the user or consultant conducting a PCA has actual knowledge that the information from a prior property condition report is not accurate, or if it is obvious to the field observer that the information is not accurate, such information from a prior property condition

report should not be used.

3.5.4 Contractual Issues—This guide recognizes that contractual and legal obligations may exist between prior and subsequent users of property condition reports, or consultants who prepared prior property condition reports, or both. Consideration of such contractual obligations is beyond the scope of this guide. Furthermore, prior property condition reports may have been prepared for purposes other than the current desired purpose of the PCR.

3.6 Rules of Engagement—The contractual and legal obligations between a consultant and a user (and other parties, if any) are outside the scope of this guide. No specific legal relationship between the consultant and the user was considered during the preparation of this guide.

4. User's Responsibilities

4.1 Access—User should arrange for the field observer to receive timely access, which is complete, supervised, and safe to the subject property's improvements (including roofs). In addition, access to the subject property's staff, vendors, and appropriate documents should be provided by owner, owner's representative, or made available by the user, or a combination thereof. In no event should the field observer seek access to any particular portion of the property, interview property management staff, vendors, or tenants, or review documents, if the owner, user, or occupant objects to such access or attempts to restrict the field observer from conducting any portion of the walk-through survey, research or interviews, or taking of photographs. Any conditions that significantly impede or restrict the field observer's walk-through survey or research, or the failure of the owner or occupant to provide timely access, information, or requested documentation should be timely communicated by the consultant to the user. If such conditions are not remedied, the consultant is obligated to state within the PCR all such material impediments that interfered with the conducting of the PCA in accordance with this guide.

4.2 User Disclosure—The user should disclose in a timely manner all appropriate information in the user's possession that may assist the consultant's efforts. The user should not withhold any pertinent information that may assist in identifying a material physical deficiency including, but not limited to, previously prepared property condition reports; any study specifically prepared on a system or component of the subject property; any knowledge of actual or purported physical deficiencies; or, any information such as costs to remedy known physical deficiencies.

5. Property Condition Assessment

5.1 Objective—The purpose of the PCA is to observe and report, to the extent feasible pursuant to the processes prescribed herein, on the physical condition of the subject property.

5.2 PCA Components—The PCA should have four components:

5.2.1 Documentation Review and Interviews; refer to Section 7.

5.2.2 Walk-Through Survey; refer to Section 8.

5.2.3 Preparation of Opinions of Probable Costs to Remedy Physical Deficiencies; refer to Section 9.

5.2.4 *Property Condition Report*; refer to Section 10.

5.3 *Coordination of Components*:

5.3.1 *Components Used in Concert*—The Documentation Review, Interviews and Walk-Through Survey components of this guide are interrelated in that information obtained from one component may either indicate the need for more information from another, or impact the consultant's findings, opinions, opinions of probable costs, or recommendations, or a combination thereof.

5.3.2 *Information Provided by Others*—The consultant should note in the PCR the source of information used by the consultant that were material in identifying any physical deficiencies encumbering the subject property that is not readily observed by the consultant or that supplemented the consultant's observations.

5.4 *Consultant's Duties*:

5.4.1 *Who May Conduct Portions of the PCA*—The inquiries, interviews, walk-through survey, interpretation of the information upon which the PCR is based, the preparation of opinions of probable costs, and the writing of the PCR are all tasks and portions of the PCA that may be performed by the consultant, field observer, members of the consultant's staff, or third party contractors engaged by the consultant.

5.4.2 *Responsibility for Lack of Information*—The consultant is not responsible for providing or obtaining information should the source contacted fails to respond, to respond only in part, or fails to respond in a timely fashion.

5.4.3 *Opinions of Probable Costs Contingent on Further Discovery*—The consultant is not required to provide opinions of probable costs to remedy physical deficiencies, which may require the opinions of specialty consultants or the results of testing, exploratory probing, or further research to determine the cause of the physical deficiency and the appropriate remedy, scope, and scheme for repair or replacement unless user and consultant have agreed to such an expansion of the scope of work.

5.4.4 *Representative Observations*—The field observer is not expected to survey every component of every system during a walk-through survey. For example, it is not the intent to survey every RTU, balcony, window, roof, toilet room facility, every square foot of roofing, etc. Only representative observations of such areas are to be surveyed. The concept of representative observations extends to all conditions, areas, equipment, components, systems, buildings, etc., to the extent that they are similar and representative of one another.

6. The Consultant

6.1 *Qualifications of the Consultant*—This guide recognizes that the competency of the consultant is highly dependent on many factors that may include professional education, training, experience, certification, or professional licensing/registration, of both the consultant's field observers and the PCR reviewer. It is the intent of this guide to identify factors that should be considered by the user when retaining a consultant to conduct a PCA and by the consultant in selecting the appropriate field observer and PCR reviewer. No standard can be designed to eliminate the role of professional judgment, competence, and the value and need for experience during the walk-through survey and to conduct the PCA. Consequently, the qualifica-

tions of the field observer and the PCR reviewer are critical to the performance of the PCA and the resulting PCR. This guide further recognizes that the consultant has the responsibility to select, engage, or employ the field observer and the PCR reviewer; therefore, each PCR should include as an exhibit a statement of qualifications of both the field observer and the PCR reviewer.

6.2 *Staffing of the Field Observer*—This guide recognizes that for the majority of commercial real estate subject to a PCA, the field observer assigned by the consultant to conduct the walk-through survey most likely will be a single individual having a general, well rounded knowledge of pertinent building systems and components; however, a single individual will seldom have comprehensive knowledge, expertise or experience with all building codes, building systems and asset types, which are applicable in all locales. Therefore, any decision to supplement the field observer with specialty consultants, building system mechanics, specialized service personnel, or any other specialized field observers should be a mutual decision made by the consultant and the user. This decision should be made in accordance with the requirements, risk tolerance level, and budgetary constraints of the user, the purpose the PCA is to serve, the expediency of report delivery, and the complexity of the subject property. The level of due diligence conducted during a PCA is often adjusted to the risk tolerance of the user.

6.3 *Independence of the Consultant*—This guide recognizes that the consultant normally is a person or entity, acting as an independent contractor, who has been engaged by the user to conduct a PCA. In the event the consultant, the field observer, the PCR reviewer, or members of the consultant's staff are employees of, or subsidiary of, the user, such affiliation or relationship should be disclosed in the Executive Summary of the PCR.

6.4 *Qualifications of the Field Observer*—Refer to X1.1.1 for nonmandatory guidance on the qualifications of the field observer.

6.5 *Qualifications of the PCR Reviewer*—Refer to X1.1.2 for nonmandatory guidance on the qualifications of the PCR Reviewer.

6.6 *The Field Observer and PCR Reviewer May Be a Single Individual*—The PCR reviewer also may act as the field observer and conduct the walk-through survey. In such an event, the PCR reviewer should identify such dual responsibilities and sign the PCR indicating that he or she has performed both functions.

6.7 *Not a Professional Architecture or Engineering Service*—It is not the intent of this guide that by conducting the walk-through survey or reviewing the PCR that the consultant, the field observer, or the PCR reviewer is practicing architecture or engineering. Furthermore, it is not the intent of this guide that either the PCR reviewer or the field observer, if they are an architect or engineer, must either sign or seal the PCR as an instrument of professional service or identify their signatures as being that of an architect or engineer.

7. Document Review and Interviews

7.1 *Objective*—The objective of the document review and interviews is to augment the walk-through survey and to assist the consultant's understanding of the subject property and

identifying of physical deficiencies. Records or documents, if readily available, may be reviewed to specifically identify, or assist in the identification of, physical deficiencies, as well as any preceding or ongoing efforts, or costs to investigate or remediate the physical deficiencies, or a combination thereof. Such review is not to include commentary on the accuracy of such documents but merely to determine the existence of such documents.

7.2 Reliance—The consultant is not required to independently verify the information provided and may rely on information provided to the extent that the information appears reasonable to the consultant.

7.3 Accuracy and Completeness—Accuracy and completeness of information varies among information sources. The consultant is not obligated to identify mistakes or insufficiencies in the information provided; however, the consultant should make reasonable effort to compensate for mistakes or insufficiencies of information reviewed that are obvious in light of other information obtained in the process of conducting the PCA or otherwise known to the consultant.

7.4 Government Agency Provided Information:

7.4.1 Documents to Be Reviewed—Consultant is to solicit and review: base building certificate of occupancy, outstanding and recorded material building code violations, and recorded material fire code violations.

7.4.2 Reasonably Ascertainable/Standard Government Record Sources—Availability of record or document information varies from information source to information source, including governmental jurisdictions. The consultant should make appropriate inquiry and review only such record information that is reasonably ascertainable from standard sources. If information is not practically reviewable or not provided to the consultant in a reasonable time for the consultant to formulate an opinion and complete the PCR, such fact should be stated in the PCR, and the consultant is to have no further obligation of retrieving such documentation or reviewing it if it is subsequently provided. Nevertheless, if pursuant to the consultant's appropriate inquiry, material information is received by the consultant contemporaneous to the preparation of the PCR (within 30 days) but too late to be included in the PCR, the consultant should forward it to the user.

7.4.3 Publicly Available Documents—Information from a government agency, department or other source of information, which typically is reproduced and provided to the consultant upon appropriate inquiry and is reasonably ascertainable.

7.4.4 Drawings—Obtaining a set of drawings, which may be available publicly, is an exception to the requirement that Publicly Available Documents be provided, due to delivery and cost constraints. If readily available, such documents should be provided and identified to the consultant by the owner, owner's representative, or user as construction, as-built, or other design/construction documents. Nonetheless, the review of drawings of the subject property is not a requirement of this guide. Drawings may serve as an aid to the consultant in describing the subject property's improvements, in developing quantities for opinions of probable costs for suggested remedies of physical deficiencies, and to assist in preparing brief descriptions of the subject property's major systems.

7.4.5 Reasonable Time and Cost—It is the intent of this guide that information will be provided to the consultant within ten business days of the source receiving appropriate inquiry, without an in-person request by the consultant being required, and at no more than a nominal cost to cover the source's cost of retrieving and duplicating the information. Generally, an in-person request by the consultant is not required. However, this is not to preclude the consultant from personally researching such files if, in the opinion of the consultant, this could be reasonably accomplished at the time of the site visit.

7.5 Pre-Survey Questionnaire—The consultant may provide the owner or owner's representative, or both, with a pre-survey questionnaire (the questionnaire). Such a questionnaire, complete with the owner's or owner's representative's responses, should be included as an exhibit within the PCR unless directed otherwise by user.

7.6 Owner/User Provided Documentation and Information—If readily available, the consultant should review the following documents and information that may be in the possession of or provided by the owner, owner's representative, user, or combination thereof, as appropriate. Such information also could aid in the consultant's knowledge of the subject property's physical improvements, extent and type of use, or assist in identifying material discrepancies between reported information and observed conditions, or a combination thereof. The consultant's review of documents submitted should not include commenting on the accuracy of such documents or their preparation, methodology, or protocol. If the consultant discovers a significant discrepancy, it should be disclosed within the PCR.

7.6.1 Appraisal, either current or previously prepared.

7.6.2 Certificate of Occupancy.

7.6.3 Safety inspection records.

7.6.4 Warranty information (roofs, boilers, chillers, cooling towers, etc.).

7.6.5 Records indicating the age of material building systems such as roofing, paving, plumbing, heating, air conditioning, electrical, etc.

7.6.6 Historical costs incurred for repairs, improvements, recurring replacements, etc.

7.6.7 Pending proposals or executed contracts for material repairs or improvements. Descriptions of future work planned.

7.6.8 Outstanding citations for building, fire and zoning code violations.

7.6.9 The ADA survey and status of any improvements implemented to effect physical compliance.

7.6.10 Previously prepared property condition reports or studies pertaining to any aspect of the subject property's physical condition.

7.6.11 Records indicating building occupancy percentage.

7.6.12 Records indicating building turnover percentage.

7.6.13 Building rent roll.

7.6.14 Leasing literature, listing for sale, marketing/promotional literature such as photographs, descriptive information, reduced floor plans, etc.

7.6.15 Drawings and specifications (as-built or construction).

7.7 Interviews—Prior to the site visit, the consultant should

ask the owner or user to identify a person or persons knowledgeable of the physical characteristics, maintenance, and repair of the property. If a property manager or agent of the owner is identified, the consultant should contact such individual so as to inquire about the subject property's historical repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, frequency of repairs and replacements, and existence of ongoing or pending litigation related to subject property's physical condition. In connection with the consultant's research or walk-through survey, the consultant also may question others who are knowledgeable of the subject property's physical condition and operation. It is within the discretion of the consultant to decide which questions to ask before, during, or after the site visit.

7.7.1 Reliance—The consultant may rely on the information obtained as a result of the interviews, provided that in the consultant's opinion such information appears to be reasonable.

7.7.2 Method—Questions to be asked pursuant to this section are at the discretion of the consultant and may be asked in person, by telephone, or in writing.

7.7.3 Incomplete Answers—While the consultant should make inquiries in accordance with this section, the persons to whom the questions are addressed may have no obligation to cooperate. Should the owner or the property manager, building/facility engineer, or maintenance supervisor not be available for an interview, whether by intent or inconvenience, or not respond in full or in part to questions posed by the consultant, the consultant should disclose such within the PCR. Furthermore, should any party not grant such authorization to interview, restrict such authorization, or should the person to whom the questions are addressed not be knowledgeable about the subject property, this should be disclosed within the PCR.

8. Walk-Through Survey

8.1 Objective—The objective of the walk-through survey is to visually observe the subject property so as to obtain information on material systems and components for the purposes of providing a brief description, identifying physical deficiencies to the extent that they are observable, and obtaining information needed to address such issues in the PCR as outlined within Section 10.

8.2 Frequency—It is not expected that more than one site visit to the subject property be made by the field observer in connection with a PCA. The site visit constituting part of the PCA is referred to as the walk-through survey.

8.3 Photographs—Consultant should document representative conditions with photographs and use reasonable efforts to document typical conditions present including material physical deficiencies, if any. Photographs should include as a minimum: front and typical elevations and exteriors, site work, parking areas, roofing, structural systems, plumbing, HVAC systems, and electrical systems, conveyance systems, life safety systems, representative interiors, and any special or unusual conditions present.

8.4 Scope—During the site visit, the field observer should observe the general physical condition of the subject property, observe material systems and components, and identify mate-

rial physical deficiencies and any unusual features or inadequacies observed or reported by conducting specific or representative observations, as appropriate. Testing, measuring, or preparing calculations for any system or component to determine adequacy, capacity, or compliance with any standard is outside the scope of this guide. The listing of specific items of the material building systems and components to be observed, which are presented in the succeeding subsections, should not be considered all-inclusive, and the consultant should utilize professional judgment regarding adding or deleting subsections as necessary to complete the PCR. Similarly, subsections identified as "out of scope issues" are provided for clarification and should not be construed as all-inclusive.

8.4.1 Site:

8.4.1.1 Topography—Observe the general topography and any unusual or problematic features or conditions.

8.4.1.2 Storm Water Drainage—Observe the storm water collection and drainage system and note the presence of on-site surface waters, and retention or detention basins.

8.4.1.3 Ingress and Egress—Observe the major means of ingress and egress.

8.4.1.4 Paving, Curbing, and Parking—Observe the material paving and curbing systems. Identify the types of parking, that is, garage, surface, subsurface, etc., the number and types of parking spaces, and any reported parking inadequacies. Note the source of the preceding information.

8.4.1.5 Flatwork—Observe sidewalks, plazas, patios, etc.

8.4.1.6 Landscaping and Appurtenances—Observe landscaping (trees, shrubs, lawns, fences, retaining walls, etc.) and material site appurtenances (irrigation systems, fountains, lighting, signage, ponds, etc.).

8.4.1.7 Recreational Facilities—Observe on-site recreational facilities.

8.4.1.8 Utilities:

(1) Observations—Identify type and provider of the material utilities provided to the property (water, electricity, natural gas, etc.).

(2) Special Utility Systems—Identify the presence of any material special on-site utility systems such as water or wastewater treatment systems, special power generation systems, etc. Identify material system information, such as system type, manufacturer, system capacity, system age, system operator, etc.

(3) Out of Scope Issues—Operating conditions of any systems or accessing manholes or utility pits.

8.4.2 Structural Frame and Building Envelope:

8.4.2.1 Observations—Identify the material buildings, including parking structures, on the subject property, and identify the type of structure for each. Observe the building substructure, including the foundation system (noting the presence of cellars, basements, or crawl spaces), building's superstructure or structural frame (floor framing system and roof framing system), building envelope including facades or curtain wall system, glazing system, exterior sealants, exterior balconies, doors, stairways, parapets, etc. Observations of the building's exterior generally are to be limited to vantage points that are on-grade or from readily accessible balconies or rooftops.

8.4.2.2 Out of Scope Issues—Entering of crawl or confined

space areas (however, the field observer should observe conditions to the extent easily visible from the point of access to the crawl or confined space areas), determination of previous substructure flooding or water penetration unless easily visible or if such information is provided.

8.4.3 Roofing:

8.4.3.1 *Observations*—Identify and observe the material roof systems (exposed membrane and flashings) including, parapets, slope, drainage, etc. Observe for evidence and/or the need for material repairs, evidence of significant ponding, or evidence of roof leaks. Inquire as to the age of the material roofing system(s) and whether a roof warranty or bond is reported to be in effect.

8.4.3.2 *Out of Scope Issues*—Walking on pitched roofs, or any roof areas that appear to be unsafe, or roofs with no built-in access, or determining any roofing design criteria.

8.4.4 Plumbing:

8.4.4.1 *Observations*—Identify and observe the material plumbing systems including piping (sanitary, storm and supply water), fixtures, domestic hot water production, and note any special or unusual plumbing systems.

8.4.4.2 *Out of Scope Issues*—Determining adequate pressure and flow rate, fixture-unit values and counts, verifying pipe sizes, or verifying the point of discharge for underground systems.

8.4.5 Heating:

8.4.5.1 *Observations*—Identify the material heat generating and distribution systems, and the apparent or reported age of the equipment, past material component replacements/upgrades, the apparent level of maintenance exercised, and whether a maintenance contract is reported to be in place. If heating equipment is shutdown or not operational at the time of the walk-through survey, provide an opinion of the condition to the extent observed. Also, observe any special or unusual heating systems or equipment present, such as solar heat. Identify in general terms reported material tenant-owned systems that are outside the scope of the PCA.

8.4.5.2 *Out of Scope Issues*—Observation of flue connections, interiors of chimneys, flues or boiler stacks, or tenant-owned or maintained equipment.

8.4.6 Air Conditioning and Ventilation:

8.4.6.1 *Observations*—Identify the material air-conditioning and ventilation systems including cooling towers, chillers (include type of reported refrigerant used), package units, split systems, air handlers, thermal storage equipment, material distribution systems, etc. Identify the apparent or reported age of the material equipment, past material component upgrades/replacements, apparent level of preventive maintenance exercised, and whether a maintenance contract is reported to be in place. If air conditioning and ventilation systems are shutdown or not operational at the time of the walk-through survey, provide an opinion of the condition to the extent observable. Identify any special or unusual air conditioning and ventilation systems or equipment, such as refrigeration equipment for ice skating rinks, cold storage systems, special computer cooling equipment, etc. Identify in general terms reported material tenant-owned systems that are outside the scope of the PCA.

8.4.6.2 *Out of Scope Issues*—Process related equipment or condition of tenant owned/maintained equipment.

8.4.7 Electrical:

8.4.7.1 *Observations*—Identify the electrical service provided and observe the electrical distribution system including distribution panels, transformers, meters, emergency generators, general lighting systems, and other such equipment or systems. Observe general electrical items, such as distribution panels, type of wiring, energy management systems, emergency power, lighting protection, etc. Identify any observed or reported special or unusual electrical equipment, systems, or devices at the subject property.

8.4.7.2 *Out of Scope Issues*—Removing of electrical panel and device covers, except if removed by building staff, EMF issues, electrical testing, or operating of any electrical devices, or opining on process related equipment or tenant owned equipment.

8.4.8 Vertical Transportation:

8.4.8.1 *Observations*—Identify equipment type, number of cabs/escalators, capacity, etc. Observe elevator cabs, finishes, call and communication equipment, etc. Identify whether a maintenance contract is reported to be in place, and if so, identify the service contractor.

8.4.8.2 *Out of Scope Issues*—Examining of cables, sheaves, controllers, motors, inspection tags, or entering elevator/escalator pits or shafts.

8.4.9 Life Safety/Fire Protection:

8.4.9.1 *Observations*—Identify and observe life safety and fire protection systems, including sprinklers and standpipes (wet or dry, or both), fire hydrants, fire alarm systems, water storage, smoke detectors, fire extinguishers, emergency lighting, stairwell pressurization, smoke evacuation, etc.

8.4.9.2 *Out of Scope Issues*—Determining NFPA hazard classifications, classifying, or testing fire rating of assemblies.

8.4.10 Interior Elements:

8.4.10.1 *Observations*—Observe typical common areas including, but not limited to, lobbies, corridors, assembly areas, and restrooms. Identify and observe typical finishes, that is, flooring, ceilings, walls, etc., and material building amenities or special features, that is spas, fountains, clubs, shops, restaurants, etc.

8.4.10.2 *Out of Scope Issues*—Operating appliances or fixtures, determining or reporting STC (Sound Transmission Class) ratings, and flammability issues/regulations.

8.5 *Additional Considerations*—There may be additional issues or conditions at a property that users may wish to assess in connection with commercial real estate that are outside the scope of this guide (Out of Scope considerations).

8.5.1 *Outside Standard Practices*—Whether or not a user elects to inquire into non-scope considerations in connection with this guide or any other PCA is not required for compliance by this guide.

8.5.2 *Other Standards*—Other standards or protocols for assessment of conditions associated with non-scope conditions may have been developed by governmental entities, professional organizations, or other private entities.

8.5.3 *Additional Issues*—Following are several non-scope considerations that users may want to assess in connection with

commercial real estate. No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all-inclusive:

- 8.5.3.1 Seismic Considerations,
- 8.5.3.2 Design Consideration for Natural Disasters (Hurricanes, Tornadoes, High Winds, Floods, Snow, etc.),
- 8.5.3.3 Insect/Rodent Infestation,
- 8.5.3.4 Environmental Considerations,
- 8.5.3.5 ADA Requirements,²
- 8.5.3.6 FFHA Requirements,³
- 8.5.3.7 Indoor Air Quality, and
- 8.5.3.8 Property Security Systems.

9. Opinions of Probable Costs to Remedy Physical Deficiencies

9.1 *Purpose*—Based upon the walk-through survey and information obtained in accordance with following this guide, general-scope opinions of probable costs are to be prepared for the suggested remedy of the material physical deficiencies observed. These opinions of probable costs are to assist the user in developing a general understanding of the physical condition of the subject property.

9.2 *Scope*—Opinions of probable costs should be provided for material physical deficiencies and not for repairs or improvements that could be classified as: (1) cosmetic or decorative; (2) part or parcel of a building renovation program or tenant improvements/finishes; (3) enhancements to reposition the subject property in the marketplace; (4) for warranty transfer purposes; or (5) routine or normal preventive maintenance, or a combination thereof.

9.3 Opinions of Probable Costs Attributes:

9.3.1 *Threshold Amount for Opinions of Probable Costs*—It is the intent of this guide that the material physical deficiencies observed and the corresponding opinions of probable costs (1) be commensurate with the complexity of the subject property; (2) not be minor or insignificant; and (3) serve the purpose of the user in accordance with the user's risk tolerance level. Opinions of probable costs that are either individually or in the aggregate less than a threshold amount of \$3,000 for like items are to be omitted from the PCR⁴. If there are more than four separate items that are below this threshold requirement, but collectively total over \$10,000, such items should be included. The user may adjust this cost threshold amount provided that this is disclosed within the PCR's Executive Summary under the heading "Deviations from the Guide."

9.3.2 *Actual Costs May Vary*—Opinions of probable costs should only be construed as preliminary budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of

suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc.

9.3.3 *Extrapolation of Representative Observations*—Opinions of probable costs may be based upon: the extrapolation of representative observations, conditions deemed by the consultant as highly probable, results from information received, or the commonly encountered EULs or RULs of the components or systems, or a combination thereof.

9.3.4 *Estimating of Quantities*—It is not the intent of this guide that the consultant is to prepare or provide exact quantities or identify the exact locations of items or systems as a basis for preparing the opinions of probable costs.

9.3.5 *Basis of Costs*—The source of cost information utilized by the consultant may be from one or more of the following resources: (1) user provided unit costs; (2) owner's historical experience costs; (3) consultant's cost database or cost files; (4) commercially available cost information such as published commercial data; (5) third party cost information from contractors, vendors, or suppliers; or (6) other qualified sources that the consultant determines appropriate. Opinions of probable costs should be provided with approximate quantities, units, and unit costs by line item. If in the reasonable opinion of the consultant, a physical deficiency is too complex or difficult to develop an opinion of probable cost using the quantity and unit cost method, the consultant may apply a lump sum opinion of probable costs for that particular line item. Opinions of probable costs should be limited to construction-related costs; those types of costs that commonly are provided by contractors who perform the work. Business related, design, management fees, and other indirect costs should be excluded.

9.3.6 *Costs for Additional Study*—For some physical deficiencies, determining the appropriate suggested remedy or scope may warrant further study/research or design, testing, exploratory probing, and exploration of various repair schemes, or a combination thereof, all of which are outside the scope of this guide. In these instances, the opinions of probable costs for additional study should be provided.

9.3.7 *Cost Segregation*—Opinions of probable costs should be segregated within the PCR into the categories of immediate costs and short-term costs.

10. Property Condition Report

10.1 *Format*—This guide does not present a specific PCR format to be followed. This should be determined between the user and the consultant; however, the PCR may follow the Recommended Table of Contents provided as Fig. X1.1.

10.2 Writing Protocols:

10.2.1 *Suggested Remedy*—For each material physical deficiency, the consultant should provide a suggested remedy, which may include recommending further research or testing, or both, if appropriate in the consultant's opinion.

10.2.2 *Significance of Physical Deficiency*—If the significance of the physical deficiency is not readily discernible, the consultant should explain its significance in a simple manner meaningful to a user. For example, stating that "the subject

² It is recognized that most PCAs include some level of assessment of ADA compliance. This guide recognizes that there are numerous acceptable levels of ADA assessment that can be conducted as part of the PCA. The level of assessment is mutually agreed upon by the user and the consultant.

³ This guide recognizes that some PCAs for residential properties include some level of assessment of FFHA compliance. The level of assessment is mutually agreed upon by the user and the consultant.

⁴ This guide recognizes that most PCRs include material life-safety/building code violations regardless of cost.

property has aluminum distribution wiring” may be insufficient to the user, since this statement reveals nothing about the significance of this condition.

10.2.3 Disclosure of Information Source—The consultant should differentiate between material information obtained by the field observer’s actual knowledge and that reported or provided by others or obtained from documents provided. The source of such nonobserved material information should be reported.

10.2.4 Representative Description and Observed Conditions—The PCR’s descriptions of systems and components and their general physical condition may be based upon extrapolations of representative observations conducted by the field observer during the walk-through survey.

10.3 Documentation—The PCR should include pertinent documentation such as photographs, copies of material building department records, material fire department records, and building code violation notices to the extent reasonable, certificates of occupancy, copies of repair cost documentation submitted by owner or owner’s representative, contractors or agents, and tenant schedules (if applicable). All photographs should be numbered and labeled or correlated to the PCR’s text.

10.4 Credentials—The PCR should name the field observer and the PCR reviewer and should include their statement of qualifications.

10.5 Executive Summary—The general content for the PCR Executive Summary is discussed in this section.

10.5.1 General Description—The opening paragraph should indicate that this is a PCR, identify the subject property, and provide pertinent information such as use, size, age, location, construction type, design style, and apparent occupancy status. Also identify the name of the consultant that prepared the PCR, the name of the user, the user’s position with respect to the subject property (if known), the purpose the PCR is to serve (if known), and the date of the site visit.

10.5.2 General Physical Condition—In 10.5.1, the subject property’s general physical condition, the apparent level of preventive maintenance exercised, and any significant deferred maintenance is summarized. A schedule of material physical deficiencies, any significant capital improvements that are pending, in-progress, or were recently implemented, and any significant findings resulting from research should be provided.⁵

10.5.3 Opinions of Probable Costs—Present the aggregate sum of opinions of probable costs segregated between immediate and short-term costs.

10.5.4 Deviations from this Guide—Present all material deviations and deletions from this guide, if any, listed individually along with all additional consultant services that have exceeded this guide’s suggested requirements.

10.5.5 Consultant/Field Observer Relationship—If the consultant or field observer, or both are not at arms-length with the user, such a relationship should be disclosed.

10.5.6 Recommendations/Discussions—Briefly identify those components and systems necessitating further study,

research, testing, or exploratory probing. This section also may be used to discuss any obvious major deviations from the subject property description provided by the user to the consultant, ongoing repairs or improvements, or other relevant issues.

10.6 Purpose and Scope:

10.6.1 Purpose—Provide a short paragraph specifically stating the purpose the PCR should serve, if disclosed by user. If the user does not disclose the purpose of the PCR to the consultant, the PCR should so state.

10.6.2 Scope—Identify the improvements that comprise the subject property. Provide an outline of the scope of work completed for the PCA and methods utilized. Should either the PCA or the PCR materially deviate from this guide or if there were any constraints preventing the consultant from performing the PCA in accordance with this guide, these constraints should be identified.

10.7 Walk-Through Survey—Provide the information that is outlined in Section 8. Such information should include a brief description of each system or component and observed physical deficiencies, if any. Both the brief descriptions and the observed physical deficiencies may be based upon the field observer’s representative observations. A general description of material tenant-owned equipment that is outside the scope of the PCA should be provided in this section.

10.8 Document Reviews and Interviews—Identify any material information relating to physical deficiencies of the subject property resulting from the review of documents and interviews conducted.

10.9 Additional Considerations—Identify any material additional considerations or Out of Scope considerations which are included in the PCR.

10.10 Opinions of Probable Costs—Identify the material physical deficiencies and provide suggested remedies, complete with opinions of probable costs.

10.11 Qualifications—Both the field observer’s and the PCR reviewer’s statement of qualifications should be provided.

10.12 Limiting Conditions—Provide all limiting conditions of the PCR.

10.13 Exhibits:

10.13.1 Representative photographs (may be correlated directly into text or numbered and labeled in exhibit).

10.13.2 Questionnaire.

10.13.3 User/owner submitted documents.

10.13.4 Photocopied plot plans, sketches, etc.

10.13.5 Other exhibits considered appropriate by the consultant.

11. Out of Scope Considerations

11.1 Activity Exclusions—The activities listed below generally are excluded from or otherwise represent limitations to the scope of a PCA prepared in accordance with this guide. These should not be construed as all-inclusive or imply that any exclusion not specifically identified is a PCA requirement under this guide.

11.1.1 Removing or relocating materials, furniture, storage containers, personal effects, debris material or finishes; conducting exploratory probing or testing; dismantling or operating of equipment or appliances; or disturbing personal items or

⁵ This should include material life-safety/building code violations.

property, that obstructs access or visibility.

11.1.2 Preparing engineering calculations (civil, structural, mechanical, electrical, etc.) to determine any system's, component's, or equipment's adequacy or compliance with any specific or commonly accepted design requirements or building codes, or preparing designs or specifications to remedy any physical deficiency.

11.1.3 Taking measurements or quantities to establish or confirm any information or representations provided by the owner or user, such as size and dimensions of the subject property or subject building; any legal encumbrances, such as easements; dwelling unit count and mix; building property line setbacks or elevations; number and size of parking spaces; etc.

11.1.4 Reporting on the presence or absence of pests such as wood damaging organisms, rodents, or insects unless evidence of such presence is readily apparent during the course of the field observer's walk-through survey or such information is provided to the consultant by the owner, user, property manager, etc. The consultant is not required to provide a suggested remedy for treatment or remediation, determine the extent of infestation, nor provide opinions of probable costs for treatment or remediation of any deterioration that may have resulted.

11.1.5 Reporting on the condition of subterranean conditions, such as underground utilities, separate sewage disposal systems, wells; systems that are either considered process-related or peculiar to a specific tenancy or use; wastewater treatment plants; or items or systems that are not permanently installed.

11.1.6 Entering or accessing any area of the premises deemed to pose a threat of dangerous or adverse conditions with respect to the field observer or to perform any procedure, that may damage or impair the physical integrity of the property, any system, or component.

11.1.7 Providing an opinion on the condition of any system or component, that is shutdown, or whose operation by the field observer may increase significantly the registered electrical demand-load; however, the consultant is to provide an opinion of its physical condition to the extent reasonably possible considering its age, obvious condition, manufacturer, etc.

11.1.8 Evaluating acoustical or insulating characteristics of systems or components.

11.1.9 Providing an opinion on matters regarding security of the subject property and protection of its occupants or users from unauthorized access.

11.1.10 Operating or witnessing the operation of lighting or other systems typically controlled by time clocks or that are normally operated by the building's operation staff or service companies.

11.1.11 Providing an environmental assessment or opinion on the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, the location and presence of designated wetlands, IAQ, etc.

11.2 *Warranty, Guarantee, and Code Compliance Exclusions*—By conducting a PCA and preparing a PCR, the consultant merely is providing an opinion and does not warrant or guarantee the present or future condition of the subject property, nor may the PCA be construed as either a warranty or guarantee of any of the following:

11.2.1 Any system's or component's physical condition or use, nor is a PCA to be construed as substituting for any system's or equipment's warranty transfer inspection;

11.2.2 Compliance with any federal, state, or local statute, ordinance, rule or regulation including, but not limited to, building codes, safety codes, environmental regulations, health codes or zoning ordinances or compliance with trade/design standards or the standards developed by the insurance industry; however, should there be any conspicuous material present violations observed or reported based upon actual knowledge of the field observer or the PCR reviewer, they should be identified in the PCR;

11.2.3 Compliance of any material, equipment, or system with any certification or actuation rate program, vendor's or manufacturer's warranty provisions, or provisions established by any standards that are related to insurance industry acceptance/approval, such as FM, State Board of Fire Underwriters, etc.

11.3 *Additional/General Considerations:*

11.3.1 *Further Inquiry*—There may be physical condition issues or certain physical improvements at the subject property that the parties may wish to assess in connection with a commercial real estate transaction that are outside the scope of this guide. Such issues are referred to as non-scope considerations and if included in the PCR, should be identified under 10.9.

11.3.2 *Out of Scope Considerations*—Whether or not a user elects to inquire into non-scope considerations in connection with this guide is a decision to be made by the user. No assessment of such non-scope considerations is required for a PCA to be conducted in compliance with this guide.

11.3.3 *Other Standards*—There may be standards or protocols for the discovery or assessment of physical deficiencies associated with non-scope considerations developed by government entities, professional organizations, or private entities, or a combination thereof.

**ANNEX****(Mandatory Information)****A1. SPECIFIC PROPERTY TYPES****INTRODUCTION**

This annex is to be used to supplement or complement previous sections of this guide for various asset types as if integral to the preceding sections.

A1.1 Multifamily Properties:

A1.1.1 Representative Observations—For complexes with multiple buildings, the exterior envelopes of all residential buildings should be surveyed. For complexes built in phases, each construction phase should be surveyed. Representative observations of the interiors should include a mix of units, which are occupied, vacant, damaged, and under renovation or repair. Representative observations of the interiors of each construction phase should include a sufficient number of the top and bottom floors. If not specified in the agreement between consultant and user, the number of units, buildings, and components surveyed in each construction phase should be sufficient to allow the field observer to develop an opinion with reasonable confidence regarding the present condition of the building systems and should be determined using the professional judgment and experience of the field observer at the time of the walk-through survey. The number of reported units that are not available for occupancy and the reported reasons they are not available should be included in the PCR. The PCR should contain the consultant's rationale for determining the number of units surveyed and for selecting the units that are surveyed. In addition, the PCR should disclose the specific units surveyed.

A1.1.2 Patios and Balconies—The field observer should conduct representative observations of patios, balconies, enclosures, railings, etc., and report on the observed condition.

A1.1.3 Plumbing—The field observer should identify the type of supply piping material (to the extent that it is easily visible) and note any replacement or historical breakage reported. General conditions and historical leakage of other systems and apparent causes should also be discussed in the PCR.

A1.1.4 Electrical—The field observer should note the size of the electrical service serving representative units, and whether units are individually metered. To the extent readily accessible and easily visible, which for purposes of this clause includes the removal of switch or outlet covers by building staff for representative observations, the type of distribution wiring for 120-V circuits should be provided in the PCR. If aluminum wiring is observed, the presence or absence of properly rated connection devices should be noted.

A1.1.5 Attic—The presence or lack of an attic should be specifically addressed. If the attic(s) is readily accessible, the field observer should note observations such as means of access, ventilation, evidence of water leakage, daylight entering through defects, the amount and type of insulation and the presence and condition of draft stops.

A1.1.6 Roof Sheathing—The field observer should note Fire Resistant Treated (FRT) plywood, if observed.

A1.1.7 Interviews—For multifamily properties, residential occupants do not need to be interviewed unless appropriate and with the consent of the owner or user. If the subject property also has nonresidential uses and the owner or user provides authorization, the field observer should interview nonresidential occupants in accordance with this guide.

A1.2 Commercial Office Buildings:

A1.2.1 Representative Observations—For complexes of buildings built in phases, each construction phase should be surveyed. For a subject property that contains a complex of multiple buildings, the concept of representative observations extends to each building individually and not to all buildings as a whole. Representative observations should include a mix of tenant (occupied and unoccupied) and common areas. Representative observations of the interiors of each construction phase should include a sufficient number of the top and bottom floors. If not specified in the agreement between consultant and user, the quantity of floor area and the number of components, and systems surveyed in each construction phase should be sufficient to allow the field observer to develop an opinion with reasonable confidence regarding the present condition of the building systems. Such representative observations should be determined using the professional judgment and experience of the field observer at the time of the walk-through survey. The quantity of reported floor area, which is not available for occupancy and the reasons it is reportedly not available, should be included in the PCR. The PCR should contain the consultant's rationale for determining the quantity of floor area surveyed and for selecting the specific floors, that were surveyed.

A1.3 Retail Buildings:

A1.3.1 *General Exclusions*—The consultant is not required to survey the interior condition of shell-finish tenancies or the interior/base building conditions of anchor stores, unless included in the subject property.

A1.3.2 *Representative Observations*—For complexes of buildings built in phases, each construction phase should be surveyed. For a subject property that contains a complex of multiple buildings, the concept of representative observations extends to each building individually and not to all buildings as a whole. Representative observations should include a mix of tenant (occupied and unoccupied) and common areas. Representative observations of the interiors of each construction phase should include a sufficient number of the top and bottom floors. If not specified in the agreement between consultant and user, the quantity of floor area and the number of components, and systems surveyed in each construction phase should be sufficient to allow the field observer to develop an opinion with confidence as to the present condition of the building systems. Such representative observations should be determined using the professional judgment and experience of the field observer at the time of the walk-through survey. The quantity of reported floor area, which is not available for occupancy and the reasons

it is reportedly not available, should be included in the PCR. The PCR should contain the consultant's rationale for determining the quantity of floor area surveyed and for selecting the specific floors, that were surveyed.

A1.3.3 *Interviews*—The field observer should interview proprietors or store managers of the tenant spaces surveyed as to the subject property's general condition in addition to other knowledgeable persons identified by the owner or user as described in 7.7. The consultant should use discretion and should not disclose the purpose of the PCA to tenants unless the user grants permission. This guide recognizes that there is no obligation for the proprietors or store managers to cooperate.

A1.3.4 *Roofing*—In addition to the observations made of the main roofs of buildings, a description and observed condition of canopy roofs, viewed either from the main roof or, if appropriate, from the ground should be reported along with any generally observed physical deficiencies with the parapets, canopies, soffit, or fascia system.

A1.3.5 *Flatwork*—Loading dock areas, if any, should be observed along with the condition of any flatwork, such as the loading dock platform, loading dock exterior stairs, and concrete trailer pads.

APPENDIXES

(Nonmandatory Information)

X1. GUIDANCE AND ENHANCED DUE DILIGENCE SERVICES

INTRODUCTION

The information presented in this appendix is not necessary for completing a baseline PCA pursuant to this guide; however, a user and consultant may wish to utilize some or all of the information presented in this appendix to increase or supplement the extent of due diligence to be exercised by the consultant.

X1.1 *Qualifications*—This guide recognizes that the quality of a PCR is highly dependent on the qualifications of the field observer and PCR reviewer. These qualifications include such factors as experience, education, training, certification, and professional registration/licensure in architecture or engineering. Additionally, this guide recognizes that appropriate qualification levels may vary for different PCAs depending on such factors as asset type and scope (size, age, complexity, etc.) as well as the specific needs, purpose the PCR is to serve, and risk tolerance level of the user.

X1.1.1 *Qualifications of the Field Observer*—The field observer is the person or entity engaged by the consultant to perform the walk-through survey; the field observer also may be the PCR reviewer. The consultant should establish the qualifications of the field observer, but as the accuracy and completeness of the walk-through survey will determine the quality of the PCR, the consultant should carefully consider education, training and experience when selecting the field observer.

X1.1.1.1 Due to the scope or complexity of the subject property or the purpose of the PCA, the user may direct the consultant to augment the field observer with specialty consultants, or the user may define the level of qualifications of the field observer.

X1.1.1.2 The field observer, as a representative of the consultant, should be identified in the PCR. As required by 6.1, the statement of qualifications of the field observer should be included in the PCR.

X1.1.2 *Qualifications of the PCR Reviewer*—The PCR reviewer is the qualified individual designated to exercise responsible control over the field observer on behalf of the consultant and to review the PCR. This guide recognizes that the consultant is ultimately responsible for the PCA process.

X1.1.2.1 As indicated in the main body of the guide, all PCRs prepared in accordance with this guide should be reviewed and signed by the PCR reviewer. In addition, as required by 6.1, the statement of qualifications of the PCR reviewer should be included in the PCR.

X1.1.2.2 It is recommended that the user consider a PCR

reviewer who possesses a professional designation in architecture or engineering, or appropriate experience and/or certifications in the construction fields. The PCR reviewer should have experience commensurate with the subject property type and scope (size, complexity, etc.), and experience in the preparation of PCRs. Generally, professional architecture or engineering licensure/registration, and/or certifications, education, or appropriate construction experience related to these disciplines are recognized as acceptable qualifications for reviewing PCRs. However, the user and the consultant may mutually agree to define qualifications for the PCR reviewer, that may depend on the specific experience of the PCR reviewer and the scope of the subject property.

X1.2 *Verification of Measurements and Quantities:*

X1.2.1 *Parking Spaces:*

X1.2.1.1 *Based Upon Review of Drawings*—The field observer should review the subject property's submitted as-built site drawings and survey for the purposes of identifying the number of parking spaces provided and compare to an actual field count.

X1.2.1.2 *Actual Field Count*—The field observer should physically count each delineated parking space that has been provided for the subject property.

X1.2.2 *Count of Multifamily Units:*

X1.2.2.1 *Based Upon Review of Drawings, Schedules, etc.*—The field observer should review documents submitted by the owner to determine the number of multifamily dwelling units.

X1.2.2.2 *Actual Field Count*—The field observer should physically count each dwelling unit. This implies that a walk-through survey of each building and the floor of each building should be conducted by the field observer.

X1.2.3 *Building Areas:*

X1.2.3.1 *Gross Areas:*

(1) *Based Upon Review of As-Built Drawings*—The consultant should review as-built drawings submitted by the owner to determine the gross building area on a floor-by-floor basis. Such review of drawings may consist of a review of schedules or dimensions. For purposes of this clause, gross building area should be that definition as required by the local zoning board at the time of the building's construction and as presented on the drawings' zoning schedule, if any.

(2) *Actual Field Measurement*—The field observer should

take measurements and prepare calculations physically to determine gross area. Current BOMA definition of gross area is to be used unless the user provides the consultant with an alternate definition/protocol for the method of calculating such areas. The consultant should state the criteria under which the calculations are prepared and submit all quantities on a per floor basis.

X1.2.3.2 *Net Usable Areas:*

(1) *Based Upon Review of As-Built Drawings*—The user should provide the consultant with a set of as-built drawings for all space available for lease. Based solely on such drawings, the consultant should determine usable area by use of digitizer or other means. Current BOMA definition of usable area is to be used unless user provides the consultant with an alternate definition/protocol for the method of calculating such areas.

(2) *Actual Field Measurement*—The field observer should take measurements and prepare calculations physically to determine usable area. Current BOMA definition of usable area is to be used unless the user provides the consultant with an alternate definition/protocol for the method of calculating such areas. The consultant should state the criteria under which the calculations are prepared and submit all quantities on a per floor basis.

X1.3 *Research:*

X1.3.1 *Service Companies*—The consultant should conduct an appropriate inquiry of the subject building's major plumbing, HVAC, fire protection, electrical and elevator service companies, if any, to inquire of the system's or equipment's general condition; the extent of major or chronic repairs and replacements; pending repairs and replacements; and, outstanding proposals to provide repairs and replacements, etc. Within the PCR, the consultant should provide the name of the parties contacted and pertinent information received.

X1.4 *Flood Plain Designation*—Note whether the property encroaches upon a 100-year flood area designated as "Special Flood Hazard Areas Inundated by 100-year Flood" on FEMA maps, as amended.

X1.5 *Recommended Table of Contents*—The sample Table of Contents (see Fig. X1.1) is a suggestion and may be tailored by a user or consultant for the subject property's attributes or their particular PCR protocol or requirements.



Title Page

Cover Letter and PCR Reviewer's Signature

Table of Contents

1	Executive Summary
1.1	General Description
1.2	General Physical Condition
1.3	Opinions of Probable Costs
1.4	Deviations from the Guide
1.5	Recommendations
2	Purpose and Scope
3	System Description and Observations
3.1	Overall General Description
3.2	Site
3.2.1	Topography
3.2.2	Storm Water Drainage
3.2.3	Access and Egress
3.2.4	Paving, Curbing and Parking
3.2.5	Flatwork
3.2.6	Landscaping and Appurtenances
3.2.7	Recreational Facilities
3.2.8	Utilities
3.2.8.1	Water
3.2.8.2	Electricity
3.2.8.3	Natural Gas
3.2.8.4	Sanitary Sewer
3.2.8.5	Storm Sewer
3.2.8.6	Special Utility Systems
3.3	Structural Frame and Building Envelope
3.3.1	Foundation
3.3.2	Building Frame
3.3.3	Facades or Curtainwall
3.3.3.1	Sidewall System
3.3.3.2	Fenestration System
3.3.3.3	Parapets
3.3.4	Roofing
3.4	Mechanical and Electrical System
3.4.1	Plumbing
3.4.1.1	Supply and Waste Piping
3.4.1.2	Domestic Hot Water Production
3.4.1.3	Fixtures
3.4.2	Heating
3.4.2.1	Heat Generating Equipment
3.4.2.2	Distribution System
3.4.3	Air Conditioning and Ventilation
3.4.3.1	Equipment
3.4.3.2	Distribution
3.4.3.3	Control Systems
3.4.4	Electrical
3.4.4.1	Service and Metering
3.4.4.2	Distribution
3.5	Vertical Transportation
3.6	Life Safety/Fire Protection
3.6.1	Sprinklers and Standpipes
3.6.2	Alarm Systems
3.6.3	Other Systems
3.7	Interior Elements
3.7.1	Common Areas
3.7.2	Tenant Spaces
4	Additional Considerations
5	Document Review and Interviews
6	Opinions of Probable Costs to Remedy Physical Deficiencies
7	Out of Scope Considerations
8	Qualifications
9	Limiting Conditions
10	Exhibits

FIG. X1.1 Sample Table of Contents

X2. AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY SURVEY

X2.1 Overview of The Americans with Disabilities Act—The Americans with Disabilities Act is a civil rights law that was enacted in 1990 to provide persons with disabilities with accommodations and access equal to, or similar to, that available to the general public. Title III of the ADA requires that owners of buildings that are considered to be places of public accommodations remove those architectural barriers and communications barriers that are considered readily achievable in accordance with the resources available to building ownership to allow use of the facility by the disabled. The obligation to remove barriers where readily achievable is an ongoing one. The determination as to whether removal of a barrier or an implementation of a component or system is readily achievable is often a business decision, which is based on the resources available to the owner or tenants, and contingent upon the timing of implementation as well. Determination of whether barrier removal is readily achievable is on a case-by-case basis; the United States Department of Justice did not provide numerical formulas or thresholds of any kind to determine whether an action is readily achievable.

X2.2 Overview of the Americans with Disabilities Act Accessibility Guidelines (ADAAG)—As required by the ADA, the U.S. Architectural and Transportation Barriers Compliance Board promulgated the Americans with Disabilities Act Accessibility Guidelines. ADAAG provides guidelines for implementation of the ADA by providing specifications for design, construction, and alteration of facilities in accordance with the ADA. These guidelines specify quantities, sizes, dimensions, spacing, and locations of various components of a facility so as to be in compliance with the ADA.

X2.3 Variable Levels of Due Diligence—For many users, especially those acquiring or taking an equity interest in a property, a complete accessibility survey in accordance with ADAAG may be desired. For other users, however, an abbreviated accessibility survey may serve to identify most of the major costs to realize ADA compliance without assessing every accessible element and space within and without a facility, and without taking measurements and counts. Any accessibility survey should be based on ADAAG, however. Appendix X2 provides the user with three tiers of ADA due diligence, which may be supplemented or revised in accordance with the user's risk tolerance level for ADA deficiencies and the resulting costs to realize compliance. These tiers are: *Tier I*-Visual Accessibility Survey (a limited scope visual survey, which excludes the taking of measurements or counts); *Tier II*-Abbreviated Accessibility Survey (an abbreviated scope survey entailing the taking of limited measurements and counts); and *Tier III*-Full Accessibility Survey in compliance with ADAAG. ADAAG provides guidance only concerning federal requirements for ADA compliance. Some states and localities may have additional compliance requirements that will not be addressed by any of the levels of due diligence enumerated in this document. The user may desire a site-specific accessibility survey, in some instances.

X2.4 Definitions of Terms Specific to Understanding the Americans with Disabilities Act:

X2.4.1 alteration—a change to a building or facility made by, on behalf of, or for the use of a public accommodation or commercial facility, that affects or could affect the usability of the building or facility or part thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, change or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility. An alteration to a place of public accommodation or a commercial facility shall comply with the ADA guidelines for new construction and alterations.

X2.4.2 architectural barriers—a physical object that impedes a disabled person's access to, or use of, a facility.

X2.4.3 commercial facility—a facility intended for nonresidential use by private entities and their employees only and whose operations affect commerce such as single-tenant office buildings, factories, warehouses, etc. A commercial facility may contain areas of both public accommodations and non-public accommodations.

X2.4.4 communication barriers—a part of a building system intended to communicate to the public and which, due to its design or construction, fails to meet the communications needs of a disabled person. Taken together with architectural barriers, they are often referred to as physical barriers.

X2.4.5 public accommodations—facilities operated by private entities offering goods and services to the public, for example multi-tenanted office buildings, places of lodging, restaurants and bars, theaters, auditoriums, retail, service establishments, terminals for public transportation, place of public display or collection, places of recreation, social services centers, apartment leasing offices, educational centers, etc.

X2.4.6 readily achievable—defined by the ADA as an action that is "easily accomplishable and able to be carried out without much difficulty or expense."⁶

X2.5 Presentation of Opinions of Probable Costs—Regardless of the tier of accessibility survey selected by the user, the accessibility survey report should include opinions of probable costs to remedy each existing item of noncompliance, as identified within the scope of the tier selected, if the item is feasible and practical to implement with respect to considering physical constraints. Nonetheless, noncompliant items identified by the consultant should be reported. The opinions of probable costs to remedy ADA deficiencies should be identified separately and not combined with other physical deficiencies identified with a building system, to the extent reasonable.

⁶ *Federal Register*, 28 CFR Part 36, Subpart A, 36.104, Definitions, July 26, 1991.

These opinions of probable costs should also be presented separately in the PCR, unless otherwise directed by the user. Opinions of probable costs should be categorized with approximate quantities, units, and unit costs by line item. This guide also recognizes that the nature of many accessibility improvements may require services beyond the scope of this guide such as the preparation of design studies, exploratory probing and discovery, detailed measurements, and space planning/alteration studies to determine the feasibility, efficacy, and appropriate cost to implement such improvements.

X2.6 Tier I: Visual Accessibility Survey—The scope of this limited visual survey is specifically limited to the following five areas. Some of the information required in this scope may be obtained from the owner, such as the number of standard and ADA parking spaces, or the number of total and ADA compliant guestrooms. The user should be aware that due to the visual nature of the Tier I survey, the reliability of the results will be less accurate than a Tier II survey, which includes representative sampling measurements and counts. Prior to performing the visual survey, the consultant should review for historical information and any previous ADA survey reports that were prepared for the facility and that are readily available for review prior to the site visit.

X2.6.1 Path-of-Travel:

X2.6.1.1 Observations—To identify material physical barriers to the disabled from accessible parking, public transportation stops, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve. With respect to multifamily facilities, congregate care facilities (nursing homes, assisted living centers, etc.), mobile home parks, and the like, path-of-travel should be construed to be that path from on-site designated disabled parking spaces (if any) to the leasing office and any facility available for use by the general public. Missing or noncompliant curb ramps, lack of or noncompliant ramps or railings, stair or step barriers, and inadequate or noncompliant main entrance doors and thresholds should be noted.

X2.6.1.2 Out of Scope Issues—The taking of measurements or counts.

X2.6.2 Parking:

X2.6.2.1 Observations—If applicable, opine whether the reported number of on-site ADA designated parking spaces is sufficient with respect to the total number of reported parking spaces provided. Provide an opinion as to the number of additional ADA designated spaces required, per the reported number of spaces. (See Table X2.1.)

X2.6.2.2 Out of Scope Issues—Measuring of parking area or space dimensions or any calculations to determine whether

the existing parking lot can accommodate additional parking spaces, if warranted; the determination as to whether the existing or proposed parking (quantity, layout, etc.) is compliant with government approvals (site plan, zoning, etc.) granted at the time of construction permitting or with current zoning regulations, if any.

X2.6.3 Public Toilet Rooms:

X2.6.3.1 Observations—Determine whether public toilet room facilities can accommodate the disabled with respect to: the existence of toilet stalls that appear to be designed for accessibility, whether lavatories or the designated sink for the disabled are at apparent lower heights with adequate clearance underneath, and determine whether compliant emergency fire alarms and strobes are present within the toilet room facilities.

X2.6.3.2 Out of Scope Issues—Taking of any measurements within the public toilet room(s), determining whether the existing fire alarm control panel, if any, can accommodate additional sensing device points, additional alarm devices, etc. Conducting surveys in excess of representative observations of toilet room facilities.

X2.6.4 ADA Compliant Guestrooms:

X2.6.4.1 Observations—Hospitality use facilities are required to have guestrooms designed and constructed to accommodate the disabled. Based upon the total number of reported guestrooms, and the number of reported ADA compliant guestrooms, provide an opinion as to whether the facility has a sufficient number of ADA compliant guestrooms per the reported number. (See Table X2.2.)

X2.6.4.2 Out of Scope Issues—Taking of measurements within an ADA designated guestroom, conducting surveys in excess of representative observations of guestrooms.

X2.6.5 Elevators:

X2.6.5.1 Observations—This abbreviated survey is limited to identifying whether the elevator(s) have (1) hall call buttons with visual signals to indicate when a call is registered and answered; (2) interior control buttons designated by Braille and by raised standard alphabet characters for letters and Arabic symbols for numerals; (3) emergency controls grouped at the bottom of the control panel; (4) interior panel floor buttons with visual signals which light when each call is registered and extinguish when each call is answered; (5) visual and audible signaling provided at each floor stop; (6) doors with a reopening device that will stop and reopen a car door if the door becomes obstructed; and (7) an emergency two-way communications system, which does not require voice communication.

X2.6.5.2 Out of Scope Issues—Taking of measurements either within a representative cab or within elevator corridors,

TABLE X2.1 Parking

Total Parking Spaces Provided	1-25	26-50	51-75	76-100	101-150	151-200	201-300	301-400	401-500	501-1000	1001 & over
Minimum Number of Accessible Spaces Required	1	2	3	4	5	6	7	8	9	2% of total	20 plus 1 for each 100 over 1000
Minimum Number of Accessible Spaces Required to be "Van Accessible"	1	1	1	1	1	1	1	1	2	1 in every 8 accessible spaces	1 in every 8 accessible spaces
Total Required	1	2	3	4	5	6	7	8	9	2% of total	20 plus 1 for each 100 over 1000

TABLE X2.2 ADA Compliant Guestrooms^A

Number of Sleeping Rooms	Number of ADA Fully Accessible Guestrooms Required	Number of ADA Accessible Guestrooms with Roll-in Showers Required	Total Required
1 - 25	1	...	1
26-50	2	...	2
51-75	3	1	4
76-100	4	1	5
101-150	5	2	7
151-200	6	2	8
201-300	7	3	10
301-400	8	4	12
401-500	9	4 plus 1 for each 100 over 400	varies
501-1000	2% of total	...	...
1001 and over	20 plus 1 for each 100 over 1000	...	...

^A The number of required ADA accessible guestrooms is derived by adding the Number of ADA Fully Accessible Guestrooms Required (Column 2) to the Number of ADA Accessible Guestrooms with Roll-in Showers Required (Column 3).

surveying more than one representative cab per elevator bank, determining whether the existing fire alarm control panel can accommodate additional sensing points or alarms, etc.

X2.7 Tier II: Abbreviated Accessibility Survey—This tier is an abbreviated accessibility survey subject to representative sampling. This tier does not have the depth, scope, or detailed measurements and counts required to comply with a Tier III: Full Accessibility Survey. The consultant is to take appropriate measurements and counts to complete the checklist in Fig. X2.1. However, many of the questions posed by the checklist may be answered by the owner, such as the number of existing parking spaces and the number of standard and ADA compliant guestrooms. It is outside the scope of this Tier II Abbreviated

Accessibility Survey for the consultant to verify all counts and measurements provided by the owner.

X2.8 Tier III: Full Accessibility Survey—The consultant should conduct a full in-depth accessibility survey in full compliance with the Americans with Disabilities Act - Title III and ADAAG. Such survey should address each accessible element and space within and without a facility, which will entail the taking of measurements and counts. The results of the survey may be provided in either a checklist or narrative report format, or both, within the PCR, or as a separate survey and report.

Tier II: Abbreviated Accessibility Survey					
	Item	Yes	No	N/A	Comments
A. Building History					
1.	Has an ADA survey previously been completed for this property?	☐	☐	☐	
2.	Have any ADA improvements been made to the property?	☐	☐	☐	
3.	Does a Barrier Removal Plan exist for the property?	☐	☐	☐	
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, or other agency, etc.?	☐	☐	☐	
5.	Has building ownership or building management reported receiving any ADA related complaints that have not been resolved?	☐	☐	☐	
6.	Is any litigation pending related to ADA issues?	☐	☐	☐	
B. Parking					
1.	Are there sufficient accessible parking spaces with respect to the total number of reported spaces? (See Table X2.1)	☐	☐	☐	
2.	Are there sufficient van-accessible parking spaces available (96 in. wide by 60 in. aisle)? (See Table X2.1)	☐	☐	☐	
3.	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?	☐	☐	☐	
4.	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	☐	☐	☐	
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths and drop-offs?	☐	☐	☐	
6.	Does signage exist directing you to accessible parking and an accessible building entrance?	☐	☐	☐	
C. Ramps					
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12 slope or less)?	☐	☐	☐	
2.	Are ramps longer than 6 ft complete with railings on both sides?	☐	☐	☐	
3.	Is the width between railings at least 36 in.?	☐	☐	☐	
4.	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?	☐	☐	☐	
D. Entrances/Exits					
1.	Is the main accessible entrance doorway at least 32 in. wide?	☐	☐	☐	
2.	If the main entrance is inaccessible, are there alternate accessible entrances?	☐	☐	☐	
3.	Can the alternate accessible entrance be used independently?	☐	☐	☐	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 in. above floor)?	☐	☐	☐	
5.	Are main entry doors other than revolving doors available?	☐	☐	☐	
6.	If there are two main doors in series, is the minimum space between the doors 48 in. plus the width of any door swinging into the space?	☐	☐	☐	

FIG. X2.1 Abbreviated Accessibility Survey

Tier II: Abbreviated Accessibility Survey					
	Item	Yes	No	N/A	Comments
E. Paths of Travel					
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 in. wide)?	☐	☐	☐	
2.	Does a visual scan of the main path of travel reveal any obstacles (phones, fountains, etc.) that protrude more than 4 in. into walkways or corridors?	☐	☐	☐	
3.	Is at least one wheelchair-accessible public telephone available?	☐	☐	☐	
4.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	☐	☐	☐	
5.	Is there a path of travel that does not require the use of stairs?	☐	☐	☐	
F. Elevators					
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?	☐	☐	☐	
2.	Is the "UP" button above the "DOWN" button?	☐	☐	☐	
3.	Are there visual and audible signals inside cars indicating floor change?	☐	☐	☐	
4.	Are there standard raised and Braille markings on both jambs of each hoist way entrance?	☐	☐	☐	
5.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	☐	☐	☐	
6.	Do elevator lobbies have visual and audible indicators of car arrival?	☐	☐	☐	
7.	Are elevator controls low enough to be reached from a wheelchair (48 in. front approach/54 in. side approach)?	☐	☐	☐	
8.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?	☐	☐	☐	
9.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	☐	☐	☐	
G. Toilet Rooms					
1.	Are common-area public toilet rooms located on an accessible route?	☐	☐	☐	
2.	Are door handles push/pull or lever types?	☐	☐	☐	
3.	Are there audible and visual fire alarm devices in the toilet rooms?	☐	☐	☐	
4.	Are corridor access doors wheelchair-accessible (at least 32 in. wide)?	☐	☐	☐	
5.	Are public toilet rooms large enough to accommodate a wheelchair turnaround (60 in. turning diameter)?	☐	☐	☐	
6.	In unisex toilet rooms, are there safety alarms with pull cords?	☐	☐	☐	
7.	Are toilet stall doors wheelchair-accessible (at least 32 in. wide)?	☐	☐	☐	
8.	Are grab bars provided in toilet stalls?	☐	☐	☐	
9.	Are sinks provided with clearance for a wheelchair to roll under (29 in. clearance)?	☐	☐	☐	
10.	Are sink handles operable with one hand without grasping, pinching, or twisting?	☐	☐	☐	
11.	Are exposed pipes under sinks sufficiently insulated against contact?	☐	☐	☐	
H. Guestrooms					
1.	Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms? (See Table X2.2)	☐	☐	☐	
2.	Are there sufficient reported accessible rooms with roll-in showers with respect to the total number of reported accessible guestrooms? (See Table X2.2)	☐	☐	☐	

FIG. X2.1 Abbreviated Accessibility Survey (continued)

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).