Jeremiah W. (Jay) Nixon
Governor
State of Missouri

Kathleen (Katie) Steele Danner, Division Director
DIVISION OF PROFESSIONAL REGISTRATION

Department of Insurance
Financial Institutions
and Professional Registration
John M. Huff, Director

MISSOURI REAL ESTATE APPRAISERS COMMISSION
3605 Missouri Boulevard
P.O. Box 1335
Jefferson City, MO 65102-1335
573-751-0038
573-526-3489 FAX
reacom@pr.mo.gov
http://pr.mo.gov

Meeting Notice

Missouri Real Estate Appraisers Commission
Division of Professional Registration
3605 Missouri Blvd
Jefferson City, MO 65109

October 19, 2016
8:30 a.m.

Notification of special needs as addressed by the Americans with Disabilities Act should be forwarded to the Missouri Real Estate Appraisers Commission, P.O. Box 1335, Jefferson City, Missouri 65102, or by calling (573) 751-0038 to ensure available accommodations. The text telephone for the hearing impaired is (800) 735-2966.

Except to the extent disclosure is otherwise required by law, the Missouri Real Estate Appraisers Commission is authorized to close meetings, records and votes to the extent they relate to the following: Section 610.021 subsections (1), (3), (5), (7), (13), (14) and Section 324.001.8 and 324.001.9 RSMo

The Commission may convene in closed session at any time during the meeting. If the meeting is closed, the appropriate section will be announced to the public, with the motion and vote recorded in open session minutes.

Posted 10/06/2016

Open Session
Tentative Agenda

Missouri Real Estate Appraisers Commission
Division of Professional Registration
3605 Missouri Blvd.
Jefferson City, MO 65109

Conference Call

(573) 526-6012 --------- toll free (866) 630-9353

October 19, 2016– 8:30 a.m.

I. Call to Order

II. Roll Call

III. Approval of Open Session Agenda

IV. Education Review
- AI: Residential & Commercial Valuation of Solar
- AI: Review Case Studies – Residential
- McKissock: The Income Approach: An Overview
- McKissock: Residential Property Inspection for Appraisers
- ASFMRA: 87th Annual Convention Day 1
- ASFMRA: 87th Annual Convention Day 2
- Allterra: 2016 Keynote/Industry Update/Big Data
- Allterra: 2016 Fannie Mae Update/Appraiser Best Practices
- Calypso: 2016-2017 USPAP Update Equivalent

V. Miscellaneous

VI. Closed Meeting - Closed Session 610.021 Subsection (1) for the purpose of discussion of confidential or privileged communication between this agency and its attorney; Section 610.021 Subsection (14) and 324.001.8 and 324.001.9 RSMo for the purpose of discussing investigative reports and/or complaints and/or audits and/or other information pertaining to the licensee or applicant section 610.021 subsection (1) RSMo for the purpose of discussing general legal action, causes of action or litigation and any confidential or privileged communication between this agency and its attorney, and for the purpose of reviewing and approving closed meeting minutes of one or more previous meetings under the subsection 610.021 RSMo which authorizes this agency to go into closed session during those meetings.

VII. Adjournment

Rcvd $25 9.19.14

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

0910149 SEP 19 14

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL*. All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): Appraisal Institute
2. Mailing Address: 200 W Madison, Ste 1500 Chicago IL 60606
3. Contact Person: Dan Doepke
4. Phone: 312-335-4100 Fax: (312) 335-4251
5. Website: www.appraisalinstitute.org Email: ddoepke@appraisalinstitute.org
6. Course Title and Number: Residential & Commercial Valuation of Solar
7. Number of Classroom Hours: 14 Number of Exam Hours: 1
8. Course Category: ☐ Qualifying Education ☑ Continuing Education ☐ Both
9. Indicate the level of the licensure/certification this course would meet:

   _____ All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income _____ Elective

11. Instructor(s): Sandy Adomatis
12. Method of Presentation: ☑ Traditional Classroom _____ Correspondence ☐ Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: Appraisal Institute
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: ☐ Pre-License ☑ Continuing Education
_____ Renewal ☒ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Sandy Adomatis

   Mailing Address: 1890 Deborah Drive #10, Punta Gorda FL 33950

   Business Phone: (941) 505-8783

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Appraisal Institute
   200 W Madison, Ste 1500 Chicago IL 60606

   School/Organization: Appraisal Trade Organization

4. Title of program/course or portion of program/course to be taught by the instructor:
   Residential & Commercial Valuation of Solar

5. Which portion(s) to be taught by the instructor?

   Total Hours: 15

   Pre License Hours: _____ Continuing Education Hours: 14

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

8. Education:

School	From Month	From Year	To Month	To Year	Degree Earned	Subject Matter
Appraisal Institute	5	1982		Current	SRA	Real Estate Appraisal

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From Month	From Year	To Month	To Year	Subjects Taught
Appraisal Institute	Ce	1994		current	Real Estate Appraisal

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From Month	From Year	To Month	To Year
Adomati's Appraisal Service	Owner / Appraiser				current

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

(Signature of Appraiser Education Administrator)

9/14/16

(Date)

QUALIFICATIONS OF APPRAISAL CONSULTANT

SANDRA K. ADOMATIS, SRA, (Involved in appraising & consulting since 1981.)

EXPERIENCE:

- Single family, multi family, barrier islands properties, mobile homes, condominiums, industrial and commercial property appraisals.
- Appraised condominium projects and subdivision analysis
- Provided rental studies on various types of commercial properties
- Supply and demand studies
- Review appraisals serving FNMA, governmental agencies, and many secondary lenders
- Grades Residential Demonstration Reports for Appraisal Institute
- Guest speaker for variety of real estate related organizations
- Taught real estate principles, valuation, and basic courses for State of Indiana licensing 1990-1991

- **EDUCATION:**
- Residential valuation, principles, procedures, Capitalization Part A and B, Standards of Professional Appraisal Practice, Appraisal of Mixed Use Properties, Highest and Best Use Seminar, Marshall and Swift Costing, Valuing the Unusual Home, FIRREA, and Appraising from plans and specification through the Appraisal Institute
- Introduction to Economics, Valparaiso University
- Residential Demonstration Report Writing Seminar through the Appraisal Institute; approved instructor since 1989
- Indiana State Highway Right of Way Seminar, via Indiana Department of Transportation
- Continuing Education Classes are current per requirements of Appraisal Institute

- **SPECIAL ACTIVITIES:**
- President of the Northwest Indiana Chapter of Independent Fee Appraisers in 1985
- Guest speaker for Indianapolis Board of Realtors, Duneland Valparaiso and NW Indiana Board of Realtors and various public seminars.
- 1997 through 1999 provided the Economic Development Council of Charlotte County with a database of Commercial and Industrial properties in the County currently listed for sale.
- Chairperson of Residential Demonstration Report Subcommittee on National Level of Appraisal Institute 1998-2001.
- Grader of Residential Demonstration Appraisal Reports for The Appraisal Institute since 1987
- Instructor and developer for the On-Line Residential Demonstration Report Writing Seminar for Appraisal Institute.
- Developer of On-Line Real Estate Appraisal Operations Course - Appraisal Institute, 2006
- Review Team for Advanced Residential Case Studies Part I and Advanced Report Writing Part II – 2006-Appraisal Institute-Qualified Instructor for both Courses
- On-Line Developer of Residential Report Writing and Case Studies Course – Appraisal Institute, 2006
- Reviewer of Textbook, Value by Comparison, by Mark Rattermann, SRA, MAI, 2006
- Textbook Development Team, Appraising Residential Properties, Fourth Edition, 2007
- Charlotte Sun Herald – Wrote real estate appraisal column for the Market Place Tabloid 9-07 to 12-07

- **MEMBERSHIPS:**
- Member of the Englewood Association of Realtors
- Member of Estate and Tax Planning Council in Port Charlotte
- Member of Charlotte County Chamber of Commerce 1994 to current
- Appointed to the Affordable Housing Advisory Committee 1997 to 2008
- Member of Board of Director to Charlotte County Affordable Housing Corporation, 2008
- 2009 President of West Coast Florida Chapter of Appraisal Instititute

Court Testimony:

- Testified in court for divorce, condemnation, and estate hearings. Expert witness for Murdock Village and Bayshore Drive in Charlotte Harbor Eminent Domain Proceedings

APPRAISER LICENSE:

- State-Certified General Real Estate Appraiser RZ0001517

Residential and Commercial Valuation of Solar

Course Description

Residential and Commercial Valuation of Solar is appropriate for appraisers, underwriters, appraisal reviewers, real estate agents/brokers, and quality control personnel. The demand for solar will become more prevalent in today's residential and commercial real estate market, as the US continues to search for energy alternatives. Just like the appraiser that first encountered indoor plumbing, encountering a Solar PV system creates a valuation problem that, you may not be prepared to solve. This course provides a hands-on approach from speaking the solar language to solving the valuation issue.

We will begin with terminology and descriptions of various types of solar found in today's market place. The resource sheet in the Appendix of this material has a website providing a comprehensive solar glossary. Once a basic understanding of the solar industry is established, the material walks through the three approaches to value with mini case studies for the residential and commercial property. Some case studies are taken from real-life examples provided by others. Addresses and identifying information are fictional and in some cases, details may be changed to provide an expanded understanding of the valuation problem.

This course is part of the series in the Appraisal Institute's Valuation of Sustainable Buildings Professional Development Program.

Suggested Schedule

SECTION 1 (MORNING DAY 1)

8:00–8:30		Sign–in
Part 1. Introduction		
8:30–8:35	5 minutes	Classroom Rules and Procedures
8:35-8:45	10 minutes	Self-Assessment Quiz
8:45–8:55	10 minutes	Photovoltaics Defined Introduction—Video on Solar Power Basics
8:55–9:00	5 minutes	Impetus for Growth
9:00–9:20	20 minutes	Electricity Pricing and Consumption
9:20–9:30	10 minutes	Solar PV Installations
9:30–9:40	10 minutes	BREAK
9:40–9:55	15 minutes	1.10 Case Study: Townhouse in New Mexico
9:55-10:00	5 minutes	Solar PV use on commercial properties
Part 2. Speaking the Solar Language		
10:00—10:15	15 minutes	Overview of Solar PV Energy Systems
10:15–10:30	15 minutes	Speaking the Solar Language and Describing the System (includes 4-minute video clip)
10:30–10:55	25 minutes	Cells, Modules, and Arrays
10:55–11:05	10 minutes	BREAK
11:05–11:25	20 minutes	Solar PV Inverters
11:25–11:35	10 minutes	Performance Standards and Other Issues Related to Solar PV Systems
11:35–11:45	10 minutes	Appraisal Standards Issues: Competency, Scope of Work, and Developing an Opinion of Value
11:45–12:00	15 minutes	Practice Test
12:00-1:00	60 minutes	LUNCH

SECTION 2 (AFTERNOON DAY 1)

Part 3. Documentation of Size, Estimated Production, and Lease vs. Ownership		
1:00-1:10	10 minutes	Documentation Available for Valuation of Solar PV Systems
1:10–1:30	20 minutes	Installation, Warranty, Maintenance, and Energy Production
1:30–1:45	15 minutes	Incentives, Sources for Documenting Incentives, and Cause and Effect of Incentives on Market Value
1:45–1:55	10 minutes	3.3 Case Study: Industrial Building with Solar PV System

SECTION 2 (AFTERNOON DAY 1), cont.

Part 3. Documentation of Size, Estimated Production, Lease vs. Ownership, cont.		
1:55–2:05	10 minutes	Other Value Influences - leases
2:05–2:20	15 minutes	Tools for Valuation of Solar PV Systems
2:20–2:35	15 minutes	Residential Lending Guidelines
2:35–2:45	10 minutes	BREAK
2:45–3:05	20 minutes	Commercial Lending
3:05–4:05	60 minutes	PV Value® Pro Overview (with discussion of discount rates)
4:05–4:15	10 minutes	BREAK
4:15-4:40	25 minutes	Cost approach for Solar PV Systems
4:40–5:00	20 minutes	3.11 Case Study 3.12 Case Study

SECTION 3 (MORNING DAY 2)

Part 3. Documentation of Size, Estimated Production, Lease vs. Ownership, cont.		
8:30–9:00	30 minutes	Review and Completion of Topics from Day 1
9:00-9:30	30 minutes	3.13 Case Study – Two Arrays
9:30-9:45	15 minutes	Practice Test
Part 4. Net Zero Energy, Passive Solar, and Identifying Resources to Develop Derate Factors		
9:45–10:05	20 minutes	Net Zero Energy Buildings
10:05-10:20	15 minutes	Passive Solar Buildings
10:20-10:30	10 minutes	BREAK
10:30–11:00	30 minutes	Commercial Case Study
11:00-11:10	10 minutes	Practice Test
11:10-11:20	10 minutes	BREAK

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches		
11:20–11:45	25 minutes	Published Studies of Solar PV Systems' Value Contribution for Residential Properties
11:45-12:05	20 minutes	Study of Solar PV System Assessments in 15 States
12:05-1:05	60 minutes	LUNCH

SECTION 4 (AFTERNOON DAY 2)

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches, cont.		
1:05-1:15	10 minutes	Recap of Morning Material
1:15–1:30	15 minutes	5.3 Case Study. Cost Approach as It Applies to Solar PV Valuation: Residential Property
1:30-2:15	45 minutes	5.4 Case Study. Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property
2:15-2:25	10 minutes	BREAK
Part 6. Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease		
2:25-2:40	15 minutes	Income Capitalization Approach as It Applies to Solar PV Valuation 6.1 Case Study. Multifamily Residential Property
2:40-3:00	20 minutes	Commercial/Industrial Rooftop Leases for Solar PV Systems 6.2 Case Study. Commercial Property Rooftop Lease
Part 7. Exam Content Review		
3:00-3:20	20 minutes	Instructor-Led Review
3:20-3:30	10 minutes	Self-Study
3:30–3:40	10 minutes	Wrap-up, Evaluations
3:40–3:50	10 minutes	BREAK
3:50–4:00	10 minutes	Instructions for Exam (Participants must remain until exam starts to receive state CE credit. Participants who stay for the exam receive an additional hour of credit.)
4:00–5:00	60 minutes	Exam

Residential and Commercial Valuation of Solar

Instructor Handbook

Suggested Schedule

SECTION 1 (MORNING DAY 1)

8:00–8:30		Sign–in
Part 1. Introduction		
8:30–8:35	5 minutes	Classroom Rules and Procedures
8:35-8:45	10 minutes	Self-Assessment Quiz
8:45–8:55	10 minutes	Photovoltaics Defined Introduction—Video on Solar Power Basics
8:55–9:00	5 minutes	Impetus for Growth
9:00–9:20	20 minutes	Electricity Pricing and Consumption
9:20–9:30	10 minutes	Solar PV Installations
9:30–9:40	10 minutes	BREAK
9:40–9:55	15 minutes	1.10 Case Study: Townhouse in New Mexico
9:55-10:00	5 minutes	Solar PV use on commercial properties
Part 2. Speaking the Solar Language		
10:00—10:15	15 minutes	Overview of Solar PV Energy Systems
10:15–10:30	15 minutes	Speaking the Solar Language and Describing the System (includes 4-minute video clip)
10:30–10:55	25 minutes	Cells, Modules, and Arrays
10:55–11:05	10 minutes	BREAK
11:05–11:25	20 minutes	Solar PV Inverters
11:25–11:35	10 minutes	Performance Standards and Other Issues Related to Solar PV Systems
11:35–11:45	10 minutes	Appraisal Standards Issues: Competency, Scope of Work, and Developing an Opinion of Value
11:45–12:00	15 minutes	Practice Test
12:00-1:00	60 minutes	LUNCH

SECTION 2 (AFTERNOON DAY 1)

Part 3. Documentation of Size, Estimated Production, and Lease vs. Ownership		
1:00-1:10	10 minutes	Documentation Available for Valuation of Solar PV Systems
1:10–1:30	20 minutes	Installation, Warranty, Maintenance, and Energy Production
1:30–1:45	15 minutes	Incentives, Sources for Documenting Incentives, and Cause and Effect of Incentives on Market Value
1:45–1:55	10 minutes	3.3 Case Study: Industrial Building with Solar PV System

SECTION 2 (AFTERNOON DAY 1), cont.

Part 3. Documentation of Size, Estimated Production, Lease vs. Ownership, cont.		
1:55–2:05	10 minutes	Other Value Influences - leases
2:05–2:20	15 minutes	Tools for Valuation of Solar PV Systems
2:20–2:35	15 minutes	Residential Lending Guidelines
2:35–2:45	10 minutes	BREAK
2:45–3:05	20 minutes	Commercial Lending
3:05–4:05	60 minutes	PV Value® Pro Overview (with discussion of discount rates)
4:05–4:15	10 minutes	BREAK
4:15-4:40	25 minutes	Cost approach for Solar PV Systems
4:40–5:00	20 minutes	3.11 Case Study 3.12 Case Study

SECTION 3 (MORNING DAY 2)

Part 3. Documentation of Size, Estimated Production, Lease vs. Ownership, cont.		
8:30–9:00	30 minutes	Review and Completion of Topics from Day 1
9:00-9:30	30 minutes	3.13 Case Study – Two Arrays
9:30-9:45	15 minutes	Practice Test
Part 4. Net Zero Energy, Passive Solar, and Identifying Resources to Develop Derate Factors		
9:45–10:05	20 minutes	Net Zero Energy Buildings
10:05-10:20	15 minutes	Passive Solar Buildings
10:20-10:30	10 minutes	BREAK
10:30–11:00	30 minutes	Commercial Case Study
11:00-11:10	10 minutes	Practice Test
11:10-11:20	10 minutes	BREAK

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches		
11:20–11:45	25 minutes	Published Studies of Solar PV Systems' Value Contribution for Residential Properties
11:45-12:05	20 minutes	Study of Solar PV System Assessments in 15 States
12:05-1:05	60 minutes	LUNCH

SECTION 4 (AFTERNOON DAY 2)

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches, cont.		
1:05-1:15	10 minutes	Recap of Morning Material
1:15–1:30	15 minutes	5.3 Case Study. Cost Approach as It Applies to Solar PV Valuation: Residential Property
1:30-2:15	45 minutes	5.4 Case Study. Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property
2:15-2:25	10 minutes	BREAK
Part 6. Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease		
2:25-2:40	15 minutes	Income Capitalization Approach as It Applies to Solar PV Valuation 6.1 Case Study. Multifamily Residential Property
2:40-3:00	20 minutes	Commercial/Industrial Rooftop Leases for Solar PV Systems 6.2 Case Study. Commercial Property Rooftop Lease
Part 7. Exam Content Review		
3:00-3:20	20 minutes	Instructor-Led Review
3:20-3:30	10 minutes	Self-Study
3:30–3:40	10 minutes	Wrap-up, Evaluations
3:40–3:50	10 minutes	BREAK
3:50–4:00	10 minutes	Instructions for Exam (Participants must remain until exam starts to receive state CE credit. Participants who stay for the exam receive an additional hour of credit.)
4:00–5:00	60 minutes	Exam

Schedule

SECTION 1 (MORNING DAY 1)

	Sign–in
Part 1. Introduction	
	Classroom Rules and Procedures
	Self-Assessment Quiz
	Photovoltaics Defined
	Introduction—Video on Solar Power Basics
	Impetus for Growth
	Electricity Pricing and Consumption
	Solar PV Installations
	BREAK
	1.10 Case Study: Townhouse in New Mexico
Part 2. Speaking the Solar Language	
	Overview of Solar PV Energy Systems
	Speaking the Solar Language and Describing the System (includes 4-minute video clip)
	Cells, Modules, and Arrays
	BREAK
	Solar PV Inverters
	Performance Standards and Other Issues Related to Solar PV Systems
	Appraisal Standards Issues: Competency, Scope of Work, and Developing an Opinion of Value
	Practice Test
	LUNCH

SECTION 2 (AFTERNOON DAY 1)

Part 3. Documentation of Size, Estimated Production, and Lease vs. Ownership	
	Documentation Available for Valuation of Solar PV Systems
	Installation, Warranty, Maintenance, and Energy Production
	Incentives, Sources for Documenting Incentives, and Cause and Effect of Incentives on Market Value
	3.3 Case Study: Industrial Building with Solar PV System

SECTION 2 (AFTERNOON DAY 1), cont.

Part 3. Documentation of Size, Estimated Production, Lease vs. Ownership, cont.
Other Value Influences
Break
Tools for Valuation of Solar PV Systems
Residential Lending Guidelines
Commercial Lending
PV Value® Pro Overview (with discussion of discount rates)
Mini Case Studies
Practice Test

SECTION 3 (MORNING DAY 2)

Part 4. Net Zero Energy, Passive Solar, and Identifying Solar Types and Problems
Review and Completion of Topics from Day 1
Net Zero Energy Buildings
Passive Solar Buildings
3.16 Existing Commercial Solar PV System
BREAK
Practice Test
Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches
Published Studies of Solar PV Systems' Value Contribution for Residential Properties
Study of Solar PV System Assessments in 15 States
LUNCH

SECTION 4 (AFTERNOON DAY 2)

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches, cont.	
	Recap of Morning Material 5.4 Case Study. Cost Approach as It Applies to Solar PV Valuation: Residential Property 5.5 Case Study. Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property BREAK
Part 6. Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease	
	Income Capitalization Approach as It Applies to Solar PV Valuation 6.1 Case Study. Multifamily Residential Property Commercial/Industrial Rooftop Leases for Solar PV Systems 6.3 Case Study. Commercial Property Rooftop Lease
Part 7. Exam Content Review	
	Instructor-Led Review Self-Study Wrap-up, Evaluations BREAK Instructions for Exam (Participants must remain until exam starts to receive state CE credit. Participants who stay for the exam receive an additional hour of credit.) Exam

Part 1. Introduction

(70 minutes plus one 10-minute break)

Overview

The course begins with a review of the basic concepts and principles of solar photovoltaic systems. After the introductions, allow a few minutes for participants to complete a self-assessment to measure their knowledge of the topic.

Some of the questions participants raise are likely to be addressed later in the course. If so, it would probably be best to note those questions, let the class know you will address them a little later, and move on. If there are questions about topics not included in the remaining course content, make a note of them and be sure to address them at the prescribed time—at the end of the applicable section or later in the day. If a question arises that you cannot answer, encourage participants to do some research on their own to find an answer.

It is good to remind them of the resources for solar research available throughout this course material and on the Appraisal Institute's Web site. Remind students that web links often change and if they see a link in the material that is not functioning, do an internet search based on the topic to find the new location.

Instructor Notes

Due to the quickly changing nature of the solar PV industry, some book material may be out of date by class time. Instructors should update slides with the most current information available. ***Participants should receive the updated material in PDF form and be informed that the material will not be used on the exam.***

Timing of the material should be based on the participants' ability to comprehend and work the case study material. Do not be concerned with getting through all the case studies but do cover all material found on the exam.

Content Tips

Part 1 focuses on defining solar photovoltaic (PV) energy and the principles of how it works. Without a good understanding of the basics, an appraiser cannot identify the most relevant factors and most applicable approach(es) to valuing solar PV systems. Ensuring that participants understand some of the nuances of the terminology will make them better able to communicate with both clients and solar consultants. This knowledge will help them develop an effective appraisal of a solar PV system and address the characteristics and marketability of these systems.

Introduction and Video on Solar Power Basics (10 minutes). This discussion should focus on defining a solar PV system. The video clip "Solar Power Basics" should be shown in class. It provides additional information on how electricity is generated from photovoltaic and concentrating solar power technologies. Both the video and a text version are available from the following Web site: www.eeremultimedia.energy gov/solar/videos/solar_power_basics

It's important that instructors have both video clips available to show the class. Instructors will be able to download

these files, along with the remainder of their teaching materials, to a flash drive or hard drive. (Instructions will be provided before the course offering.) Also, test the speakers to make sure that they have sufficient volume for a classroom.

Remind the class that the course materials have more information and resources than we may be able to cover in class. Participants can use the materials as a resource as they encounter solar appraisal problems.

Impetus for Growth (5 minutes). A major focus should be on the reasons for the growth of alternative energy sources as it relates to the cost of electricity. Solar PV has decreased in price and technology has advanced to improve production.

Government plays a big role in the growth of solar PV, including the provision of Renewable Portfolio Standards (RPS), which mandate that utilities derive a specific percentage of their power from renewable sources.

Review the www.eia.gov Web site for national electricity costs. Research the utility rates for the course location by contacting a local appraiser prior to class or searching the utility company website.

The summary statistics for U.S. Average Electric Costs kWh has space for students to insert the cost for 2017 and 2018. This will require instructors to research those numbers through the EIA.gov website. Allowing spaces to update the tables will assist us in keeping the material relevant and students engaged.

Electricity Pricing and Consumption (20 minutes). This section provides a framework for discussion of the cost of electricity in some parts of the country. Some participants may live in states with low electricity costs and may not be familiar with costs in other states. Be sure to review the terms used in the electrical cost tables.

Energy pricing fundamentals are important to cover and review the examples shown in the different pricing categories. Examples are shown to provide a general overview of the categories. Appraisers have not been exposed to kWh costs and pricing fundamentals; therefore, we must not take for granted they understand the pricing.

Net Energy Metering is one consideration commercial users research in making their decision to install solar PV. In some states, NEM is not a consideration and other states have made changes to the NEM policies.

Go over 1.5 Exhibit, Commercial Energy Consumption Survey: 2012. Tie the costs to the reasons why some business owners are moving to alternative energy.

2010 Solar PV Installations (10 minutes). 1.6 Exhibit provide the cumulative solar photovoltaic capacity per Capita. 1.7 Exhibit provides the top ten states cumulative solar photovoltaic installed capacity. Instructors can research SEIA.org latest quarterly report to see if the rankings have changed. Review the tables and allow time for the discussion questions following the exhibit.

1.8 Exhibit shows the top 18 states with highest electric retail rates. Review the

tables and answer the questions on the following pages.

Review the terminology that is important to understanding the system and using tools for developing a value indication.

1.9 Exhibit shows the 2015 solar installed capacity by sector. Discuss the comparison of installations by section changes from 2010 to 2015. Tie the changes to the NEM and decrease in incentives by the utility companies. Remind appraisers that this course does not address valuing solar farms.

1.10 Case Study: Townhouse in New Mexico (15 minutes). This case study should promote discussion of correct and incorrect ways to handle solar PV. Some participants may blame underwriters' inability to accept a report without a paired sale or another sale with a PV system. Note that we will discuss alternative ways to value solar PV later in the course.

Here is a good place to stress that underwriters often do not accept our adjustments for energy features because we have not built a case to defend our position. Continually stress that the income approach to valuing solar PV requires a discussion to support each step or input. A sample is included in the course material.

Part 1 Preview

Introduction

Part 1 focuses on defining solar photovoltaic (PV) energy and describing how it works. Without a good understanding of the basics, an appraiser cannot identify the most relevant factors and the most applicable approach(es) to appraising solar PV systems. The course contains a vast amount of information and a number of case studies. We will focus on the case studies that apply to the majority of the participants. Some case studies emphasize similar methods; therefore, all methodologies presented in the course will be addressed even if a specific case study is not covered in class. Solutions Booklets will be provided at the end of class.

Learning Objectives

To prepare for Part 1, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Identify how solar PV systems convert the sun's energy into electricity.
- ☐ Analyze market statistics on energy costs and solar use by state.
- ☐ Recognize the need to develop a methodology for valuing solar PV installations.

Learning Tips

Due to the quickly changing nature of the solar PV industry, some course data may be out-of-date by the start of this course offering. Your instructor will update the PowerPoint with the current data and you can download the updated material from the AI website. The updated material will not be on the exam.

We recommend that you keep track of questions asked during class discussions and be sure that those you consider relevant are answered at some point during the course. Notify the instructor of any terms that are unclear to you for clarification before moving to the next part. The following self-assessment will provide an idea of how much you already know about solar PV.

Self-Assessment Quiz

Test your knowledge of solar PV systems while waiting for class to start. Answer the questions below.

Check the appropriate box for each question.	**TRUE**	**FALSE**
1. A solar PV system is always considered personal property.	☐	☒
2. Solar PV modules do not require maintenance during their useful lives.	☐	☒
3. Solar PV modules are always mounted on rooftops.	☐	☒
4. All solar PV modules have the same degradation rate (loss of production).	☐	☒
5. An inverter is necessary to measure the energy production of the module.	☐	☒
6. Commercial property owners who install solar PV systems benefit from accelerated depreciation.	☒	☐
7. The present value of the energy produced can never be used to develop a market value opinion for a residential solar PV system.	☐	☒
8. Industrial building owners may rent roof space for solar PV production.	☒	☐
9. Commercial and residential Solar PV is cost effective in the majority of the states	☐	☒
10. A key to understanding the period it takes to recoup the initial investment of a solar photovoltaic system is the price per kWh and solar cost per watt.	☒	☐

Scope of Work Notes: As we move through the material, it will be helpful to make notes on items that should be addressed in the scope of work.

Part 1.
Introduction

I. Photovoltaics (PV) Defined

Photovoltaic(s) (PV). Pertaining to the direct conversion of light into electricity.[1]

A. **Solar Power Basics Video.** This video summarizes the process of generating solar electricity from photovoltaic and concentrating solar power technologies. It also touches on research, manufacturing, and use of these technologies across the United States.

   Participants may download a text version of the video or review the presentation after class by visiting the following Web site: www.eeremultimedia.energy.gov/solar/videos/solar_power_basics

B. Renewable energy source

   1. Solar PV systems are a growing source of renewable energy in the U.S. Because these systems are being incorporated in commercial, industrial, and residential properties, appraisers need to develop methods for estimating their contributory value. More than 90% of cumulative residential PV installations have come online since the beginning of the decade according to GTM Research/SEIA, Q3 2015 U.S. Solar Market Insight.

   2. Solar PV technology has been in existence for more than a hundred years but has become more common in the U.S. in the last 10 years. The growth of the green movement and rising oil prices have brought renewed interest in alternative energy sources.

   3. Government incentives have also contributed to increased interest in alternative energy sources. However, incentives are not a long-term solution. As is true of any new technology, reliability of the product is an important issue and one that manufacturers must consider during this innovation stage to maintain the momentum of growth in solar PV systems. Distributed solar PV is still in the innovation stage in the U.S.

   4. In the past, the cost of solar PV systems was prohibitive in most areas when compared with the cost of other energy sources. The declining cost of solar PV systems, improvement in energy production, more efficient installation

1. www1.eere.energy.gov/solar/sunshot/glossary.html

techniques, incentives, and public policy are driving interest in this renewable energy alternative.

5. The cost and risks of nuclear power are also driving interest in solar PV/renewables. Risks include accidents, storage of waste, and potential for proliferation (weapons).

II. Impetus for Growth

A. Another reason for growth in alternative energy sources is the rising cost of electricity. The chart shows prices have actually declined since 2013. The question arises, will it continue to decline? The U.S. Energy Information Administration website provides the following history of kilowatt-hour electric costs as a national average by sector. Space is provided for future rates not available as of the date of this material.

Summary Statistics for U.S. Average Electric Costs kWh

Year	Residential	Commercial	Industrial	Transportation
2004	8.95	8.17	5.25	7.18
2005	9.45	8.67	5.73	8.57
2006	10.40	9.46	6.16	9.54
2007	10.65	9.65	6.39	9.70
2008	11.26	10.26	6.96	10.71
2009	11.51	10.16	6.83	10.66
2010	11.54	10.19	6.77	10.56
2011	11.72	10.24	6.82	10.46
2012	11.88	10.09	6.67	10.21
2013	12.13	10.26	6.89	10.55
2014	12.52	10.74	7.10	10.45
2015	12.34	10.52	6.81	10.18
Mar-16	12.58	10.13	6.47	9.43
2017				
2018				

Source: http://www.eia.gov/electricity/data.cfm#summary – Table 1.2 and http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_a

B. Residential and commercial users pay the highest rates because it costs more to distribute electricity to these users. Conversely, industrial users can take their electricity at higher voltages. Because the electricity produced does not need to be stepped down, the price of power to industrial users is closer to the wholesale

price.[2] In many markets, residential rates subsidize commercial rates. (Florida is an example where this is true.)

C. Based on the average costs shown above, it is only reasonable to assume that if renewable energy is to become a major alternative with quantifiable value to the real estate, the cost of such energy must become equal to or lower than the cost of electricity from conventional sources. Historically, reductions in the cost of PV systems generally required incentives.

D. The Solar Energy Industries Association® (SEIA) reports solar PV costs for residential application is an average of $3.21 per watt for the 1st quarter of 2016. The non-residential cost is $1.95 per watt. This data is from a report published by SEIA/GTM Research entitled "U.S. Solar Market Insight." You can download a summary report at no costs at the following site. http://www.seia.org/research-resources/solar-market

E. Reviewing electricity costs by state provides some evidence of where we will most likely see the greatest growth in solar PV systems. The key to feasibility is the cost per watt for the solar system and the cost per kilowatt hour in a given location. Over the past few years solar PV systems presented a valuation challenge to appraisers in many markets.. A little later in this section we will review the states with the highest electric rates.

III. Electricity Pricing and Consumption

The Independent Statistics and Analysis series of the U.S. Energy Information Administration includes data on various costs, which are explained below. Users of this site should be familiar with the following terms:

- **Full Service.** Total cost of electricity to the user excluding taxes. This is the rate appraisers should be using in their analyses.
- **Restructured Retail Service Providers.** Allows retail producers to compete and users to choose their service provider.
- **Delivery-Only Service.** The cost to deliver electricity; it does not include all costs to the end user. Therefore, this cost must be added to the energy cost to arrive at a total cost for the electricity excluding taxes.
- **Energy-Only Provider.** A company that produces energy and sells it to others, which requires a delivery-only service at an additional cost.

2. U.S. Energy Information Administration, www.eia.gov/tools/faqs/faq.cfm?id=507&t=3

A. Energy pricing fundamentals

1. Various means are used to price electricity across the U.S. The following are the most often used pricing categories:

   - **Price tiers.** Electricity rate increases in stages with higher use levels.

     This pricing presents special valuation considerations to arrive at a weighted rate most appropriate for use in the income approach to valuing energy produced.

   - **Real-time electricity pricing—Time of Use (TOU).** Rates for electricity change according to the time of day and cost of producing electricity at that time.

     This pricing program has encouraged some users to install solar PV systems large enough to cover their use during this higher rate time frame. Again, this presents special attention to the TOU rates in the income approach.

The table below is from Puerto Rico showing how the rates fluctuate with the cost of producing the electricity. This kind of analysis is important to understanding the appropriate electric rate for this site.

Date	Kwh	Cost	Cost per Kwh
May-13	1,780	$459.78	0.258
Jun-13	2,050	$529.68	0.258
Jul-13	2,160	$567.54	0.263
Aug-13	2,010	$503.63	0.251
Sep-13	1,880	$484.25	0.258
Oct-13	2,020	$545.81	0.270
Nov-13	1,910	$490.45	0.257
Dec-13	1,840	$444.61	0.242
Jan-14	2,140	$553.85	0.259
Feb-14	1,530	$396.09	0.259
Mar-14	1,670	$453.81	0.272
Apr-14	1,710	$462.63	0.271
May-14	1,790	$474.64	0.265
Jun-14	2,060	$560.95	0.272
Jul-14	2,180	$606.46	0.278
Aug-14	2,230	$621.72	0.279
Sep-14	2,030	$569.37	0.280
Oct-14	1,730	$493.36	0.285
Nov-14	1,690	$444.76	0.263
Average kWh Cost			**0.265**

Source: Courtesy of Raoul Le Hardy, SRA

- **Feed-in-Tariff (FIT).** In this type of arrangement, a premium over the conventional price is paid for energy from renewable sources.

The FIT provides additional income considerations that may explain some reasons for installing solar in areas where the utility rate is low resulting in a long period to recoup the investment. The terms of the TIF vary widely requiring appraisers to carefully review the terms and decide if the income is an intangible or part of the real estate consideration. The following table shows a partial listing of some TIF programs by states.

Feed-in-Tariff Program Overview			
State	**Program Sponsor**	**Program Name**	**Brief Description**
AL, KY, MI, NC, TN, VA	**Tennessee Valley Authority**	**Mid-Sized Renewable Standard Offer**	**Start: 2010 Term: 20-yr contract rate Rate: Varies by time of day/season $0.03 to $0.082/kWh**
California (CA has 3 different programs)	**Consumers Energy**	**Palo Alto Clean Local Energy Accessible Now (CLEAN)**	**Start: 2012 Term: Unknown Rate: $0.165/kWh**
Florida	**Gainesville Regional Utilities**	**Solar Feed-In-Tariff**	**Start: 2009 Term: 20- years Rate: ranges $0.15 to $0.21/kWh depends on project size**
GA,IN,MI,NY, OR,VI,WA, and WI also have programs that can be viewed at U.S. Energy Information Administration Website **Source:** **http://www.eia.gov/electricity/policies/provider_programs.cfm**			

- **Grid parity.** This is the tipping point for solar PV. It refers to the point in price and time that the cost for solar PV electricity is equal to the cost for grid-supplied electricity.

> **20 States including Washington, D.C. at Grid Parity in 2016**
>
> A report by GTM Research published February 2016 reports the following 20 states at grid parity based on residential solar use. They estimate 42 states are expected to reach grid parity by 2020 under business-as-usual conditions.
>
> CA, MA, HI, NJ, AZ, VT, NM, NY, DE, NH, SC, DC, CT, LA, MD, CO, RI, UT, MN, MO

- **Fixed Charge.** As of June 2016, two states now have a $50 per month fixed charge set by the utility company. The fixed charge affects the income cash flow of a solar system and is another point appraisers must consider in their analysis. GTM Research report, U.S. Residential Solar Economic Outlook 2016-2020 reports the monthly fixed charges rank as the greatest policy risk that could undercut residential solar economics.

- **Net Energy Metering (NEM).** A billing mechanism allowing homeowners and businesses that generate their own electricity using solar to send unused electricity back to the grid and receive credit for it. The credit offsets the energy received from the grid at the site. The Solar Energy Industries Association® reports as of June 2016, 43 states + Washington D.C. & 4 territories have adopted a net metering policy. Visit DSIRE™ website to review your state's policy on net metering.

NEM Exhibit

California Overview of residential utility bill in the San Diego Market – Tiered Pricing and Net Metering Illustration

Analysis of Electric Bill Before and After Solar PV Installation			
Period	kWh Use for month	Electric Bill	Avg kWh Rate ($/kWh=Rate)
7-2013	967 kWh	$243.27	$0.25
Solar PV Installed			
7-2014	-259 kWh	$4.93	0

The 2013 tiered rates in California range between $0.15 kWh and $0.31 kWh. In 2014 the tiered rates range between $0.16 and $0.40 kWh. The 2014 bill shows the solar PV system sent energy back to the grid; therefore, a credit is given for 259 kWh. The $4.93 charge is a flat rate charge. This

illustration also provides a good understanding of how important it is to review the utility bill carefully to understand the true cost per kWh. The rate shown in the PV Value® software is not always current requiring the user of the software to analyze the rate for accuracy.

NEM Exhibit

Nevada Overview of Net-Metering Rate Change Forecast
Source:
https://www.nvenergy.com/renewablesenvironment/renewablegenerations/NetMetering.cfm#forecast

Southern Nevada Overview of Net-Metering Rate Change Forecast			
	Basic Service Charge	Volumetric Charge**	Excess Energy Credit
Prior Rate	$12.75	$0.11289	
January 1, 2016	$17.90	$0.11067	$0.09199
January 1, 2019	$23.05	$0.10845	$0.07429
January 1, 2022	$28.21	$0.10623	$0.05747
January 1, 2025	$33.36	$0.10418	$0.04157
January 1, 2028	$38.51	$0.10179	$0.02649

Northern Nevada Overview of Net-Metering Rate Change Forecast			
	Basic Service Charge	Volumetric Charge**	Excess Energy Credit
Prior Rate	$15.25	$0.08829	
January 1, 2016	$21.09	$0.08267	$0.07620
January 1, 2019	$26.92	$0.07705	$0.06055
January 1, 2022	$32.76	$0.07143	$0.04716
January 1, 2025	$38.59	$0.06582	$0.03601
January 1, 2028	$44.43	$0.06020	$0.02711

*These rates are subject to change and will change quarterly with each BTER/DEAA quarterly adjustment.

**Volumetric Charge is comprised of all components charged on a per kWh basis. Those components are BTER, TRED, REPR, DEAA, EE, and UEC.

On December 23, 2015, the Public Utilities Commission of Nevada established new net metering rules and rates. After this announcement, SolarCity announced they would leave Nevada followed by Sunrun exiting Nevada. Vivint Solar left the state in 2015.

The state maxed out its 235 MW net metering cap in August 2015. Net Metering presents a special valuation consideration if a system is large enough to send energy to the grid and the owner is anticipating income from the energy. There are no guarantees the utility companies will continue to pay current rates or any rate at all. This is a good example of how quickly things can change.

2. Geography, incentives, and utility rates impact market value.

   a. Different inputs are needed for different locations; payback is not the same in every location.

   b. Average annual cost per kWh is the key number for assessing payback, but this is not always easy to establish because of price tiers.

   c. The price per kWh should include all taxes and surcharges required by the utility company at the location of the property.

1.1 Discussion Question

If my solar panel is rated 300 watts does that mean it generates 300 watts per hour?

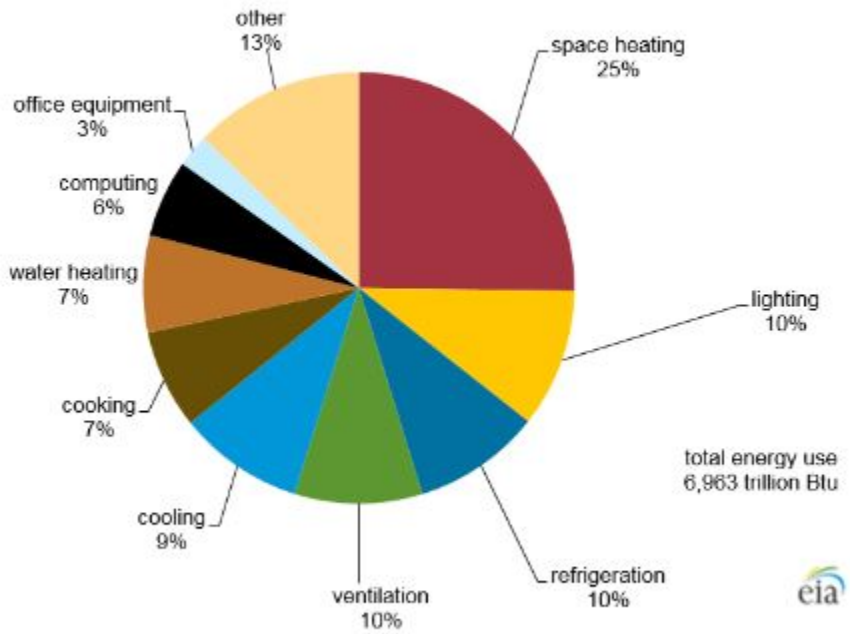
300 watts refers to the panel's peak capacity—how much electricity will the panel produce in perfect weather conditions and perfect installation/orientation.

B. Energy Consumption in Commercial Buildings: 2012. The following exhibit shows the distribution of all types of energy used by commercial buildings. A review of this exhibit and 1.3 Exhibit on energy costs per square foot for business users provides insight into why specific business types may move into solar or other renewable alternatives. Keep in mind that the survey considers all types of energy. The data below was released March 18, 2016.

1.2 Exhibit

Commercial Building Energy Consumption Survey (All types of energy use)

Figure 5. Space heating demanded the most overall energy use in commercial buildings in 2012, followed by other uses



Source: U.S. Energy Information Administration, 2012 Commercial Buildings Energy Consumption Survey

The report indicates the 2012 survey shows space heating and lighting energy use is substantially lower than in 2003.

Commercial Energy Use Comparisons		
Energy Use	**2003**	**2012**
Space Heating	36%	25%
Lighting Energy Use	21%	10%

IV. Solar PV Installations

A. It is interesting to review the solar photovoltaic capacity per capita. The following exhibit shows the top ten states based on their ranking in 2015. The rankings are reported the following year and we have provided two columns to insert the rankings in future years. *Instructors: In 2017 and 2018 you will need to research the SEIA.org website to provide the class with the updated numbers. Insert them into a slide and give them time to update the page.*

1.3 Exhibit **Cumulative Solar Photovoltaic Capacity per Capita**

State	Cumulative Solar Electricity Capacity Installed per Capita (Watts/person) as of 2015	2015 Rank	2016 Rank	2017 Rank
Nevada	429	1		
Hawaii	394	2		
California	338	3		
Arizona	337	4		
North Carolina	206	5		
New Jersey	182	6		
New Mexico	175	7		
Vermont	171	8		
Massachusetts	150	9		
Colorado	99	10		

B. Exhibit 1.4 on the next page shows the top ten state ranking of solar installations and the number of houses per state.

1.4 Exhibit Top Ten States Cumulative Solar Photovoltaic Installed Capacity

State	Cumulative Solar Electricity Installed as of March 2016 (MW)	No. Houses installed solar can power	Rank
California	13,241	3,319,000	1
Arizona	2,303	327,000	2
North Carolina	2,087	223,000	3
New Jersey	1,632	257,000	4
Nevada	1,240	191,000	5
Massachusetts	1,020	163,000	6
New York	638	108,000	7
Hawaii	564	146,000	8
Colorado	540	103,000	9
Texas	534	57,000	10

Source: Solar Energy Industries Association, March 2016

1.5 Exhibit **Top 18 States with Highest Electric Retail Price (cents/kWh)**

2014 Total Electric Industry- Average Retail Price (cents/kWh) (Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)				
Rank	State	Residential	Commercial	Industrial
1	Hawaii	37.04	34.21	30.22
2	New York	20.07	16.12	6.58
3	Connecticut	19.75	15.55	12.92
4	Alaska	19.14	17.09	15.66
5	New Hampshire	17.53	14.34	11.93
6	Vermont	17.47	14.56	10.23
7	Massachusetts	17.39	14.68	12.74
8	Rhode Island	17.17	14.56	12.86
9	California	16.25	15.62	12.34
10	New Jersey	15.78	13.15	11.38
11	Maine	15.27	12.70	8.95
12	Michigan	14.46	10.87	7.68
13	Wisconsin	13.67	10.77	7.52
14	Maryland	13.63	11.15	9.04
15	Pennsylvania	13.32	9.73	7.41
16	Delaware	13.29	10.50	8.58
17	Nevada	12.93	9.47	7.12
18	District of Columbia	12.74	12.19	8.41

The 2014 rate is the most recent rate available as of the date of this material. EIA is typically a couple of years behind in reporting these figures. Earlier we reviewed an actual billing in CA with tiered rates that clearly show that the CA rate is much higher than shown on this chart.

The 18 states identified in the table above report the average rate paid in the state. This can be very deceiving in states that have time of use or price tiers. For instance, in California the price tiers would in many cases show a much higher average rate for your property depending on its use. Appraisers are cautioned to avoid using a generalized electric rate and take additional steps to research the actual electrical rate per kWh including taxes and any other charges to use in the income approach to developing the value of the system.

1.6 Discussion Questions

1. Compare the data in 1.4 Exhibit showing the top 10 states with solar installations and 1.5 Exhibit showing the Average Electricity Price by State. *Are there similarities?*

   Six states appear in both tables: Hawaii, New York, Massachusetts, New Jersey, Nevada, and California. Four states are not on the top 18 states with highest electric rate – Arizona, North Carolina, Colorado, and Texas

2. *What factors might account for top 10 states with solar PV installations not being on the top 18 states with the highest electric rates?*

   Some states may offer more incentives than others. Incentives are for a short period and various states may not have had equal incentive programs in place. Economic conditions differ among states as well. Incentive programs are listed at www.dsireusa.org. It may be due to the social mind-set toward climate of the population. In North Carolina and Texas the majority of the installations are utility scale.

Conversion Terminology

- MW DC = Megawatts (MW) in direct current (DC).
- MW AC = Megawatts (MW) in alternating current (AC).
- A megawatt (MW) is equal to 1,000 kilowatts (kW).
- A gigawatt (GW) is equal to 1,000 megawatts.
- A kilowatt (kW) is equal to 1,000 watts or 3.6 mega joules (a unit of energy equal to one million joules).
- 1 kilowatt hour (kWh) is equal to 1,000 watts times 1 hour
- One kilo British thermal unit (kBTU) is equal to 1,000 BTUs.
- 1 kWh is equal to 3.412 kBTUs.
- According to the Solar Energy Industry Association (SEIA),[3] one megawatt of solar power is sufficient to supply electricity to 169 homes on average.

3. www.seia.org/policy/solar-technology/photovoltaic-solar-electric/whats-megawatt

C. U.S. solar PV installed capacity by category

Utility Grade

Location: Indianapolis

Photograph courtesy of Sandra K. Adomatis

Residential

Location: Chena River, Fairbanks, AK

Photograph courtesy of Sandra K. Adomatis

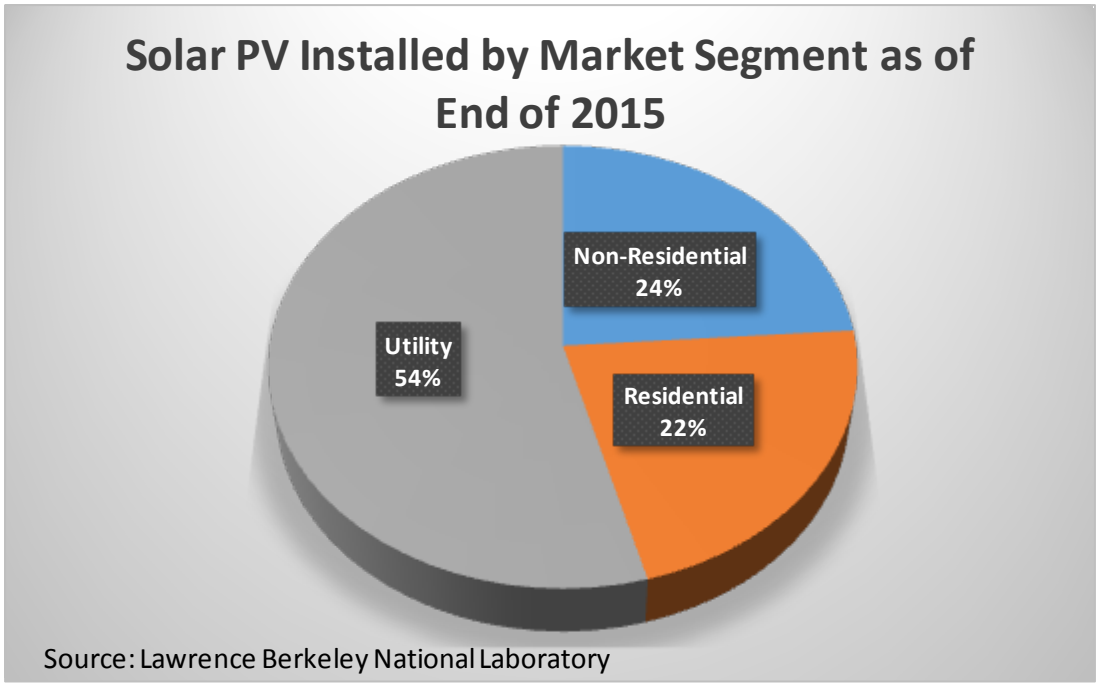
Non-Residential -Commercial

Photograph: Guaynabo, Puerto Rico

Photograph courtesy Luis D. Diaz-Santiago

1.7 Exhibit

The following exhibit shows the 2015 solar installed capacity in megawatts (MW) of direct current (DC)[4] in the United States by category.



Source. Lawrence Berkeley National Laboratory

1. The data provided in the above exhibit suggests that use of solar PV is growing faster in the utility segment with the Residential and Non-Residential installations fairly evenly distributed. In 2010 the distribution was more evenly divided among all three segments. This growth emphasizes the importance appraisers face to become familiar with the solar industry for valuation solutions.

Comparison of Solar PV Market Share by Segment			
Year	Residential	Non-Residential	Utility
2010	30%	39%	31%
2015	22%	24%	54%

4. Direct Current (DC): Electrical current that flows in one direction, either positive or negative. James P. Dunlop in partnership with the National Joint Apprenticeship Training Committee (NJATC), *Photovoltaic Systems*, 3rd ed. (Orland Park, IL: American Technical Publishers, Inc., 2012), 453.

1.8 Discussion Question

In addition to the high cost of electricity, what other factors influence the market's decisions about installing solar PV?

Factors include incentives, energy credits, tax depreciation, social obligation to do something for the environment, and bragging rights for early adopters. Some users prefer energy sources with less potential for negative consequences: (1) nuclear = expense, potential for radiation/contamination/accidents (Fukushima Daiichi), long-term waste storage, weapons proliferation; (2) increasing likelihood of environmental damage as the supply of easily extracted fossil fuels shrinks (BP/Deepwater Horizon spill); (3) growing concern over impacts of carbon-based fuel sources on long-term climate stability. Net metering plays a role in some decision-making but that could change with The changes occurring in the NEM rules. This topic is worth tracking to be Aware of changes that may materially affect solar PV valuations.

2. We will discuss incentives for developing energy alternatives later in this course. The incentives are a major factor in moving some states ahead in PV solar use. It is important to understand the background for this movement and the reasons why we will begin to see more alternative energy sources in our market areas. The use of solar PV is still in the innovative stages and appraisers are already asking questions such as the following:

   - Does a solar PV installation on a building have value?
   - How do I develop an opinion of value for solar components?
   - What will lenders accept as support for an opinion of value?

1.9 Case Study

Townhouse in New Mexico Sells with New Solar PV System

Source. Sandra K. Adomatis, SRA. Note. Photograph is not of the New Mexico property but of another townhouse with a solar PV installation.

This case study illustrates why appraisers need to become knowledgeable about solar PV systems and valuation methodologies that will allow them to avoid competency issues.

The problem described below is a common one in the valuation of solar PV installations. It is based on a 2012 article (see www.abqjournal.com/main/2012/03/11/living/tool-deduces-home-solars-value.html) and a phone interview with the agent. Read the data provided and answer the discussion questions.

When a real estate agent from New Mexico recently helped clients sell their Northeast Heights townhouse, she found her job to be an uphill battle when it came to the appraisal for the buyer's mortgage. The income provided from the energy produced seemed like a simple indication of contributory value.

1.9 Case Study, cont.

Townhouse in New Mexico Sells with New Solar PV System

The homeowners had installed the expensive system within the last year and were earning about $50 a month from the excess power they sold back to Public Service Company of New Mexico. The agent was impressed that this unit had no electric bill and a bonus of $50 per month in income from the additional energy produced. To her, this was an easy sell, and the additional income could be converted to value for the solar PV installation.

However, she was surprised when the appraisal did not reflect any value for the solar PV installation. She called three appraisers, but the townhouse eventually was appraised with nothing added for the solar PV system. This was the agent's first experience with a solar PV system and she found it extremely frustrating. Determined not to give up easily, she called three local appraisers to find someone who would look at the potential value of the solar PV system.

All three appraisers stated that if the market data does not include a sale of a property with a solar PV system, the subject property's system has no value because appraisers have no other way to develop an indication of value.

The real estate agent asked how appraisers developed a value indication for the first swimming pool, which produced no income to the property. This seems to be a reasonable question to compare to the solar issue; however, the appraisers had no logical answer.

Her story is becoming more common in the real estate industry as solar modules grow in popularity. Lenders/underwriters and appraisers want solid support for an adjustment from paired sales analysis. How do you gain solid support from this method when few sales of properties with such systems occur? Appraisers report that they are not allowed to conclude value for a feature without sales proving the adjustment.

The agent reported that the appraiser did not ask for the previous year's electric bill, warranty on the system, cost of the system, brand name of the modules, or proof of the $50 per month rebate. In addition, shortly thereafter, a townhouse of the same size without a solar PV installation, located in the same development, was appraised for $3,000 more.

1.9 Case Study, cont.

Townhouse in New Mexico Sells with New Solar PV System

1. *Did the appraisers make an adjustment based on this story?*

   Yes, because an adjustment of zero is still an adjustment and requires as much support as an adjustment of $20,000.

2. *How do appraisal standards address this circumstance?*

   The lack of support for the zero value is a cause for concern. When developing a real property appraisal, an appraiser must identify relevant property characteristics, including its physical attributes. The appraisers did not identify all the property's characteristics. When using the sales comparison approach, an appraiser must analyze available comparable sales data. Without sales data, how did the appraisers come to a zero value for the solar PV system?

3. Lenders have established guidelines on how commercial and residential appraisers should address solar valuation. We spend some time later in the material discussing lender and scope of work issues.

D. Looking ahead: At this point, we have established a foundation for understanding recent growth in the solar PV industry and will move into Part 2 to learn more about the terminology specific to solar PV.

Commercial Installation

Photograph Courtesy of Luis D. Diaz-Santiago

Review Part 1

Learning Objectives

Now that you have completed Part 1, you should be able to

- ☑ Identify how solar PV systems convert the sun's energy into electricity.
- ☑ Analyze market statistics on energy costs and solar use by state.
- ☑ Recognize the need to develop a methodology for valuing solar PV installations.

Terms to remember

Solar photovoltaic (PV) system

Kilowatt hour (kWh)

Megawatts (MW) in direct current (DC) (MW DC)

Megawatts (MW) in alternating current (AC) (MW AC)

Full-service provider

Restructured retail service provider

Delivery-only service

Energy-only provider

Tier-Rate Pricing

Net Energy Metering (NEM)

Part 2. Speaking the Solar Language
(120 minutes plus one 10-minute break)

Overview of Solar Energy Systems (15 minutes). Using the PPT slides provided, go through the description of a solar PV system and its components. The slides include photographs of different types of systems. The focus here is that we need sufficient knowledge of the different systems in order to develop a credible value conclusion.

Speaking the Language of Solar and Describing the System (15 minutes). The short video clip "Photovoltaics: A Diverse Technology" is to be shown in class to illustrate the diversity of solar PV technology. Participants will learn how solar PV cells work and review materials used for silicon and thin-film cells. Cost and productivity differences in the various types of cells can affect market value.

Both the video and a text version are available from the following Web site: www.eeremultimedia.energy.gov/solar/videos/photovoltaics_diverse_technology

It's important that instructors have both video clips available to show the class. Instructors will be able to download these files, along with the remainder of their teaching materials, to a flash drive or hard drive. (Instructions will be provided before the course offering.) Also, test the speakers to make sure that they have sufficient volume for a classroom.

The abbreviations are essential to understanding the terminology used in the documentation of a solar PV system. All systems are required to show certain information that can be helpful in completing the worksheet for valuation later.

Cells, Modules, and Arrays (25 minutes). Reviewing this section before class will make it easier for you to cover the terminology. The slides include illustrations provided by an outside source (Jim Dunlop Solar) that will be helpful in making the points in the material.

Put the participants at ease about the exam tomorrow by stating that some of the technical information covered in class will not be tested. The exam content focuses on what appraisers need to know about inspecting and developing a value indication for a solar PV system competently.

Solar PV Inverters (20 minutes). This section is important to the value of a solar PV system because the inverter is primarily responsible for converting the DC power into AC power. Energy lost is often attributed to inverter failure. Many owners choose a lower-priced inverter without knowing how important a reliable inverter is to achieving the energy production rated for the modules.

The appraiser must review the warranty for the inverter because many companies have recently come into the market and their products are not time-tested. The warranty is typically only as good as the company backing it. Research on the inverter company will assist the appraiser in making assumptions on replacement in the valuation model.

Solar panel purchase decisions include the efficiency, quality, durability, and manufacturer assurances. A review of each topic is provided from EnergySage, a good resource appraisers should consider in researching a system.

Performance Standards and Other Issues Related to Solar PV Systems (10 minutes). Summarize PV module standards and allow time for questions on this section. Remind the participants of the importance of the fire rating classification. The last point is a good one and could be deal breaker for a loan if modules with no rating are placed on a building.

2.8 Exhibit provides a good overview of the Array Orientation considerations. If the student does not know the azimuth, a web-based tool is provided at http//tools.solmetric.com/Tools/roofazimuthtool

The Monitoring Exhibit is an important one to review illustrating the details that appraisers can obtain from the report to support system specific details for developing an income approach. The monitoring program is on a residential system but would apply to a commercial system as well. Stress the importance of knowing the number of arrays, orientation of each, and size of each array to develop a credible value opinion based on the income approach.

Competency, Scope of Work, and Developing an Opinion of Value (10 minutes). Emphasize the importance of competency as it relates to solar PV valuation. Ask participants to list ways in which they might become competent in appraising solar PV systems. It might be appropriate to ask the question again at the end of the day or the next day. Participants may come up with additional ideas as they progress through the material.

The scope of work issue is important in solar PV valuation because of the wide differences in how lenders will underwrite. Some residential lenders may not allow an appraiser to report any value for the PV system. List the steps necessary to avoid being misleading when this occurs. Emphasize that if the underwriting guidelines specify that no value or a limited value be reported, then the appraiser will need to address the issue as a hypothetical condition and the value opinion developed will not be an “as is” value. Interagency Appraisal and Evaluation Guidelines for regulated lending purposes require an “as is” value.

Finally, address appraisal standards requirement for the appraiser in the valuation of solar PV systems. Stress the appraiser is responsible to determining their competency in any given property type. If they are providing appraisals for Fannie Mae, Freddie Mac, or FHA, they must have competency in the property type prior to accepting the assignment. The new TRID requirement to provide the borrower with an accurate estimate of charges has created problems for appraisers. AMCs and/or lenders are not always informed of the property type; therefore, they estimate a fee for a standard property. Warn appraisers to review an aerial, check MLS listings, and/or call owner to determine existence of solar PV prior to accepting assignment. If the fee is not commensurate with the property type, notify the AMC or lender prior to accepting assignment.

Practice Test (15 minutes). Allow a few minutes for participants to take this brief test and go over the results before moving on to Part 3.

Part 2 Preview

Speaking the Solar Language

In Part 2, we explore some design elements and physical components of solar PV systems. It is crucial that appraisers understand the basic components of a solar PV system and the documents available to assist in the valuation process.

Learning Objectives

To prepare for Part 2, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Identify the types of solar PV systems.
- ☐ Recognize terms associated with solar PV systems.
- ☐ Identify applicable appraisal standards.

Learning Tips

Keep track of questions asked during class discussions and be sure that those you consider relevant are answered at some point during the course. Notify the instructor of any items that are unclear to you before moving to the next part. Identify and note sections that might be good topics for a scope of work.

Part 2.
Speaking the Solar Language

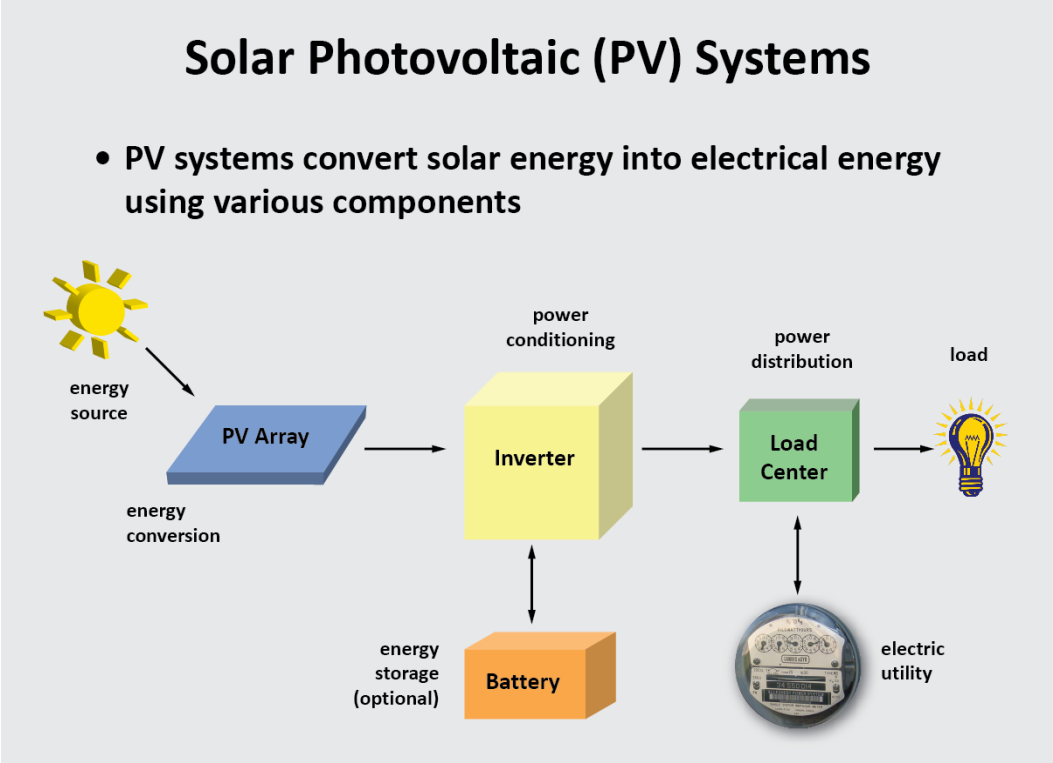
I. Overview of Solar PV Energy Systems

- **Advantages:** Clean energy, cost effective in some situations where electricity is not readily available, may add value to property

- **Disadvantages:** Not cost effective in most areas because of low cost of electricity from conventional sources, need for sunlight and a large array to produce 100% of the energy required, limited knowledge by consumers, limited number of installers in some areas, and lender guidelines that may limit financing a solar PV installation with the first mortgage.

2.1 Exhibit

The output of a PV device is dependent upon sunlight intensity, temperature, and electrical load.



Source. ©2012 Jim Dunlop Solar

A. Major system components – The Array defined

- **Photovoltaic (PV) array:** An assembly of PV modules that convert sunlight to DC electricity
- **Power conditioning equipment:** Inverters, chargers, and controllers (convert DC power to AC power)
- **Energy storage:** Batteries that store energy produced by PV arrays
- **Wiring and mounting brackets:** Wiring that connects the modules to provide energy and brackets that are used for mounting the array

B. Types of solar energy systems

1. Stand-alone systems
    - Operate off-grid
    - Typically use batteries for energy storage
    - Sizing: Based on electrical loads
2. Interactive systems
    - Grid-tied
    - Operate in parallel with the electric utility grid
    - Intended to supplement utility-provided electricity
    - Operation: Independent of electrical loads
    - Do not generally use batteries or provide backup for utility power

Overview of Types of Solar Energy Systems

	Stand-Alone System	Interactive System
Connected to grid	No	Yes
Typically uses batteries for energy storage	Yes	Operates in parallel with the electric utility grid
Sizing	Based on electrical loads (Sized to produce similar kilowatt hours used at that site.)	Supplements utility-provided electricity (May not be sized to produce 100% of electrical needs; may only produce enough to accomplish user goals or higher tier rates or peak hour rates.)
Draws from batteries when sun is not shining	Yes, if batteries exist	Only if set up includes batteries and is set up for operation without grid.

C. *Solar thermal (ST) energy systems* convert solar radiation into heat energy. Most systems use working fluids that are heated by the sun in solar collectors. Either flat-plate or concentrating collectors can be used. The heat in the fluid is then distributed to a reservoir for storing the heat energy or to other parts of the system for utilizing the heat energy.[8]

1. ST energy systems can be used for heating water or living spaces. They are classified as active or passive systems depending on whether they use mechanical equipment to circulate the fluid. The active system uses fans and pumps to circulate the fluids. Passive systems use convection to circulate the fluids.

8. James P. Dunlop, *Photovoltaic Systems*, 3rd ed., 21.

2. Both active and passive systems include solar collectors and storage tanks.

   a. There are two types of active solar water heating systems:

      - **Direct circulation systems:** Pumps circulate household water through the collectors and into the building. They work well in climates where it rarely freezes.

      - **Indirect circulation systems:** Pumps circulate a nonfreezing, heat-transfer fluid through the collectors and a heat exchanger. This heats the water that then flows into the building. This type of system is popular in climates prone to freezing temperatures.

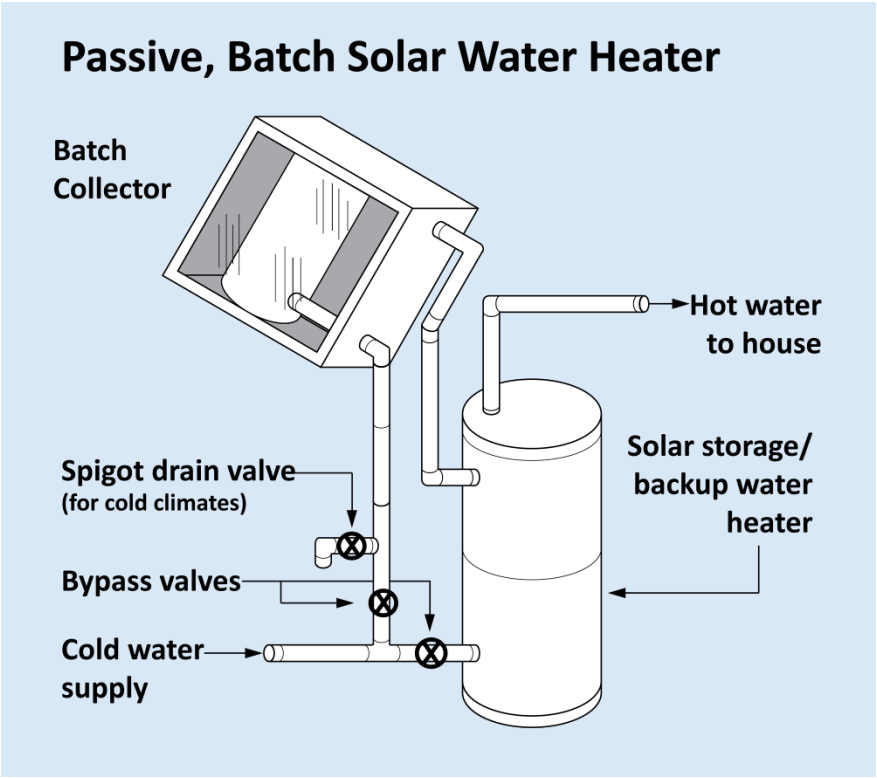
   b. Passive solar water heating systems are typically less expensive than active systems, but they are usually not as efficient. However, passive systems can be more reliable, require less maintenance, and may last longer than active systems. There are two basic types of passive systems.

      - **Integral-collector-storage passive systems:** Also known as *batch systems*, these work best in areas where temperatures rarely fall below freezing. They also work well in households with significant daytime and evening hot-water needs.

Solar Thermal Systems Overview

Active Versus Passive Solar Thermal System	
Active	**Passive**
Uses fans and pumps to circulate the fluids through the collectors	Uses convection to circulate the fluids
Has solar collectors and storage tanks	Has solar collectors and storage tanks
Two Types of Systems	
Direct circulation systems work well in climates where it rarely freezes	**Integral-collector-storage passive systems** are batch systems works well in climates where it rarely freezes. Works well for households with significant daytime and evening hot-water needs.
Indirect circulation system pumps circulate a nonfreezing, heat transfer fluid through the collectors and a heat exchanger. Used in climates where freezing occurs.	**Thermosyphon systems** has water flowing through the system when warm water rises and cooler water sinks. Collector must be below storage tank so warm water will rise into the tank. Requires heavy storage tank and is more expensive than integral-collector- storage passive system.
Cost and Efficiency Comparisons	
More expensive because of pumps and fans	Less expensive because no pumps or fans
More efficient because pumps and fans circulate consistently	Less efficient usually because fluids are not circulated as consistently as active systems
Higher maintenance because of the use of pumps and fans.	Less maintenance and longer life expectancy because they do not have pumps and fans.

2.2 Exhibit **Passive Solar Water Heater**



Source. http://energy.gov/energysaver/articles/solar-water-heaters

- **Thermosyphon systems:** Water flows through the system when warm water rises as cooler water sinks. The collector must be installed below the storage tank so that warm water will rise into the tank. These systems are reliable, but contractors must pay careful attention to the roof design because of the heavy storage tank. They are usually more expensive than integral-collector-storage passive systems.

3. Solar water heating systems usually require a backup system for cloudy days and times of increased demand. Conventional storage water heaters usually provide backup and may already be part of the solar system package. A backup system may also be part of the solar collector, such as a rooftop tank with a thermosyphon system. Since an integral-collector-storage system already stores hot water in addition to collecting solar heat, it may be packaged with a tankless or demand-type water heater for backup.

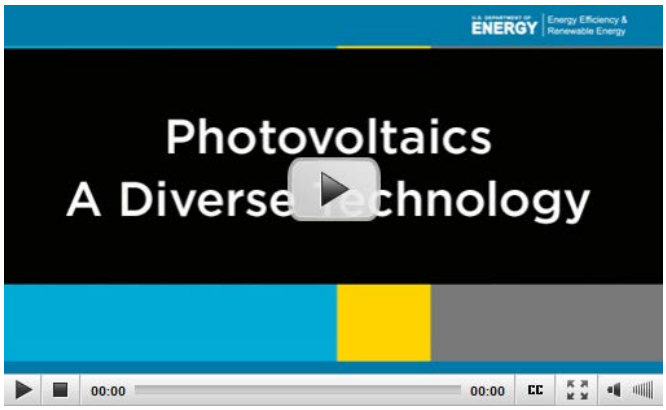
4. The AI Residential Green and Energy Efficient Addendum includes a section for describing solar water heating. The Addendum can be a useful guide for inspection and information gathering.

II. Speaking the Language of Solar and Describing the System

A. The short video clip will provide some basics about solar PV panels (modules). It can be reviewed online at the following link:

Photovoltaics: A Diverse Technology Video

This video illustrates the diversity of photovoltaic (PV) technology, which is due to innovations in PV materials, reductions in manufacturing costs, and expanding uses of the technology. It provides a brief explanation of how PV cells work, as well as an overview of the different semiconductor materials used for silicon and thin-film cells.



https://www.eeremultimedia.energy.gov/solar/videos/photovoltaics_diverse_technology

B. Abbreviations and definitions

The following list includes the abbreviations and labels for solar PV systems used most often in appraisal reports. A comprehensive solar glossary is referenced on the Web Resources for Solar Valuation in the course downloads.

Solar nomenclature[9]

- Watt — A unit of power defined as (voltage × current)
- kW — Kilowatt: 1,000 watts
- kWh — Kilowatt hour: 1,000 watts for an hour
- PV — Photovoltaic
- AC — Alternating current

9. Adapted from Jamie L. Johnson, Energy Sense Finance, LLC, and Geoffrey T. Klise, Sandia National Laboratories, PV Value® (SAND2012-7306P) Version 1.1 (Sept. 2012), 1.

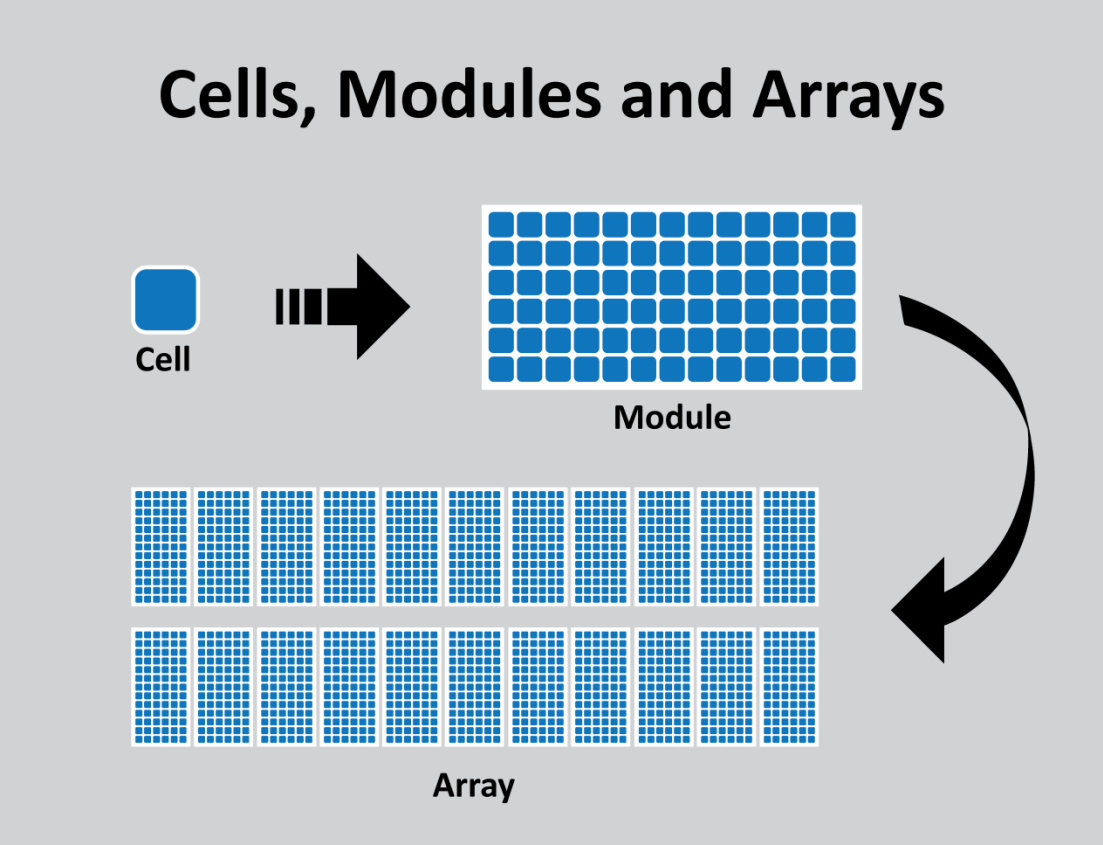
- DC — Direct current
- TOF — Tilt and orientation factor
- STC — Standard Test Condition
- Azimuth — Angle between due south and direction a collector faces

The Solar Nomenclature Terms previously listed are the major terms you will need to identify to describe the solar photovoltaic system and value it with any degree of accuracy. The same information on the comparable sales are also necessary to make apples-to-apples comparisons.

III. Cells, Modules, and Arrays

A *solar cell* is the basic element of a PV module. A *PV module* consists of many individual solar cells encapsulated in a glass or polymer laminate that provides environmental protection and electrical insulation for the cell circuits. A *solar PV array* consists of multiple individual modules that are mechanically and electrically configured to provide a desired output; it is the complete DC power-generating unit.[10]

2.3 Exhibit

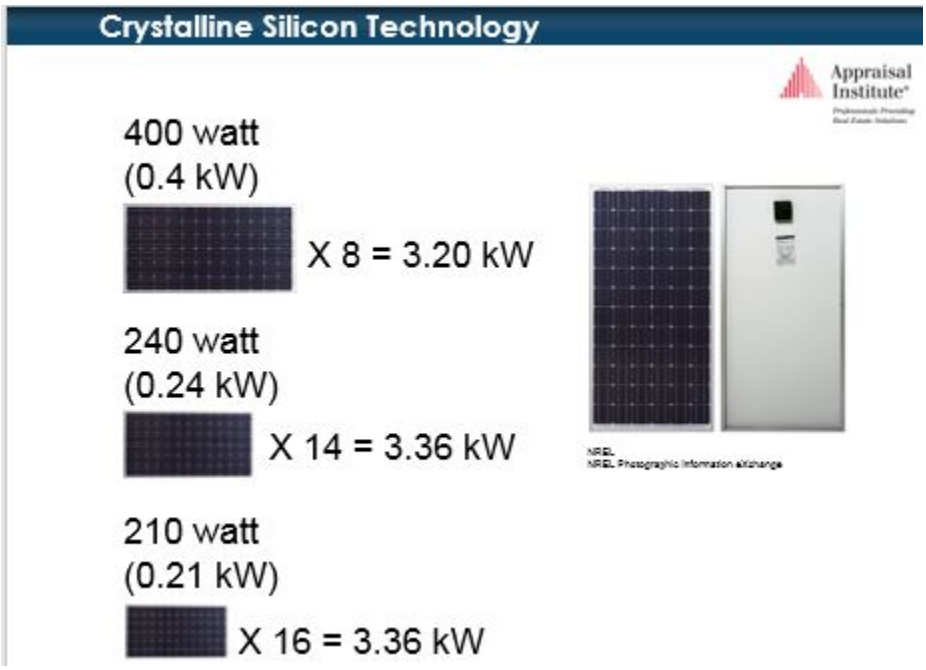


Source. © 2012 Jim Dunlop Solar

Inspection Notes: Count the number of panels per array and research the wattage of each panel. If arrays have different orientation you will need to develop a PV Value for each array based on the orientation.

10. 2012 Jim Dunlop Solar.

A. A PV array is constructed from building blocks of individual PV modules and subarrays that form a mechanically and electrically DC powered generation unit. It is not unusual to find arrays with different age and wattage panels. A careful view of the array and interview of the property owner should provide sufficient details to assist in developing an opinion of value. The following graphic illustrates how the wattage of the system materially affects the size of the system in kWs and the number of panels needed to accomplish the array.



Graphic provided by Jamie Johnson of Energy Sense Finance

B. Solar Panel purchase decisions should consider the following[11]:

- Efficiency (assuming stalled based on manufacturer's specification)
- Quality
- Durability
- Manufacturer assurances

1. Solar panels have efficiency ratings, a higher efficiency rating produces more kilowatt-hours of energy per watt of power capacity. If you have limited space to install a system, the higher rated panels should be the first choice to maximize the space and production.

Solar Panel Efficiency History		
Year	**Efficiency Rating**	**Source**
1960	14%	Hoffman Electric
1992	15.89%	University of S. FL fabricates 15.89% thin-film cell
2015-June	18.2%	First solar breaks
2015-Fall	22.5%	Panasonic announces 22.5%
2015 -October	22.04%	SolarCity announces 22.04%
2015-November	22.8%	Sun Power achieves 22.8% efficiency validated by NREL

Source: EnergySage

2. Solar panel quality can be a difficult feature for the buying public. Solar panel manufacturers can be certified International Organization for Standardization (ISO) 9000-compliant indicating they meet an international standard. However, just because they do not have this certification may not mean they are not quality. We are still in the early stages of ratings and certifications to have a good understanding of the quality ratings.
3. Durability of the panels is tested by the International Electrotechnical Commission's (IEC's) 61215 reliability standard using stress tests under different conditions. Snow and wind loads create extra weight and pressures on the panels. The manufacturer's installation paperwork should provide a snow and wind load rating.
4. Manufacturer warranties generally cover production for 25-30 years and materials are typically warranted for 10-12 years. The warranties vary with the manufacturer and some are offering extended warranties at additional fees.

11. **Source:** Energysage - http://www.energysage.com/solar/buyers-guide/solar-panel-efficiency

The following photographs are courtesy of Jim Dunlop Solar.

Different Types of Solar PV Array Mounts

Ground-Mounted Array

A ground-mounted fixed array cost is typically less than a ground-mounted tracking system. It is important to correctly identify and price the mounting system.

Pole-Mounted Tracking Array

Track mounts are expensive but they do increase the panel's electricity production by about 30% or more according to EnerySage. They are suitable for ground mount systems. Because of their moving parts, they require more maintenance.[12]

> **Inspection Note:** Notice the mounting brackets on the following photographs that are very different and can account for higher or lower solar PV system costs. For instance, a mounting system that tracks the sun will cost more than a mounting system that is fixed. When they track the sun, they will also have higher kilowatt hour production.

Is the additional cost of a tracking system worth the cost? This will take an analysis of the additional energy produced at a given location compared to the additional costs.

12. http://www.energysage.com/solar/101/about-solar-panels

Different Types of Solar PV Array Mounts, cont.

Standoff Roof-Mounted Array

Building-Integrated Array

Commercial Roof-Mounted Rack Array

C. Modules (Also called *panels*)

1. A module is a photovoltaic device comprising a number of individual cells connected electrically, then laminated, encapsulated, and packaged into various types of frames.

2. Modules range in size depending on their application. Small modules are often found on highway signs, aid call boxes, and small circulation pumps. Larger modules, often referred to as *power modules*, are connected in groups to configure arrays. Typical modules used on residential properties weigh 40 to 50 lbs.; larger modules used on commercial properties weigh +/–100 lbs.

3. Many solar companies refer to modules as *panels*.

D. Solar cells

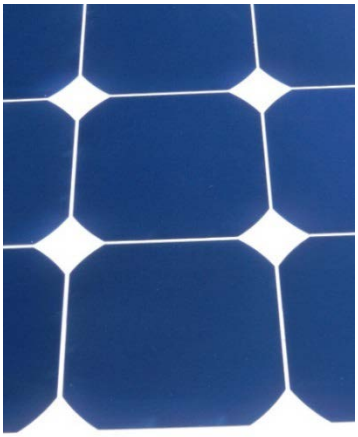
Many types of solar cells are on the market and more will come as research leads to development of new products. Solar cell prices will decline further as research and production continue in the U.S. The most common types of cells are defined in this course.

1. **Monocrystalline silicon.** This is the most expensive type of cell because it has higher efficiencies than other cells, which is attributed to the use of highly pure silicon. A monocrystalline wafer[13] is made from a single silicon crystal grown in the form of a cylindrical ingot.[14] Monocrystalline cells are distinguished by the uncovered gaps four silicon squares intersect.

13. A *wafer* is a thin, flat disk or rectangle of base semiconductor material. Wafers are formed into cells. *Photovoltaic Systems,* 2nd ed., James P. Dunlop in Partnership with NJATC, American Technical Publishers, Inc. (Orland Park, IL, 2010), 119.

14. Ibid., 456.

2.4 Exhibit **Monocrystalline Silicon Cell**



Source. Sandia National Laboratories

a. Advantage of monocrystalline silicon: Its higher efficiency rating than other types of cells

b. Disadvantage of monocrystalline silicon: Its higher cost

2. **Polycrystalline silicon.** This type of silicon wafer is made from a cast silicon ingot that is composed of many silicon crystals.[15] The cells usually have square corners, which distinguishes them from monocrystalline cells. Cells are made from wafers.

15. Ibid., 457.

2.5 Exhibit **Polycrystalline Silicon Cell Module**

Source. Sandia National Laboratories

a. Advantage of polycrystalline silicon: Its lower cost when compared with monocrystalline silicon

b. Disadvantage of polycrystalline silicon: Its reduced efficiency when compared with monocrystalline silicon

3. **Thin film.** Amorphous silicon, copper indium gallium selenide, and cadmium telluride are among the competing thin-film technologies today. In a thin-film array, the entire substrate is coated in thin layers of semiconductor material using chemical vapor deposition techniques and then laser-scribed to delineate individual cells and make electrical connections between cells.[16]

16. Ibid., 460.

Solar Cell Overview

Cell Type	Advantages	Disadvantages
Monocrystalline Silicon	Higher efficiency rating than other cell types	Costs more than less efficient cells
Polycrystalline Silicon	It costs less than monocrystalline	It produces less than monocrystalline silicon but more than thin film
Thin Film	Cost significantly less than mono or poly crystalline silicon cells and weigh less – but more esthetically pleasing.	Lower efficiencies, higher degradation rates, unproven durability, and less well-proven technology

Inspection Notes: It is important to identify the difference between the silicon and thin film system. The degradation rate for thin film is near 1% per year and energy production is much lower indicating the derate factor will be higher. It takes a larger area of thin film to produce the energy needs for a site.

2.6 Exhibit **Thin-Film Array**

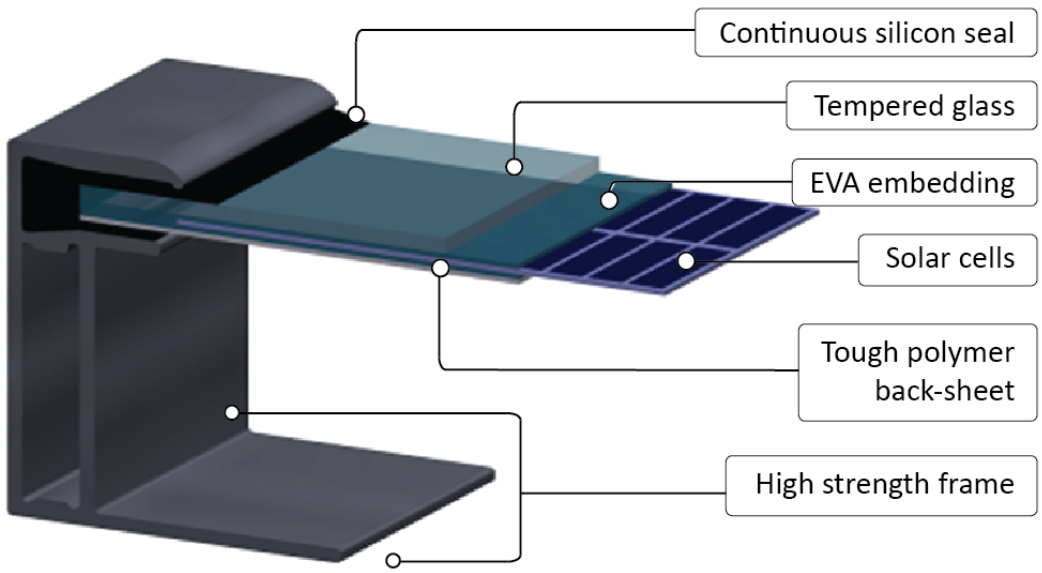
Source. Sandia National Laboratories

Note. The thin-film array shown above is installed on metal similar to that used for metal roof construction.

a. Advantages of thin-film technology:	Its significant potential for reduced costs and weight
b. Disadvantages of thin-film technology:	Its lower efficiencies, higher degradation rates than crystalline silicon modules, unproven durability, and less well-proven technology

E. PV module construction

2.7 Exhibit



Source. © 2012, Jim Dunlop Solar

Note: Not all panels have frames like the one shown above. Solar PV modules can also be built into a roof structure. Different types of panels will be shown later in the material. Be aware that thin film solar PV modules and modules built into a roof sometimes have higher degradation rates and lower derate factors because they produce less.

Flat-plate modules typically have the solar cell circuits encapsulated in a polymer laminate for electrical insulation and environmental protection; they are covered with tempered glass for hail resistance and strength. The perimeter of the laminate is framed with extruded aluminum channels for additional strength, which provides a means of mechanically attaching the module to a support structure and a conductive surface for equipment-grounding connections. Flat-plate modules absorb solar energy on a flat surface and are typically constructed as shown above.

F. Array orientation or tilt

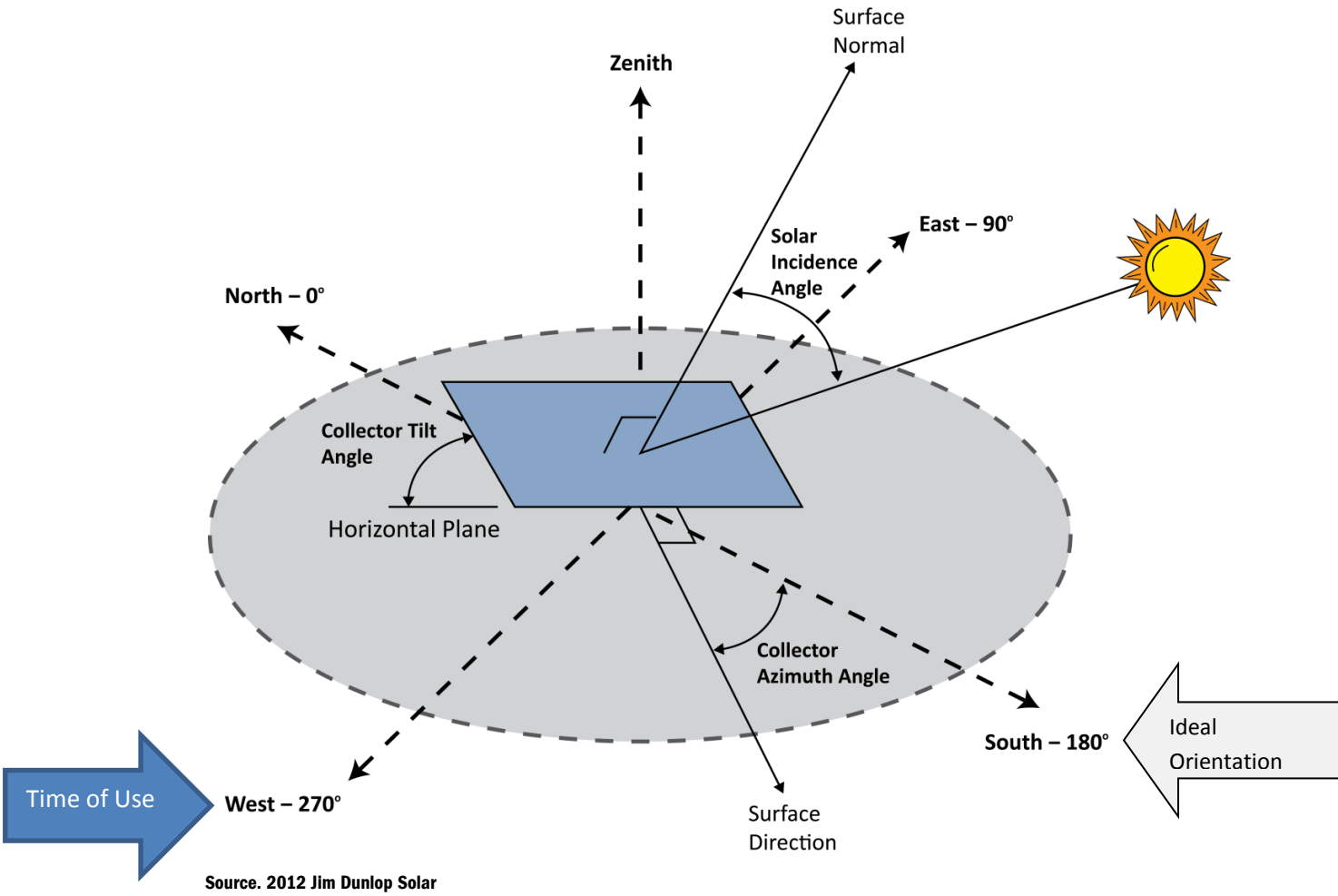
1. The orientation of the PV arrays and other solar collectors is defined by two angles. The *collector azimuth angle* is the angle between due south and the direction a collector faces. The *collector tilt angle* is the angle the collector surface makes with the horizontal plane. The diagram below illustrates the two angles.

Inspection Notes: You must have the orientation and tilt of each array to develop a reliable estimate of the energy produced.

1.) Count the panels in each array
2.) Determine the orientation and tilt of each
3.) Research the wattage of the panels in each array to develop a size of each array.

This is extremely important if the arrays have different orientations, different size panels, or panels of various ages. The value conclusion may be materially affected by these three items.

2.8 Exhibit Array Orientation - Azimuth



Source. 2012 Jim Dunlop Solar

Roof Pitch	Tilt Angle (°)
1/12	4.8
2/12	9.5
3/12	14.0
4/12	18.4
5/12	22.6
6/12	26.6
7/12	30.3
8/12	33.7
9/12	36.9
10/12	39.8
11/12	42.5

PV Value® uses the roof pitch to estimate the tilt when the exact tilt is not known. The table on the left is similar to the drop down arrow found in PV Value® software. Building codes and/or subdivisions restrictions may affect the tilt and location of panels.

Tilt can be found on

- Commissioning form
- Installation paperwork
- Permit for installation
- Shading analysis

2. The maximum available annual solar energy is received on a fixed surface that faces due south and is tilted from the horizontal at an angle slightly less than local latitude.

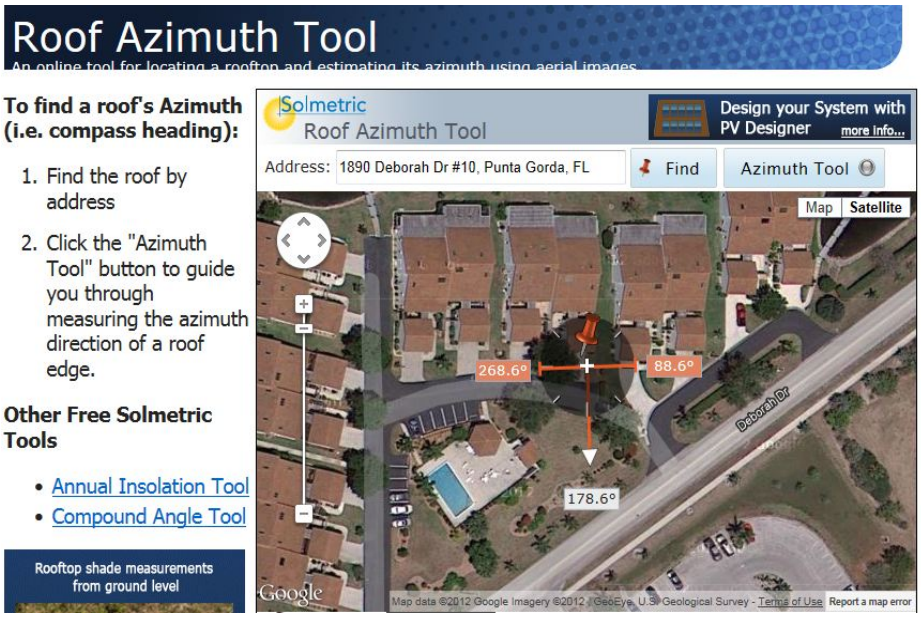
    - Fall and winter performance is enhanced by tilting collectors at angles greater than latitude.

    - Spring and summertime performance is enhanced by tilting collectors at angles lower than latitude.

3. Locations with higher electric rates during the peak use hours (time of use pricing) see installations occurring with west orientations and the size of the system is smaller to accommodate only this higher rate period. Analyzing a west facing system in these areas requires special attention to the higher rates that are offset.

4. In the central and southern U.S., varying the tilt angle for south-facing arrays by as much as ±15° from the local latitude still allows the arrays to receive at least 90% to 95% of the maximum available solar energy on an annual basis.[17]

   A free online tool is available to assist in pinpointing a property's azimuth: http://tools.solmetric.com/Tools/roofazimuthtool

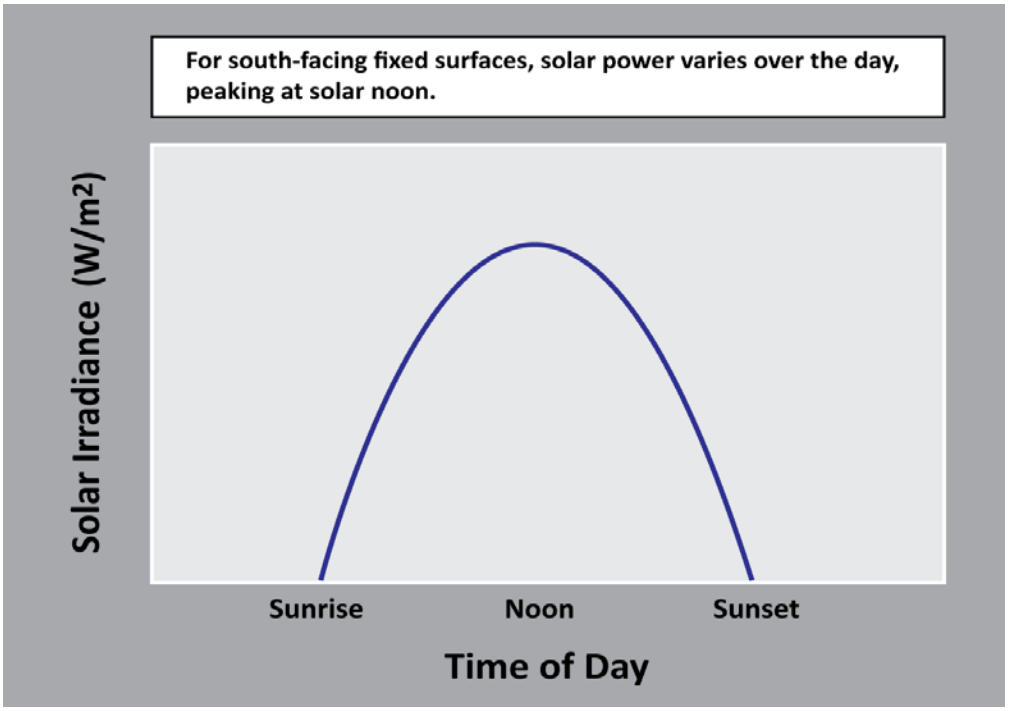


http://tools.solmetric.com/Tools/roofazimuthtool

17. © 2012 Jim Dunlop Solar.

5. *Solar irradiance* may be best illustrated by a bell curve. The following illustration is a good example of solar irradiance.

2.9 Exhibit **Solar Irradiance**



Source. © 2012 Jim Dunlop Solar

- The bell curve shows the peak sun hours and emphasizes the peak hours of energy production when the PV array is properly oriented. Simply stated, solar irradiance is the amount of energy emitted by the sun, or solar energy.
- A solar PV array that is not properly oriented will not produce maximum energy. Improper placement may materially affect the value of the array. The tilt can be found on the commissioning form, installation paperwork, copy of permit for installation, or shading analysis. The tilt is necessary and required on the Residential Green and Energy Efficient Addendum and the Commercial/Industrial Solar Worksheet found in Part 3.

Functional Obsolescence: A system that is not installed with the ultimate orientation will produce less than the same size system that is installed at ultimate orientation. This may require the appraiser to measure the energy loss attributed to the orientation. However, special attention should be made to locations with Time of Use rates that are higher than other times. The west-facing system is usually smaller but plays an important part in keeping the property out of a high electric rate. Know the facts before charging obsolescence and measure your market carefully.

G. Standard Test Condition (STC)

1. The electrical performance of solar PV modules is rated at STC. The efficiency of a solar PV device is the ratio of the electrical power output and the solar irradiance (previously discussed) input over the device area, expressed as a percentage. The manufacturer should provide the STC for the modules; it should be available on the manufacturer's Web site and in the warranty.

2. Most buyers respond to the price of the system in their decision making because that is the driving force for their decision. Solar PV is new to most buyers; therefore, most buyers have not developed a reliable buying criterion. In order to keep the price within their budget, buyers often settle for a lower-grade module. However, little information is published on the different grades and how lower-grade modules compare with grade A modules.

H. Response to electrical load

The electrical load connected to a solar PV device determines its operating point.

- If a battery is connected to a solar PV device, the battery voltage sets the operating voltage for that PV device.
- In a grid-connected solar PV system, the inverter loads the PV array at its maximum power point.[18]

IV. Solar PV Inverters

A. Inverters are used in solar PV systems to convert direct current (DC) power from batteries or PV arrays into alternating current (AC) power.

The first inverters/converters used motor-generator sets, but were costly, heavy, and inefficient. Modern inverters use solid-state designs and microprocessor controls to produce high-quality AC power efficiently.

B. The wattage of the inverter is important for estimating the cost to replace in a discounted cash flow analysis. An analysis showing a much larger or smaller inverter than needed could affect the value.

It is common in the industry to oversize the PV array by using a PV-to-inverter sizing ratio of around 1.15. A well-designed system will typically have end-to-end system losses of about 15-16%. Oversizing the array ensures that the inverter is driven to its maximum output, at least during the best sun hours of the day. System designers looking at a 20-year design life for the system will usually size

18. © 2012 Jim Dunlop Solar.

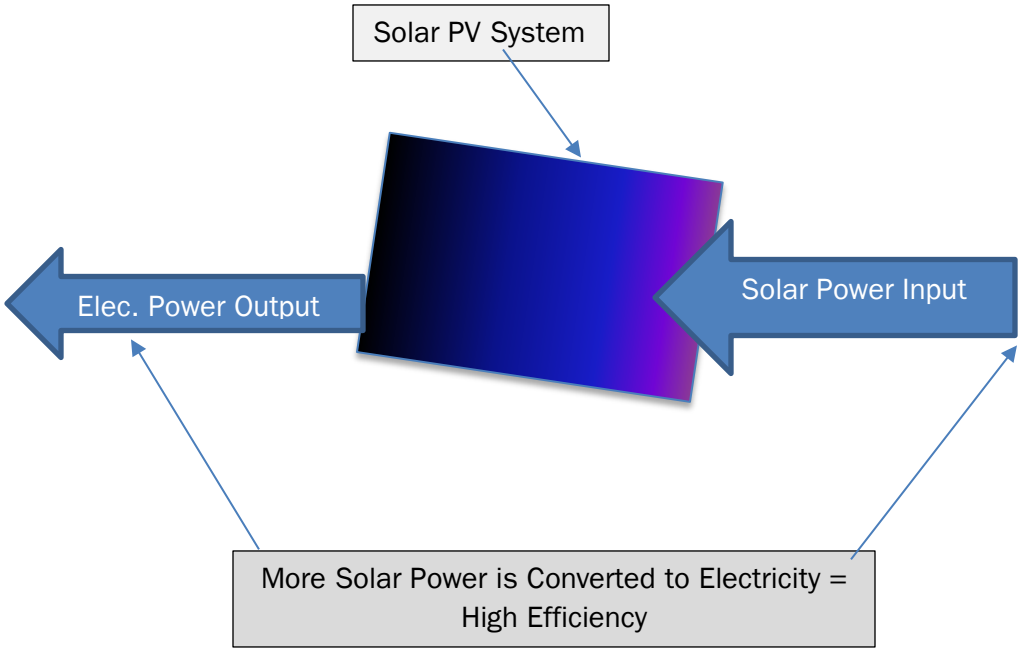
the array-to-inverter using a 1.2 to 1.25 ratio. Some PV system integrators even routinely use a 1.3 ratio.[19]

For example, designers using a 1.15 PV-to-inverter ratio for a 3,600 watt PV system will use a 3,130 watt inverter (3,600 watts/1.15 = 3,130). You might consider rounding the number to the nearest 50 or 100 watts. Inverter sizes are typically odd numbers.

Oversizing the array ensures that the inverter is driven to its maximum output during sun hours. Some system designers report when considering a 20-year design life for the system they will usually size the array-to-inverter using a 1.2 to 1.25 ratio and some report as high as 1.3. [20] For case studies in this course, we will use a 1.15 ratio since that is the predominate ratio found in researching this topic.

19. Allan Gregg, Cyndi Adcock, and Bill Brooks. "Optimal PV-to-Inverter Sizing Ratio." SolarPro, April/May 2010. http://solarprofessional.com/articles/design-installation/optimal-pv-to-inverter-sizing-ratio?v=disable_pagination
20. Allan Gregg, Cyndi Adcock, Bill Brooks, *Optimal PV-to-Inverter Sizing Ratio,* Solar Professional, Issue 3.3, April/May 2010

Efficiency of the Solar System



Efficiency is a measure of how effectively a PV System converts power from the sun to electrical

C. Derate factor

> **Derate factor.** *The electricity losses throughout the system. Solar panels, the inverter, and the cables each have their own inefficiencies, which can be seen as electricity losses. Overall, it is safe to assume that only [about] 80% of the actual electricity generated will reach the meter (to be either consumed … or exported to the utility).*[21]

D. Module degradation

The derate factor is NOT the same as *module degradation.* All solar PV modules begin to degrade starting with the first day of production. Module Degradation is similar to normal wear and tear on buildings that we call physical depreciation. Degradation is due to the simple aging process. The appraiser must account for degradation, which will have a significant effect on lifetime energy production.

21. Adapted from www.comparemysolar.co.uk/learn-about-solar/solar-glossary

E. Types of PV inverters

	Stand-Alone Inverter	Bimodal Inverter
Synchronize with utility grid	No	Yes
Draws power from battery	Yes	Yes
Sends excess power to grid	No	Yes
Uses batteries	Yes	Yes
Auto transfers to battery upon loss of power from grid	No	Yes

This table provides an overview of the two different types of inverters addressed in this course material. The following pages provide additional narrative that elaborates on the data found here.

1. Stand-alone inverters

- Operate from batteries and supply power independent of the utility grid
- Have common DC input voltages of 12V, 24V, and 48V for residential applications and up to 480V for industrial applications
- Supply power to AC loads isolated from the grid; inverter power rating dictates maximum AC load
- Often include battery charger function for using an independent AC input source (e.g., generator or grid)
  - Cannot synchronize with and feed power back into the grid

Note. The output power rating must be at least equal to the single largest connected load (NEC 690.10).[22]

22. © 2012 Jim Dunlop Solar.

2.10 Exhibit **Stand-Alone Inverter**

Source. Sandia National Laboratories

2. Utility-interactive or grid-connected inverters

- These inverters are intended to supplement on-site energy use from the utility.
- They operate from PV arrays and supply power in parallel with the utility grid.
- Size AC[23] loads may be served by the inverter output, utility, or both. Excess power not needed by local loads flows to the grid.
- Power ratings limit the size of the connected PV array; output is independent of loads.[24]

23. AC references alternating current that changes between positive and negative directions.
24. © 2012 Jim Dunlop Solar.

2.11 Exhibit **Utility-Interactive Inverter**

Source. Sandia National Laboratories

3. Bimodal or battery-based interactive inverters

   - These inverters operate as diversionary charge controllers and produce AC power output to regulate solar PV array battery charging when the grid is energized.

   - They transfer operation of the solar PV system to a stand-alone mode and provide backup electrical power to critical loads when the utility grid is not energized.[25]

   a. Bimodal inverters use batteries for DC power input and may operate in either interactive or stand-alone mode.

   b. In interactive mode, the inverter produces AC power output in proportion to PV array production while maintaining a prescribed maximum battery voltage.

   c. Upon loss of grid voltage, the inverter automatically transfers to stand-alone mode and powers backup loads isolated from the grid.

25. © 2012 Jim Dunlop Solar.

d. Bimodal inverters may also include load control, battery charging, and generator starting functions.[26]

2.12 Exhibit **Bimodal Inverter**

The inverter on the left is bimodal.

Source. Sandia National Laboratories

F. Inverter power ratings

- Both stand-alone and interactive inverters are rated for their maximum continuous AC power and current output over a specified temperature range.
- Inverter power ratings are limited by the temperature of their switching elements. Larger inverters use cooling fans.
  - Stand-alone inverters limit power output by disconnecting AC loads when their maximum DC input current is exceeded.
  - Interactive inverters limit their maximum power output by tracking the PV array off its maximum power point.[27]

G. Inverter warranties

Inverter warranties are often an indication of their useful life. Most discounted cash flow analyses use the warranty term as the useful life for this reason. The

26. © 2012 Jim Dunlop Solar.
27. © 2012 Jim Dunlop Solar.

table below shows some of the more well-known brand-name inverters and their warranty terms based on a search of each company's Web site.

2.13 Exhibit **Warranty Terms for Selected Brand-Name Inverters**

Manufacturer	Standard Warranty Term (Years)	Extended (Total Years)	Year Established (Company or Solar Division)
Advanced Energy	10	20	1981
Enphase (microinverters) 3rd Generation	25	n/a	2006
Fronius	10	20	1995
Motech	10	10	1981
SMA Technologies	5–10	Not available	1981
Solarix (Steca)	5	Not available	1990
SolarBridge	25	Not available	2004
Xantrex (Schneider Electric)	10	Not available	--

Source. Manufacturers' Web sites

2.14 Discussion Question

While doing your research on the warranty term, ask how long the company has been in business. *Why would this question be relevant to the appraisal analysis?*

The warranty is only as good as the financial soundness of the company that issues it. Would the warranty issued by a new startup company be honored by a third party should the company go out of business? If a new company produces an inverter with a 15-year warranty but has nothing to support the 15-year estimated life, the risk factor increases because the product lacks a proven record of performance.

H. Inverter summary

1. Inverters are used in solar PV systems to convert DC power from batteries or PV arrays into AC power suitable for loads.
2. Different components and circuitry are used in various inverter designs.
3. Stand-alone inverters operate from batteries and supply AC power to dedicated loads off-grid.
4. Interactive inverters operate from solar PV arrays and produce AC power to interface with the utility system. Types of interactive inverters include module-level, string, central, utility-scale, and bimodal.

5. Most inverters incorporate monitoring and communications functions to record and display system operating parameters, fault conditions, and performance information.

   The following graphic can be provided to an appraiser if the property owner has a monitoring system. If the system uses micro inverters, the energy output for each panel can be seen.

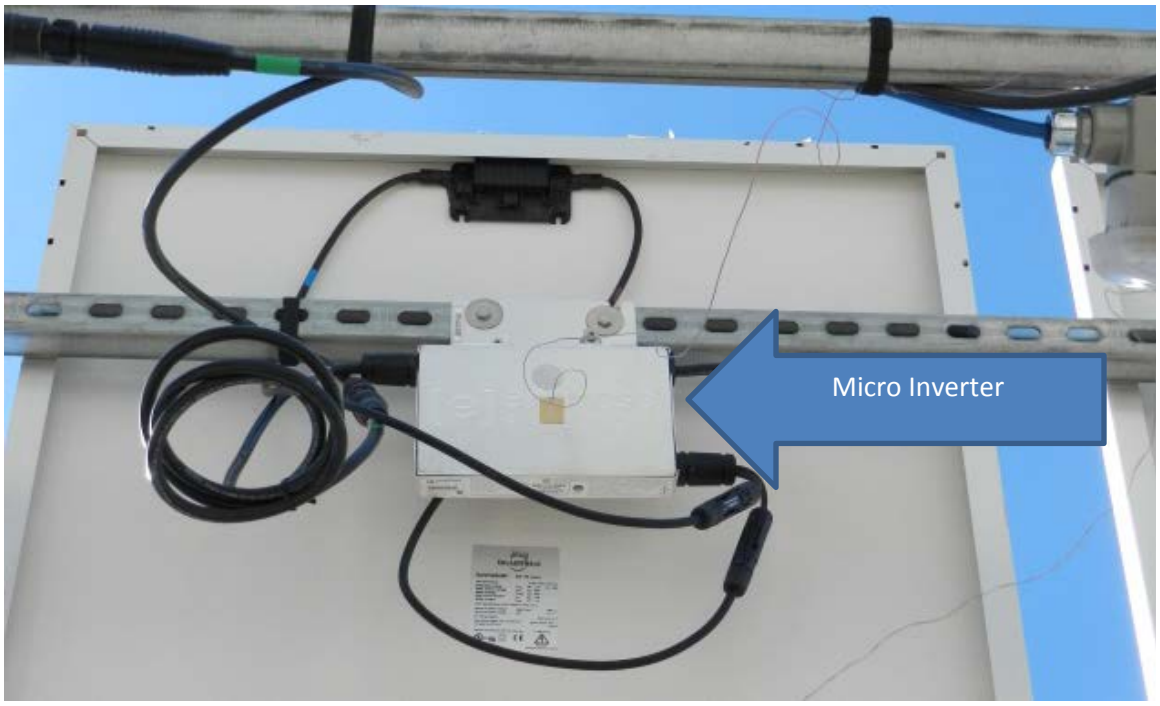
2.15 Discussion Question

1. Why are the panels on the left showing lower numbers than the panels on the right?

The space on the left is shadowed by a large oak tree that shadows the panels in Array 1 on the left side and part of Array 3 on the left side.

2. Why is a space found in Array 1?

The roof has some obstruction such as a plumbing stack or vent.



Photograph courtesy of Sandra K. Adomatis

6. The quality of an inverter is important because the overall system's efficiency is influenced by the ability of an inverter to convert the DC output from PV modules into AC electricity, which is sent to the grid or used by the building.

7. Inverters vary in cost (Cost is based on price per watt in PV Value®.) and warranty terms.

I. Primary valuation considerations regarding inverters

1. Inverters typically require replacement midway through the module life (warranty implications and typical cost).

2. *Maximum Power Point Trackers (MPPTs)*

   - MPPTs are found mainly on residential solar PV systems to help increase kilowatt production.

   - Module-level MPPTs have distinct advantages in situations involving shading and maximizing power production, but represent multiple points of failure and higher O&M replacement costs. DC optimizers and microinverters represent current module-level MPPT technology.

   - String inverters (single MPPT, not module level) can provide a lower O&M cost at time of replacement. However, when a module fails or there is significant shading of an array with a central string inverter,

the power production can drop significantly. The shading effect is somewhat mitigated within a single series connected string of modules due to bypass diodes[28] installed in each module. However, it can be more of an issue with paralleled strings of modules within an array such as a rooftop array with two strings where one of the strings is shaded by a rooftop obstruction or tree during peak power production.

- If shading is encountered, a digital shading analysis should be performed to help in determining the losses associated with this issue. In addition, an adjustment for the percentage of loss due to shading should be made in the power production estimate.

Overview of Inverters

String or Centralized Inverter	Microinverter	Power Optimizer or Maximum Power Point Tracker
A single inverter serves the array	Inverter is located on each solar panel	Conditions DC electricity before sending to inverter to maximize production
Cheaper than microinverters	Cost more than string or central inverter	Cost more than string inverter but less than microinverter

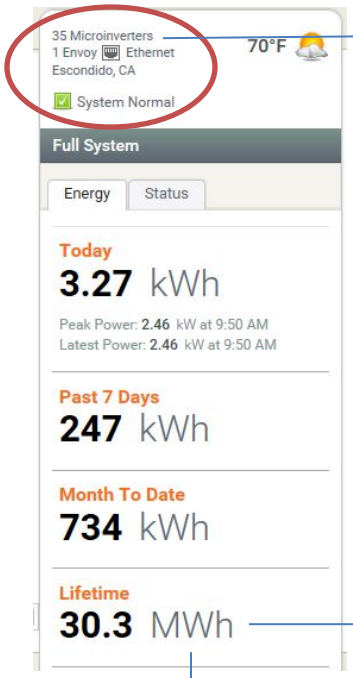
28. Diodes are semiconductor devices that might be described as passing current in one direction only. www.electronics-tutorials.com/basics/diodes.htm

3. Significant power loss occurs in converting DC to AC; however, power loss is not as great a concern as the inverters are becoming more efficient.

4. The monitoring system is critical to performance and value over time. In a typical grid-tied system, the building owner or manager will not know that anything is wrong until the electric bill arrives. The invoiced amount will indicate that the system has not generated the anticipated amount of electricity. The online monitoring software is often the only way for an appraiser to determine how much energy a solar PV system has generated since its installation. The exhibit below provides an overview of the information that can be obtained from a monitoring program connected to a residential or commercial property.

Monitoring Exhibit

An appraiser provided us with access to his monitoring system on his residential property in California. The following exhibits will provide an overview of how much information you can obtain

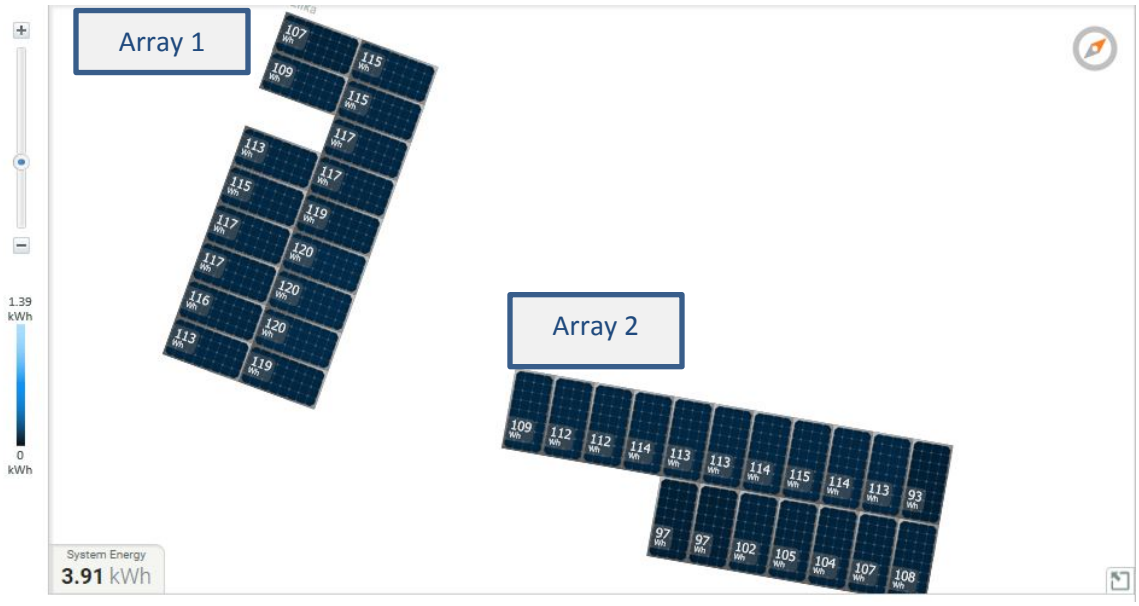


We know this system has 35 Microinverters.

The lifetime production should be cross checked with the annual estimate shown in PV Value® . If the PV Value® estimate is too high or too low, the derate may need adjusting. (Total production during life of system/months installed x 12= average annual production based on history)

Question: *How many kWhs are 30.3 MWh?* *30.3 MWh x 1000 kW or 30,300 kWh*

Overview of the two Arrays from Monitoring System



Question: *What does this graphic tell you about the system?* *It has two arrays with different orientations and possibly different tilts. Array 1 has 17 panels and Array 2 has 18 panels.*

Let's say the owner says I remember it was installed in 2013 but not sure exactly what month and I cannot find the paperwork. The monitoring report allows you to provide a report of energy produced by year or multiple years. Choosing a report for 2013 provides the answer to the question, when it was installed.

This report provides energy production for 2013.

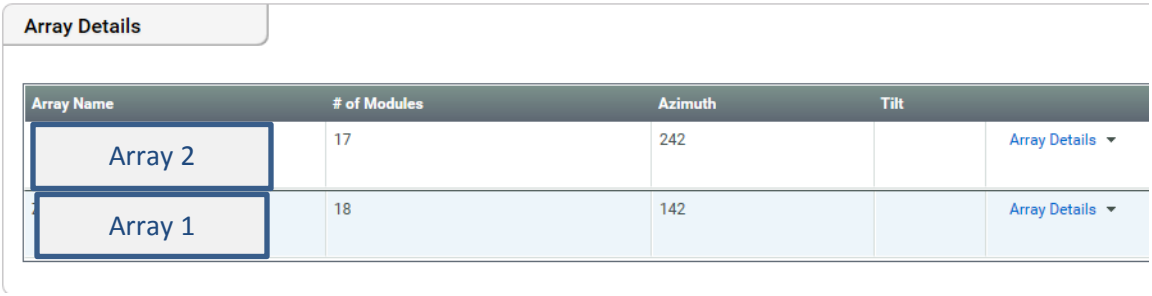
Month	Energy Produced
August 2013	256 kWh
September 2013	1,055 kWh
October 2013	840 kWh
November 2013	575 kWh
December 2013	642 kWh
Total	**3,367 kWh**

The graphic below shows the energy produced in 2015. Any residential or commercial owner with a monitored system could provide the following report that would be good factual information to include in the appraisal report and use to test the reasonableness of the energy estimate in the income approach.

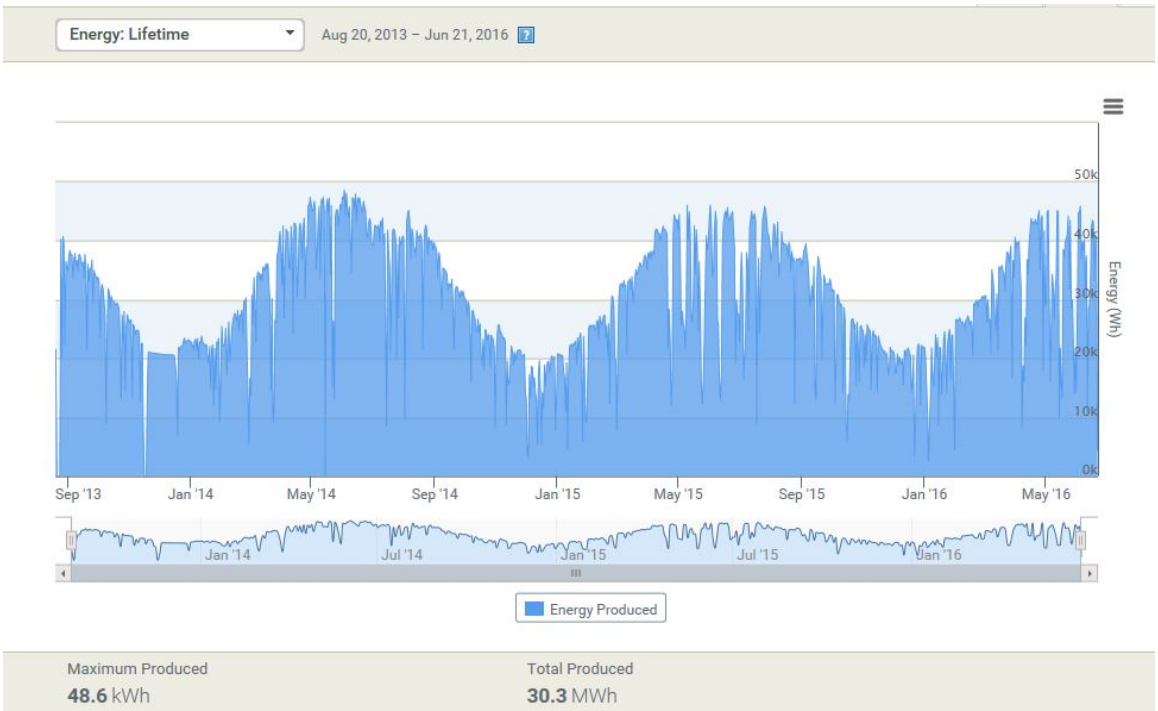
This report provides energy production for 2015.

Month	**Energy Produced**
January 2015	579 kWh
February 2015	703 kWh
March 2015	997 kWh
April 2015	1,119 kWh
May 2015	996 kWh
June 2015	1,094 kWh
July 2015	1,107 kWh
August 2015	1,159 kWh
September 2015	968 kWh
October 2015	721 kWh
November 2015	652 kWh
December 2015	583 kWh
Total	**10,678 kWh**

What is the orientation of each array? The monitoring system has an Overview tab under settings where you can review information about the system characteristics. The graphic below shows the number of panels and Azimuth but not the Tilt. However, if you click on the Array Details you may find the tilt of each array. The owner reports Array1 has a roof pitch of 4-12 and Array 2 has a roof pitch of 9-12.



Another Graphic that is very important is the Lifetime review of the energy produced. Below is the August 20, 2013 (date installed) until the date the report is run energy produced is very helpful in understanding how the system is producing.



Question: *What does this graphic say about energy production?* *The months of April through September produce the most energy. January the last three years shows the lowest production. The energy production is fairly stable over those first 2+ years.*

Additional Information About the System

This owner provided a copy of the Enphase Energy, Inc. warranty on the inverter and contract for the system showing the cost. Reviewing those documents provided the following characteristics about the system. These documents would make good support that could be included in the report or kept in the work file and addressed in the scope of work.

Solar Photovoltaic System Characteristics
System Size – 8.225 kW – 35 panels at 235 Watts per panel
Number of Arrays - 2
Type of Cell – Monocrystalline Silicon – Sharp
Weight per panel – 41.9 lbs
Module Efficiency – 14.4%
Panel Warranty – 25 years
Inverter Size – 215 Watts per inverter
Inverter Efficiency – 96%
Inverter Warranty – 25 years or 6 MWh
Inverter Type/ No. –35 Enphase Microinverters

Contract Details – The following clip is from the original Construction Contract signed by the property owner. The contract does not provide the specifications of the system the owner is purchasing. It also does not provide the tax credits or incentives. This contract was signed August 2013.

CONTRACT PRICE & SCHEDULE OF PROGRESS PAYMENTS		UNPAID BALANCE PAID AS FOLLOWS		Finance, Cash, Credit Card
TOTAL SYSTEM PRICE	$ 32,900	10% at Field Inspection	$	
Deposit	$ 0	70% at Material Delivery	$ 23,030	C.C.
UNPAID BALANCE	$ 32,900	Balance at Permit Sign Off	$ 9,870	C.C.
ESTIMATED TAX CREDIT (Consult your tax professional for details)	$			

Question: *Based on the previous system details, how much did this owner pay per watt for the system? (Gross Cost – cost before incentives and rebates are deducted.)*

$32,900/(8.225 kW x 1000 Watts = 8,225 watts) = $4.00 per watt in August 2013 gross

V. Performance Standards and Other Issues Related to Solar PV Systems

A. Photovoltaic module standards

A number of standards address the safety, reliability, and performance of solar PV modules. Because modules are classified as electrical equipment, they must conform to accepted product safety standards. According to the National Electrical Code (NEC), they must be listed or approved by a recognized laboratory.

B. All solar PV modules must be marked with the following information [National Electrical Code (NEC) 690.51]:

- Open-circuit voltage
- Short-circuit current
- Operating voltage
- Operating current
- Maximum power
- Polarity of terminals
- Maximum overcurrent device rating
- Maximum permissible system voltage

C. Fire classification

- Solar PV modules may be evaluated for external fire exposure with regard to building roof-covering materials.
- The fire class is identified in the individual Recognitions as class A, B, or C in accordance with UL's Roofing Materials and Systems Directory.
- Modules not evaluated for fire exposure are identified as NR (Not Rated) and are not suitable for installation on buildings.
- The solar PV system should have an automatic shut-off mechanism that will deactivate the system in the event of a fire.

D. Additional considerations

- Some areas have deed restrictions or zoning provisions that could affect the location of solar PV systems or even forbid their use.
- If a solar PV system is not properly permitted or installed, the owner may find it difficult to obtain insurance.

2.16 Discussion Questions

1. *Could an NR label be a deal breaker for a mortgage loan on a roof-mounted solar PV array?*

   Yes, but each individual lender would make that decision. The answer could vary with the lender.

2. *What other problems could accompany the use of modules with an NR label?*

   This could affect the purchase of hazard insurance for the building. The appraiser should contact an insurance company to make that determination. An owner who is unable to buy hazard insurance because of this rating would face an additional problem in obtaining a mortgage loan since lenders require proof of hazard insurance. Having a roof- mounted solar PV that is not rated increases the risk to the lender and the investor risk rate used in the discounted cash flow analysis.

E. Module selection criteria

- The selection of solar PV modules for a given project may be based on any number of factors, including the following:
  - Physical and electrical specifications for the module
  - Manufacturer certification to quality standards (ISO 9000)
  - Module warranty and design qualification (IEC 61215/61216)
  - Customer satisfaction and field results
  - Company ownership and years in business

– Costs and availability[29]

VI. Competency, Scope of Work, and Developing an Opinion of Value

After reviewing the different types of solar PV systems and the terminology associated with them, it is appropriate to discuss competency, scope of work, and issues related to developing a value opinion.

A. Competency

1. According to the Appraisal Institute Standards of Valuation Practice, in developing an appraisal, a valuer must:

    a. be aware of and understand methods and techniques that are necessary to produce credible assignment results;

    b. not commit a substantial error of omission or commission that significantly affects the assignment results; and

    c. not make a series of errors that, considered individually, may not significantly affect the assignment results but which, when considered in the aggregate, establish that the appraisal is being rendered in a careless or negligent manner.

2. If you were appraising your first solar PV system and did not have sufficient knowledge of the system, it would be difficult to develop credible assignment results.

The Secondary Mortgage Market Has Higher Competency Standards than USPAP.

29. © 2012 Jim Dunlop Solar.

The table below shows the current competency requirements for the residential side.

Competency Required	USPAP	Fannie Mae	Freddie Mac	FHA	VA
Before Accepting Assignment		X	X	X	
Before Completing Assignment	X				X

Source: Fannie Mae, Freddie Mac, and FHA guidelines

Commercial lenders typically follow USPAP competency requirements.

2.17 Discussion Questions

Gaining Competency

1. *When is an appraiser required by appraisal standards to make a competency statement in an appraisal report?*

   A statement is only required when an appraiser was not competent upon accepting the assignment and notified the client of the lack of competency. If the client agrees, the appraiser may proceed with the assignment but must take appropriate steps to become competent. In the report, the appraiser must list the steps taken to become competent.

2. *List possible ways for an appraiser to become competent in the valuation of solar PV systems.*

   1. *Take a course.*
   2. *Read articles, studies, or books on the valuation of solar PV systems.*
   3. *Work with an experienced appraiser to gain knowledge of solar valuation procedures.*
   4. *Talk with a solar specialist and do appropriate research to provide a credible analysis and value conclusion.*

3. *How are lenders or appraisal management companies judging competency for properties with complex features?*

   1. *Most appraisal panel applications do not ask the appraiser to provide a list of classes they have taken or property types they have appraised to allow them to assess competency.*

B. Scope of work

It is a good idea to consider addressing the following issues in the scope of work statement.

- Identify steps taken to obtain information on energy production.
- Clearly state lender requirements for valuation of solar PV systems (some lenders require the appraiser to value such systems separately from the real estate or to attribute no value to them at all).

- Reference documents kept in the workfile but used in the valuation assumptions (such as support for useful life or warranty information).
- Once you complete this study you should have some great notes to develop a good scope of work.

2.18 Discussion Questions

1. *What other items might you consider in your scope of work?*

   One possible inclusion is your investigation of whether solar PV systems are present in the market and, if so, whether they have been accepted. These are important issues for lenders.

2. *What should you do if the lender's requirements state that the solar PV system is not to be considered in the building value or discussed in the appraisal report?*

   This issue requires a discussion with the lender. Such a requirement would result in a hypothetical condition and would not result in an "as is" value as required by the Interagency Appraisal and Evaluation Guidelines for regulated lending purposes. After clarifying the lender's requirements regarding the solar PV system and your obligation according to appraisal standards, if the client insists that you disregard the solar PV system in your analysis, obtain the instructions from the client in writing. Include a statement in the report regarding the value for the solar PV based on the client's direction and state the hypothetical condition noted previously.

C. Developing a real property appraisal

1. An appraisal must detail relevant property characteristics pertaining to value and intended use, including the location of the property being appraised, as well as its physical, legal, and economic attributes.

   The economic attributes of the property must be identified, and the energy produced by a solar photovoltaic array would be an economic attribute that deserves analysis.

2. When an income approach is necessary for credible assignment results, an appraiser must use appropriate and available data that supports:

   a. An analysis of comparable rental and operating expenses

   b. An estimate of capitalization and/or discount rates

   c. Projections of future expenses and potential rent and/or income

   For example, an appraiser must address the income potential of a property and applicable capitalization and discount rates that would apply to the valuation of a solar photovoltaic array.

Review Part 2

Learning Objectives

Now that you have completed Part 2, you should be able to

- ☑ Identify the types of solar PV systems.
- ☑ Recognize terms associated with solar PV systems.
- ☑ Identify applicable appraisal standards.

Terminology to Remember

Watt

Alternating current (AC)

Direct current (DC)

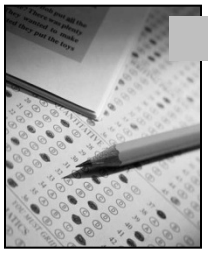
Orientation factor (Azimuth)

Tilt

Inverter

Solar PV cell

Array



Practice Test Section 1

This multiple-choice test provides a review of concepts and definitions covered in Section 1. This is a "closed book" test. Choose the <u>most</u> correct answer.

1. Which of the following solar PV technologies has the highest efficiency rate?

* A. monocrystalline silicon

B. polycrystalline silicon

C. single silicon

D. thin-film silicon

2. Which type of solar PV technology is least efficient?

A. monocrystalline silicon

B. polycrystalline silicon

C. single silicon

* D. thin-film silicon

3. Which of the following solar PV characteristics requires additional consideration to understand energy production.

A. Only one inverter.

* B. More than one array with different orientations.

C. A system with a 96% efficiency rating.

D. A system with a monitored report.

4. Solar photovoltaic technology has been in existence for

A. about 10 years.

B. less than 25 years in the U.S.

C. only 25 years in the U.S.

* D. more than 100 years.

5. A module is also called a/an

A. array.

B. cell.

* C. panel.

D. wafer.

6. Price tiers are rates

* A. for electricity based on increases in stages with higher use levels.

B. for electricity based on the time of day charged.

C. paid as a premium over the conventional electricity price.

D. that reflect the tipping point for solar PV feasibility.

7. Which of the following types of solar water heating system is typically less expensive?

A. active

B. direct circulation

C. indirect circulation

* D. passive

8. A kilowatt is equal to

A. 100 watts.

* B. 1,000 watts.

C. alternating current.

D. direct current.

9. Stand-alone solar PV systems operate

A. with an inverter to store energy.

B. with batteries to convert DC to AC.

C. with grid connection.

* D. without grid connection.

10. Installing a solar PV system with an Azimuth that is not properly oriented might result in

* A. a system that could have lower lifetime energy production.

B. a system that would definitely fail.

C. a system that would not have a warranty.

D. significant savings that would be worth considering.

11. What component or components of a solar PV system is/are responsible for the system's energy efficiency?

A. inverter

B. PV module

C. wiring and mounting

* D. all of the above

12. In areas with time of use electric rates, an array may be installed facing west to

A. Avoid a view of the system from the street

* B. Generate electricity during the peak rate hours

C. Meet the utility company requirements

D. Sell energy to the grid at the higher rate

Documentation of Size, Estimated Production, and Lease vs. Ownership

In Part 3, we address some of the information an appraiser needs in order to develop an opinion of value for a solar PV installation. The documentation is helpful in estimating the physical life of the solar PV system. Documentation regarding incentives, grants, and rebates will be discussed and resources provided to research these topics in your area.

Learning Objectives

To prepare for Part 3, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Identify documentation available for solar PV valuation.
- ☐ Examine physical life of solar PV systems.
- ☐ Evaluate the effect of incentives, grants, and rebates on the valuation process.
- ☐ Review lending guidelines as they relate to solar PV systems and solar leases
- ☐ Overview of the Income Approach using PV Value® Pro

Learning Objectives

Keep track of questions asked during class discussions and be sure that those you consider relevant are answered. Make this a lively brainstorming session that reveals how our peers would handle the appraisal problems discussed. Remember to keep a list of topics that might be considered in the scope of work for a property involving solar PV.

Part 3.
Documentation of Size, Estimated Production, and Lease vs. Ownership

I. Documentation Available for Valuation of Solar PV Systems

The property owner should have a number of documents that will be important in properly describing the system and developing a value indication for it. Solar PV installers provide the documentation, which should stay with the property even when a transfer of ownership occurs. Upon making an appointment to visit the property, ask the owner to supply copies of the documents described below.

A. Energy audit

1. This report provides information on the facility's energy use and identifies potential improvements to conserve energy and lower energy bills. Improving the insulation, sealing windows and doors, and tightening the envelope are the first steps in reducing a structure's energy consumption. The envelope, which includes the roof, walls, floors, windows, and doors, separates the conditioned space from the exterior elements.

2. The property owner should take advantage of such opportunities to increase the energy efficiency of a facility before installing a solar PV system. Oversizing the solar PV array may result in a payback period well beyond the expectations of the property owner.

B. Load analysis

A load analysis includes a list of the electrical load of major appliances, mechanicals, and electronics in a facility. This list is often part of the energy audit. Reviewing two or three years of past utility bills provide a good source for an average use of kWh for the property.

C. **Shading analysis**

1. A proper digital shading analysis, including a sun graph showing any shading obstructions, should have been performed by the installing contractor before beginning the design and installation process. Shading occurs from man-made obstructions or natural growth such as trees, shrubs, and vegetation.

2. The array's position and orientation should minimize shading, which can greatly reduce the energy production of the solar collectors. Arrays should be installed to avoid shading during peak sun hours.

Starbucks Drive-Thru Canopy

Solar Photovoltaic Panels

Notice the lower picture showing a shading of the panels by the tree nearby.

If shading is visible from any source, the production may be materially affected. Appraiser may require a shading analysis to understand how the derate factor and production is affected if shading exists that may not have been in place when the system was installed. A scope of work issue that may require special consideration.

Photographs courtesy of Robin Amorin, MAI

D. Commissioning of solar PV system

1. Commissioning is a formal way of ensuring the quality of the solar PV installation. It is not mandatory for many purposes. However, Leadership in Energy and Environmental Design (LEED) certification requires that all building energy systems, including the solar PV system, be commissioned.

2. The process ensures that the system is safe and performing at its maximum capacity. This is an electricity-producing system, and attention should be given to its installation and safety aspects. Each system should be satisfactorily evaluated before installation and receive scheduled maintenance or testing over its lifetime. Failure to take these steps can lead to an unsafe and underperforming system with reduced value to its owners. Commissioning also provides a check and balance for installers.

3. The North American Board of Certified Energy Practitioners (NABCEP) has established a process for accrediting installing practitioners. The organization developed professional credentialing guidelines for energy practitioners. The Web Resources for Solar Valuation document in the course downloads provide a link for those who wish to learn more about credentialing. Installers are also trained to commission systems. Owners may prefer a third party commissioning to verify the installation by someone other than the installer.

E. A commissioning checklist may include the following tasks:

- Verify that the installation performs as designed including expected output
- Verify that equipment is securely mounted
- Complete a checkout and visual inspection for compliance with the National Electrical Code (NEC)
- Document proper performance of equipment and systems
- Verify that operations and maintenance documentation left on-site is complete
- Ensure that the owner or employee on-site is trained in operations and maintenance
- Verify that safety features are in place
- Verify that warning and operational labels are located in appropriate places

F. Solar PV System Monitoring Report or access to the online monitoring of the system where energy production reports are available and excellent documents for valuation.

G. Documentation package list

1. The following documentation package list is extracted from *Solar PV Systems Training and Resource Guide*, © 2012 Jim Dunlop Solar:

   a. System DC and AC power ratings

   b. Manufacturer, model, and quantity of PV modules, inverters, batteries, controllers, and all other major components

   c. The names and contact numbers for the customer/owner, system designer, installation contractor, and any other responsible parties or subcontractors

   d. A site layout identifying equipment locations on buildings or relative to property lines or easements, including a shading analysis as applicable

   e. A single line diagram depicting the overall system design, including the types of modules, total number of modules, modules per string, and total number of strings; the types and number of inverters; and any other major components

   f. The types, sizes, and ratings for all balance-of-system components, including conductors, raceways, junction boxes, source circuit combiner boxes, disconnects, overcurrent protection devices, and grounding equipment, as applicable

   g. Specifications for PV modules, inverters, and other major components, including module mounting systems

   h. Operation and maintenance information including procedures for verifying proper system operation and performance

   i. Operating guidelines, safety procedures, and maintenance plans

   j. Warranty details on major components indicating the terms and conditions

   k. Copies of all commissioning test reports and verification data

   l. Contracting and financial details, building permits, inspection certificates, interconnection agreements, and applications and approvals from incentive programs, such as rebates and tax forms as applicable

2. These documents should provide an appraiser with all the information needed to analyze a solar PV system for valuation purposes. The appraiser's main challenge is obtaining access to the documents listed.

3. In many instances, commissioning is performed by an individual representing an outside party, often an engineer, who is not associated with the installer or manufacturer of the system. Use a search engine to research commissioning forms for the types of information that will be useful in the valuation process. Various commissioning agents develop their own forms, which they consider proprietary information. Therefore, we are unable to provide a sample within the course materials. The checklist on the previous pages shows the usual items found on commissioning forms. SolarPro does provide a commissioning form on line for your review.[26]

II. Installation, Warranty, Maintenance, and Energy Production

3.1 Exhibit

Source. Jim Dunlop's Solar PV Systems Training and Resource Guide

26. http://solarprofessional.com/articles/design-installation/pv-system-commissioning

A. Installation

1. Proper design, legal permitting, code-compliant installation, and commissioning of a PV system by a trained, licensed, and certified contractor and a final inspection by a local electrical inspector are important considerations to value. The long-term success of the solar PV system relies on following the proper procedures. The procedures employed can materially affect future energy production, the main reason for installing the system.

2. Legal permitting and the inspection of PV systems is usually required and performed by the local municipality or Authority Having Jurisdiction (AHJ). It is important to find out whether a permit was issued and whether the system has passed a final inspection before attempting to develop a value opinion for an existing PV installation. The permit can also provide valuable information concerning size, date installed, orientation, tilt, and sometimes cost new.

3. If a completed solar PV system has not been properly permitted, as required by the AHJ or if the system was permitted but the final inspection has not been completed, it may be difficult to develop a credible value opinion. This circumstance is similar to what occurs with any other unpermitted or unfinished major construction improvement project. **The appraisal may require the value be subject to the final inspection by the AHJ.**

3.2 Discussion Question

What are the potential consequences of an unpermitted or improperly installed solar PV system?

May materially affect value

May be difficult to develop an opinion of value

May materially affect energy production

May affect ability to obtain insurance on the property

May affect ability to obtain a loan

B. Physical life of module and depreciation

Useful life: The period of time over which a structure or a component of a property may reasonably be expected to perform the function for which it was designed. **Source:** *Dictionary of Real Estate Appraisal, 6th ed.* 2015.

1. The authors of PV Value® Pro chose to use the module warranty period as the useful life because of the potential cost versus valuation issues. We will use the PV Value® tool later in this course. See the Web Resources for Solar Valuation list (course downloads) for links to the manual and the tool. The reasons for using the standard warranty as the useful life include the following:

    A. One is roof replacement. If a solar PV system is installed at the same time as a new roof, then there will be an inevitable replacement at the end of the roof's lifetime, where the cost of removing the PV system and replacing the roof, then reinstalling the PV system, may exceed the value.

    B. In addition, when the warranty period ends, the appraiser may consider the system a liability, even if it still produces energy. After the warranty period ends, the cost to replace any portion of the system may outweigh the value. At the end of a 20-30-year warranty, innovation may provide a replacement that far exceeds the current system's capability.

2. The developers of PV Value® Pro make an excellent case for using the warranty period as a basis for the system's useful life. However, it is up to the appraiser to make a judgment based on the condition of the system and its history of power production. The tool will allow a useful life longer or shorter than the warranty. For example, if the module is warranted for 20 years, the user could choose a life of 25 years; if the module is warranted for 25 years, the user could choose a life of 30 years.

3. Why doesn't PV Value® use economic life? Once sufficient data are available to support an economic life estimate, appraisers may find using the economic life a more reasonable term to use in the income approach than the physical life estimate. Keep in mind that we have very limited sales data of properties with systems more than 5 years old.

    Economic life: The period over which improvements to real estate contribute to property value. **Source:** *Dictionary of Real Estate Appraisal, 6th ed., 2015.*

C. Signs of production loss or a failing system

Appraisers are always concerned about potential liability. Knowing the warning signs of possible issues with the production of the solar PV system is crucial. Growth of the solar industry and technology changes will resolve some of the issues discussed below. However, other issues will appear with new technology.

The industry has been quick to react to the problem areas. The following are some warning signs to be aware of as you inspect a system:

- Discoloration of solar PV module (brown or rust color)
- Signs of deterioration on back side of module (bubbling of material)
- Loose wiring leading to the inverter or meter (beware of electrical danger)
- Passive cooled inverter's air vents plugged with debris
- Inverter near the end of its useful life
- Lack of regular maintenance on modules
- Red light on in the middle of the day or signaling that system is off line

Online Monitoring System is an excellent way to ensure that performance is maintained on a real-time basis, establish actual energy produced, review the system devices, identify the date installed, and a record of repairs.

If a monitoring system is connected the owner must provide you with the log in information to access the data. Alternatively, they could provide the printouts you need or allow you to review the monitoring on site and print the documents you need.

This would be another point to make in the **scope of work.** Identify if the system is monitored, were you allowed access, did you include the monitoring documents in the report or in your work file.

D. Sources of problems for solar modules

- Lightning, which is most damaging to the inverter and requires that both sides of the inverter be protected by a lightning arrester

- Wind, which becomes a problem for systems that are not properly mounted

- Birds' nests as well as the presence of squirrels or other rodents that eat wiring

- Dust or mold cover

- Shading
- Moisture from rain, snow, or another water source that infiltrates the module

Commercial Insurance Review of Solar Installations

Travelers Insurance held a webinar May 5, 2015, entitled "Solar Installations: Financial Benefits are not without Risk." The purpose of the webinar was to assist business owners in their understanding of the risks that may be involved with the use of solar power. The topics covered in their webinar include the following:

Design Considerations

- ✓ Roof Access
- ✓ Fall Protection
- ✓ Protecting the roofing material – wind load not often addressed
- ✓ Structural

Exposure to others:

- ✓ Third-party liability exposure for contractors and property owners
- ✓ Contractor and subcontractor selection
- ✓ The importance of risk transfer
- ✓ Effective planning with the fire department

Importance of inspection and maintenance:

- ✓ Inspecting for degradation and breakdown
- ✓ Monitoring and inspection technologies
- ✓ Contingency planning

It might be worthwhile to listen to this 29-minute webinar for risk insights for the commercial user valuation. http://travelers.http.internapcdn.net/travelers_vitalstream_com/RiskControl/2015WebinarReplays/WB0163_Solar_Installations/SolarInstallations2.html

Solar PV System on Hotel in Fairbanks, AK

3-Story Building

Heavy public use, snow loads, along with many other items to consider that are addressed in the webinar.

III. Incentives, Sources for Documenting Incentives, and Cause and Effect of Incentives on Market Value

A useful Web site for researching incentives, rebates, and tax credits is www.dsireusa.org. It breaks down the available offerings by state and can be useful in discovering potential incentives or rebates on items such as water heaters, air conditioners, solar PV systems, and energy upgrades. Appraisers, real estate agents, and property owners will find this helpful in appraising properties that need repairs or bank-owned properties. See the Solar PV Resource page in the course downloads for other helpful resources.

A. Federal tax credits and deductions

B. Depreciation

C. Sales and property tax exemptions or tax credits

D. Rebate programs

E. Grants and loans

F. Solar Power Purchase Agreements

A. Federal tax credits and deductions

Appraisers do not consider tax credits in a market value analysis; however, if the appraiser is acting in a consulting role, this may be important in understanding net cost to a particular user. The tax credits are based on the tax position of the owner/investor and not on the building; therefore, they are not part of the market value analysis.

A tax credit is a direct reduction in the tax owed by a taxpayer. The tax credit, which reduces a taxpayer's tax liability by a corresponding amount, represents tax already paid. Renewable energy system installations may qualify for federal tax credits under one of the following programs:

- **Federal Renewable Energy Production Tax Credit (PTC):** This program allows a corporate tax credit equal to 30% of the total expenditures for solar PV system installations, with no maximum limit. Unused credits may be carried forward to future tax years. This credit was scheduled to expire December 31, 2016, and will reduce to 10% in 2017 without expiration.[27] However, in December 2015, Congress passed an omnibus spending bill that included a multi-year extension of the federal Investment Tax Credit.(ITC). The ITC will remain at 30% through 2019, and then step down to 26% in 2020 and 22% in 2021, it will step down to 10% for third-party-

27. http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc

owned residential, non-residential, and utility PV projects, while expiring entirely for direct-owned residential PV. [28]

- **Federal Business Energy Investment Tax Credit (ITC):** This program allows a 30% corporate credit for solar PV installations through 2016 and will reduce to 10% in 2017.

- **Federal Residential Renewable Energy Tax Credit:** This credit came under the Energy Policy Act of 2005 and initially allowed a 30% tax credit for PV installations capped at $2,000. It was amended later to allow a 30% personal income tax credit for qualifying residential installations placed in service after 2008 with no limit. Unused credits may be carried forward to future tax years. This credit was scheduled to expire December 31, 2016, and will reduce to 10% in 2017.[29] However, The Consolidated Appropriations Act, signed in December 2015, extended the expiration date for PV and solar thermal technologies, and introduced a gradual step down in the credit value for these technologies. The credit for all other technologies will expire at the end of 2016.

A taxpayer may claim a credit of 30% of qualified expenditures for a system that serves a dwelling unit located in the United States that is owned and used as a residence by the taxpayer. Expenditures with respect to the equipment are treated as made when the installation is completed. If the installation is at a new home, the "placed in service" date is the date of occupancy by the homeowner. Expenditures include labor costs for on-site preparation, assembly or original system installation, and for piping or wiring to interconnect a system to the home. If the federal tax credit exceeds tax liability, the excess amount may be carried forward to the succeeding taxable year. The maximum allowable credit, equipment requirements and other details vary by technology, as outlined below.

Solar-electric property

- 30% for systems placed in service by 12/31/2019
- 26% for systems placed in service after 12/31/2019 and before 01/01/2021
- 22% for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2006, and on or before December 31, 2021.

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28. U.S. Solar Market Insight, Executive Summary, 2015 Year in Review, dated March 2016, Page 16-17
29. www.seia.org/galleries/pdf/SEIATaxManual_v3-0_FAQ.pdf, www.irs.gov/pub/irs-pdf/i3468.pdf www.irs.gov/pub/irs-pdf/f8835.pdf

- The home served by the system does not have to be the taxpayer's principal residence.

Solar water-heating property

- 30% for systems placed in service by 12/31/2019
- 26% for systems placed in service after 12/31/2019 and before 01/01/2021
- 22% for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2006, and on or before December 31, 2021.
- Equipment must be certified for performance by the Solar Rating Certification Corporation (SRCC) or a comparable entity endorsed by the government of the state in which the property is installed.
- At least half the energy used to heat the dwelling's water must be from solar in order for the solar water-heating property expenditures to be eligible.
- The tax credit does not apply to solar water-heating property for swimming pools or hot tubs.
- The home served by the system does not have to be the taxpayer's principal residence.[30]

Calculations for 30% Federal Tax Credit		
Gross Cost New	$2.75/Watt x 9,500 watts	$26,125
Less Rebates/Incentives from other sources	State Rebate	- 5,000
Cost Less Rebates/Incentives	Amount to apply Federal Tax Credit of 30%	$21,125
Tax Credit	$21,125 x 0.30	-6,338
Net Cost of System		$14,787
Net Cost Per Watt after rebates, incentives, and Federal Tax Credit	$14,787/9,500 watts	$1.57

30. http://energy.gov/savings/residential-renewable-energy-tax-credit and http://programs.dsireusa.org/system/program/detail/1235

Although personal tax credits are not a part of the market value analysis, they are a part of a buyer's decision-making to purchasing. The six state-study published by Lawrence Berkley National Laboratory, *Appraising into the Sun*, indicates the Federal Tax Credits, rebates, and incentives are in reality taking the place of all forms of loss on the systems less than 10 years old.[31] (physical depreciation, functional, and external obsolescence)

B. Investment IRS Depreciation - Usually a part of the feasibility in the mind of the investor.

1. It is important to consider the term *depreciation* from a tax accounting standpoint. Review the IRS definition below.

> **Depreciation.** *The annual deduction that allows you to recover the cost or other basis of your business or investment property over a certain number of years. Depreciation starts when you first use the property in your business or for the production of income. It ends when you take the property out of service, deduct all your depreciable cost or basis, or no longer use the property in your business or for the production of income.*[32]

2. *Accelerated depreciation* allows greater deductions in the earlier years of the life of an asset. Solar PV and other eligible renewable energy technologies may qualify for five-year accelerated depreciation as well as a tax deduction. Unlike a tax credit, which directly reduces tax owed, a deduction reduces taxable income.

3. The accelerated depreciation allowed on business properties makes the purchase of solar PV systems more attractive. ***The initial investment is quickly depreciated, which is a major advantage from a tax position.*** However, in a market value appraisal, accelerated depreciation is not a consideration since it is specific to the borrower's tax situation and not an ongoing economic advantage.

C. Sales and property tax incentives – Offsets cost of system

1. A number of states and municipalities offer sales and property tax incentives for renewable energy installations. It will take some research on the appraiser's part to discover tax incentives available in the local area. The first place to start the search is the Web site www.dsireusa.org. This site identifies the federal, state, and local incentives available in the subject property's specific location.

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31. Adomatis, S and Hoen, Ben, *Appraising Into the Sun: Six-State Solar Home Paired-Sale Analysis,* (CA; Lawrence Berkeley National Laboratory, 2015)
32. www.irs.gov/pub/irs-pdf/i4562.pdf

2. Sales and property tax incentives may include some or all of the following:

   - Sales taxes for purchase of solar energy or energy efficient equipment may be exempted or refunded on a temporary or permanent basis.

   - Property tax incentives exclude the additional value of the renewable energy systems for tax purposes. Later in this course, we will review a study of some states' property tax incentives and their methodology for valuing the systems.

   Are you aware of other tax incentives in your area?

D. Rebate programs

1. Rebate programs provide an incentive to purchase solar PV and other renewable energy systems. States, utility companies, or local governments offer rebates with a variety of requirements. They usually involve a one-time payment for installations that meet certain qualifications.

2. The Web site www.dsireusa.org provides information on rebates and incentives for solar by state.

3. Organizations such as schools or other public institutions have enjoyed financial awards to fund PV installations. Specific requirements for these awards may include cost-sharing, educational research, or public information disclosures for research.

4. Loans are offered by a number of private institutions and utility companies for financing of solar PV systems. The loan terms vary and some have implications for the first mortgage position. In 2016, Fannie Mae just released a new loan product that is a perfect fit for a solar PV loan. The **HomeStyle Energy Mortgage** offers the lowest cost of capital for solar at the time it was released. This new source of capital should accelerate solar industry growth for owned solar systems. The loan allows up to 15% of the "as completed" home value to be used to pay for the cost of a solar system and it gives the homeowner 180 days after the closing date to install the system. It can also be used to pay off the PACE Loan that might be in first position to allow a homeowner to secure a mortgage on the secondary mortgage market. This loan product can be used for energy upgrades and do require an appraisal and a HERS report showing the present value of energy saved.

5. PACE (Property Assessed Clean Energy) is a type of energy upgrade in which the loan/assessment is repaid through the property tax bill.

    a. This type of loan faces legal and practical challenges because it trumps the first mortgage. Additional information on PACE is provided on the following pages. For more information on PACE, a link can be found on the Web Resources for Solar Valuation list in the course downloads.

    b. The following content describes the various types of PACE programs and how an appraiser might address them in a valuation assignment.

Commercial PACE Programs

New commercial PACE programs are launching around the country. PACE is a municipal finance mechanism allowing property owners to repay loans for energy efficiency and renewable energy projects including cool roofs, solar PV systems, and HVAC system upgrades as a property tax assessment. This program has been gaining attention on the commercial side since 2010.

According to an article in SustainableBusiness.com News, New York State passed legislation to encourage clean technology investment known as the Power NY Act of 2011. The article indicates that middle-income residents and small business owners who do not qualify for low-income weatherization programs will be able to obtain state loans to finance energy efficiency improvements and pay them back through energy savings on their utility bills.

The study reports three main financing structures for commercial PACE programs:

1. **Warehoused.** The municipality uses a large line of credit or other credit facility to fund qualified projects. Once the project volume is reached, the portfolio can be sold through a municipal revenue bond issuance or other capital-market transaction.

2. **Pooled Bond.** Property owner applications for PACE financing are approved during an aggregation period. When a sufficient pool of approved applications has been assembled, the local government sells a bond to fund all of the projects and permits property owners to proceed with their energy upgrades.

3. **Owner Arranged:** Property owner has the flexibility to secure financing for a defined project with a lender of the owner's choice. Financing terms are negotiated independent of the municipality or state and are predicated on 1) the senior lien that the PACE mechanism affords and 2) the underlying credit of the owner/building. This model is designed to avoid the timing delays associated with the pooled bond approach. This approach is better suited for projects greater than $500K and/or owners/buildings with strong credit.

    c. When appraising a property with a PACE bond/lien/assessment, it is important to be consistent in how it is handled in the approaches to value. Address the impact in **all** approaches used, not just the income capitalization approach.

1) Include reduced expense and PACE bond payment in the operating expenses), or note that you have specifically **not** deducted the cost when you report the value conclusion; therefore, you let the client do the math.

2) An alternative method is to reflect the lower utility cost in the income capitalization approach and then report the outstanding principal on the bonds (PACE lien amount) when you report the value conclusion. However, in this situation you would not deduct the annual PACE bond payment in the income capitalization approach, since that would be double counting.

3) In either case, consider the impact of the PACE bond in other approach(es) used.

6. Various other programs are available. If a loan has been obtained for a solar PV installation, be sure to find out whether it may affect the owner's ability to refinance or have consequences on resale. For instance, on a resale, is payment due in full or is the loan assumable? How this is handled could affect the sale price paid.

The following graphic is an example of a tax bill on a residential property in Florida with a PACE Loan that is assessed annually.

Taxing authority	Millage	Assessed	Exemption	Taxable	Tax
ENVIRONMENTALLY SENSITIVE LANDS	0.20000	148,821	50,000	98,821	$19.76
CHARLOTTE COUNTY SCHOOL BOARD	7.21100	148,821	25,000	123,821	$892.87
SOUTHWEST FL WATER MANAGEMENT	0.34880	148,821	50,000	98,821	$34.47
Total	17.01040				$1,861.25

Non-Ad Valorem Assessments

Levying authority	Rate	Amount
CHARLOTTE CNTY SANITATION UNIT		$148.04
DEEP CREEK (NU) ST & DR -MAINT		$187.94
CHARLOTTE CO FIRE RESCUE DEPT		$155.99
MID-CHARLOTTE STORMWATER UTIL		$22.70
FLPACE		$2,074.57
Total		$2,589.24

Combined taxes and assessments: $4,450.49

FL PACE Loan adds $2,074.57 annually to the real estate tax bill. If you compared the real estate tax bill for this property with the same model in the subdivision you would see that the taxes are $2,074.57 higher on this property. However, this property has energy upgrades that the other model may or may not have. Appraisers must analyze sales and the subject property to understand if the sales prices are affected by the PACE loan.

E. Another arrangement to be aware of is the *solar power purchase agreement.*

> **Solar Power Purchase Agreement (SPPA).** *A financial arrangement in which a third-party developer owns, operates, and maintains the photovoltaic (PV) system, and a host customer agrees to site the system on its roof or elsewhere on its property and purchases the system's electric output from the solar services provider for a predetermined period. This financial arrangement allows the host customer to receive stable, and sometimes lower cost, electricity, while the solar services provider or another party acquires valuable financial benefits such as tax credits and income generated from the sale of electricity to the host customer.*[33]

- With this business model, the host customer buys the services produced by the solar PV system rather than the PV system itself. This framework is referred to as the *solar services* model, and the developers who offer SPPAs are known as *solar services providers*. SPPA arrangements enable the host customer to avoid many of the traditional barriers to adoption for organizations that seek to install solar PV systems: high up-front capital costs; system performance risk; and complex design and permitting processes. In addition, SPPA arrangements can be generate positive cash flow for the host customer from the day the system is commissioned.[34]

- In a Solar Power Purchase Agreement, the property owner buys a stated amount of electricity generated by the solar PV system or all energy produced by the system. (Must verify terms with contract)

  – At a preset price and may have incremental increases (See contract)

  – For a predetermined period (Varies by company and contract)

- The property owner does not own the solar PV system and bears no upfront cost.

- The solar PV system appears to be part of the real estate, but it has no continuity of ownership. It is also taxed as personal property and not real estate. The contract makes it very clear that the property owner accepts it as personal property.

33. Course-specific definition.
34. www.epa.gov/greenpower/buygp/solarpower.htm

- This arrangement may be more preferable than a rooftop lease on the residential property because of the secondary mortgage market guidelines.

- SPPA requires analysis to determine if the agreement affects the value of the real estate. This requires a contract review to secure the terms and understand how it might affect the sale of the property.

Solar Power Purchase Agreement Considerations	
Advantage if	Disadvantage if
Electric rate is lower than utility company	Electric rate is higher than utility rate
Electric rate is flat or with only a minor increase over term. (increase less than the utility company rate increases)	Electric rate is subject to continual increases that exceed the utility company rates.
Only required to buy the amount they use.	Required to buy larger amounts than they use.
Term is less than 20 years and transferrable without penalty.	The term is 20 years and requires extensive paperwork to transfer to a new buyer.
These considerations emphasize the requirement placed upon the appraiser to review the agreement to analyze the affect it may have had on value. This means additional time in the assignment and a complex appraisal assignment. This would be required of a comparable sale that has a SPPA to understand if the sales price was affected by the agreement.	

Is a solar PV system real estate or is it equipment?[35] *Explain.*

The answer depends upon

- *How the system is mounted*
- *Ownership: Leased vs. owned*
- *Client's scope of work -may need to include a hypothetical*
- *Condition if client does not want the solar PV system included*
- *Local property assessor's classification – personal property*

Or real estate

Scope of Work. The scope of work should address the solar lease analysis including documents that you did or did not review, how you identified ownership, and what steps you took to analyze the possible affect the lease may or may not have on the market value of the property.

35. For additional research on this topic, review the Technical Report by NREL dated June 2012. This report provides IRS codes with examples of how they apply. www.nrel.gov/docs/fy12osti/55396.pdf

F. Orange Button – Solar Bankability Data to Advance Transactions and Access

The US Department of Energy SunShot Initiative launched the Orange Button program to establish unified datasets in an effort to reduce financing costs. This is a new program that has a goal of producing a unified and accessible data standard. This program is worth watching to see how it might impact appraiser and real estate agents access to solar PV installation data at given locations. Access it here: http://energy.gov/eere/sunshot/orange-button-solar-bankability-data-advance-transactions-and-access-sb-data

3.3 Case Study

Industrial Building with Solar PV System

An industrial use building with a three-year-old solar PV system sold six months ago. The system was financed through a special program with repayment on the property tax bill. The loan on the solar PV system has a remaining balance of $150,000 at 1% interest over 20 years.

The list price for the property was $1,500,000 and the contract price was $1,000,000; the buyer assumed the loan for the PV system. The real estate agent, public record, and data record company did not disclose the assumption. Industrial sales with solar PV systems are few and you have used this sale at least twice in the last six months. However, you just learned about the loan assumption.

1. *How should the loan assumption be handled when using this sale as a comparable?*

   The sale should be analyzed to determine whether the sale price included the amount assumed for the loan. If the assumption was not included in the sale price reported, did it affect the price paid? If the assumption did affect the price, a concession adjustment would be appropriate based on the amount by which the assumption affected the sale price.

3.3 Case Study, cont.

Industrial Building with Solar PV System

2. *Review the three sales in the table below and decide whether Comparables B and C were affected by the seller paying the PACE loan as opposed to Comparable A where the borrower assumed it.*

Description	Comp. Sale A	Comp. Sale B	Comp. Sale C
Sale price	$1,200,000	$1,900,000	$2,000,000
Sale price/sq. ft. bldg.	$266.67	$395.83	$363.64
Financing	Conventional + Assumption of PACE loan at $150,000	Conventional Seller paid PACE loan	Conventional Seller paid PACE loan
Date of sale	Current	6 months ago	3 months ago
Building size	4,500 sq. ft.	4,800 sq. ft.	5,500 sq. ft.
Building age	15 years	8 years	9 years
Energy upgrades	Yes	Yes	Yes

Yes. If all other features are equal, this example suggests that the buyer's assumption of the PACE loan did affect the sale price.

3. *How difficult is it to uncover a loan of this type on a sale?*

*It could be difficult and time-consuming to uncover this type of loan. The process could require a simple review of the tax bill or a search of public records plus interviews with the owner, listing agent, and/or installer. The scope of work does not usually call for the appraiser to search the loans/mortgages on properties. (**Instructor Note.** Answers will vary depending on local recording practices. Encourage brainstorming of ways to handle the issues. This scenario occurs on the residential side and would generate the same response.)*

IV. Other Value Influences

A. Renewable Energy Credit (REC) and Solar Renewable Energy Credits (SREC)

1. RECs and SRECs, business interruption risk, reputation, and "soft" values

    - Renewable Energy Credit (REC), a byproduct of clean energy production

    - Solar Renewable Energy Credit (SREC), currently trading in New Jersey, Delaware, Massachusetts, Pennsylvania, and Washington, DC, for utility companies to meet state law

2. Renewable Portfolio Standards drive demand. For instance, California law requires that 33% of its energy come from renewable sources (all types) by 2020. Much of this energy is coming from large (greater than 1 megawatt) photovoltaic and concentrating solar (thermal + turbine) projects.

3. Unexpected: Using solar PV to reduce business interruption risk requires a battery system, as grid-tied systems are shut down in a power outage for the safety of utility workers. Systems must be set up to operate with or without the grid; Just because you installed a system does not mean it will work when the grid is down.

4. RECs have sold for $250 to $400 per megawatt hour, but some have sold for as little as $40 per megawatt hour. A 5kW system in Florida, for example, would produce seven to eight RECs per year.

5. The cash flow should consider the module degradation and discounting to present value.

6. The REC income would be taxed as income at the owner's highest tax rate.

7. Although the appraiser could include the RECs in the income analysis, a prudent investor may include only the amount that is guaranteed.

8. Could a lender make a loan against a REC for a residential property or assume ownership in a bankruptcy?

9. Most RECs are not for the length of the loan but they do add value for a period. The client should provide guidance on how RECs are handled in the scope of work.

Note. RECs may be considered intangibles, or part of the business enterprise value, rather than part of the real property. Most SREC and REC programs have vanished from the market but some contracts may still be in effect and should be addressed in the analysis.

3.4 Discussion Questions

1. Some REC programs are based on artificial demand and limited supply at the beginning. *What happens when each user builds a solar farm to take advantage of the high income paid for RECs?*

   The market value of the RECs drops as we've seen happen in several states.

2. Go back to Part 1 – Exhibit 1.9 showing the change in solar PV market share by segment. *Which segment of the market shows a larger solar PV share between 2015 and 2010 and why?*

   The solar PV utility segment dramatically increased its market share of installations. This would result in utility companies meeting their percentage of energy produced by renewables and lower the need for RECs. Utility farms can take advantage of RECs, Tax Credits, Incentives, Rebates, and Depreciation of the assets while providing renewable energy to meet the needs of the community.

B. Leased solar PV systems

Leased solar PV systems present a number of challenges for the lender/underwriter/secondary mortgage market. The secondary mortgage market guidelines now address properties with solar PV leases or Power Purchase Agreements (PPAs)

Abbreviations Found in Solar PV Leases	
PBIs	Production based incentives
FMV	Fair Market Value – FMV represents a transaction between the third-party and the homeowner regarding the PV system and not the property it is attached to.
PPA	Power Purchase Agreement
TPO	Third -party-owned system (property owner does not own the system)
Host	The owner of the property is the host.

Solar PV Lease Types and Terms

The following list of lease types and terms were obtained after a review of several solar PV leases from a variety of companies. The terms vary with the company requiring the appraiser to obtain a copy of the lease and review prior to analyzing the affect the lease may or may not have on the market value or marketability of the property.

Solar PV Lease Types

- Monthly lease payment is made for the PV system with or without a down payment (down payment is the Federal Tax Credit of 30% or rebates available at the time of installation)
- Up-front pre-paid lease payment is made for a portion of, or the entire lease amount
- Power Purchase Agreement (PPA) is entered into where the homeowner purchases the power (per kWh generated) produced from the PV system for a specified period with renewal options

Solar PV Lease Terms/Language (The terms vary with company and time of negotiation requiring appraiser to read the lease to understand what applies.)

- Lease contract states the host agrees the solar PV system is personal property.
- Lease contract states the host will provide wifi for monitoring system during the term of the lease. Newer inverters have built-in wifi and this would no longer be an issue.
- Some states allow the leasing company to receive RECs and in those states the host agrees to assign them to the leasing company.
- Host agrees to pay all personal property tax on the solar PV system.

- Host agrees not to mortgage, lien, or cause a lien on the solar PV system (This term emphasizes why it cannot be included in the market value.)
- Host agrees the leasing company may place a lien or loan on the solar PV system.
- Lease terms are typically 20 years.
- Buy-out of the system is based on a variety of terms depending on the leasing company. Most leases reviewed did not allow the host to purchase the system until year six. The leasing company's business model includes taking advantage of the 5-year accelerated depreciation. If a host buys the system prior to year six, the depreciation is lost.
- If the host sells the property they have an option to transfer the lease to the new owner. However, this adds another layer to the marketing of the property. If the new buyer does not want the system, the host can pay to remove the system, repair the roof, and reinstall the system at a new location – or buyout the remaining term of the lease.

  This list is not all inclusive but provides a sample of some terms found by reviewing eight company leases. Does anyone have additional terms they have found in reading leases?

Appraisal Concern: Appraisers report property owners sometimes report the system as owned when in fact it is leased. It seems homeowners often do not understand the difference between a leased system and an owned system. They believe that because they are making payments, it is owned. Appraisers might want to consider writing language in their SCOPE OF WORK to identify what steps you took to understand the ownership of the system.

3.5 Discussion Questions

1. The appraisal problem involves a property with a solar PV system, list steps you would take to *identify the ownership of the system.*

Ask property owner if it is leased or owned. Review building permit records to see if the owner's name is shown on the permit.

Check Co-Star or MLS where property may be listed to see what is reported.

Make extraordinary assumption that based on the steps taken it is assumed the system is owned.

---

2. *You took the steps listed in question 1 and discovered the system was leased. What steps should you take next?*

Ask property owner for copy of lease. Review the lease to understand the terms.

Identify the remaining term, cost, & buy-out terms.

Address how the existence of the lease affects the value or marketability of the property.

V. Tools for Valuation of Solar PV Systems

A. A good checklist will be helpful to the appraiser in describing and developing a value opinion for a solar installation. The AI Reports® Residential Green and Energy Efficient Addendum was developed in September 2011 and updated since original publication. It is a useful checklist for describing the residential system. The inputs can be used to complete PV Value® Pro we will use later in this material. The list provides a good starting point for developing a scope of work.

Be sure the Solar Page of the AI Residential Green and Energy Efficient Addendum and the inputs and results of the PV Value® are consistent. If they are not consistent, additional research should be done to understand why the inconsistency. Is there an error in the information provided on the Solar Page or are the inputs correct in the PV Value® ? A good example is shown below and from an actual appraisal.

Clip from AI Residential Green & Energy Efficient Addendum

Description	Array #1 ○ Leased ◉ Owned
kW (size)	15 kW
Manufacturer of Panels	Life Good
Warranty on Panels	25 years
Age of Panels	New
Energy Production kWh per Array	7500 kWh
Source for Energy Production Estimate	Sun

Clip from PV Value® Pro in same appraisal report

Module warranty term
25 year(s)
PV system age
0 year(s)
Remaining useful life
25 Years
Module degradation rate (annual)
0.5%
Array tilt (module slope)
22.6°
Array azimuth (facing south = 180°)
180°
Annual estimated kilowatt hours (NREL)
20,517 kWh

What else is inappropriate in these two clips?

Notice the source for Energy Production Estimate is the sun. Source for Energy Production Estimate is asking for where the person completing the Addendum received this estimate. Since this is based on new information, it is most likely from manufacturers' estimates.

3.6 Exhibit — Solar Page of the AI Reports® Residential Green and Energy Efficient Addendum

Client:		Client File #:	
Subject Property:		Appraisal File #:	

Solar Panels

The following items are considered within the appraised value of the subject property:

Description	Array #1 ☐ Leased ☐ Owned	Array #2 ☐ Leased ☐ Owned	Description	Solar Thermal Water Heating System
kW (size)			**If Active System - type**	☐Direct ☐ Indirect
Manufacturer of Panels			**If Passive System - type**	☐ Integral collector ☐ Thermosyphon
Warranty on Panels			**Storage Tank Size**	# Gallons:
Age of Panels			**Collector Type**	☐ Flat-Plat Collector ☐ Integral Collector ☐ Evacuated-Tube Solar
Energy Production kWh per Array				
Source for Energy Production Estimate			**Back-Up System**	☐ Conventional Water Htr ☐ Tankless On Demand ☐ Tankless Heat Pump
Location (Roof, Ground, Etc.)			**Age of System**	
Tilt/Slope for Array			**Warranty Term**	
Azimuth per Array			**Manufacturer**	
Age of Inverter(s)			**Solar Energy Factor (SEF)** (Rating range 1 to 11 - higher number is more efficient)	
Manufacturer				
Warranty Term				
Name of Utility Company:		Cost per kWh charged by Company: $ /kWh		
Comments (Discuss incentives available for new panels, condition of current panels, and any maintenance issues. If leased, provide the lease terms.)	Discuss source of information and define other renewable energy sources, such as wind, hydropower, biomass power, etc.			

B. Worksheet for commercial and industrial use

The worksheet that follows is available in the course downloads in an Excel format. Appraisers may use this as a field checklist or a format for description in the appraisal report. Note the document section that may assist in the scope of work wording.

3.7 Exhibit

Commercial/Industrial Solar Worksheet						
Property Address or ID		Date of value		Appraiser		
Zip Code						
The worksheet inputs accommodate the PV Value® tool.		http://pvvalue.com				
Solar Electric (PV)		PV Array #1	PV Array #2	PV Array #3	PV Array #4	PV Array #5	PV Array #6
Leased or owned *							
Years remaining on lease							
Initial net cost if owned		Provide total cost for all arrays					
Current net cost		Provide total cost for all arrays					
RECs (Renewable Energy Credits)	$ per megawatt hr.						
Real property tax for solar PV system		Solar PV is exempt from real property taxes in some states					
System size in watts (DC watts @STC)							
Array type							
Array tilt							
Array Azimuth							
Azimuth tool can be found at the following link:		http://tools.solmetric.com/Tools/roofazimuthtool					
Age of panels							
Energy production kWh per array or total in first cell							
Source for production							
Location (roof, ground, etc.)							
Type of mount							
Warranty term on PV							
PV panel brand name							
Is PV company still in business?							
Number of inverters							
Age of inverter(s)							
Warranty term on inverter		Years total		Years remaining			
Is Inverter company still in business?		Company name					
Utility company name		kWh $/charged by utility company			$0.00		
Evidence of shading							
Evidence of deterioration							
Is there a battery backup system?							
Does the system include lightning protection on both sides of the inverter?							

Documents Reviewed	Reviewed?	In Workfile?
Load analysis		
Shade analysis		
Commissioning form		
Solar installer financial payback analysis		
Warranty terms for inverter		
Warranty terms for solar PV including parts and labor		
Solar PV output monitoring, alert, response, and repair process timing		
If leased, obtain copy of lease and provide terms in comment section below		

Scope of Work

Comments:

Roof considerations: Was the roof warranty voided by the PV installation? If the PV installer does not work with the roofing company to ensure that the roof warranty is not voided, additional risk may apply.

Remaining roof life considerations: If the remaining roof life is less than the remaining panel warranty, then an adjustment may need to be made to account for removal and re-installation of the rooftop system.

Form designed by Sandra K. Adomatis, SRA

VI. Residential Lending Guidelines

A. Residential Lending Guidelines – Secondary Mortgage Market Guidelines

The secondary mortgage market guidelines have been edited over the last two years to address solar PV owned and leased systems. Because these guidelines change as the market dictates, it is incumbent upon the appraiser to stay abreast of them when it applies to their work product. As of July 2016, Fannie Mae and FHA/HUD address solar PV. VA has an online guide.

- Fannie Mae

  https://www.fanniemae.com/content/guide/sel121614.pdf

- FHA Title II Insured Housing Programs Forward Mortgages (p. 154)

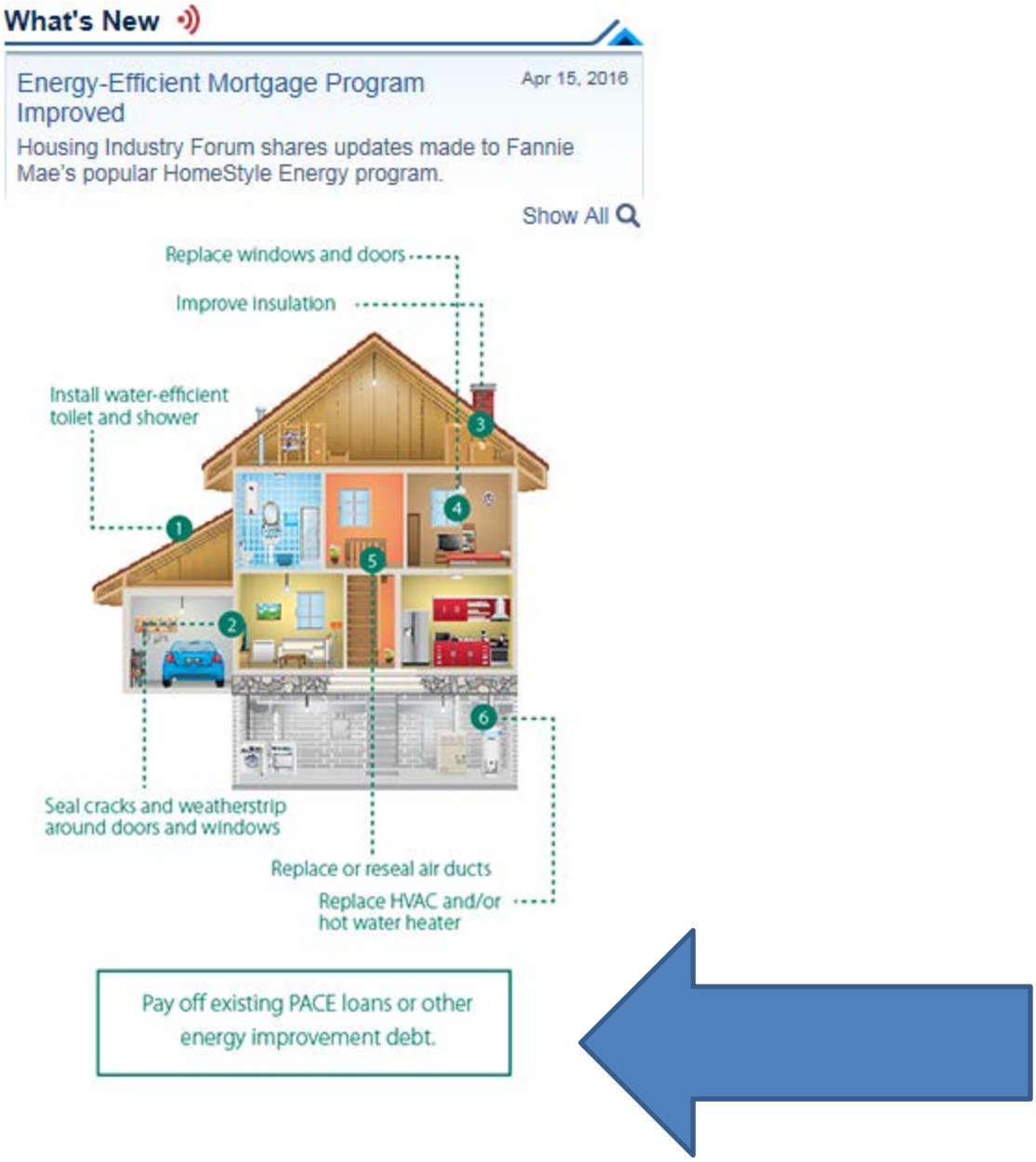
  http://portal.hud.gov/hudportal/documents/huddoc?id=40001HSGH.pdf

- Freddie Mac—Currently, does not address solar PV but are working now to develop a guide. (July 2016)

- Veteran's Administration—Value must be based on real estate market data

  http://www.benefits.va.gov/warms/pam26_7.asp (Ch. 11–12, Section 3)

Fannie Mae HomeStyle Energy Mortgage was announced in April 2016. Below is graphic that provides a quick overview of what the mortgage is intended to address.



Source: https://www.fanniemae.com/singlefamily/homestyle-energy

Digging Deeper

This class does not have time to review all the secondary mortgage market implications or rules concerning solar PV, leases, or power purchase agreements. Below is a partial list of guidelines with links for your study and better understanding of the guidelines. Keep in mind, guidelines are often changes or updated requiring appraisers to continually stay abreast of changes.

Fannie Mae—See page 295 forward

https://www.fanniemae.com/content/guide/sel121614.pdf#page=320

FHA & HUD

The cost related to an energy system that is not owned by the borrower (e.g. leased system, solar lease, etc.) may not be financed into an FHA mortgage. The financing prohibition applies to any of the Title II programs, including but not limited to the 203(k) Rehabilitation program and the Energy Efficient Mortgage (EEM).

Handbook 4240.4 Chapters 1–7

http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/handbooks/hsgh

24 CFR 203.37

FAQ: Can a leased energy system be included in the purchase contract?

An energy system is considered to be personal property, rather than part of the real property, if it is leased or operates under a power purchase agreement (PPA). When an energy system is present, the lender must verify if the solar system is owned, leased, or subject to a PPA.

When an energy system is subject to a lease or PPA that has been prepaid and is included in the sales contract, then the value of the system agreement must be treated as an inducement to purchase. The transfer of a lease or PPA to the new owner that is not prepaid is not considered an inducement to purchase.

Handbook 4155.1 2.A.3–4

http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/handbooks/hsgh

FAQ: Can an energy system that is not owned by the borrower contribute to the property's appraised value?

Digging Deeper, cont.

An energy system that is not fully owned by the borrower, and part of the real property, is not eligible for inclusion into the property value. For example, an energy system operating under a solar lease or a power purchase agreement (PPA), including a prepaid leased system, is ineligible for contributory value.

An appraiser may measure and provide the calculation for contributory value of components of an energy system when it is fully owned by the borrower and part of the legal realty.

24 CFR 203.37

FAQ: Is a home with a leased energy system or power purchase agreement eligible for an FHA mortgage?

A home that operates with a leased energy system or power purchase agreement (PPA) may be eligible for FHA-insured financing but only when such agreements are free of restrictions that prevent the borrower from freely transferring the property.

Such agreements are acceptable, provided they do not cause a conveyance (ownership transfer) of the insured property by the borrower to:

- Be void, or voidable by a third party;
- Be the basis of contractual liability of the borrower (including rights of first refusal, pre-emptive rights or options related to a borrowers efforts to convey);
- Terminate or subject to termination all or part of the interest held by the borrower;
- Be subject to the consent of a third party;
- Be subject to limits on the amount of sales proceeds a borrower can retain (e.g. due to a lien, due on sale clause, etc.);
- Be grounds for accelerating the insured mortgage; or
- Be grounds for increasing the interest rate of the insured mortgage

Any restrictions resulting from provisions of the lease or PPA do not conflict with FHA regulations unless they include provisions encumbering the real property or restrict the transfer of the real property.

Legal restrictions on conveyance of real property (i.e. the home) that could require the consent of a third party (e.g. energy provider, system owner, etc.), include but are not limited to, credit approval of a new purchaser, before the seller can convey the real property, unless such provisions may be terminated at the option of, and with no cost to, the owner.

Digging Deeper, cont.

If an agreement for an energy system lease or purchase power agreement could cause restriction upon transfer of the home, the property is subject to impermissible legal restrictions and is generally ineligible for FHA insurance.

Mortgagee Letter 94-2

http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/letters/mortgagee

24 CFR 203.41

DISCLAIMER: All policy information contained in this knowledge base article is based upon the referenced HUD policy document. Any lending or insuring decisions should adhere to the specific information contained in that underlying policy document.

End Digging Deeper

3.8 Discussion Questions

1. Lending guidelines or specific lender request may not result in compliance with appraisal standards. *What should the appraiser do in this circumstance?*

An analysis must be summarized in an appraisal report that is not restricted. The appraiser must comply with appraisal standards. Lender requirements rarely call for an appraiser to do otherwise. Most problems in this area occur because of a misunderstanding about appraisal standards. For instance, an underwriter asks an appraiser to remove an energy or solar PV adjustment when the appraiser has provided support for the adjustment. To comply with appraisal standards and the underwriter's guidelines, the appraiser would have to make the appraisal subject to a hypothetical condition. This, however, presents another problem for the GSEs (Fannie/Freddie/FHA/HUD) because they cannot accept an appraisal based on the value being subject to the hypothetical condition. Alternatively, for Commercial lenders, a hypothetical condition would not present a problem.

VII. Commercial Lending

A. Underwriting for commercial and industrial properties varies widely.

It is always best to obtain the lender's guidelines before starting an appraisal assignment. Some lenders require that the solar PV system be valued separately from the real estate because they consider loan underwriting of the solar PV system separately from the underlying asset. Other lenders do not have specific guidelines that would affect the way the solar PV system is addressed in the report.

B. Appraise the property without solar PV components.

1. The value for the solar PV system can be developed separately and then reported in its own report section.

2. Market value (as is or as proposed) is the sum of non-solar RE + the solar PV.

3. Segmenting the report makes it easier for bank reviewers and underwriters to analyze the overall loan risk.

4. This structure is easier to underwrite if there is a problem with the solar PV and the lender wants to underwrite the real estate but not the solar PV system.

   Note: The value "without solar PV components" would be premised on a hypothetical condition (i.e., that the solar components do not exist when in fact they do exist). It would not be an "as is" value.

5. It also allows the appraiser to follow the typical format for the real estate and develop a separate section for the solar PV system.

6. Once created, the report section for the solar PV value can be edited and, where appropriate, used as a template for similar assignments.

7. There are several reasons not to include the electricity savings as a utility expense reduction.

   - Doing so can cause confusion because electricity is not the only expense in the utility category.

   - The offset from the solar PV changes in time differently than the CPI due to its reliability, electricity expense growth pattern, and requirement for inverter replacement. (Inverter replacement could be less depending on inverter and warranty.)

Commercial Example from Excerpts of an Actual Appraisal Report Modified for Educational Purposes

Valuation Summary Found on Letter of Transmittal

Valuation Summary: Property Located at Industrial Dr., Anywhere, USA	
Component	**Value**
"As is" Value of Office Building	$2,500,000
Proposed Rooftop Solar Panels as Real Estate	$164,000
Upgraded Lighting & High Performance HVAC	$300,000
Total As-Completed Real Estate Value *Subject to a hypothetical condition that the upgrades and solar PV panels are installed as of effective date of value.	$2,964,000*
Intangible Value – REC Income	$ 60,000
Total Appraised Value	$3,024,000*

Income Capitalization Approach Excerpts of Separate Valuation of Solar PV

Discount Rate – Based on Wall Street Journal prime rate of 3.5% as base cost of capital plus a 125 basis points for risk factor. (3.5+1.25=4.25%) An interview of a local bank financing solar PV systems indicates an effective interest rate of 5%, also demonstrating that magnitude of the cost of capital but adjusted for real estate and solar aspects of the ownership. The financial risk is minimal since it is highly unlikely the electric rate will decrease indicating the discount rate should be close to the cost of borrowing the capital. A survey of solar owners and valuation experts resulted in a solid discount rate range of 5% to 6%. In this valuation, 6% is applied based on this logic.

The following table shows the main inputs for the cash flow using a combination of PV Value® Pro and an Excel Discounted Cash Flow the appraiser developed.

Factor	**Input**
Zip Code	0X0X0
System Capacity	80.3 kW ($2.87/Watt cost new 2016)
Derate Factor (DC to AC)	0.82 (Developed by Appraiser)
Module Degradation Factor	0.5% per year
Array Tilt	10°
Azimuth	215°
Energy Production-1st Year Estimate	94,150 kWh (PV Value®)
Electric Cost per kWh	12.89¢
Discount Rate	6%
Electricity Escalation Rate	2.76% (Based on last 25 Average)
Future Inverter Replacement Cost	25¢ Watt
Module Warranty	25 Years
Analysis Period	25 Years
Reversion Present Value	0
Present Value of Cash Flow	$164,000
Value of Proposed Solar PV	$164,000

Income Capitalization Approach Excerpts of Separate Valuation of Building without Solar PV and "As Is" prior to upgrades

Note: For educational purposes, the details are collapsed and the property location and size is not identified for privacy reasons. The office building has a number of spaces rented with some on a triple net basis and two large spaces on a full service basis. This property will benefit from the energy upgrades and a solar PV system.

Income Capitalization Approach—"As Is" Value of Office Building			
			Current Year
Scheduled Rent Income			$467,500
Less: Vacancy & Collection Loss		10%	($46,750)
	Effective Gross Income		$423,750
Less: Expenses			($211,875)
Net Operating Income			$211,875
Overall Cap Rate		8.50%	
Value Indication		**Rounded**	**$2,500,000**

Income Illustrations are courtesy of
Bruce F. Wiley, MAI
Akerson & Wiley
85 Parker Road
Wellesley, MA 02482
bruce.f.wiley@gmail.com

3.9 Discussion Question

Based on the commercial example previously given, how would you handle the valuation of a commercial building with a 3-year old system?

(Instructors: Allow students to address how they would handle the electric Rate in the income and expense category of a building with a solar PV system Installed.)

- *Develop the Income and Expense using actual figures for electric costs Paid to utility company plus the electrical costs the solar PV system Generates to formulate electrical expense without the solar.*

  Then develop the value of the solar PV using a DCF model.

  To arrive at a value of the building without the solar system requires.

  A hypothetical condition that the building does not have a solar PV system When in fact it does.

On the following pages we will review using the income capitalization approach through PV Value® , a discounted cash flow of the energy produced by the solar PV system. In this course we chose to use this program because it is free, has been vetted by appraisers, and is user friendly. This is not the only tool available to develop a discounted cash flow. Appraisers with good Excel skills may have their own discounted cash flow that meets their needs.

PV Value® Pro is user friendly but should be used with care. One small error could result in a major value estimate. The program does require you to know the details of the solar PV system and have knowledge of discount, utility, and escalation rates.

VIII. PV Value® Pro Overview

A. As of the writing of this material, PV Value® Pro (Photovoltaic) is transitioning to two different versions, PV Value® Consumer; a consumer version (non-USPAP compliant) which is easier for consumers to use, and PV Value® Pro; a professional version (USPAP compliant) which is optimized for usage on a tablet device, allows access to additional datasets and features and is now contained within the Ei Value® (Energy improvement) platform. The PV Value® Manual is outdated and is not expected to be revised for several months. The original manual is in the preclass downloads and still provides excellent information on the authors, the model, and source of information.

Commercial appraisers report that lenders want to see the formulas used in the spreadsheet for a DCF analysis. The PV Value® tool does not allow the display of the algorithms; however, the original user manual does provide the mathematical formula on page 9 and found in your preclass downloads. The formula is as follows and should be included in your appraisal report.

> The method of valuation for the income approach uses the present value of the future energy production from PVWatts™. This is accomplished using the following formula for each year over the remaining life of the project:

$$\left((E_{kWh} * Deg_{rate} * U_{rate} * UEsc_{rate} * Disc_{rate}) - O\&Myr16 * Discrate\right.$$

E_{kWh} – Annual Energy Output (kWh)
Deg_{rate} – Module Degradation rate (%)
U_{rate} – Current Utility Rate (¢/kWh)
$UEsc_{rate}$ – Utility Escalation Rate (%)
$Disc_{rate}$ – Discount Rate (%)
$O\&M_{yr16}$ – O&M Expenses for year 16 (¢)

Source: PV Value® Original Manual Page 9

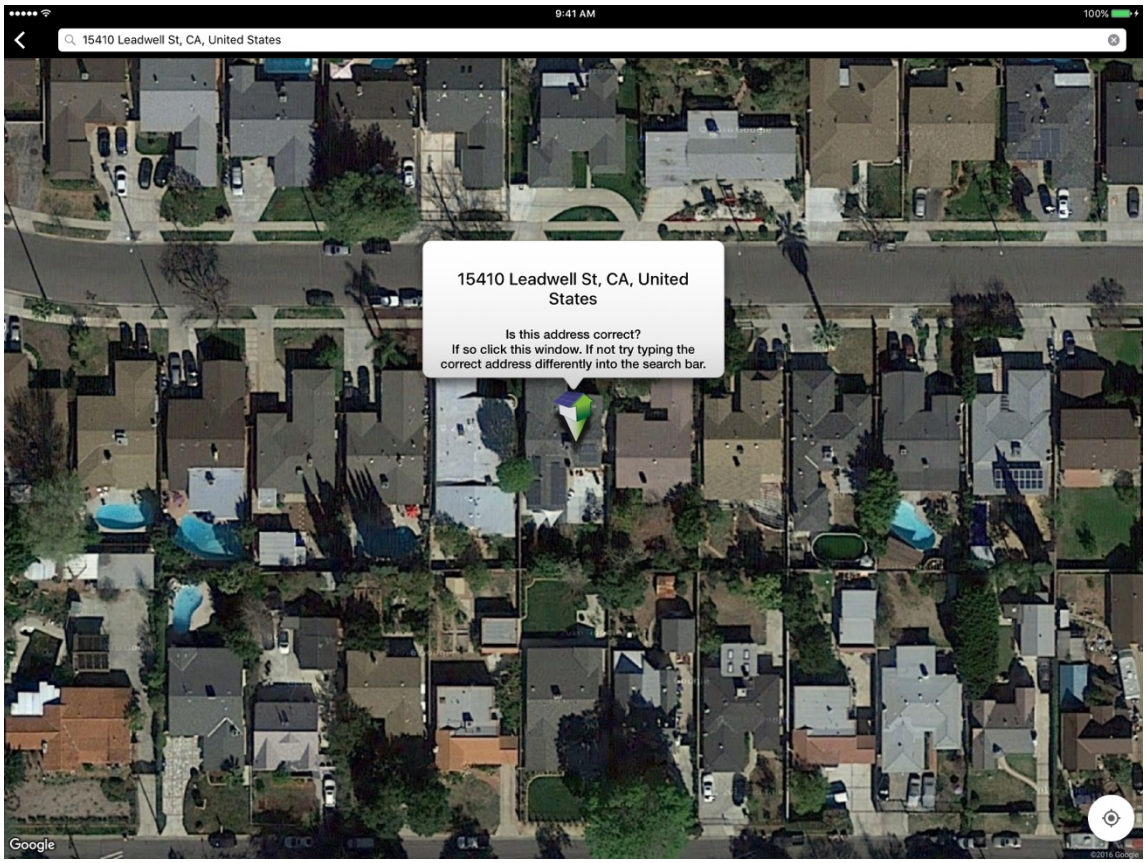
B. Participants should go to www.eivalue.com and register for a free account on the Ei Value® platform if they have not already done so and then download the iPad app from the iTunes store if they have an iPad. There is no cost associated with the free version of PV Value® Pro or for downloading the app. This program will be used to work the case studies in this course material.

C. A walk through the screens of PV Value® Pro

The following pages will provide screen shots of the app and explanation of the inputs. After we have gone through each screen we will review a template you might consider using to support the worksheet showing the value conclusions using the app.

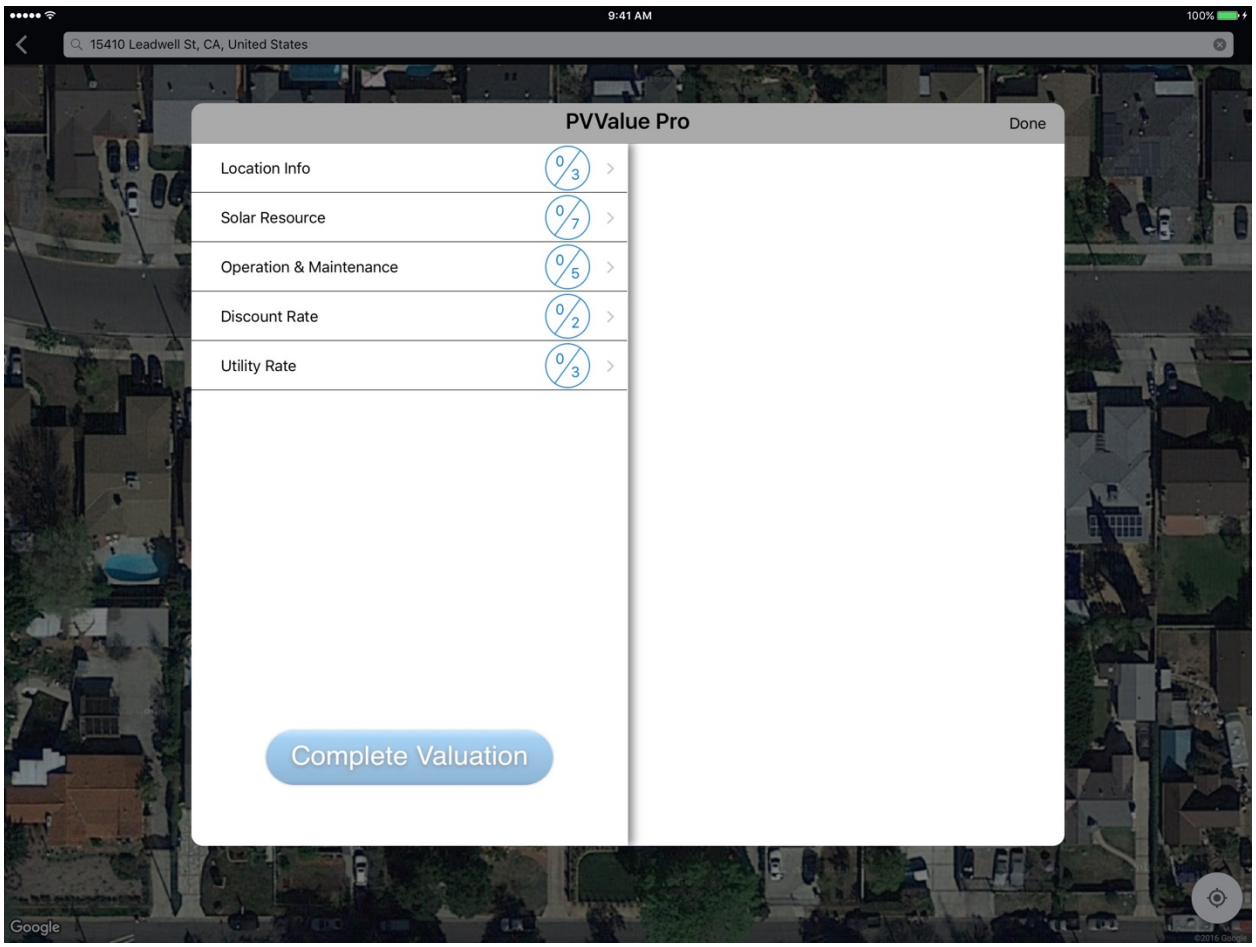
Screen 1 – Property Address Data

An actual physical address is required. Once the address is input, you may select the marker to see the physical address information. If this is the correct address, simple click the window to move to the next screen. If the address is not correct, try entering the address differently in the search bar.



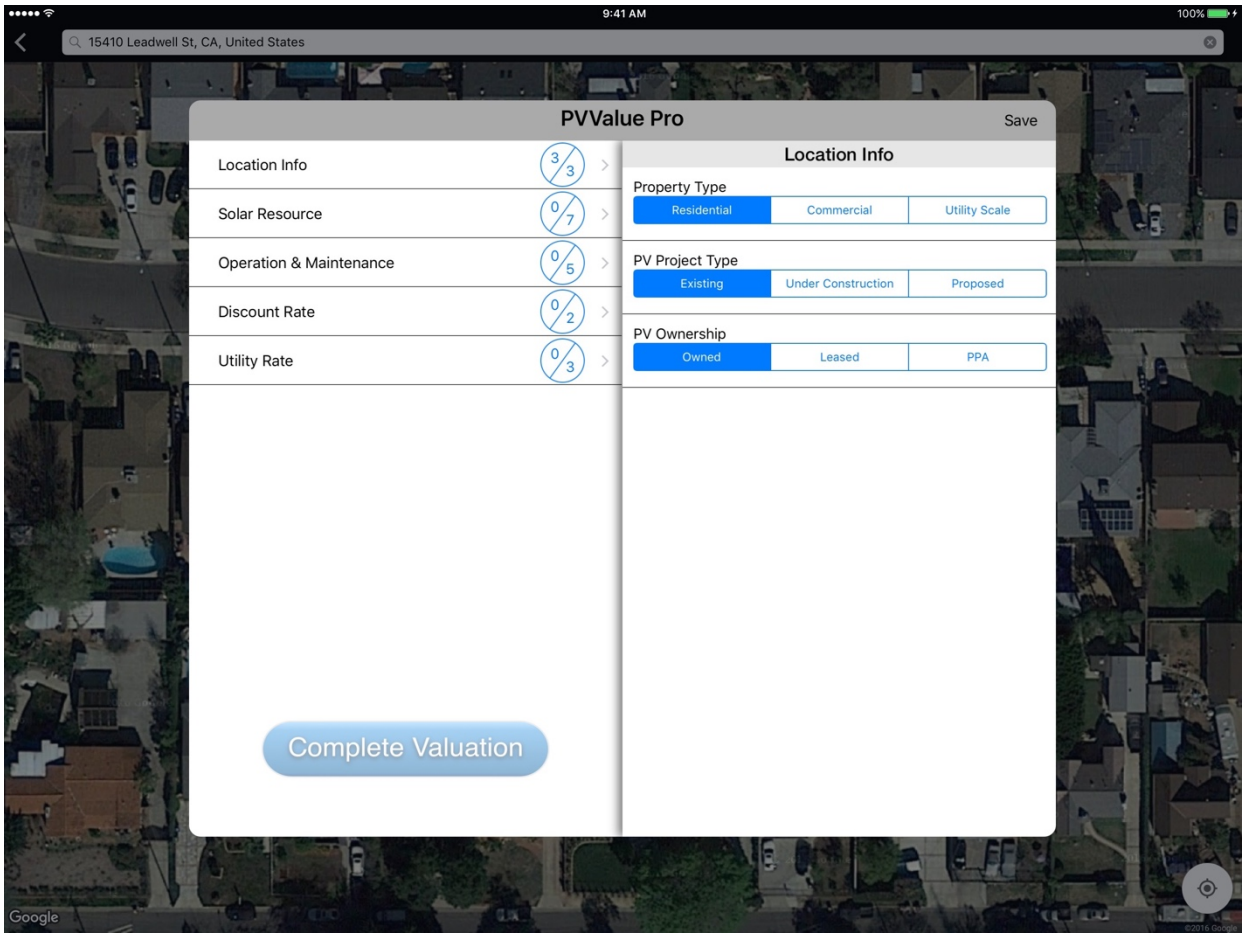
Screen 2 – Overview Screen

This screen gives you an overview of all steps needed to complete a valuation using PV Value® Pro. You may return to this screen at any time to check on your progress and see if any steps still need to be completed. Select “Location Info” to start the valuation.



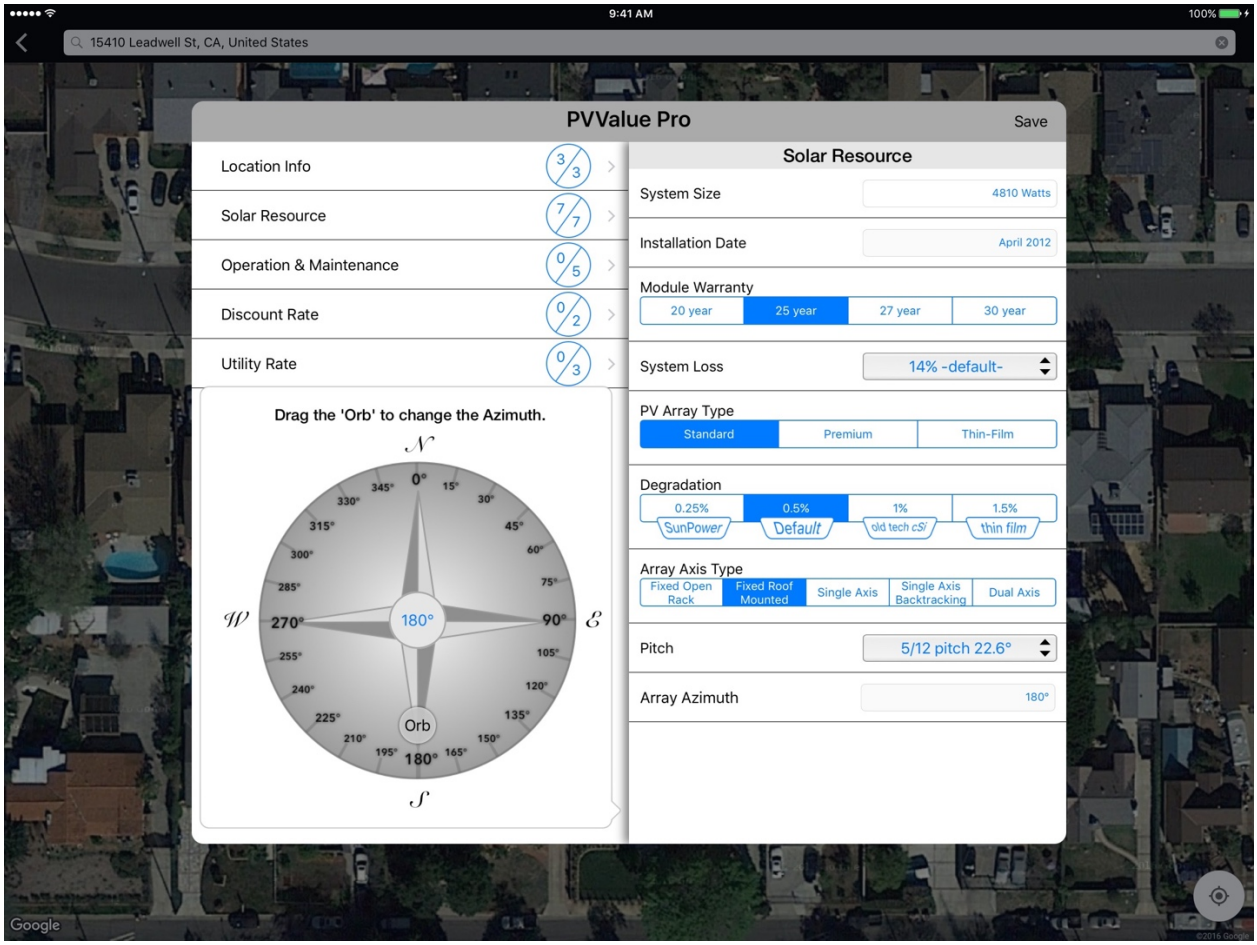
Screen 3 – Location Info

The tabs have choices for selection. Complete the three items and click “Save” to move to the next screen.



Screen 3 – Solar Resource

This screen requires specific solar PV system characteristics to result in a correct estimate of energy produced and value. You must insert the system size in watts (convert kilowatts to watts). Use the warranty term; if you do not have the specific warranty term you may need to make an extraordinary assumption. The default is 25 years and may be inappropriate for systems installed prior to 2010. Address any assumptions in the Scope of Work or narrative supporting each of the inputs.



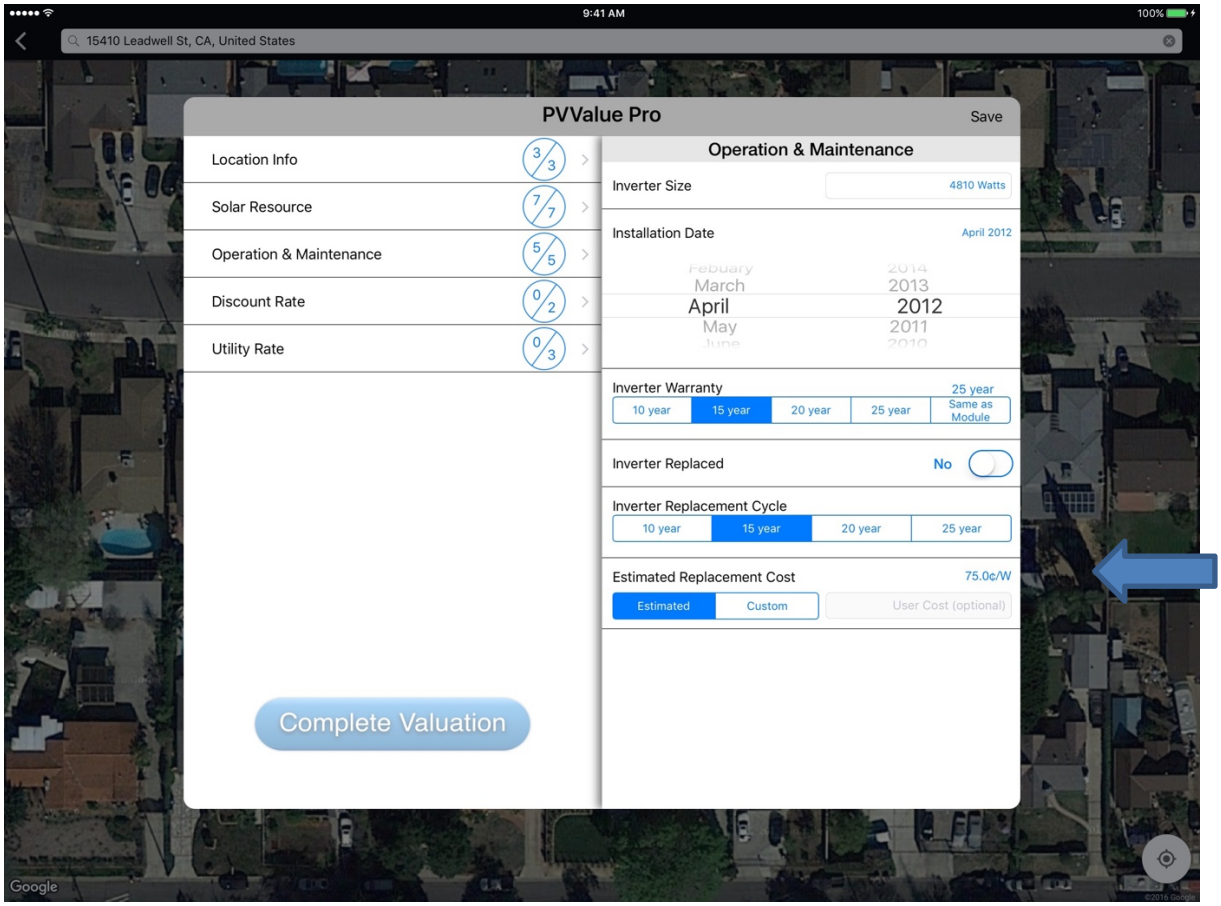
Screen 4 – Operations & Maintenance

Inverter size: Must be input using watts. If you do not have the specific size of the system, use the formula (System Watts/1.15=inverter wattage) This will require another assumption that this is correct. The wattage is used in estimating the replacement cost of the inverter. Use this same procedure for a central inverter or microinverter.

Installation Date: This is the month and year of installation. If documentation is not available, you may use the permit final date or final inspection date.

Inverter Warranty: The 15- year default is based on research that suggests inverters typically last 15 years. However, newer inverters can have warranties that could be more than 15 years. Knowing the specifics requires research and an interview of the installer, property owner, or a review of the documentation. The warranty term and replacement date is used to estimate a replacement cost time in the cash flow.

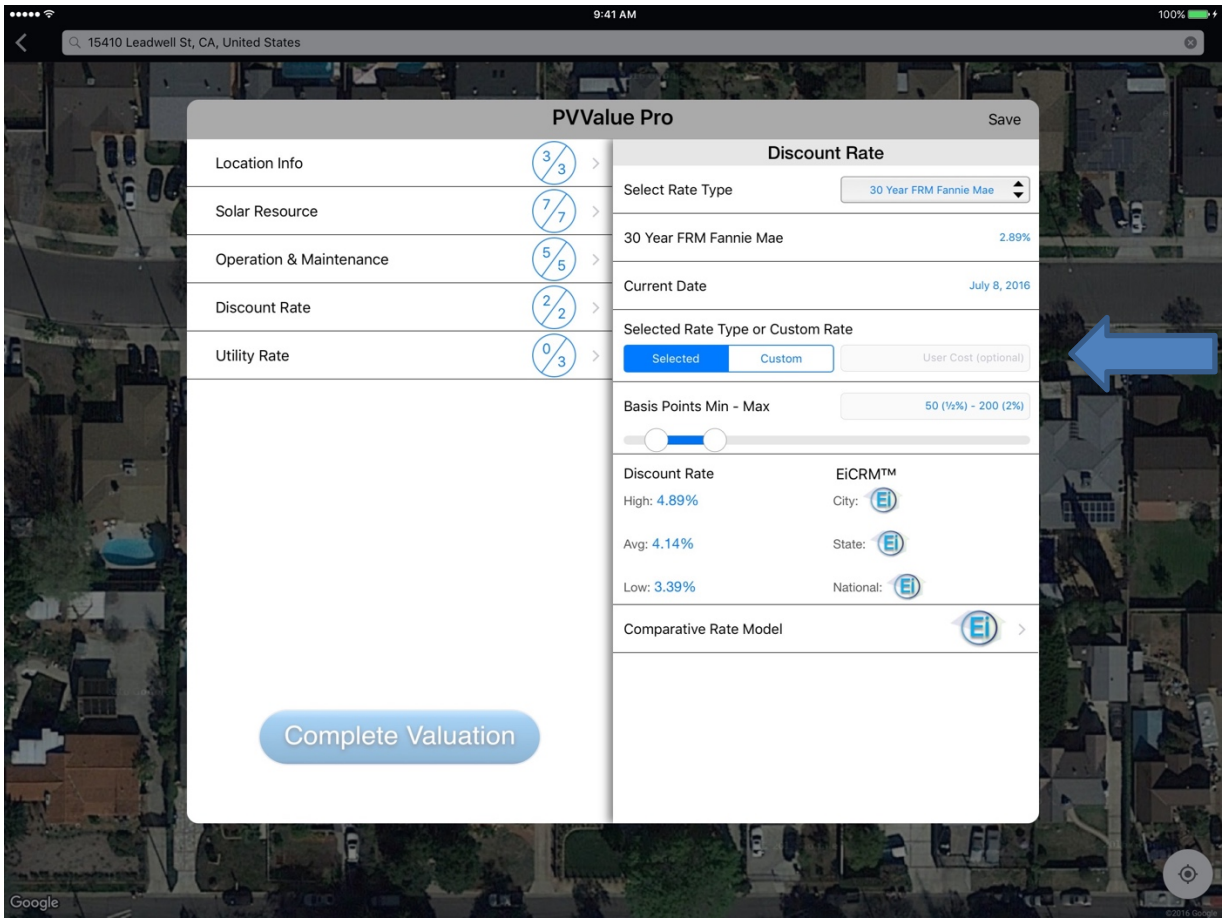
User Input Inverter Replace Cost Using Cents per Watt: If you have support for the inverter replacement costs that varies from the "Estimated Replacement Cost" then you can select custom and input your findings here. If you do not have support and are comfortable with the estimate shown on the screen and identified below with an arrow, leave this space blank and the program will use the amount shown as a replacement.



Screen 5 – Discount Rate

PV Value® Pro will show the current day Fannie Mae 30-year fixed interest rate. This information would not apply to a commercial or industrial property but is helpful information for residential users. Residential property owners often use this rate as a basis for the safe rate in the discount rate development.

The Minimum and Maximum Basis Points should be adjusted based on your view of the risk rate for the cash flow. The system defaults to 50 to 200 basis points but you can change the inputs by moving the sliders. By providing a range of basis points you will have a range of discount rate values based on the basis points provided as they get added to the base interest rate.

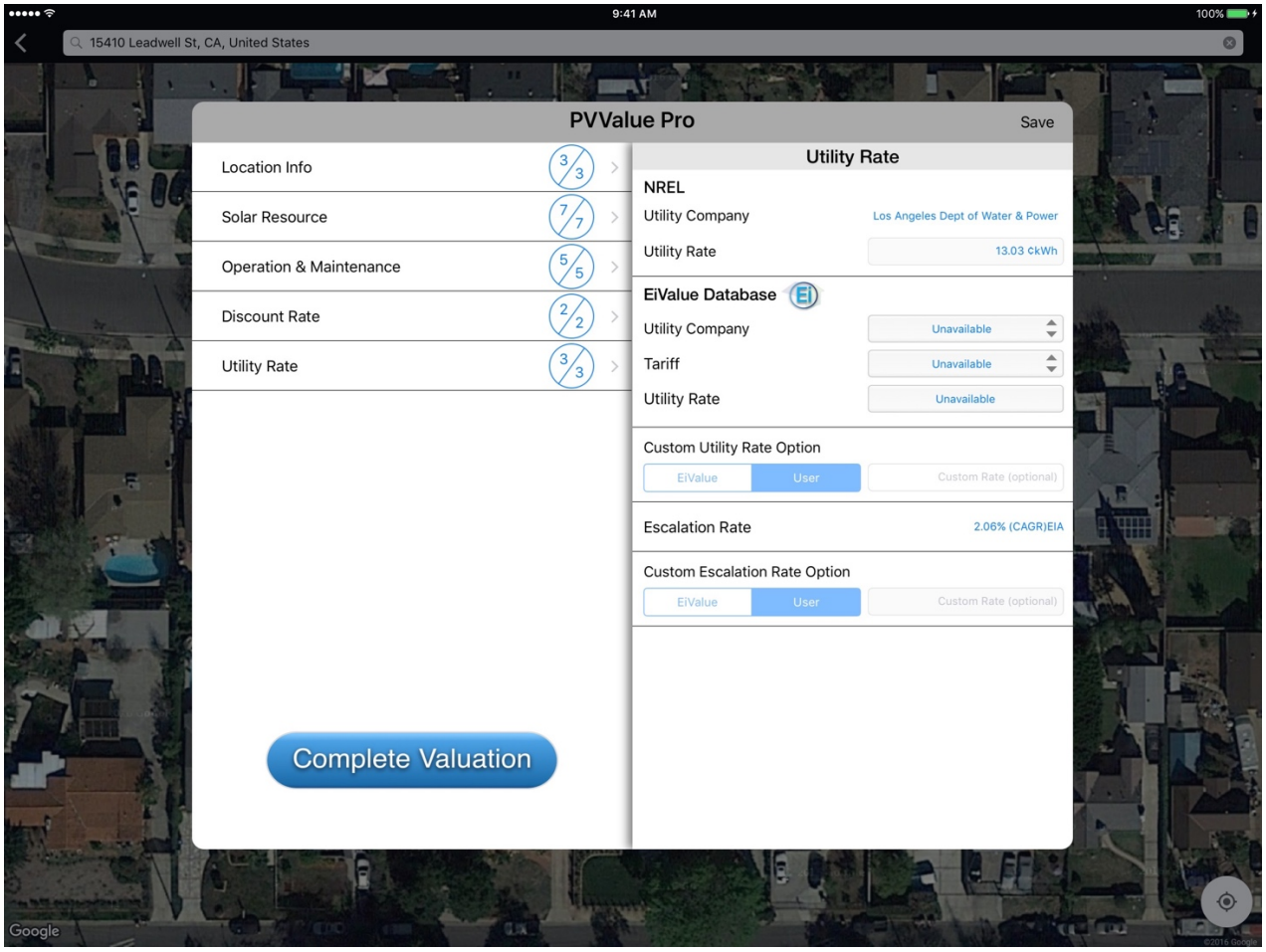


Screen 6 – Utility Rate

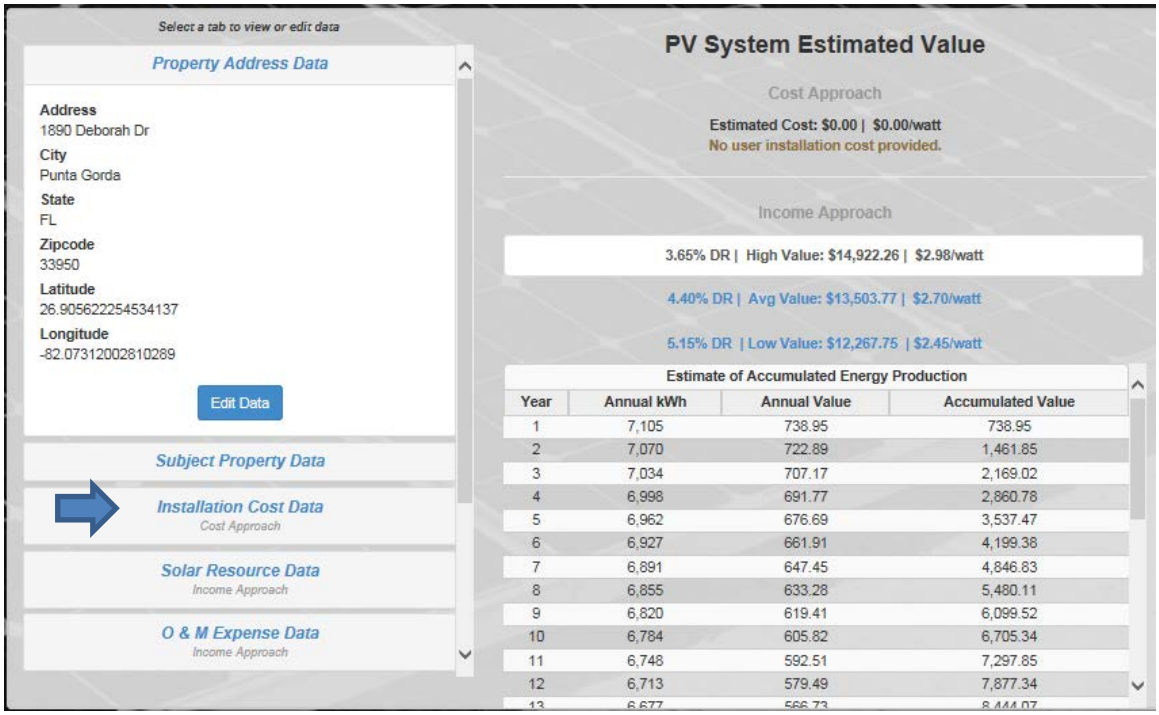
Utility Rate: Always use “WHOLE CENTS” – 10.5 cents per kWh. If you insert .105, you will receive a low or negative value.

The Utility rate and the utility company serving the location will be displayed. The rate and company data are provided by NREL and may not be current, it is your responsibility to research the rate for the property to insert in the “Custom Utility Rate Option.”

Escalation Rate as a Percentage (CAGR) is shown based on research of utility rates in your location going back as many years as you will be discounting going forward. If you have verifiable data supporting a different number, you may input that number under “Custom Escalation Rate Option” using a CAGR calculation in whole cents.



Screen 7 – PV System Estimate Value



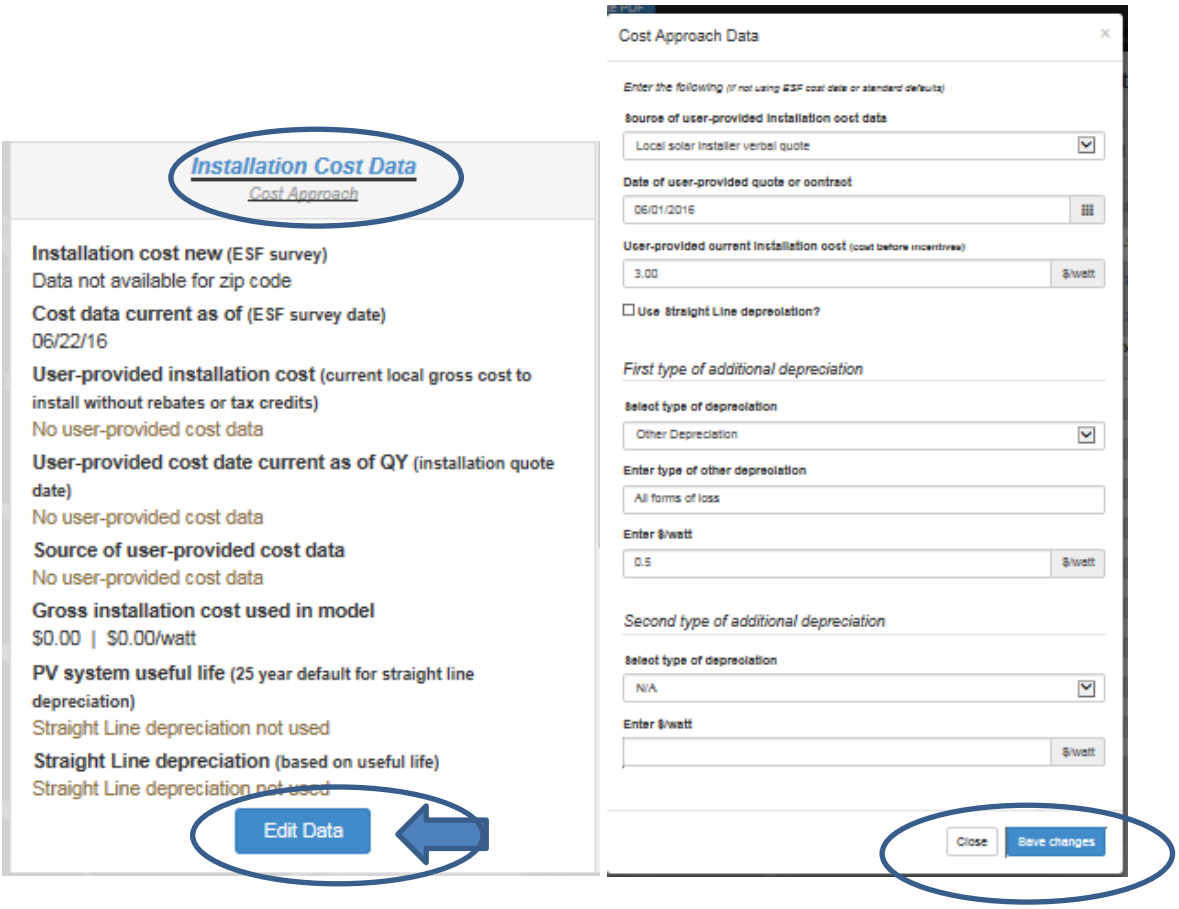
Year	Annual kWh	Annual Value	Accumulated Value
1	7,105	738.95	738.95
2	7,070	722.89	1,461.85
3	7,034	707.17	2,169.02
4	6,998	691.77	2,860.78
5	6,962	676.69	3,537.47
6	6,927	661.91	4,199.38
7	6,891	647.45	4,846.83
8	6,855	633.28	5,480.11
9	6,820	619.41	6,099.52
10	6,784	605.82	6,705.34
11	6,748	592.51	7,297.85
12	6,713	579.49	7,877.34
13	6,677	566.73	8,444.07

Developing the Cost Approach in PV Value®

You will need to research cost new as of the effective date of value. (Not date it was installed unless it is the same date of the value.)

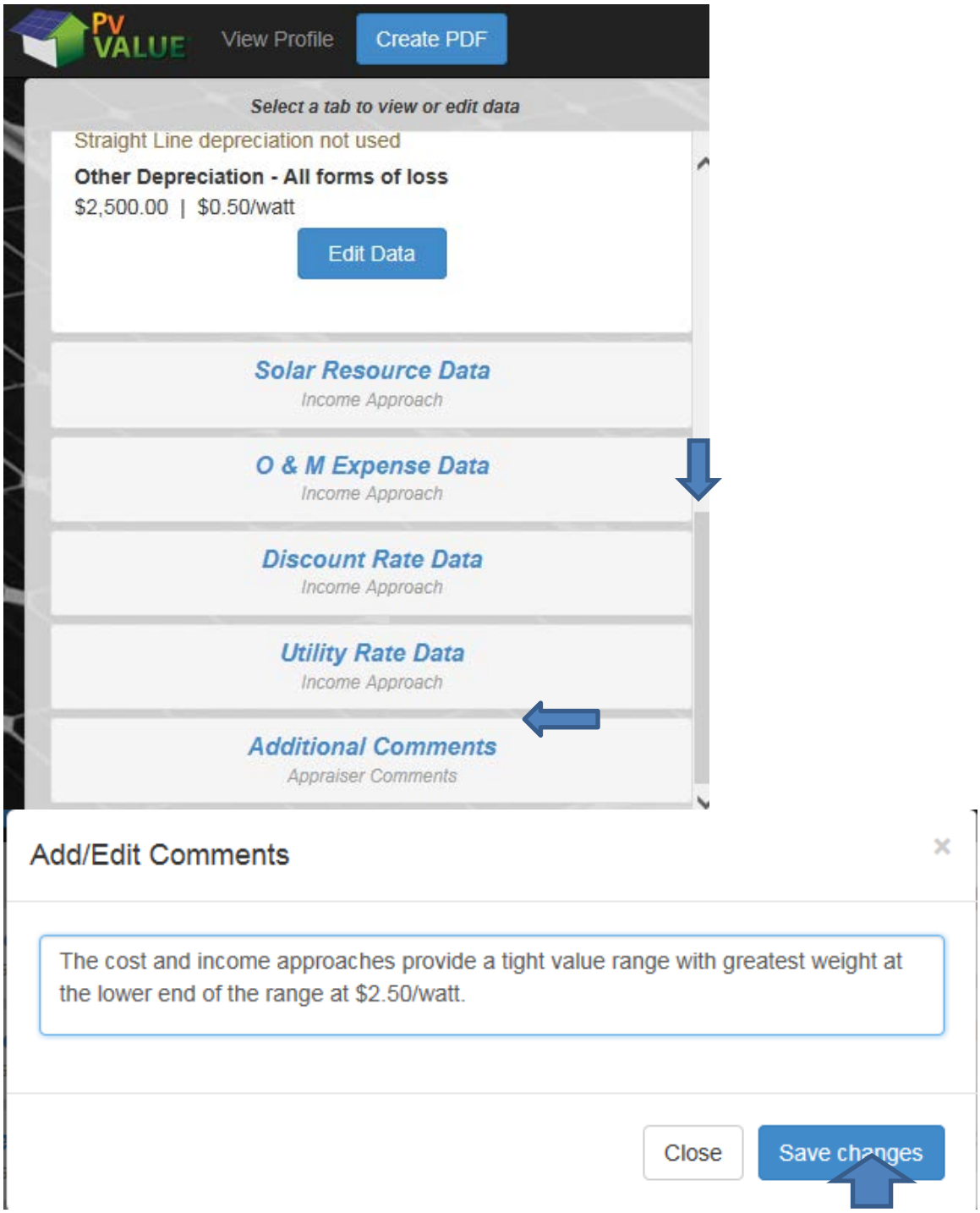
Click on the "Installation Cost Date" tab and the edit button on the bottom of the screen. Identify the source for cost new, date of the source, and Cost New per WATT. This would be the gross cost prior to incentives, rebates, or tax credits.

Depreciation: In the example below, the type of depreciation is shown as "All forms of loss". The choices in the dropdown box are Functional, External, or Other Depreciation. Other Depreciation was chosen requiring an explanation. The amount charged is for all forms of loss.



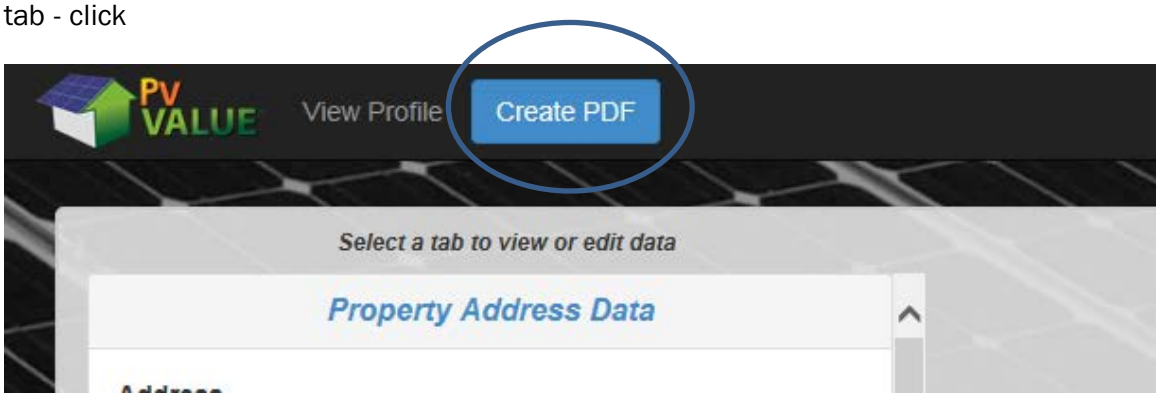
Additional Comments

User the scroll bar shown by an arrow below to scroll to the last screen on the list. Select Additional Comments screen and the edit comments bar to type appraiser comments. This is a great place for reconciling comments. The comments will appear on the final worksheet.

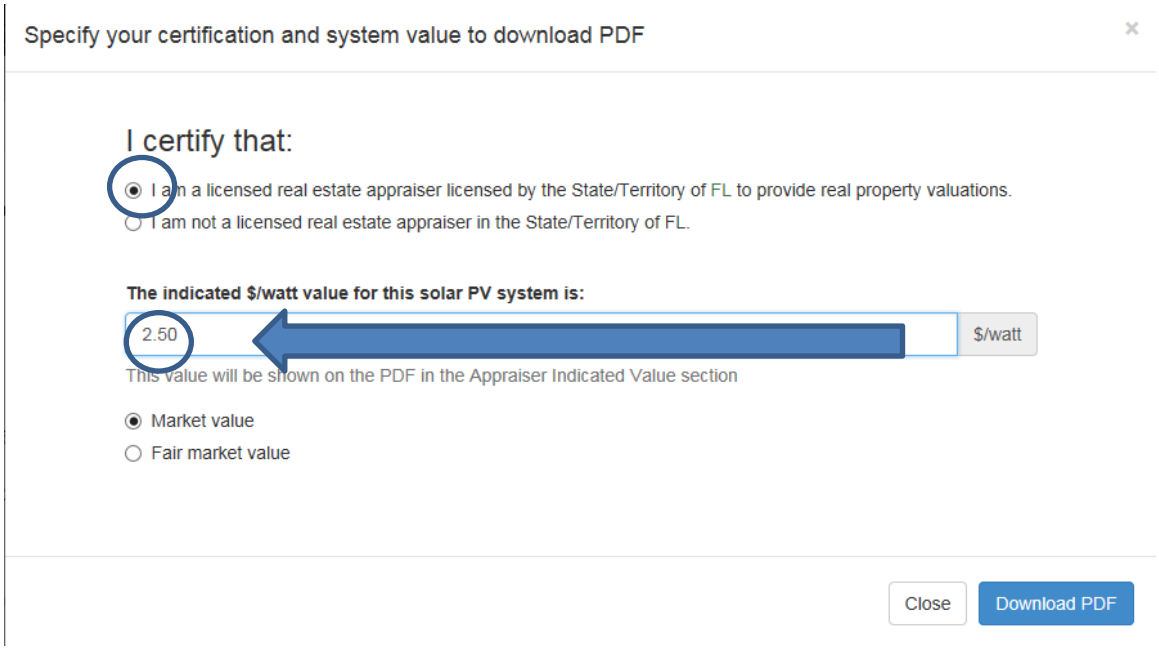


Create PDF – Final Worksheet that will go in your appraisal report or workfile.

In the upper left hand corner of the screen above the list of screens is a "Create PDF" tab - click



The next screen you will see is below. You must be registered as an appraiser and click the correct selection below to show the appraiser version of the worksheet. (shows cost, appraiser comments, and income values)



You must input the value per WATT where the arrow shows above or the value conclusion will not show on the worksheet. Then click download PDF.

The PDF Worksheet that can be included in your report should be carefully reviewed to insure the inputs are correct. If you need to edit, close the PDF and click the tab of the sheet that requires editing. Make your corrections and then recreate the PDF. The PDF for the sample used in these screen shots is on the following page.

Sample Worksheet Showing Discounted Cash Flow and Cost Approach in Valuing the Solar PV System

PV VALUE	Beta Version 0.8.1	File #:	Appraiser Indicated Value:	$13,800.00	$2.30 /watt
	09/14/15 5:47:04 PM	NA	Report Prepared By:	Sandra Adomatis	

Subject Property Data

Address:	[redacted]				
City:	D.C.	State:	DC	Zip Code:	20011
Property Type:	Residential	PV Project Type:	Existing	PV Ownership:	Owned

Cost Approach Method | Physical Age / Life | Depreciated Cost

Source:	User 8-1-15 DC	Gross Replacement Cost New:	$19,800.00	$3.30 /watt
Life:	25	Straight Line Depreciation:	$0.00	$0.00 /watt/yr
Age:	0	Accumulated SL Depreciation:	$0.00	$0.00 /watt
Additional Depreciation:	None		$	$ /watt
Additional Depreciation:	Other Depreciation - All forms of loss		$6,000.00	$1.00 /watt
Estimated Depreciated Value		Cost Approach:	$13,800.00	$2.30 /watt

Income Approach Method | Energy Value DCF

Solar Resource		O & M Expense		Utility Rate	
System Size Watts:	6,000	Inverter Size Watts:	5,200	NREL Utility Co:	Potomac Electric Power Co
Module Warranty Yrs:	25	Inverter Warranty Yrs:	15	NREL Utility Rate:	10.98 ¢/kWh
System Age Yrs:	0	Inverter Age Yrs:	0	User Provided Utility Rate:	- ¢/kWh
Remaining Yrs:	25	Inverter Replaced:	No	Utility Rate Used:	10.98 ¢/kWh
Derate Factor:	0.77	Inverter Replacement Cycle Yrs:	15	EIA Escalation Rate:	3.90% CAGR
Degradation Rate:	0.50%	Inverter Replacement Cost		User Provided Esc Rate:	- % CAGR
Array Tilt:	26.6 °	Survey Data:	55 ¢/W	Escalation Rate Used:	3.90% CAGR
Array Azimuth:	180 °	User Provided:	- ¢/W	Comments:	
Annual kWh Est:	7,139	Replacement Cost Used:	55 ¢/W	Incentives offset depreciation. Market is not willing to pay gross cost. Fed. Tax Credits are not included in incentive amount.	
		O & M Exp (future):	$3,300.00		
		O & M Exp (discounted):	$1,633.41		

Cost of Capital		WACC Used +	Risk Premium	= Discount Rate ➡	Estimated Energy Value / Income Aproach	
Fannie Mae Date:	September 14, 2015		200 Basis Points	5.55%	$13,697.66	$2.28 /watt
Fannie Mae Rate:	30 Yr 90 day 3.55%	3.55%	125 Basis Points	4.80%	$14,959.47	$2.49 /watt
User Provided Interest Rate:	- %		50 Basis Points	4.05%	$16,383.10	$2.73 /watt

Estimate of Accumulated Energy Production / Income Aproach

		Low Estimated Value		Avg Estimated Value		High Estimated Value	
Year	Annual kWh	Annual Value	Accumulated Value	Annual Value	Accumulated Value	Annual Value	Accumulated Value
1	7,103	779.94	779.94	779.94	779.94	779.94	779.94
2	7,068	763.89	1,543.84	769.36	1,549.30	774.90	1,554.85
3	7,032	748.15	2,291.99	758.90	2,308.20	769.88	2,324.73
4	6,996	732.72	3,024.71	748.56	3,056.77	764.87	3,089.59
5	6,961	717.59	3,742.29	738.35	3,795.11	759.87	3,849.46
6	6,925	702.75	4,445.04	728.25	4,523.37	754.88	4,604.34
7	6,889	688.19	5,133.23	718.28	5,241.65	749.91	5,354.25
8	6,853	673.93	5,807.16	708.42	5,950.07	744.95	6,099.20
9	6,818	659.94	6,467.09	698.68	6,648.74	740.00	6,839.20
10	6,782	646.22	7,113.31	689.05	7,337.80	735.06	7,574.26
11	6,746	632.77	7,746.08	679.54	8,017.33	730.14	8,304.40
12	6,711	619.58	8,365.66	670.14	8,687.47	725.23	9,029.63
13	6,675	606.65	8,972.31	660.85	9,348.32	720.33	9,749.96
14	6,639	593.97	9,566.29	651.67	9,999.99	715.45	10,465.41
15	6,604	581.55	10,147.83	642.60	10,642.59	710.58	11,175.98
16	6,568	569.36	9,083.78	633.64	9,642.82	705.72	10,248.29
17	6,532	557.41	9,641.20	624.78	10,267.61	700.87	10,949.16
18	6,496	545.70	10,186.90	616.03	10,883.64	696.03	11,645.19
19	6,461	534.22	10,721.12	607.39	11,491.03	691.21	12,336.40
20	6,425	522.96	11,244.08	598.84	12,089.87	686.40	13,022.81
21	6,389	511.93	11,756.01	590.40	12,680.27	681.60	13,704.41
22	6,354	501.11	12,257.12	582.06	13,262.33	676.82	14,381.23
23	6,318	490.51	12,747.63	573.82	13,836.15	672.05	15,053.27
24	6,282	480.11	13,227.74	565.68	14,401.83	667.29	15,720.56
25	6,247	469.92	13,697.66	557.64	14,959.47	662.54	16,383.10
26	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-

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http://www.imt.org/uploads/resources/files/HighPerformance_Home_Valuation_Report_Sept2015.pdf

Sample Support for Discounted Cash Flow Inputs on the Prior System in D.C.

PV Value® Pro requires specific inputs to create a credible value opinion. The basis for each input is explained below.

- Tilt: The roof pitch was estimated based on aerial mapping and roof pitch.
- Orientation: The orientation was based on aerial mapping.
- Warranty term (considered equal to the useful life of the system and the term for discounting the cash flows): The typical warranty term is reported at 20-30 years with most systems having a warranty term of 25 years according to Sandia National Laboratory, Solar City, SunRun, and other solar sales companies. The warranty term is used because it closely mirrors the roof covering life. A 25-year term is used for discounting the energy produced.
- Utility Rate: The utility rate including taxes, shown in the PV Value® Pro worksheet, was verified verbally by Potomac Electric Power Company (PEPCO). It is important to use accurate utility rates as it can materially affect the value conclusion. The taxes and all charges utility company applies each month must be included in this rate to more accurately determine how much the energy the solar PV system produces saves the owner on an annual basis.
- Utility Escalation: The utility escalation rate is tied to the remaining system lifetime. PV Value® Pro uses the U.S. Energy Information Administration (EIA)[36] data on utility rates to calculate the escalation rate. Since this system has a 25-year useful life estimate, a rate based on the compound annual growth rate over the past 25 years is applied.
- Discount Rate: The discount rate is based on the current Fannie Mae 30-year, 90-day, fixed-rate mortgage plus a 50–200 basis point spread to account for the risk that cash flow projections may not be fully realized. Unlike commercial investors, the typical residential buyer does not consider discount rates. Appraisers must consider how homeowners view the alternative rate they might receive for an investment with similar risk factors. Ms. Adomatis reports that interactions with other appraisers and homeowners indicate that most residential owners consider rates similar to the current mortgage rate, or the second or equity line of credit mortgage rate. Further study is needed to develop residential discount rates from transactions in given markets.

36. http://www.eia.gov/electricity/data/state/

- Cost Approach for Solar PV System

    - When employing the cost approach to value solar PV, it is important to understand the following terms:

    - Cost New: The gross cost new is based on a Solar Energy Industries Association (SEIA) June 2015 report[37] of residential solar PV costs, in addition to a local builder's report on a recent purchase.

    - Depreciation: Depreciation is the difference between cost new and the amount the market is willing to pay. The system for this HPH sale is assumed new since the property was recently renovated. However, it is possible to have depreciation even with a new product. The solar PV system's depreciation is difficult to establish with market data. Based on a recent study published by Lawrence Berkeley National Laboratory, *Selling Into the Sun: Price Premium Analysis of a Multi-State Dataset of Solar Homes,18* the contributory value of solar PV is similar to the net cost[38] of the system. This finding suggests that incentives are currently offsetting any depreciation that might apply.

    - The 30 percent federal tax credit is not included in the depreciation amount. Excluding this tax credit, a local builder reports incentives of $0.96 per watt, and a solar sales company reports $1 per watt. For this study, $1 per watt is applied for the depreciation. Based on the cost approach, the 6kW system is valued at $13,800.

- Reconciliation of the Cost and Income Capitalization Approaches to Valuing the Solar PV System

    - The 6kW solar PV system is valued at $13,800 based on the cost and income approaches to value. The reconciled value is equal to the cost approach value and falls at the lower end of the range developed in the income approach. The cost is the method most buyers understand although they do consider the cash flow the system provides them but often do not equate it back to today's dollars. This reconciled value will be used in the following cost approach and the basis for the adjustment in the sales comparison approach for those sales that do not have a solar PV system.

This example is from the Washington D.C. study, "What's Green Worth? Unveiling High-Performance Home Premiums in Washington, D.C.*,"*[39] written by Sandra Adomatis, SRA, LEED Green Associate. The study was sponsored by the Institute for Market Transformation and funded by the District of Columbia Department of Energy and Environment.

37. http://www.seia.org/research-resources/solar-market-insight-report-2015-q1
38. Net cost is defined as gross cost less any incentives.
39. http://www.imt.org/uploads/resources/files/HighPerformance_Home_Valuation_Report_Sept2015.pdf

D. Cost Approach Example from a 1004 Form – Residential Property

Notice the solar PV System Value matches the reconciled value in the previous PV Worksheet

OPINION OF SITE VALUE				= $	225,000
Dwelling	1,520	Sq. Ft. @ $	225	= $	342,000
760		Sq. Ft. @ $	125	= $	95,000
Porch					15,000
Garage/Carport		Sq. Ft. @ $		= $	
Total Estimate of Cost-New				= $	452,000
Less	Physical	Functional	External		
Depreciation				= $ (	0)
Depreciated Cost of Improvements				= $	452,000
"As-is" Value of Site Improvements				= $	35,000
Contributory value of solar PV system					13800
INDICATED VALUE BY COST APPROACH				= $	725,800

By using the PV Value® Pro Worksheet to support the contributory value of the solar PV system, depreciation has already been included. It would be inappropriate to include the solar PV system on the same line as the porch and depreciate it at the same rate as the structure. The solar PV system may have obsolescence or higher depreciation rates than the structure; therefore, by including it as shown above, the depreciation issue is addressed.

E. Solar PV Built In to Roof Covering

Solar PV may be a part of the actual roof covering providing a more esthetically pleasing installation of solar PV. In most cases, the solar PV company costs the entire roof covering and solar PV together. This requires care in developing a cost approach to avoid double costing the roof covering. Below is an example that was developed from an actual appraisal.

Cost Approach – Solar PV and Roof Covering	
Cost of Solar PV/Roof Covering	$38,000
Less Cost of Similar Roof Covering without Solar PV	-$20,000
Difference between the two costs is attributed to Solar PV	$18,000
The cost of solar PV/roof covering came from the solar installer contract for purchase. A similar roof covering cost without solar built-in was developed using Marshall and Swift Cost Service. The difference between the two costs provides a cost for the solar PV alone. In the cost approach, the solar PV is valued on a contributory value developed using paired-data and PV Value® Pro. The roof covering without solar PV is included in the cost per square foot of the building.	

It would be inappropriate to show the cost new of the solar PV at $38,000 because it includes the roof covering. Explaining the cost developed adds clarity and credibility to the report and should avoid calls from the underwriter.

F. Discount Rates

Discount Rate. *A rate of return on capital used to convert future payments or receipts into present value; usually considered to be a synonym for yield rate.*

Risk Rate. *The probability that foreseen events will not occur. Risk may be incurred as a result of the impact of general economic and market conditions upon the performance of the specific property, the interaction of a group of investments in a portfolio, or the operation of the real estate enterprise as an independent venture.*

Yield rate (Y). *A rate of return on capital, usually expressed as a compound annual percentage rate. A yield rate considers all expected property benefits, including the proceeds from the sale at the termination of the investment.*

Source: *The Dictionary of Real Estate Appraisal, 6th ed.*, 2015. The Appraisal Institute

The discount rate for the income stream on a solar photovoltaic system should be based on sound logic. Using the discounted cash flow on a feature of a residential property is a new technique to many residential users. However, the argument for using it is sound. The solar photovoltaic system is a feature purchased by the homeowner to specifically produce a product, energy, to replace a payment they would normally pay to the utility company. This by definition is an income stream. It would be inappropriate to total the 25-year savings amount and apply it to today's dollars. No reasonable person would pay an amount today for an item when it will be 25 years before they see those dollars returned. That is why a discount rate is applied.

What does the Solar Panel Performance Warranty actually warrant?

A common practice in the solar energy industry is to guarantee that the panels will not lose more than 10%-20% of their power output capacity over the first 25 years.

What does the solar panel product warrant?

Most solar panel manufacturers warrant that their panels will not fail for at least the first 10-12 years, and some extend their solar warranty periods even longer than that.

Source: Energysage - http://news.energysage.com/shopping-solar-panels-pay-attention-to-solar-panels-warranty/

3.10 Discussion Questions – Discount Rates

In the discount rate, one must consider the risk factor. The risk factor may be developed by the answers to the following questions:

1. How sound is the income estimate for the utility and escalation rate?

The solar manufacturer has a good track record for energy production and the utility rate has good basis. The escalation rate is based on solid research and there are no immediate signs of rates decreasing or even remaining the same. The utility grid and power plant is aging and the probability of future expenses to maintain the grid suggests the electric rates will continue to increase.

As more installations of solar occur and less energy is purchased, the prices must also adjust upward. There is a probability of flat rates increasing to be connected to the grid that could affect the income stream of this DCF.

If the income stream includes net metering income, there is no assurance utility companies will continue to pay their current rates for energy sent back to the grid. There is even concern that utility companies will not be required to pay for energy received from private sources in the near future. This could affect income streams that include net metering.

3.10 Discussion Questions – Discount Rates, cont.

2. What could go wrong with the system that would affect the production/income stream?

Market value assumes good maintenance. If the system is an older one, lower quality, or a new product without documented research, there is a chance it might not produce as envisioned.

If the system does not have ideal orientation, the production will be less than expected; however, the analysis should take this into consideration when developing the value. West-facing systems are offsetting higher electric rates in some areas with time of use pricing. Has that been included in the income stream?

3. How solid is the term "discounted"?

The term currently used is the useful life based on the warranty term. Once a sufficient database of sales occurs, appraisers will be able to develop the economic life that might be more appropriate than the useful life.

4. What other questions should be considered on the risk side of a solar PV system?

Allow students to provide input.

What if the buildings becomes vacant and energy cannot be used or sold back to the grid?

3.10 Discussion Questions – Discount Rates, cont.

5. *How does a residential appraiser support a yield or discount rate?*

The typical residential owner does not think of a home purchase in the same way as an investor in a commercial property. Most residential owners consider the current mortgage rate plus some room for risk or the unknown. Some might consider the most they could receive in an alternative investment. One way to pose the question to the homeowner is "What would you expect your money to yield or grow to in a 20-year period?"

Documenting an ongoing survey in your market will be useful as support for discount rates on residential properties. In the report explain the basis for the discount rate applied.

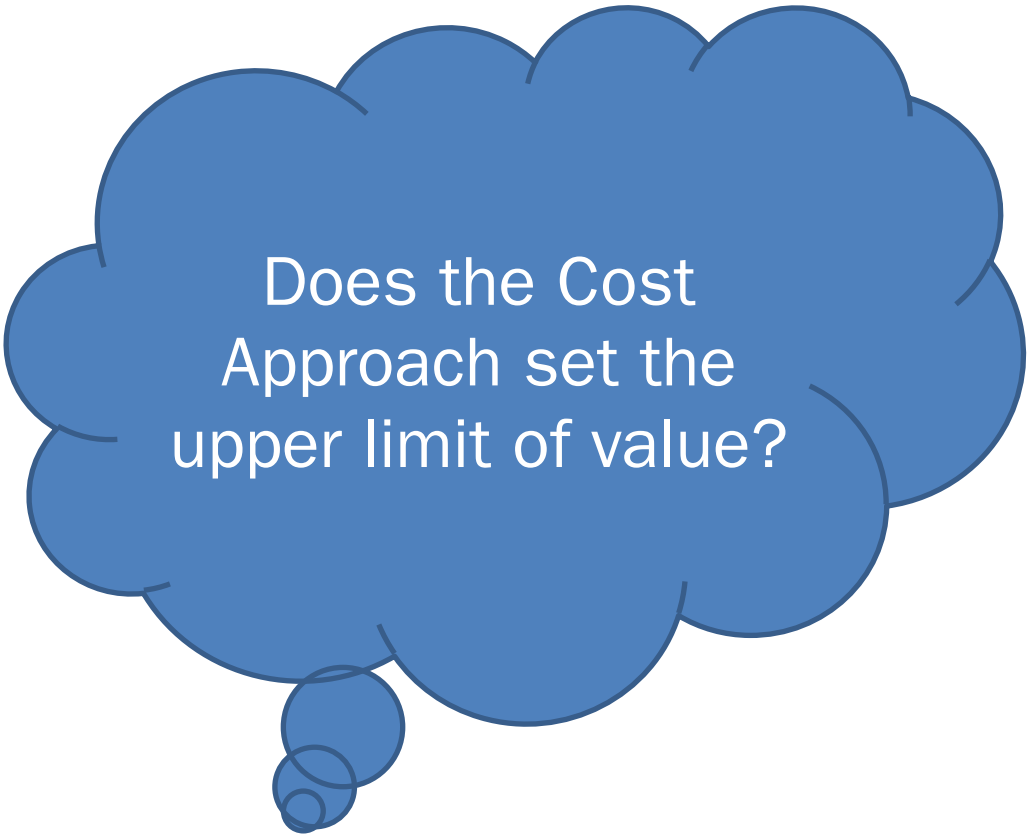
6. *How can the discount rate be supported for solar PV systems on commercial properties?*

The discount rate might be supported by the rate used for the building based on market sales.

In the report, build the case for the discount rate used. Explain to the underwriter/client how the discount rate was developed.

If the roof-mounted system is not rated for fire to meet the NEC Code, the risk rate should take this into consideration. California systems installed before the NEC Code will create a potential liability and insurance issue.

Caution: The PV Value® Pro income approach should always be used with another method or two as a test of reasonableness.



What some appraisers say about the question–

- A knowledgeable buyer would not pay more for a solar PV system than the cost to buy that system today.
- When the income approach indicates a value much higher than the cost approach, my gut says the solar PV premium is the cost new of the system today.
- In my market, the cost of electricity is high (over $0.30 kWh) resulting in a high value using the income approach. It is difficult to attribute the difference between cost new and the income as entrepreneurial profit. Solar PV is easy to buy and install.
    - In this case, maybe the discount rate is not high enough?

Digging Deeper

Discount Rates

Note. The following extract is from *The Appraisal of Real Estate,* 14th ed.

> Discounting is a general term used to describe the process of converting future cash flows into a present value. The discount rate is the rate used for the discounting process and may be a property yield rate, equity yield rate, or some other defined rate. In real estate appraisal practice, the most common methodology for valuing the total bundle of rights is the property yield rate (Y_o).
>
> To select an appropriate yield rate, an appraiser must verify and interpret the attitudes and expectations of market participants, including buyers, sellers, advisers, and brokers. Although the actual yield, or internal rate of return, on an investment cannot be calculated until the investment is sold, an investor may set a target yield for the investment before or during ownership. Historical yield rates derived from comparable sales may be relevant, but they reflect past, not future, benefits in the mind of the investor and may not be reliable indicators of the current required yield. Therefore, the estimation of yield rates for discounting cash flows should focus on the prospective or forecast yield rates anticipated by typical buyers and sellers of comparable investments. An appraiser can verify investor expectations by interviewing the parties to comparable sales transactions or reviewing offering materials for comparable properties recently offered for sale.
>
> An appraiser narrows the range of indicated yield rates and selects an appropriate yield rate by comparing the physical, economic, financial, and risk characteristics of the comparable properties with the property being appraised and assessing the competition for capital in rival investments. In some situations, there may be reason to select a yield rate above or below the indicated range. The final estimation of a yield rate requires judgment, just as an appraiser uses judgment to select an overall capitalization rate or equity capitalization rate from the range indicated by comparable sales. In selecting a yield rate, the appraiser should analyze current conditions in capital and real estate markets and the actions, perceptions, and expectations of real estate investors.[40]

End Digging Deeper

40. *The Appraisal of Real Estate*, 14th ed. (Chicago: Appraisal Institute, 2013), 510–515.

IX. Mini Case Studies Using a Variety of Methods

The following case studies provide practice in using the PV Value® Pro and other methods to solve problems that can occur in the market. The case study solutions apply to residential and commercial PV systems. When working the problem, use the escalation and utility rate given in the case study material. Be sure to click the box stating that you are a certified appraiser. Once you complete the inputs and receive a value range, create a PDF copy by clicking the Create PDF button at the top of the screen where the values are shown.

3.11 Case Study

Residence at 763 E. Clear Crest Cir, Las Vegas, NV 89123*

Indicated Value of the Solar PV Array Installed at 763 E. Clear Crest Cir, Las Vegas, NV 89123	
PV-to-Inverter size ratio	1.15
Building size	2,500 sq. ft.
Current residential rate	$0.14 per kilowatt hour (not actual rate)*
Size of array/PV system	6 kW DC at STC
Array tilt/Azimuth	27 degrees from horizontal/180 degrees
Degradation rate	0.5%
Watts per module	400 watts
400 kWh × $0.14 electric rate =	$56 energy produced per module year 1 at maximum STC
Total annual production for 6 kW system	$56 per module × 24 = $1,344/year one at STC
PV array warranty	25 yrs.
Current age of PV array	5 years
Remaining term of useful life	(25-year warranty – 5 years = 20-yr. useful life)
Escalation rate for residential electricity	3.45% per year
Indicated value	

* For educational purposes only. The address does have a solar PV system but the information in this material is not for this specific address. The fictional solar PV details are developed for educational purposes only.

3.11 Case Study, cont.

Residence at 763 E. Clear Crest Circle, Las Vegas, NV 89123

1. Using the PV Value® Pro, develop a value for this system based on the data provided below and utility rate at $0.14. Use the following variables:

    - 3.5% Fannie Mae 90-day rate
    - 50 to 300 basis points

$15,600 rounded – Result will vary because of timing

Change in interest rate, weather condition changes, but the

general value will be close to these numbers unless huge change

in interest rate.

3.12 Case Study

Payback Period for a Big Industrial Building Company

The owner of an industrial building is considering the installation of a solar PV system but has minimal knowledge about such systems. Before making the purchase, he hired you as a consultant. His question to you is, "What will my payback period be if I install the following system?"

Specifications of Solar PV System for Big Industrial Building Company	
13.92 kW solar PV array	Roof mounted; 25-year array warranty
Gross cost $4.75 per watt	Degradation expected at 0.5 per yr.
Energy production estimate	17,139 kWh per yr.
58 microinverters	15-year warranties
Federal incentives only	30% Investment Tax Credit, 5-yr. General Depreciation System (MACRS) @ 25% rate
Current electricity cost per kWh	$0.07

The owner's accountant provided the following tax information for your review. On the commercial side, investors have more tax advantages than residential users. The investor should have their account provide the tax advantages they would enjoy and provide them to you.

Net Cost Estimate		
Gross cost basis	13,920 watts × $2.75 per watt =	$38,280
Reduce basis by 50% of Federal Investment Tax Credit[41]	$38,280 gross costs × 0.85 =$32,538	$0
Less 25% federal depreciation	$32,538 × 0.25 =	–$ 8,135
Less 30% Investment Tax Credit	$38,280 × 0.30 =	–$11,484
Net Cost Basis for System		**$18,661**

41. Based on Federal Top Marginal Tax Rates for Married Filing Jointly and Corporations TY2011 (Top Marginal Rate is 15% for Corporate AGI up to $50K).

3.12 Case Study, cont.

Payback Period for a Big Industrial Building Company

Annual cost of energy is $0.07 per kWh × 17,139 kWh produced = $1,199.73 annual energy production.

Assuming that annual production degradation will be offset by increases in electricity costs, use the annual energy production amount.

1. *What is the payback period based on this investor's scenario and estimated cost?*

   Period in which energy production will equal the cost to install is as follows: $18,661 net cost ÷ $1,199.73 annual energy production = 16 years (rounded) ***Instructors:*** *Some students may have used gross cost resulting in $38,280/$1,199.73 annual energy production or 32 years. This will be a good time to talk about how important it is to gather all the necessary facts prior to jumping to conclusions. Researching tax position, tax credits, rebates, and incentives are a must to arrive at a supportable opinion.*

2. The owner is willing to spend the money if the system will produce enough energy within 12 years to pay for the net costs. *How much is the owner willing to pay for the system based on this statement?*

   $1,199.73 annual energy production x 12 years = $14,400 (rd.)

3.12 Case Study, cont.

3. *What recommendation would you make to your client?*

Wait until there are additional incentives that might lower the base cost, the price of solar PV is lower, or electricity costs increase sufficiently to make a solar PV system feasible. Alternatively, the client might consider a Power Purchase Agreement (PPA), in which a property owner buys a minimum amount of electricity generated by the solar PV system at a preset price for a specified period with no upfront cost to the owner.

The estimated 14-year payback compared to a 12-year payback is Within the margin of error considering potential rate increases That are only an estimate. You might suggest the investor moving forward since he is so close to his goal.

3.13 Case Study – Two Arrays with different Orientations

Older, 2-Story House in the Northeast – 633 Piette Meadow Road, Hinesberg, VT

The property is a 2,800-square-foot home with a detached garage and a horse barn in the Northeast. The address is 633 Piette Meadow Road, Hinesberg, VT, 05461. The owners drive a hybrid car and engage the entire family in recycling. The house is heated with gas. The electric portion of the utility bill is $125 per month on average, including taxes. The current electricity rate is $0.115 per kWh including taxes and other charges. A solar PV system is currently available at $3.50 per watt. Incentives and rebates are not currently available to offset the gross cost. Review the details of the system and prepare to answer the questions that follow. Don't forget to click on the clear form button in PV Value® Pro before starting this case study. The owner proposes to install the following:

- Two arrays with a total of 8.64 kW DC—proposed as an owned system (36 modules total).
- Array 1 = 16 modules at 240 watts per module, located on the front of the attached garage roof (Tilt 27).
- Array 2 = 20 modules at 240 watts per module, located on the back side of the horse barn pointing due south (Tilt 27).

Use the Solmetric Azimuth Tool (http://tools.solmetric.com/Tools/RoofAzimuthTool) or PV Value® Pro aerial to determine the azimuth of Array 1. Remember, the aerial will not show the system because this is proposed. Locate the attached garage and estimate the direction the panels will face if placed on the front side of the attached garage based on the slope of the roof .

To develop the value of the system, use the PV Value® Pro to complete two worksheets and combine the two indications for a value of the solar PV system as proposed.

Use a 3.5% rate as the 90-day, 30-year Fannie Mae rate and 50 to 200 basis points.

Utility Interactive PV System without Batteries **633 Piette Meadow Road, Hinesberg, VT**
PV-to-Inverter ratio: 1.15
Escalation rate 3.47%
Capacity: 8.64 kW DC
Modules: 36
Warranty: 25 yrs.
Inverter: SMA, 8,000-watt, grid-tied inverter, 96% efficient, 15 yr war.
Tilt: 27 on both arrays
Estimated energy production: 10,000 kWh annually
Cost: $3.50 per watt DC capacity gross

1. If the owners are paying $125 per month for their electric costs, how many kilowatt hours are they using annually?

$125 month x 12 months = $1,500 annually/$0.115 kWh costs =

13,043 kWh annually

2. *What is the gross cost of the system?*

$3.50 per watt × (8.64 × 1,000) 8,640 watts = $30,240

3. *Using the PV Value® Pro, what is the value of the system using a 3.5% FNMA 30-Year Fixed 90-day Net Yield Rate?*

Array 1 = $ 7,680

Array 2 = $12,000

Total Value $19,700 rd based on DCF

3.13 Case Study, cont.

Older, Two-Story House in the Northeast

4. *What is the estimated energy production using the PV Value® Pro?*

Array 1 = 3,497 kWh annually

Array 2 = 5,377 kWh annually

Total = 8,874 kWh annually

These numbers will vary from this solution because

Of time that changes weather estimates of sun days.

5. Why is the installer's estimated production different from PV Value® Pro? How would you reconcile the difference?

Installer estimate is 10,000 kWh

PV Value estimate is 8,874 kWh

Difference = 1,126 kWh or income difference of $129.49 annually

The derate factor must be higher than 0.77 default.

This is an example of when the derate factor should

Be adjusted to reflect the installer estimate.

Using a 0.84 derate results in 9,719 kWh

6. *Based on the energy produced estimate provided by the installer, what is the difference between the owners' current average electric bill and the estimated energy produced?*

$125 × 12 = $1,500 current annual bill; energy produced by the solar PV system is (10,000 kWh energy produced × $0.115 rate) = $1,150 annually; therefore, the owners' annual electric bill will be $1,500 – $1,150 = $350

7. *Based on the gross cost and installer's estimated energy production, how long will it take to produce enough energy to repay the cost of the system?*

$30,240 ÷ $1,150 = 26 years rd

3.13 Case Study, cont.

Older, Two-Story House in the Northeast – 633 Piette Meadow Rd, Hinesberg, VT 05461

8. Using PV Value® Pro estimate what size system is needed to produce 100% of the energy they used over the last year assuming 1 array on the horse barn facing due south with a tilt of 27? *Hint: Use your answer from Question 1.*

To produce the owner's current use of 13,043 kWh, the system should be near 11 kWh using a 26.6 tilt, 180 azimuth, and 0.84 derate

Review Part 3

Learning Objectives

Now that you have completed Part 3, you should be able to

- ☑ Identify documentation available for solar PV valuation.
- ☑ Examine physical life of solar PV systems.
- ☑ Evaluate the effect of incentives, grants, and rebates on the valuation process.
- ☑ Review lending guidelines and concerns as they relate to solar PV systems.
- ☑ Overview of the Income Approach using PV Value® Pro.

Terms to Remember

Energy audit

Load analysis

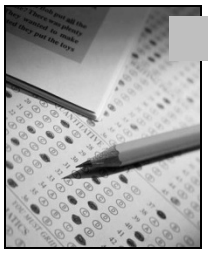
Shade analysis

Commissioning

Federal Renewable Energy Production Tax Credit (PTC)

Federal Business Energy Investment Tax Credit (ITC)

Federal Residential Renewable Energy Tax Credit



Practice Test Section 2

This multiple-choice test provides a review of concepts and definitions covered in Section 2. This is a "closed book" test. Choose the most correct answer.

1. The homeowner applied for a mortgage to cover energy improvements and a solar PV system. The loan will be sold on the secondary market to Fannie Mae. Which of the following statements applies to this loan?

   A. Fannie Mae does not allow the mortgage to include solar photovoltaic systems on an existing house.

   B. Only Freddie Mac allows the mortgage to include solar photovoltaic systems.

   * C. Guidelines change requiring appraiser to stay abreast of changes as they apply to solar photovoltaic systems.

   D. The secondary mortgage market guidelines do not include guidance on loans with solar PV systems.

2. PACE is a type of energy upgrade in which the loan/assessment is repaid through the property tax bill. This type of loan is not readily accepted in the secondary market because it

   A. has a long term and is not assumable.

   * B. is a tax lien and in most cases is superior to the first mortgage.

   C. is not recorded and therefore is difficult to track.

   D. requires payoff at the sale of the property.

3. The purchaser of a solar PV system in Florida would want to make sure that the inverter is protected from

   A. heat that might damage the silicon.

   B. heavy rains.

   C. insects that could damage the digital meter.

   * D. lightning strikes.

4. The useful life of a solar PV system is typically based on

A. a typical mortgage term of 30 years.

B. the solar PV warranty minus the inverter warranty term.

C. the warranty term for the inverter.

* D. the warranty term for the solar PV modules.

5. Shading of solar PV systems

A. is avoided using a shade analysis after installation of the system.

B. maximizes the energy produced.

C. occurs from man-made building structures only.

* D. should be avoided during peak sun hours.

Part 4. Net Zero Energy, Passive Solar, Identifying Solar Types and Problems, and Identifying Resources to Develop Derate Factors
(70 minutes plus two 15-minute breaks)

Review of Day 1 (30 minutes). Review questions that may have been posed and not answered in the Day 1 material. Review where we have been in the material and what our goal will be today. Day 1 included most of the definitions and solar PV descriptions. Today we will apply what we have learned to various appraisal problems.

Net Zero Energy Buildings (20 minutes). This section provides an overview of net zero energy buildings. The slides include additional photographs of commercial and residential net zero energy buildings.

Be sure to mention that, for certain assignments, using the Appraisal Institute's Green and Energy Efficient Addendum will help appraisers comply with the requirement that an appraisal report contain sufficient information to enable the intended users of the appraisal to understand the report properly.

Passive Solar Buildings (15 minutes). The graphic illustrates how passive solar works in a building. This section sets the stage for the case study on a passive solar library.

3.16 Case Study. This case study highlights some difficulties that might be encountered in the market that we do not cover in other case studies. It is essential that instructors know how to handle them. Instructor notes are given in some of the solutions also.

If the PV Value® tool is used for this case study, the office category should be selected. Remind participants to check the commercial selection at the top. The derate factor will need to be changed because there is no commissioning report. That should only be done when the user has support for making the change; otherwise, use the default factor. The highest derate factor one installer had seen is 0.89. An incorrect derate factor can misrepresent the energy produced.

Practice Test (10 minutes). Have participants work the short practice test as preparation for the final exam, which will be given later in the day.

Part 4 Preview

Net Zero Energy, Passive Solar, and Identifying Resources to Develop Derate Factors

In Parts 1 through 3, we focused on the solar PV system components, how they work, and how they fail. The remainder of the course will focus on valuation issues through brainstorming activities on solar PV value and short case studies. Brainstorming with peers can help an appraiser answer the question, what would our peers do?

In Part 4, we review concepts and terms needed to understand net zero energy and passive solar buildings. In addition, we identify how solar PV energy production history can be used to develop a derate factor. Class participation is extremely important in discussing the questions regarding motives of a religious facility to install solar PV.

Learning Objectives

To prepare for Part 4, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Define and describe a net zero energy building.
- ☐ Define and describe a passive solar building.
- ☐ Identify how solar energy production history can assist in developing derate factor.

Part 4.
Net Zero Energy, Passive Solar, and Identifying Resources to Develop Derate Factors

I. Net Zero Energy Buildings

A. The term *net zero energy (NZE) building* refers to a building that produces as much energy as it uses. This is achieved when the building has some or all of the following characteristics:

- A tightly sealed, well-insulated envelope
- Use of alternative energy source(s) including
  - Solar
  - Geothermal
  - Wind
- High-efficiency mechanicals
- Passive heating/cooling design elements such as
  - Passive solar
  - Daylighting
  - Natural ventilation/stack effect to reduce energy load

Typically, newly constructed NZE buildings are designed to use 50% less energy than a code-built structure, while renovation/retrofits typically aim for a reduction of 30% versus code. The remainder is made up with on-site generation from a renewable source such as solar PV.

B. Net zero energy buildings are similar in style to conventional buildings. The following photograph shows a net zero energy house located in a subdivision of houses with a similar design. The only item that is identifiable as different is the solar PV array on the roof. However, the use of solar PV alone does not make a building net zero energy.

4.1 Exhibit **Net Zero Energy House**

Source. Sandra K. Adomatis, SRA

1. This house has a HERS Rating of 7. In this neighborhood, the typical code-built house has a HERS Rating in the 90s; therefore, this house is 83%+ more energy efficient than the code-built house. The net zero energy consumption is accomplished using the methods noted previously, including solar and geothermal.

2. The house is listed at approximately 12% over similar houses in this development that are built to code and use gas heat.

C. Denverpost.com reports that KB Homes and New Town Builders are believed to be developing the first production-scale models to be offered in Colorado. According to this site, New Town built a net zero model home and priced it at $26,900 over the code-built home. That equates to a premium of about 7%, which includes a 9.9-kilowatt solar array.[35] This article was written January 17, 2012, and I visited this home just after the article appeared. At the time of my visit, it had not sold.

D. *Net zero electric* should not be confused with *net zero energy*. A net zero electric building produces as much electricity as it uses; however, the building's heating source is not electric. The owner will have a bill for gas, oil, or another heating

35. www.denverpost.com/business/ci_19763273

source. However, these buildings are few and present the same valuation problem as a net zero energy building.

E. Test of Reasonableness

When valuing a property with limited market sales to establish a well-supported sales comparison approach, always use more than one method and reconcile. For instance, if the property you are appraising has energy efficient construction and the utility savings can be established, use an income approach as well as cost approach. The table below provides a sample of various approaches to valuing energy efficiency on the residential property.

Test of Reasonableness		
Seattle Market Study	5.9%	5.9%
Fannie Mae Energy Report	$10,083 ÷ $236,500 cost = 4.3%	4.3%
Gross Rent Multiplier	110 GRM × $69 savings ÷ mo.=$7,590 ÷ cost $236,500 = 3.2% GRM based on local data supporting 110	3.2%
Present Value of Energy Savings	$69 monthly savings @ 5% discount rate based on 3% mortgage rate plus 2% risk factor for a 5% discount rate for 20 yrs. (typical life of energy components) Present value: $10,455 ÷ $236,500 current cost or 4.4%	4.4%
Marshall Swift Res. Handbook	Good energy rating $3.74–$1.82 for an average energy rating = $ 1.92 ÷ $77.57 base cost/sq. ft. for 1,700 sq. ft. structure = 2.5%	2.5%

Reconcile the indications based on the indication with the most credibility and least room for error.

Digging Deeper

Tips for handling difficulties in valuation of net zero energy houses

1. Net zero energy homes are being developed in many areas of the country. These properties present complex appraisal problems because there are few comparable sales within the same market area. The homes have features such as geothermal and solar energy systems that are difficult to quantify with sales data but can add significant costs to the project.

2. The appraisal problem should be clearly defined with an emphasis on the existence of net zero energy buildings in the market area. A review of building permits or a call to the local Association of Home Builders might be helpful in estimating the number of net zero energy homes in the area. Discussing the number built and number of resales will provide a basis for addressing the difficulties in applying the sales comparison approach. Net zero energy buildings also incorporate passive design features such as daylighting, passive solar, natural ventilation, and stack effect that may not be readily apparent to appraisers, particularly those unfamiliar with sustainable design. A case study later in Part 4 demonstrates some characteristics of passive design that could affect value.

3. Alert the lender at the point of receiving the order that this appraisal may not meet secondary mortgage market guidelines. The sales comparison approach may be less than reliable, and the cost approach may be more reliable. Sales may not be of net zero energy homes, and it may not be possible to support an adjustment through direct market analysis. It may be necessary to use an alternative but proven method to develop an adjustment for the property's energy savings. The methods discussed later in this material would be options for developing adjustments for energy efficient items.

4. A second option is to use studies published in other areas of the country that establish general percentage premiums for NZE houses over code-built houses. If the lender cannot accept this approach to value, it may be best to decline the assignment.

5. Using the Residential Green and Energy Efficient Addendum to make the inspection and gather pertinent description details will be invaluable. The Addendum will assist appraisers in meeting the requirement that an appraisal report contain sufficient information to enable the intended users of the appraisal to understand the report properly. The Addendum will provide the solar inputs needed to use the PV Value® tool discussed elsewhere in this course.

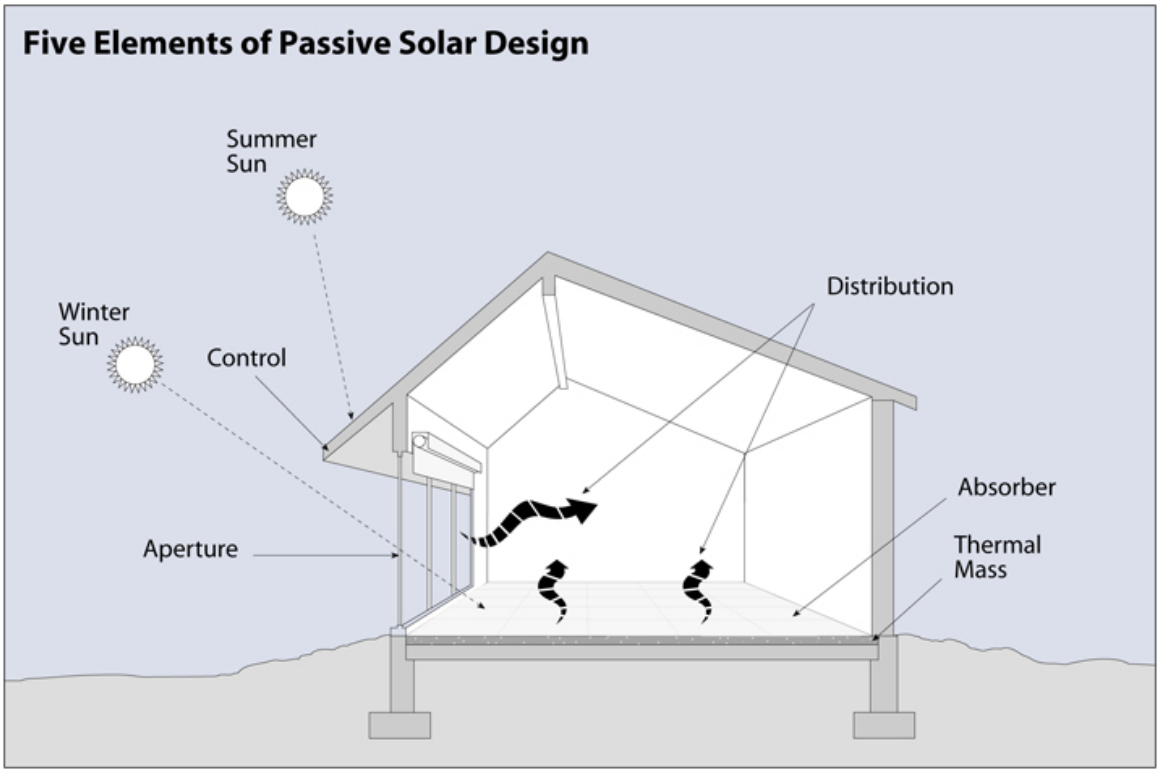
Digging Deeper, cont.

6. Cost and income capitalization will be the more reliable approaches to value in this type of appraisal problem if there are limited or no sales of similar property types. The income capitalization approach may be used to support the energy adjustments in the sales comparison approach when conventionally constructed buildings must be used as comparables.

End Digging Deeper

II. Passive Solar Buildings

4.2 Exhibit



Source. U.S. Department of Energy

A. Five elements of passive solar buildings

The following five elements constitute a complete passive solar building design. Each performs a separate function, but all five must work together for the design to be successful.

1. **Aperture (collector):** The large glass (window) area through which sunlight enters the building. Typically, the aperture(s) should face within 30 degrees of true south and should not be shaded by other buildings or trees from 9 a.m. to 3 p.m. each day during the heating season.

2. **Absorber:** The hard, darkened surface of the storage element. This surface could be a masonry wall, floor, or partition (phase change material) or a water container that sits in the direct path of sunlight. Sunlight hits the surface and is absorbed as heat.

3. **Thermal mass:** The materials that retain or store the heat produced by sunlight. The difference between the absorber and thermal mass, although they often form the same wall or floor, is that the absorber is an exposed surface whereas thermal mass is the material below or behind that surface.

4. **Distribution:** The method by which solar heat circulates from the collection and storage points to different areas of the building. A strictly passive design will use the three natural heat transfer modes—conduction, convection, and radiation—exclusively. In some applications, however, fans, ducts, and blowers may help with the distribution of heat through the building.

5. **Control:** Roof overhangs can be used to shade the aperture area during summer months. Other elements that control under- and/or overheating include electronic sensing devices, such as a differential thermostat that signals a fan to turn on; operable vents and dampers that allow or restrict heat flow; low-emissivity blinds; and awnings.[36]

B. A passive solar building has some similarities to a net zero energy building and a green building. The envelope is tightly sealed and well insulated. The building is heated by passive solar gain and by internal gains from people and electrical equipment. Auxiliary heat is often provided through a small source.

C. The structure avoids heat gain by shading and window orientation to limit any cooling load. To improve the indoor air quality, an energy recovery ventilator provides a constant, balanced fresh air supply. The term *orientation* refers to the direction that a building faces; however, special views are gained through proper placement of doors and windows.

D. Some types of passive solar systems are called *direct gain systems* when they use the sun's heat without interference and when the heat collection, storage, and distribution all occur within the same space.

E. A direct gain system includes south-facing windows and a large mass placed within the space to receive the most direct sunlight in cold weather and the least direct sunlight in hot weather. In this type of system, sunlight passes through the windows, and its heat is trapped by the thermal mass in the room.

F. In cool weather, the mass absorbs solar heat during its exposure to direct sunlight and radiates that heat back into the space, notably at night.

G. During warm weather, the reverse occurs. The thermal mass is prevented from receiving direct sunlight and absorbs the heat in the room, helping to keep the room's temperature cooler. In commercial buildings, this can mean temporary or permanent, fixed or movable shades attached to or integrated with the building in some manner.

H. The most effective thermal mass comes from dense and heavy materials that will retain the heat even in the absence of direct sunlight. Examples include an internal wall or floor made of concrete, tile, slate, or stone. Use of the principles and techniques described here relates directly to a building's heating and cooling

36. www.energysavers.gov/your_home/designing_remodeling/index.cfm/mytopic=10270

needs, which correspond to the climate zone in which the building is located. The different climate zones in the U.S. influence how and why building styles and needs vary by region.

I. According to Passive Solar Sustainable Sources,[37] the cost of passive solar elements is similar to that of conventional building designs. Use of some internal thermal mass materials such as stone and brick adds to the cost but can also provide an aesthetic enhancement.

The following photograph shows an office building that has many of the elements of passive solar design.

4.3 Exhibit **Passive Solar Office Building**

Source. Jack Hedge, FAIA, LEED AP BD+C, Design Group Columbus, OH

37. http://passivesolar.sustainablesources.com

4.4 Case Study

Existing Commercial Solar PV System

1. Could the 61,000 kWh generation over the first 19 months be used to estimate the production today, six years later? If so, illustrate.

   Yes, the 61,000 kWh/19 months = 3,210 kWh per month x 12 = 38,526 kWh annually. This estimate can be compared to the PV Value estimate with consideration of weather changes (number Of sun days that vary) and degradation rates. This past history gives a test of reasonableness.

2. *What is the value of this solar PV system by the cost approach?*

   $56,475-$69,025 net of rebates but before tax incentives

   25.1 kw × 1,000 = 25,100 watts

   $2.25 × 25,100 watts = $56,475

   $2.75 × 25,100 watts = $69,025

   A religious facility would not have income tax and could not take Advantage of a tax credit.

4.4 Case Study, cont.

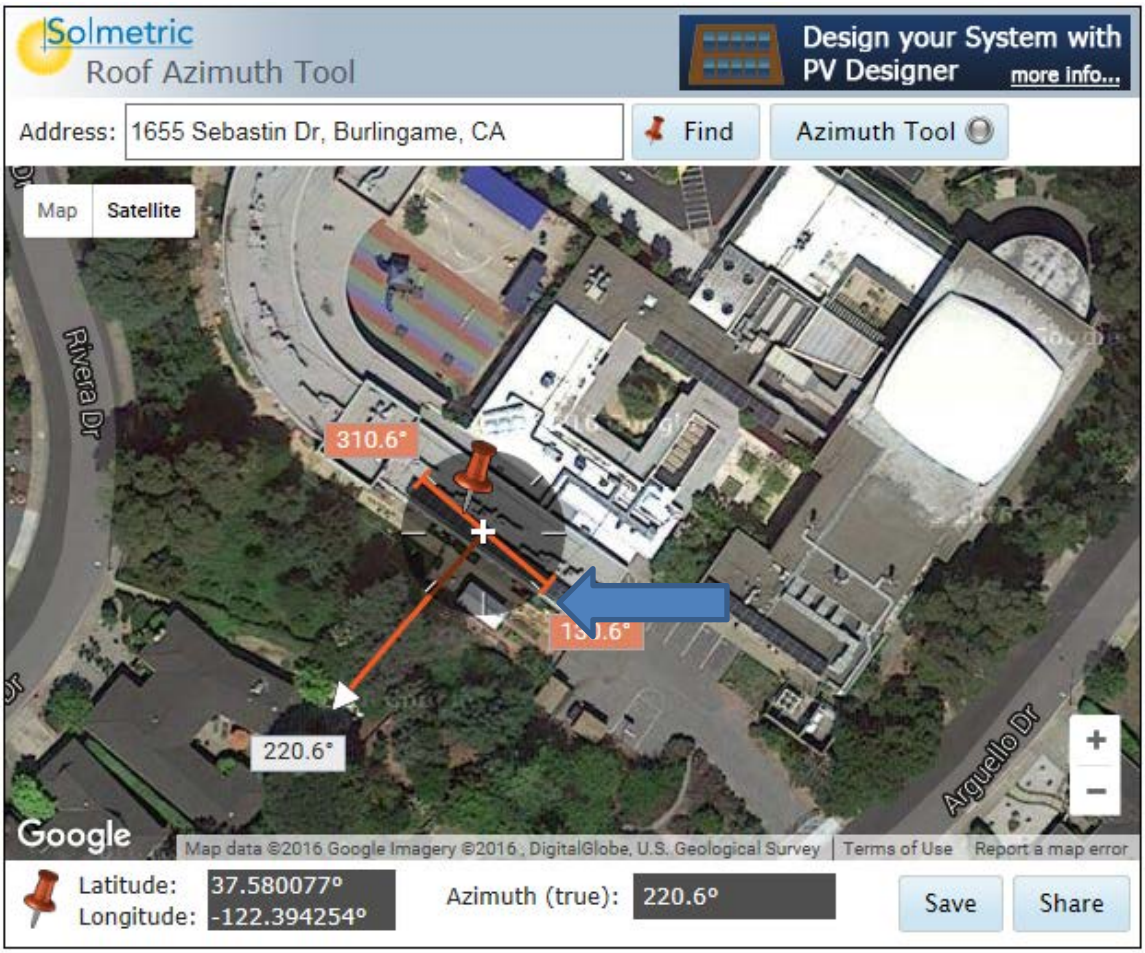
3. Why would a religious facility install a solar system that costs so much when the utility rate is so low and the payback period is so long?

Members may make donations to pay for the system and since the facility is a non-taxable entity, the donation is tax-deductible. The facility benefits from donations and lower utility costs while the donors benefit from the tax deduction.

4. Using the PV Value® tool, develop a value of the energy production based on the data in this case study. Use a custom interest rate of 8% with basis points between 50 and 125. Input the age of the system as six years (PV Value® will not accept fractions). We do not have a commissioning report to insert the actual derate factor; however, you can adjust the derate factor if you have support indicating it will produce more than PV Value estimates using the derate default of 0.77.

The derate will be around 0.87, the orientation will be around 220 and tilt at 37 based on latitude. There are two arrays but both are about the same orientation and tilt; therefore, it can be valued as one array. The challenge is to see if the students are able to resolve these unknown factors and explain why they developed one or two values based on one array or two. Over the past 4 years, questions arose over how to handle various situations like this and while we originally though the solutions were obvious, they were not.

Instructor Note: *Solution to 3.16 Case Study, Existing Commercial Solar PV system, is for the Instructor Handbook and Student Solutions Booklet that will be downloadable only.*



http://tools.solmetric.com/Tools/RoofAzimuthTool

Review Part 4

Learning Objectives

Now that you have completed Part 4, you should be able to

- ☑ Define and describe a net zero energy building.
- ☑ Define and describe a passive solar building.
- ☑ Identify how solar energy production history can assist in developing derate factor.

Terms and Concepts to Remember

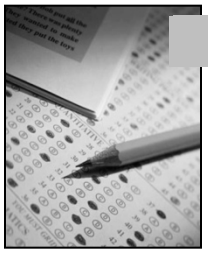
Net zero energy

Net zero electric

Passive solar

Thermal mass

Direct gain system



Practice Test Part 4

This multiple-choice test provides a review of concepts and definitions covered in Part4. This is a "closed book" test. Choose the <u>most</u> correct answer.

1. A direct gain system includes
   - A. daylighting and solar PV modules.
   - B. large thermal mass and radiant heat.
   - C. north- and south-facing windows and large thermal mass.
   - * D. south-facing windows and large thermal mass.

2. Internal gain comes from
   - * A. people and electrical equipment.
   - B. people only.
   - C. the use of radiant or electric heat to supplement direct gain systems.
   - D. thermal mass only.

3. A net zero electric building
   - A. does not have public electricity to the site.
   - B. is synonymous with a net zero energy building.
   - * C. produces as much electricity as it uses.
   - D. produces income by producing more electricity than it uses.

4. A passive solar building avoids heat gain by
   - A. orientation of the entry to the north.
   - B. the use of central air conditioning.
   - C. the use of concrete walls to absorb the heat.
   - * D. the use of shading and window construction.

5. The solar PV system is 9.8 kW and the cost is $3.50 per watt. What is the gross cost for the system?

A. $33,400

* B. $34,300 *(9.8 kW × 1,000 = 9,800 watts × $3.50/watt)*

C. $38,400

D. Data provided is not sufficient to develop a cost.

6. Present value can be developed using a

A. discounted cash flow analysis less the capital outlay.

* B. discounted cash flow analysis of the future payments and costs.

C. discounted cash flow analysis plus the capital outlay.

D. return on the investment formula.

7. Passive Solar Design

A. always uses solar photovoltaic to generate electricity.

B. is only used in areas where there is no electric grid.

* C. uses a similar design principle as solar PV.

D. only works in areas that are not subject to freezing.

Part 5. Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches
(100 minutes plus one 10-minute break)

Recap of Morning Material
(10 minutes). After lunch, spend a little time reviewing material covered in the morning before moving on to the case studies.

Published Studies of Solar PV Systems' Value Contribution for Residential Properties (20 minutes). In covering this section, be sure to allow sufficient time for participants to comment on each study. Solar PV companies and government agencies often quote the studies cited. It is important to understand each study and its reliability. Discuss which studies might be more reliable to use as secondary support for a value conclusion.

Study of Solar PV System Assessments in 15 States (10 minutes). This study identifies how some states are assessing solar PV systems. It could be useful in tax appeal cases and it provides a measure of how government agencies are viewing value. Allow participants time to answer the discussion questions and then go over the answers in the classroom. Do not be too quick to give them an answer.

5.4 Case Study. Cost Approach as It Applies to Solar PV Valuation: Residential Property (15 minutes). Allow the participants time to work the case study, then review the solutions shown on the slides.

5.5 Case Study. Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property (45 minutes). The class will include a mixture of residential and commercial appraisers with a wide range of experience with the income capitalization approach. Residential appraisers will benefit from working with a commercial appraiser who can walk them through the income steps that they might not understand. Work this case study yourself and see how long it takes you. Expect to spend about 30 minutes to complete everything the first time. That would allow 15 minutes for class review and questions.

Note. Be clear that the tax credits to the investor/owner are not a part of a market value analysis. This case study is shown to assist participants who might be involved in consulting. The tax credits do affect the investor's decisions on buying solar PV and decrease the payback period. However, the tax credit is for the owner/investor. It is not attributed to the building and is not used in market value analysis.

Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches

In Part 5, we review the findings of several published studies on solar PV and apply value concepts we have learned in the prior parts to two case studies. Course participants are encouraged to discuss and debate the appraisal methodology applied to arrive at a value conclusion for solar PV systems.

Learning Objectives

To prepare for Part 5, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Identify ways to evaluate the credibility of a published study.
- ☐ Recognize tax assessment methodologies used for solar PV systems.
- ☐ Compare residential property original installation cost to current cost new
- ☐ Develop an indication of the value of a commercial solar PV system using the PV Value® tool and research cost new.

Learning Tips

We recommend that you work both the residential and commercial case studies regardless of your specialty. The solutions will be demonstrated after the class has had sufficient time to arrive at value conclusions.

Part 5.
Published Studies on Value Contribution of Solar PV and Case Studies Using the Cost and Income Capitalization Approaches

I. Published Studies of Solar PV Systems' Value Contribution for Residential Properties

Before relying on a study, it is necessary to consider several factors, which are summarized below.

A. There is a difference between a peer-reviewed study and other types of studies. Typically, a peer-reviewed study is published in an established academic or professional journal and generally is not funded by industry or any party with anything to gain from the outcome.

B. If the study is not peer-reviewed/published, then it is necessary to find out the funding source and whether that party or organization has a vested (financial or otherwise) interest in the study's outcome.

C. In today's environment, the term *published* could mean an item posted on a Web site, such as a blog. In the past, the process for having a paper published included significant checks and balances.

D. Note that some academic/professional journals are going to online optional or online only publishing. This does not mean that the journal is not a reliable source, but it is necessary to research who is publishing the article as well as the authors' credentials and motivations.

E. If the results of a study are used to make an adjustment, it is necessary to understand the methodology, since it could be inferred that we are relying on the work of others by using a study as the only support for an adjustment. Many appraisers are not trained to interpret the results of statistical procedures such as hedonic modeling. An appraiser who lacks sufficient training in statistics should avoid relying on statistics-based studies, except as background information or backup support.

F. In addition, statistical models have limited utility for appraisal because, by their very nature, they are not predictive of a specific outcome. They are simply measuring the relationship between variables (home price and solar PV, for example) in a given dataset. Even with large numbers of observations (comparable sales), the most that a statistical study can indicate is a very strong correlation, not causation, yet causation is exactly how studies are typically interpreted and used by the public. Appraisal, in contrast, is intended

to be predictive of a specific outcome as of a particular date in a particular situation, not what the average price would be for all residential or commercial properties with solar PV in a community, county, or state.

Are there other specifics you consider before relying on a study?

II. Overview of Partial List of Solar Photovoltaic Studies Published

In this section, we will review the methods and conclusions of several of the most recent studies that are often quoted regarding energy and solar valuation.

Appraiser Alert: Identify the dates of the data studied along with the location and price range. Study data are usually a few years behind the date published. Just as the effective date of value is important, so are the data dates important. For instance, the price of solar dramatically declined since 2009 and as the cost new declined, it only makes sense that the market value is adjust.

Test of Reasonableness: The most credible studies will use a test of reasonableness by addressing more than one valuation methods. The appraiser-driven studies typical provide a more useful valuation resource for the valuation world because the methods are understood.

Overview of Recent Owned- Solar Photovoltaic Studies						
Study Title	**Authors**	**Funded by**	**Methods Used**	**Area Studied**	**Data Dates**	**Conclusions**
Selling Into the Sun – 8-State Statistical Review of Solar Home Sale Premiums **Date Published:** (1/19/2015)	Ben Hoen, Sandra Adomatis, SRA, Thomas Jackson, AICP, MAI, CRE, FRICS, Joshua Graff-Zivin, Mark Thayer, Geoffrey T. Klise	Office of Energy Efficiency and Renewable Energy (Solar Energy Technologies Program), U.S. Department of Energy	Hedonic Modeling, Income Approach, Cost Approach	8 States: California, Connecticut, Florida, Massachusetts, Maryland, North Carolina, New York, and Pennsylvania	2002-2013 Majority of data are between 2008 and 2013	$4/Watt for average 3.6 kW PV System as an average over all 8 states
Source: https://emp.lbl.gov/sites/all/files/selling-into-the-sun-jan12.pdf						
Appraising Into The Sun **Date Published:** (11/12/15)	Sandra Adomatis, SRA, LEED Green Associate, and Ben Hoen	Office of Energy Efficiency and Renewable Energy (Solar Energy Technologies Program), U.S. Department of Energy	Paired-Data Analysis, Income Approach using PV Value® , and Cost New	California, Florida, Massachusetts, Maryland, North Carolina, and Pennsylvania	2010 through 2014 with 90% falling between July 2010 and December 2013	On average, Solar PV Systems across the six states shows an average $3.78/Watt which is close to the net cost
Source: https://emp.lbl.gov/publications/appraising-sun-six-state-solar-home						
The Impact of Photovoltaic Systems on Market Value and Marketability **Date Published:** (5/2013)	Lisa K. Desmarais, SRA	Colorado Energy Office	Paired-Data Analysis, Gross Rent Multiplier, Income Approach using PV Value® , and Cost New	North and Northwest Denver metro area	January 1, 2011 and May 31, 2013 Systems were new to 5 years old	$1.4/Watt to $2.60/Watt
Source: https://www.colorado.gov/pacific/energyoffice/atom/14956						
An Analysis of the Effects of Residential Photovoltaic Energy Systems on Home Sales Prices in California **Date Published:** (4/2011)	Ben Hoen, Ryan Wiser, Peter Cappers, and Mark Thayer	Office of Energy Efficiency and Renewable Energy (Solar Energy Technologies Program) of the U.S. Department of Energy	Hedonic Modeling	California	2000-2009 Average Net Cost of New Installed Solar $5/Watt Sales price premiums decline as PV system ages	$3.9 to $6.4/ Watt Premium for average CA home. $2.3-$2.6/ Watt Premium for new homes $6-$7.6/Watt for existing Homes

Source: http://eetd.lbl.gov/ea/emp/reports/lbnl-4476e.pdf

A. Main common themes from the studies include

1. The sales price premium of solar PV declined as the cost new declined.

2. The unit of value is the price per solar PV Watt.

3. As a system ages the sales price premium declines.

4. The sales price premiums parallel the net cost new (gross cost less all rebates, tax credits, and incentives).

5. The economic life estimate is not evident yet because of the limited sales of properties with solar PV systems more than 10 years old.

6. Other (list below):

Additional studies will emerge as more data become available. Below is a table to add additional research that evolved since this course was published. ***Instructors:*** *Research new studies that occurred since the course was developed and be ready to discuss them and provide students with the details to complete the following table and submit them to AI's Green Resource Page.*

Overview of Recent Owned- Solar Photovoltaic Studies							
Study Title	Date Published	Authors	Funded by	Methods Used	Area Studied	Data Dates	Conclusions
Source:							
Source:							
Source:							

1. *In appraising a residential property, would these studies provide sufficient support for adjustments?*

   A zero adjustment requires the same support as a $20,000 adjustment; the studies cited may provide good secondary support for adjustments. Local market-extracted data is preferred but not always available. If the studies are the only market basis for an adjustment, the income capitalization approach would be the primary method to support a value conclusion.

2. *In an efficient market, a buyer would find a suitable substitute and add the solar PV system if the cost is less than market value. Can you think of an appraisal problem where this might not be true?*

   A municipality may implement a limit to the number of roof tops that could install solar PV. If that were to happen, the new system may not be an option.

   Instructors: *Encourage students to brainstorm this question.*

   If incentives and rebates offered bring the cost well below market value, it would not mean that the market value opinion must be lowered. Incentives and rebates are usually for a specific period and should be described in the cost approach to help the reader understand why the solar PV system's cost is lower than market value.

3. *The studies suggest the market is willing to pay a price near the net cost of a system. What does that tell us about depreciation from all forms of loss?*

The incentives, tax credits, and rebates are taking the place of depreciation. Once the incentives, rebates, and tax credits are removed from the market, appraisers will be tasked with understanding depreciation based on market sales.

B. Solar Tax Exemptions

According to Solar Energy Industries Association® (SEIA), 38 states offer property tax exemptions for renewable energy. Real estate tax or sales tax exemptions are a part of the economic feasibility for a residential or commercial taxpayer. More appraisers from real estate property assessor positions are attending this class to understand the valuation of solar PV. In states where solar PV are exempt from real estate taxes, the states are asking the assessors to still estimate a value of the system for their own records. Some states only exempt solar PV for a designated period and the assessors are seeking to learn more about valuation methods.

A good resource is *The 50 States of Solar,* published quarterly by NC Clean Energy Technology Center and Meister Consultants Group. It can be found on the DSIRE USA website. The report provides an overview of the following topics:

- Solar Policy Action
- Net Metering
- Community Solar Policies and Programs
- Fixed Charges
- Third-Party Solar PPA Legality
- Utility Rooftop Solar Programs

C. Study of Solar PV System Assessments in 15 States

The following table summarizes the results of a study called "The Cost of Value: PV and Property Taxes."[40] Review the summary of details from the 15 states surveyed to gain an understanding of how solar PV is being assessed or exempted. This study reviewed the top ten states in installed PV generating capacity through 2010. As you will see even assessors realized the data are too limited to address the sales comparison approach with any degree of reliability.

5.1 Exhibit **State Property Tax Policy Regarding Solar PV**

#	State	Residential	Non Residential	Wholesale PV	Assessment Methodology
1.	Arizona	No Taxable Value	No Taxable Value	Taxable	Cost Method: Full cash value is by law at 20% of the depreciated cost. 30-year straight-line depreciation w/ 10% floor.
2.	California	Excluded until property changes ownership	Excluded until property changes ownership		Few transfers of ownership have occurred to provide a sample of the methodology. Property owned by a regulated utility is centrally assessed by the state using all three accepted methodologies.
3.	Colorado	Customer-sited PV systems on residential property and owned by the resident exempt from property taxes	Independently owned (3rd party), residential, customer-sited PV systems up to 100 kW exempt from taxes		All three methods are used but cannot exceed value using the cost-based formula. RECs are classified as intangible personal property and may not be valued separately by the local assessor.
4.	Florida	Policies vary by county; voter ballot initiative to expand the exemption resulted in constitutional issues that have not been addressed.			Commercial solar PV installations are assessed using the cost approach; they have shorter depreciable lives due to commercial use. Residential properties with PV systems are addressed as additional features. How they are handled is up to the county assessor.

40. © 2012 American Solar Energy Society. http://ases.conference-services.net/resources/252/2859/pdf/SOLAR2012_0356_full%20paper.pdf

5.1 Exhibit **State Property Tax Policy Regarding Solar PV, cont.**

#	State	Residential	Non Residential	Wholesale PV	Assessment Methodology
5.	Maryland	PV equipment used to generate electricity for use on-site in a structure or for supply to the electric grid is exempt from real property taxes.	Same as residential	Taxable	A wholesale PV facility is valued using a replacement cost method with a 30-year straight-line depreciation schedule and a 25% floor. Business personal property used to generate electricity for sale receives a general exemption of 50% of the assessed value.
6.	Massachusetts	Exempted from real property tax for 20 years	Same as residential	Taxable with treatment depending on the characteristics of the property	Privately owned solar PV systems installed on properties already exempt such as publicly owned property will be assessed. They will most likely be assessed using the cost approach. A standard depreciation schedule has not been developed.
7.	Nevada	Exempt	Exempt	10 MW or larger systems that meet certain other requirements eligible for a property tax abatement of 55% for 20 years	A wholesale PV facility is valued at its replacement cost less depreciation at 1.5% annually for a maximum of 50 years. Costs of improvements are not adjusted upward for inflation.
8.	New Jersey	Exempt	Exempt	Most will be classified as personal property and exempt	NA
9.	New Mexico	Considered physical improvement and may not increase its value. However, PV system is assessable	Assessed	Assessed	Uses original cost and 20-year straight-line depreciation schedule with 20% floor. State uses a standard assessment ratio of 33% to translate property value into assessed value.

5.1 Exhibit **State Property Tax Policy Regarding Solar PV, cont.**

		subsequent to a change in ownership.			

#	State	Residential	Non Residential	Wholesale PV	Assessment Methodology
10.	New York	Law 1: PV systems owned by private individuals on one-to-four-family homes are exempt from property taxes. Law 2: Local option for local government to allow a 15-year exemption from real property taxes for a PV system installed by the end of 2014.	Unknown	Unclear, but most likely not exempt	NA
11.	North Carolina	Residential customer-sited systems that do not generate income are exempt from property taxes as non-business personal property.	80% of the appraised value of solar PV system is exempt from property taxes.	Assessed using composite of standard approaches	Cost approach using 18-year straight-line depreciation schedule. Trending factor used to account for inflationary increases in replacement cost. Product of trending factor and depreciation factor = "percent good" factor, which is multiplied by original cost to determine appraised value and has a 25% floor.
12.	Ohio	Exempt	Exempt up to 250kW-AC	See Law for PILOT requirements	
13.	Pennsylvania	At present, PV system does not add value due to lack of sales with PV systems.	Considered personal property and not subject to property tax	Assessed using income approach	Uses original cost and 20-year straight-line depreciation schedule with 20% floor. State uses a standard assessment ratio of 33% to translate property value into assessed value.

14.	Hawaii	Exempt	Assessed and varies by the four counties	Equipment is exempt and land is assessed for limited industrial use, resulting in 50% exemption.	Property owners can elect to make a PILOT.
15.	Illinois	Assessed at no more than value of a conventional heating or cooling system	Assessed at no more than value of a conventional heating or cooling system	Exempt if local assessor classifies PV as personal property	Methodology was not available.

5.2 Discussion Questions

Solar PV Assessment Issues

Review the 15 state summaries and answer the following questions.

1. *Based on the summaries provided, what general conclusions can you draw about assessment practices for solar PV systems in residential and commercial properties?*

   The majority of the states do not assess residential solar PV systems. About half the states assess commercial solar PV systems for taxation. The majority of states assess utility category solar PV systems.

2. *What is the primary methodology used to assess the value of solar PV systems?*

   Several states refer to all three approaches but most acknowledge that the sales comparison approach cannot be applied because of insufficient data. Cost is the primary approach used. However, some states have floors or ceilings for the assessment amount.

Pike's Waterfront Lodge Solar PV Installation is first large commercial installation in Alaska

Photograph Courtesy of Sandra K. Adomatis, July 2015

Address: 1850 Hoselton Road, Fairbanks, AK 99709

We often assume solar photovoltaic energy systems only work in the southern states where sunshine is plentiful. Here is a great example of how Alaska is using solar PV in Fairbanks, AK, not so far from the North Pole. While staying in this hotel, electricity was not a problem.

5.3 Case Study

Cost Approach as It Applies to Solar PV Valuation: Residential Property

A Nevada homeowner purchased a 5 kW solar PV system for $30,000 in 2010. The system has a 25-year warranty and the inverter has a 15-year warranty. The total cost was offset by $10,000 in utility incentives; however, the incentive is taxable at a marginal tax rate of 25%. The federal income tax credit of 30% applies to offset the cost.

In 2012, the owner sought a refinance when a new 5 kW solar PV system with the same features have declined in price to $20,000, and state incentives of $5,000 are available to offset the cost. The 30% tax credit is still available on the system as well and is not included in the net cost below since it is a personal tax credit and not a credit to the real estate.

Based on the facts presented, answer the following questions.

1. *Based on the cost approach, what cost is appropriate for the solar PV system as of today?*

   $15,000 (see table below) is the net cost but the gross cost is $20,000.

Net cost to owner 2 years ago	
Cost	*$30,000*
Less utility rebate	*10,000*
Net cost to owner 2 yrs. ago	*$20,000*

Net cost today for same system	
Cost	*$20,000*
Less state rebate	*5,000*
Net cost to owner today	*$15,000*

5.3 Case Study, cont.

Cost Approach as It Applies to Solar PV Valuation: Residential Property

2. *Is this a short-lived item or a long-lived item?*

   It is a short-lived item because its expected economic life is shorter than the remaining economic life of the entire structure.

3. *Assume you have paired-data indicating a 5 kW system in this market less than 5 years old has a sales price premium of $12,000. Based on the 2012 cost new and the market evidence of value today, what is the depreciation on this system? Show your calculations.*

   Instructors: *Use this simple illustration to discuss how depreciation is extracted from the market and how it should be measured regularly as market conditions and solar prices change. Class participants range in their knowledge of this process and this is an excellent way to discuss why the rate of depreciation is so high and why we suggested earlier in this course that solar PV should be shown in the cost approach separate from the structure. Show how $20,000 x 0.70 (100% - 30% for federal tax credit) = $14,000, a figure close to the paired-data analysis suggesting the market is considering the 30% in their decision making at this time!*

5.4 Case Study

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

The solar PV array shown below provides energy for the adjacent building at 1100 Loveland Blvd., Port Charlotte, FL, 33980. Review the details of the system and complete the group work at the end of the description.

Source. Jamie Johnson of Energy Sense Finance, LLC,, Port Charlotte, Florida

What do you observe about the solar PV system from viewing this photograph?

5.4 Case Study, cont.

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

This case study illustrates the importance of proper documentation in developing a credible value opinion. The Commercial Solar Worksheet provided in this course will assist you and your client in identifying the information necessary to value the system appropriately. The table below, which shows the details of this system, will allow us to work through the appraisal and consulting problem.

Project Specifications – 1100 Loveland Blvd, Port Charlotte, FL 33980	
Project size:	11.52 kilowatts (kW); building sq. ft.: 12,478
Total module rated power:	11,520 watts DC at Standard Test Conditions (STC); 48 modules (panels) @ 240 watts ea.
Total inverter rated power:	11,400 watts AC 3-phase 208/120 string inverter
Module manufacturer:	MAGE Solar (Dublin, GA)
Module warranty:	30 years
Inverter manufacturer:	Fronius USA with monitoring software
Inverter warranty:	10 years (20-year available for additional fee)
Placed in service date:	February 1, 2012
Azimuth:	180 degrees True South adjusted for magnetic declination
Tilt/Slope:	18.5 degrees
Shading analysis derate:	0.94 (6% loss of production due to shading)
Custom overall derate:	0.79 (see custom derate on PV Energy Analysis Sheet)
	(PV Energy Analysis Sheet = Commissioning Report)
Estimated production:	16,000 kWh annually
Utility company:	Florida Power & Light (FPL)
Cost per kWh:	11.5 cents
Utility incentives:	FPL rebate of $2.00 per watt for the first 10,000 watts, then $1.50 per watt for the remaining 1,520 watts
Federal incentives:	30% Investment Tax Credit, 5-year general depreciation system (MACRS)
Gross purchase price:	$4.86 per watt (contract bid October 2011).
Zip code	33980

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

Cost Basis Calculation Showing Owner's Original Cost and Incentives

To determine the cost basis, first calculate the gross price to install a similar-sized commercial PV array. This can be supported by surveying several installation companies in the area or using the average gross install price for your state.

Estimated gross install cost:	$4.50 per watt (Energy Sense Finance, LLC, estimate for similar-sized project)
Investment tax credit:	30% of gross cost
Depreciation method used:	5-year property, mid-quarter convention, placed in service in the first quarter, MACRS. See Table A-2 from IRS Pub 546. This is based on the adjusted cost basis as determined by IRC 50 (c)(1) & (3)(a).
Adjusted cost basis:	85% of gross cost is used to calculate the depreciation amount.
1st year depreciation:	35%
2nd year depreciation:	26%
3rd year depreciation:	15.6%
4th year depreciation:	11.01%
5th year depreciation:	11.01%
6th year depreciation:	1.38% (due to using the mid-quarter convention with placed-in-service date of February 1, 2012, there will be a minimal amount of depreciation claimed in the 6th year with a 5-year depreciation schedule).
Utility-paid rebate:	$22,280 (FPL offers a rebate of $2.00 per watt for the first 10,000 watts and $1.50 per watt for the remaining 1,520 watts) (each address is eligible for one time only).

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

Note. The term *cost* generally, but not always, refers to the net cost after all rebates and federal tax credits but before depreciation. No established convention for naming exists but the most common terms are *gross cost* for system cost with no deductions for rebates or incentives and *net cost* with deductions for those items. Avoid using the term *cost* alone in this context, as it is confusing.

We will review the tax credits this owner will receive. The tax credits are **not** considered in developing market value but being familiar with them will assist appraisers in understanding buyers' decisions when the market value indications do not make dollar sense in comparison with cost. (Present value calculations are usually less on Day 1 than the gross cost.) Understanding the tax consequences is important in performing a consulting assignment or in defending an opinion of market value when the client compares the gross cost with the present value calculation. Bringing the client back to net cost compared with the market value as opposed to gross cost compared with market value may help answer the client's questions. Knowing the true net cost (gross cost less all incentives and tax credits) is also useful in estimating insurance replacement cost.

Note: This course is not promoting use of tax considerations in developing an opinion of market value. The following tables are presented to show facts property owners use in their decision-making prior to purchasing a system. The details will assist appraisers in understanding why a simple cash flow of energy produced in a location with a low utility rate may not be the entire picture for purchasing.

Federal Top Marginal Tax Rates For Married Filing Jointly and Corporations TY2011			
Married Filing Joint AGI	**Top Marginal Rate**	**Corporate AGI**	**Top Marginal Rate**
Up to $17k	10%	Up to $50k	15%
$17k–$69k	15%	$50k–$75k	25%
$69k–$139.35k	25%	$75k–$100k	34%
$139.35k–$212.3k	28%	$100k–$335k	39%
$212.3K–$379.15k	33%	$335k–$10m	34%
$379.15k +	35%	$10m–$15m	35%
		$15m–$18.33m	38%
		$18.3m +	35%
		Personal Service Corps	35%

Source. www.IRS.gov

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

Based on the marginal tax rates for the corporation, the following calculations will develop the depreciation applicable to the different rates. The current cost of $4.50 per watt is based on a survey of local installers. The following calculations will be useful for consulting or insurance replacement cost assignments only. They are not part of the market value calculations.

Replacement Cost Calculation @ 25%, 15%, and 0% effective tax rates.

1.	Gross price	*$4.50/watt × 11,520 watts = $51,840.00*
2.	30% Federal Tax Credit @ 25% & 15% $15,552	*30% of gross price $51,840 × 0.30 = $15,552*
3.	30% Federal Tax Credit @0%	*$0.00*
4.	Adjusted basis for depreciation	*$51,840 × 0.85 = $44,064*
5.	Federal depreciation @25%	*$11,016.00 ($44,064 adjusted cost basis × 0.25)*
6.	Federal depreciation @ 15%	*$6,609.60 ($44,064 adjusted cost basis × 0.15)*
7.	Federal depreciation @ 0%	*$0.00*
8.	FPL rebate	*$22,280*
9.	Federal tax on rebate @ 25%	*$5,570 ($22,280 rebate × 0.25)*
10.	Federal tax on rebate @ 15%	*$3,342 ($22,280 rebate × 0.15)*
11.	Federal tax on rebate @ 0%	*$0.00*

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

12. Net replacement cost @ 25% effective tax rate:

Gross cost	**$51,840**
Less Federal Tax Credit @ 30%	–15,552
Less adjusted basis depreciation @ 25% ($44,064 × 0.25)	–11,016
Less FPL rebate	–22,280
Plus income tax owed on FPL rebate	+ 5,570
Net cost of system	**$8,562**

13. Net replacement cost @ 15% effective tax rate:

Gross cost	**$51,840.00**
Less Federal Tax Credit @ 30%	–15,552.00
Less adjusted basis depreciation @ 15% ($44,064 × 0.15)	–6,609.60
Less FPL rebate	–22,280.00
Plus income tax owed on FPL rebate	+ 3,342.00
Net cost of system	**$10,740.40**

14. Net replacement cost @ 0% effective tax rate:

Gross cost	**$51,840.00**
Less Federal Tax Credit @ 0%	.00
Less adjusted basis depreciation @ 0%	.00
Less FPL rebate	–22,280.00
Plus income tax owed on FPL rebate	.00
Net cost of system	**$29,560.00**

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

15. Net replacement cost @ 25% effective tax rate if ineligible for additional FPL rebate:

Gross cost	**$51,840.00**
Less Federal Tax Credit @ 30%	–15,552.00
Less adjusted basis depreciation @ 25% ($44,064 × 0.25)	–11,016.00
Less FPL rebate	.00
Plus income tax owed on FPL rebate	.00
Net cost of system	**$25,272.00**

16. Net replacement cost @15% effective tax rate if ineligible for additional FPL rebate:

Gross cost	**$51,840.00**
Less Federal Tax Credit @ 30%	–15,552.00
Less adjusted basis depreciation @ 15% ($44,064 × 0.15)	–6,609.60
Less FPL rebate	.00
Plus income tax owed on FPL rebate	.00
Net cost of system	**$29,678.40**

17. Net replacement cost @ 0% effective tax rate if ineligible for additional FPL rebate:

$51,840.00

Although appraisers do not consider the IRS depreciation in the analysis, consulting or insurance replacement assignments might require the consideration of the effect of depreciation on the actual net cost.

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

18. *Why aren't the tax advantages of depreciation on solar PV systems considered in the net cost analysis of a market value appraisal?*

It would be inconsistent with the income capitalization approach (PV Value® Pro or discounted cash flow analysis). If the sales comparison approach were applicable, the tax advantages would not be a part of this approach either. In the case of commercial arrays that are not new or proposed, the accelerated depreciation has already been used; therefore, it is no longer an issue.

Sales Comparison Approach

There are no comparable sales of commercial buildings with installed solar PV within a 100-mile radius of the subject property. The sales comparison approach will not be applicable until the market has a sufficient number of sales to support a credible value conclusion. This fact makes it unreasonable that some lenders deny any value contribution for residential solar PV unless sales are available.

Income Capitalization Approach

Develop the income capitalization approach using PV Value® Pro for this commercial case study. If you do not have technology with you, work with another student that has a device.

For this exercise, use 6% as the interest rate for commercial long-term mortgages from a local commercial lender. Basis points range between 50 and 125.

Take about 20 minutes to solve the problem. Now is a good time to address any questions you might have about the PV Value® tool.

5.4 Case Study, cont.

Cost and Income Capitalization Approaches as They Apply to Solar PV Valuation: Commercial Property

Case Study Questions

1. *What is the present value of this system based on the PV Value® Pro analysis? Use the PV Value® custom interest rate of 6% with 50 to 125 basis points.*

   The value range is $23,000 (rd.). This answer will

   Vary based on the time.

2. *Develop a cost approach as of the date of your class using a cost per watt you derive from an internet search of sources like http://www.seia.org. using their quarterly report or other source. (Instructors: Research this with students and fill in the blanks prior to class. Encourage them to use any source they know and share with class.)*

   Gross Cost per watt - $3.25 Date: 1st Quarter 2016

   Source: http://www.seia.org/research-resources/solar-market-insight-report-2016-q2

PV VALUE	Beta Version 0.8.1	File #:	Appraiser Indicated Value:	$23,040.00	$2.00 /watt
	06/23/16 1:04:36 PM	NA	Report Prepared By:	Sandra Adomatis	

Subject Property Data

Address:	1100 Loveland Blvd				
City:	Punta Gorda	State:	FL	Zip Code:	33980
Property Type:	Commercial	PV Project Type:	Existing	PV Ownership:	Owned

Cost Approach Method | Physical Age / Life | Depreciated Cost

Source:	User 6-1-16 FL	Gross Replacement Cost New:	$37,440.00	$3.25 /watt
Life:	25	Straight Line Depreciation:	$0.00	$0.00 /watt/yr
Age:	4	Accumulated SL Depreciation:	$0.00	$0.00 /watt
Additional Depreciation:	Other Depreciation - All forms of loss		$11,289.60	$0.98 /watt
Additional Depreciation:	None		$	$ /watt
Estimated Depreciated Value		Cost Approach:	$26,150.40	$2.27 /watt

Income Approach Method | Energy Value DCF

Review Part 5

Learning Objectives

Now that you have completed Part 5, you should be able to

- ☑ Identify ways to evaluate the credibility of a published study.
- ☑ Recognize tax assessment methodologies used for solar PV systems.
- ☑ Compare residential property original installation cost to current cost new.
- ☑ Develop an indication of the value of a commercial solar PV system using the PV Value® Pro and research cost new.

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Part 6. Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease
(40 minutes)

6.1 Case Study. Multifamily Residential Property (20 minutes). This is a simple case study to provoke students to consider what type of information they should obtain prior to providing a fee proposal or commitment of time to complete the assignment. This multifamily property has solar PV and solar thermal installations. Discuss how to tell the difference and develop a list of questions you'd ask prior to accepting the assignment.

6.3 Case Study. Commercial Property Rooftop Lease (20 minutes). Review the Feed-In-Tariff information and the article by Gary Kassern. It provides some points to consider on these types of leases.

Additional articles are reviewed giving an overview of opinions on rooftop leases. Simply developing a value of such a lease is not the end of the valuation. Remind participants to consider additional risks that might be a part of this type of lease. Once you have reviewed the introductory material, set the stage for the case study allow the students to develop a value of a rooftop lease using their HP12C. This type of problem will be on the exam. Residential students may need additional help in understanding how to use the HP-12C. Remind students they cannot use their cell phones for the exam.

Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease

Part 6 provides additional case studies involving multifamily property and rooftop leases on commercial/industrial property. These mini case studies provide valuation problems that require special consideration.

Learning Objectives

To prepare for Part 6, read the following learning objectives and refer back to them as you study this part of the handbook.

- ☐ Describe valuation process for a multifamily property with solar PV.
- ☐ Identify elements of a lease for a roof-mounted solar PV installation and potential problems such a lease poses for the property owner.

Learning Tips

These small case studies provide some areas that have been discussed by students in prior classes. Take this opportunity during these discussions to make notes that you can use in developing a scope of work and in estimating time in a report.

Part 6.
Case Studies: Multifamily Property and Commercial Solar PV Rooftop Lease

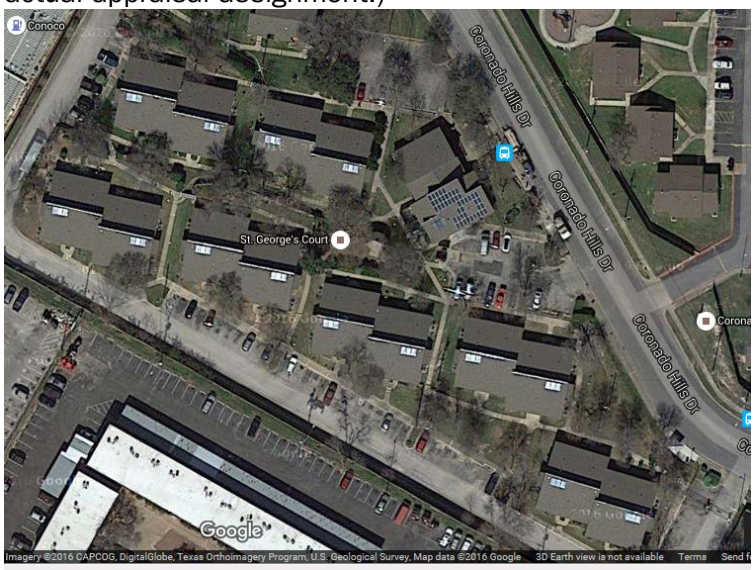
I. Income Capitalization Approach as It Applies to Solar PV Valuation

6.1 Case Study

Multifamily Residential Property

An apartment building with 60 one-and two-bedroom units located at 1443 Coronado Hills Drive, Austin, Texas, 78752, includes a solar PV system. The apartments are for the elderly and disabled. The units have gas central forced-warm-air furnaces and electric air-conditioning units and appliances. The property Walk Score®[46] is 52 and Transit Score® of 43 meaning it is somewhat walkable and has some transit to site. Review the property details and answer the questions that follow.

(The case study is for educational purposes only; it is not based on an actual appraisal assignment.)



https://www.google.com/maps/@30.3276463,-97.689681,154m/data=!3m1!1e3

46. Walkscore and Transit Score can be found at www.walkscore.com

6.1 Case Study

The photograph below shows a large solar system on the office and clubhouse.

This photograph depicts the typical panel you would see on each unit.
Photographs are courtesy of Robin Amorin, MAI

6.1 Case Study, cont.

Multifamily Residential Property -1443 Coronado Hills Drive, Austin, Texas, 78752

1. Assume you have been asked to appraise this complex. List the questions you would want to have answered prior to estimating a fee or turnaround time.
   - *Size and age of Solar PV System*
   - *Is system owned or leased?*
   - *Is the system monitored? If so, may I have access to the account?*
   - *Does the solar PV provide energy to the units?*
   - *Did the rent schedule after installation of solar increase?*
   - *Are the panels on the units for solar thermal water heating?*

2. *Assume the panels on the units are for each unit. How many DCFs would you need to develop a value of the solar by the income approach?*

   One for each array with a different orientation or azimuth.

II. Commercial/Industrial Rooftop Leases for Solar PV Systems

A. According to an article by Gary Kassem from 2010, lease agreements for solar PV installations require special attention to the following details:[47]

- Roof-mounted PV systems can last up to 40 years but most commercial/industrial roofs last 10–13 years. If the solar PV lease is for 20 years, who is responsible for moving the solar PV system and loss in power if roof repair or replacement is needed?

- Once a solar PV system is installed on a roof, it can take more time to repair a leaking roof and thus could create business loss or damage to the occupants of the building.

- The Web site referenced in the footnote does not mention that the PV installation could provide a problem for the roof warranty. The solar PV installer should work with the roofing company to ensure that the installation does not void the roof warranty.

B. An article published 3/25/2013, on Antares Group Incorporated web site indicates the terms of roof top leases for solar installation vary and typically fall into these two categories.

- Investors are more partial to a price per month based on factors such as the square footage or installed capacity of the system.
- Solar PV Developers prefer to pay based somewhat on the performance of the system each month.

C. Another article written by Lloyd Cornett, a Certified Specialist in Real Estate Law and practicing with Aird & Berlis LLP in Toronto gave the following considerations for a rooftop lease for Solar PV.[48]

1. Ideal size for solar PV rooftop installation is 30,000 to 100,000 square feet
2. A recently rebuilt roof that is more likely to have structural support to accommodate the array
3. Building owner must have control of entire building – no other leases or legal restrictions on rooftop

47. http://www.green-energy-news.com/contribute/articles2010/2010sub002.html
48. http://www.monstercommercial.com/how-to-lease-the-rooftop-of-your-ontario-commercial-property-for-solar-power-projects/

4. If the above three items are met, the following categories should be addressed[49]

    a. Tenant (Owner of Solar PV Equipment) financial strength and track record

    b. Term and Rent is typically 20 years or more and may provide for renewal rights. The rent may be structured in one of several ways

        1. Fixed rate based on square foot area of portion the rooftop used by the system
        2. The wattage produced by the facility
        3. A percentage of the revenues received by the tenant (owner of solar PV equipment)
        4. In addition, some leases require the tenant to provide the building owner with its electricity consumption and for realty taxes associated with the solar PV array.

    c. Access by the tenant 24/7 to install, maintain, repair and/or replace equipment

    d. Roof Repair should be addressed, relocation of solar equipment if repairs or replacement are necessary, and compensation to the tenant for their lost revenue during the down time.

    e. The building owner should review and approve a complete set of the plans and specifications and any changes to them prior to completing an agreement or installation.

    f. The tenant (owner of solar equipment) will need to include an agreement that the equipment is not a fixture or part of the real estate for financing purposes. The equipment will remain the sole ownership of the tenant. Tenant may require the building owner waive any rights to claim a lien or interest in the equipment.

    g. Building owner will want tenant to maintain an insurance policy on the equipment and general liability. Other considerations along this line might be releases, waivers and indemnities to both parties.

    h. Repair and maintenance clauses should be in the agreement to insure proper and safe maintenance of the equipment.

Commercial leasing of rooftops for solar PV systems will grow in markets where land is scarce. We see a growing trend for leases of public parking lots for solar PV systems as well. Parking lots seem like a reasonable alternative to a rooftop but

49. http://www.monstercommercial.com/how-to-lease-the-rooftop-of-your-commercial-property-for-solar-power-projects-part-two/

they also have their pros and cons. The mounting of the solar PV panels must be sufficient that if a car bumps one it does not damage the array.

If we use rooftops, parking facilities, and other areas that aren't needed for other uses, we can preserve land for crops and future development.

D. Surface area requirements for solar PV arrays

1. Sufficient area is needed for the solar PV modules plus additional space to allow for access to the solar installation and all other equipment on the roof and to prevent inter-row shading.

Array Area Requirements

Commercial Rooftop: 500 kW

Electrical Training Institute, Los Angeles

Source: © 2012 Jim Dunlop Solar

2. The commercial rooftop shown above has a total array size of 500 kW. The roof area is 100,000 square feet; the solar PV array encompasses 50,000 square feet or 50%. The power density is 1 kW/100 square feet.

6.2 Case Study

Commercial Property Rooftop Lease

Source. © 2012 Jim Dunlop Solar

An industrial building in the Northeast part of the U.S. has a roof-mounted solar PV system, which is described below. Review the details of the building and the solar PV system and answer the questions that follow the description.

Building size:	108,000 sq. ft. (1-story)
Construction type:	Metal and concrete block with built–up tar and gravel roof—new with 15-year warranty
Building height:	18 ft.
No. of units:	12
NNN rent per sq. ft.:	$12–$14
Yield rate:	11%
Uses:	Auto repair/office/auto-related accessory sales and services
Rent for roof-mounted system:	$32,400 or $0.30 per sq. ft.
Solar PV rooftop lease term:	20 years

6.2 Case Study, cont.

Commercial Property Rooftop Lease

The owner of the building does not own the solar PV system, and the building does not use the electricity produced. The 20-year lease requires the tenant (owner of the solar PV system) to remove the solar PV system and repair or replace damage to the roof system at the end of the lease.

1. *What discount rate is appropriate for the roof-mounted solar PV system if the investor's yield rate for the building is 11%? Explain your answer.*

   Instructors: *Answers will vary. Encourage participants to disclose their reasoning for choosing the rate applicable to the building or a different rate based on a higher or lower risk factor. Instructors should solicit discussion of how an appraiser might support the discount rate for this type of income.*

2. *What potential concerns might a lender have with this property loan?*

   The terms of the lease could be a problem if the PV system were to go into foreclosure. Would the lender holding the loan honor the lease terms? A lender considering holding a loan on the real estate would be concerned about the resale potential of this building because it is encumbered by this lease.

6.2 Case Study, cont.

Commercial Property Rooftop Lease

3. *Develop a value opinion for this rooftop lease paid at the end of each year assuming a discount rate of 12%, slightly higher than the building rate. Show your calculations and support your reasoning for using the method you choose.*

Instructors: *Encourage participants to consider alternative methods for this valuation. Provide guidance if their ideas are incorrect.*

6.2 Case Study, cont.

Commercial Property Rooftop Lease

Below is one potential solution:

n	*i*	*PV*	*PMT*	*FV*
20	*12*		*32,400** CHS	*0*
		? *Answer: 242,010* *242,000 rounded*		

* *This is net income with no expense to the owner and paid at the end of each year. (HP12C defaults to end of year payment).*

** *Paid at the end of the year.*

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Review Part 6

Learning Objectives

Now that you have completed Part 6, you should be able to

- ☑ Describe valuation process for a multifamily property with solar PV.
- ☑ Identify elements of a lease for a roof-mounted solar PV installation and potential problems such a lease poses for the property owner.

Part 7.
Exam Content Review

I. Basic Information for the Exam

A. The exam consists of 25 multiple-choice questions.

B. Participants are allowed one hour to complete the exam.

C. The exam is closed book, and all materials must be removed from the table area.

D. Computers may not be used for the exam.

E. Participants may leave the classroom to use restroom facilities, but they must leave their exam facedown on the table while out of the room and may not communicate with anyone other than the instructor during the exam.

II. Guidance on Studying for the Final Exam

A. The objectives contain the content that will be tested.

B. Focus on the instructional objectives for each part, which are reproduced here in Part 7 for your convenience.

III. Guidance on Taking the Final Exam

A. Read each question completely.

B. Choose the most correct answer. Some answers may be correct to a degree, but there is an answer that is most correct and specific to the question.

C. Do not read into questions anything that is not stated.

D. Review your answers and double-check your math.

IV. Test-Taking Strategies

The course examination is multiple choice. Strategies for taking this type of test:

A. Some test takers prefer to make an initial pass through the exam answering only the questions they are confident about and making certain that they do not leave an “easy” question unanswered simply because they ran out of time. They work the more difficult questions during a second pass through the exam.

B. Be sure to read each question carefully without reading anything into it.

C. Budget your time—if a single question is too time-consuming for you, leave it for later because each question carries equal weight when the exam is scored.

D. There is no penalty for wrong answers. Therefore, if you are running out of time, guessing the answers to remaining unanswered questions you do not have time to finish cannot reduce your score.

V. Content Review: Learning Objectives

During the time allotted for study, review the objectives for each part for ones that are more difficult for you. The exam questions are based on the learning objectives.

Part 1. Introduction

☑ Identify how solar PV systems convert the sun's energy into electricity.

☑ Analyze market statistics on energy costs and solar use by state.

☑ Recognize the need to develop a methodology for valuing solar PV installations.

Part 2. Speaking the Solar Language

☑ Identify the types of solar PV systems.

☑ Recognize terms associated with solar PV systems.

☑ Identify applicable appraisal standards.

Part 3. Documentation of Size, Estimated Production, Lease versus Ownership

☑ Identify documentation available for solar PV valuation.

☑ Examine physical life of solar PV systems.

☑ Evaluate the effect of incentives, grants, and rebates on the valuation process.

☑ Review lending guidelines and concerns as they relate to solar PV systems.

☑ Overview of the Income Approach using PV Value® Pro

Part 4. Net Zero Energy, Passive Solar, and Identifying Resources to Develop Derate Factors

- ☑ Define and describe a net zero energy building.
- ☑ Define and describe a passive solar building.
- ☑ Identify how solar energy production history can assist in developing derate factor.

Part 5. Solar PV Case Studies Using the Cost and Income Capitalization Approaches

- ☑ Identify ways to evaluate the credibility of a published study.
- ☑ Recognize tax assessment methodologies used for solar PV systems.
- ☑ Compare residential property original installation cost to current cost new.
- ☑ Develop an indication of the value of a commercial solar PV system using the PV Value® Pro and research cost new.

Part 6. Multifamily Case Study and Commercial Solar PV Roof Lease

- ☑ Describe valuation process for a multifamily property with solar PV
- ☑ Identify elements of a lease for a roof-mounted solar PV installation and potential problems such a lease poses for the property owner.

Addenda

Course Downloads

Please follow the instructions provided in the registration letter to download the following items to your laptop and/or print copies for class.

- Web Resources for Solar Valuation
- AI820.04 Residential Green and Energy Efficient Addendum
- Commercial/Industrial Solar Worksheet (Excel)
- PV Value® User Manual
- DCF Template (Excel)
- Photo Gallery
- AI Commercial Green and Energy Efficient Addendum
- AI Residential Green and Energy Efficient Addendum

Residential and Commercial Valuation of Solar

Exam

Read each question completely; follow directions carefully. *ALL* the data needed to answer the questions is contained in the questions themselves. Every question has one answer that is best and therefore regarded as correct. You should *NOT* create additional facts or information.

1. An inverter's main function is to

   A. serve as the electrical meter.

   * B. convert DC power to AC power.

   C. show energy production.

   D. store energy.

2. All solar PV systems have a derate factor due to inefficiencies in the

   * A. cable, modules, and inverter.

   B. modules.

   C. orientation of the panel.

   D. shading and clouds.

3. The 2015 Studies published by LBNL suggest

   A. energy production.

   B. energy production for alternative sources.

   * C. market value is similar to net cost.

   D. energy savings less the cost of the system.

4. The term *net zero energy building* refers to a building that

   A. has no energy bill.

   B. never uses energy from the grid.

   * C. produces as much energy as it uses.

   D. uses passive solar gain to produce electricity.

5. Solar PV modules for installation on buildings have fire ratings. The property being appraised has a system with a fire rating of NR. This rating means that the system

   A. has not been evaluated for fire exposure and is not suitable for commercial uses.

   * B. has not been evaluated for fire exposure and is not suitable for installation on buildings.

   C. meets requirements of the UL's Roofing Materials and System Directory rating system.

   D. meets the National Rating System for solar PV systems.

6. How does an appraiser's responsibility to reporting apply to the value of solar PV? The report must

   A. include a full narrative discussion of the PV system.

   B. include a separate section for PV value.

   C. include the value of the system.

   * D. provide sufficient information on the solar PV to allow the intended user to understand the report properly.

7. A solar PV system includes all of the following:

   * A. cells, inverter, wiring, mounting, and PV modules (panels)

   B. cells, modules, batteries, mounting, and AC power

   C. cells, wafers, inverter, and monitoring system

   D. cells, inverter, wafers, and mounting

8. Bimodal inverters use which of the following for DC power storage?

   * A. batteries

   B. electrical meter

   C. monitoring system

   D. transformer

9. Develop the net cost of a solar PV system based on the following: gross cost $30,000; utility rebate $5,500; $4,000 state rebate

   A. $26,500

   B. $24,500

   C. $26,000

   * D. $20,500

Gross cost	*$30,000*
Less: Utility rebate	*-5,500*
Less: State rebate	*-4,000*
Equals: Net cost	*$20,500*

10. To use the PV Value® Pro, the following inputs are needed:

    A. Property address, system size in kilowatts, age of system

    B. Property address, system size in kilowatts, inverter warranty

    C. Property address, system size in watts, inverter warranty, and system warranty

    * D. Property address, system size in watts, module warranty, and age of system

11. A client provides information on the solar PV system that you will use to run PV Value® Pro. The solar PV system is rated at 8.5 kW DC. The program calls for capacity to be in watts; how many watts should be inputted?

    A. 850

    B. 2,040

    * C. 8,500 *(8.5 x 1,000 watts per kW)*

    D. 85,000

12. The Browns are considering buying a solar PV system and learned that they can receive a 30% Federal Residential Renewable Energy Tax Credit. The cost of the system is $3.50 per watt for an 8.64 kW DC-rated system. How much is the tax credit they can receive?

    A. $3,888

    B. $9,875

    * C. $9,072 *($3.50 x 8,640 watts =$30,240 × 30% = $9,072)*

    D. $27,216

13. A client is considering the purchase of a solar PV system that will produce approximately 11,300 kWh annually. The system will have a net cost of $19,500. The client will make the purchase only if the system can produce enough energy to pay back the initial investment in 12 years. How much does the current electricity cost per kWh (rounded to nearest cent) need to be for this system to work into the client's plan?

    A. 9 cents

    B. 12 cents

    * C. 14 cents *($19,500 ÷ 12 yrs. = $1,625/yr. ÷ 11,300 kWh=$0.143 (14 cents rd.)*

    D. 17 cents

14. A rooftop lease provides an annual income of $12,000 for your subject property for the next 12 years, paid at the end of the year. Using a discount rate of 12%, what is the present value of the lease?

    * A. $74,350 (rd.)

    B. $83,250 (rd.)

    C. $100,000 (rd.)

    D. $144,000 (rd.)

F clear Fin
12 years N
12% I
12000 PMT
G End (8 key)
PV: Should be $74,332.49 rounded to $74,350

15. The quality of an inverter is important because

    A. a higher quality inverter will have a useful life equal to that of the PV system.

    B. a lower quality inverter could void the warranty of the PV system.

    * C. the efficiency of the solar PV system is influenced by the inverter's ability to convert DC output to AC.

    D. the inverter is difficult replace.

16. An appraiser that has never appraised a property with a solar PV system and has little knowledge about such systems must meet competency requirements of

    * A. their client's guidelines or appraisal standards at a minimum.

    B. disclose the lack of knowledge in the report and document the value.

    C. take a class in the subject of solar PV systems before accepting the assignment.

    D. turn down the assignment.

17. A commissioning report may include the following:

* A. checklist and visual inspection for NEC compliance

B. life cycle cost

C. PV Value® spreadsheet

D. salvage value of the system

18. The residential property being appraised has a solar PV system. The lender requires sales of properties with solar PV systems; if no such sales are available, no value should be attributed to the system. Which of the following steps would be most appropriate for the appraiser to take?

A. Decline the assignment.

* B. Follow the lender's requirements and disclose the requirements in the scope of work section; the assignment becomes subject to a hypothetical condition.

C. Proceed as if there is no solar PV.

D. Use alternative methods and tell the lender that appraisal standards require them.

19. To maximize annual solar energy gain, fixed solar PV arrays are installed

A. at an angle close to the longitude of the property.

B. facing 270 degrees or due west

C. facing 90° from due north.

* D. facing close to or at due south.

20. One of the main reasons why the warranty period of the solar PV array is suggested for the useful life in the PV Value® Pro is that

* A. a roof typically has a life similar to the warranty term; the cost to remove and replace the solar PV system may outweigh its value.

B. research shows that solar PV arrays typically cease producing energy at 25 years.

C. insufficient sales are available to prove useful life.

D. warranty terms are an example of the useful life estimate.

21. The solar PV energy production will be decreased if

* A. shading occurs or orientation is not ideal.

B. brown spots occur on the modules.

C. the air vents are free of debris.

D. the array faces south.

22. A PACE (Property Assessed Clean Energy) arrangement is a problem for Fannie Mae and Freddie Mac because the PACE lien

A. competes with their loans.

B. offers a lower interest rate than they can offer.

C. raises the utility bill.

* D. trumps the first mortgage.

23. A Renewable Energy Credit (REC) is $350 per megawatt hour. The property being appraised will be eligible for 10 REC units annually for the 8 kW system. How much income is expected from the REC program?

A. $350

B. $2,800

C. $2,800

* D. $3,500 *($350 × 10 = $3,500)*

24. The property being appraised has a solar PV system rated at 15.2 kW total for installation in two locations. The panels are rated 400 watts. One array has 12 panels facing due west and the other array is facing due south. What size is the system facing due south?

* A. 10.4 kW (15,200 watts -(12 x 400 = 4800)= 10,400 watts or 10.4 kW

B. 16 kW.

C. 4.8 kW

D. 12 kW.

25. A net zero electric building will most likely have which of the following characteristics?

    A. electric heat source

    * B. gas or oil heat source

    C. no grid connection

    D. unusual design to achieve net zero electric

000148 SEP 19 16

Appraisal Institute®
Professionals Providing Real Estate Solutions

September 9, 2016

Patty Morrow
Missouri Real Estate Appraisers Commission
3605 Missouri Blvd.
Jefferson City, MO 65109-7111

Dear Ms. Morrow,

Enclosed are approval applications for the following Appraisal Institute courses:

Residential & Commercial Valuation of Solar	15 hours CE/14 hours CE
Review Case Studies - Residential	15 hours CE/14 hours CE

PLEASE NOTE: Residential & Commercial Valuation of Solar is a major revision of an existing Appraisal Institute classroom course with the same title. You may expunge or replace the previous approval if and when this version receives approval.

All necessary materials are attached. If you have any questions or concerns, please feel free to contact me.

Thank you,

Dan Doepke
State Certification Supervisor
T (312) 335-4217
F (312) 335-4251
ddoepke@appraisalinstitute.org

Recd $25- 9.19.16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL*. All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): Appraisal Institute
2. Mailing Address: 200 W Madison, Ste 1500 Chicago IL 60606
3. Contact Person: Dan Doepke
4. Phone: 312-335-4100 Fax: (312) 335-4251
5. Website: www.appraisalinstitute.org Email: ddoepke@appraisalinstitute.org
6. Course Title and Number: Review Case Studies - Residential
7. Number of Classroom Hours: 14 Number of Exam Hours: 1
8. Course Category: ☐ Qualifying Education ☑ Continuing Education ☐ Both
9. Indicate the level of the licensure/certification this course would meet:

   _____ All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income _____ Elective

11. Instructor(s): Craig Harrington
12. Method of Presentation: ☑ Traditional Classroom _____ Correspondence ☐ Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: Appraisal Institute
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: ☐ Pre-License ☑ Continuing Education
_____ Renewal X Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Craig Harrington

   Mailing Address: P. O. Box 650, Chanhassen MN 55317

   Business Phone: (952) 361-6700

   Business Fax: (952) 361-6994

3. Name and address of school/organization for whom you will instruct:
   Appraisal Institute
   200 W Madison, Ste 1500 Chicago IL 60606

   School/Organization: Appraisal Trade Organization

4. Title of program/course or portion of program/course to be taught by the instructor:
   Review Case Studies - Residential

5. Which portion(s) to be taught by the instructor?
   all

   Total Hours: 15

   Pre License Hours: _____ Continuing Education Hours: 14

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

8. Education:

School	From Month	From Year	To Month	To Year	Degree Earned	Subject Matter
Normandale Community College					Associates	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From Month	From Year	To Month	To Year	Subjects Taught
Appraisal Institute	6	1993		current	Real Estate Appraisal

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From Month	From Year	To Month	To Year
CM Harrington + Associates	President		1991		current
see resume for					
additional					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

(Signature of Appraiser Education Administrator)

9/14/16

(Date)

Craig M. Harrington, SRA	Minnesota Appraisal License: 4001314
C. M. Harrington & Associates	Tax ID Number: 472-64-8628
P. O. Box 650	Home Address:
Chanhassen, MN 55317-0650	2450 Brinkhaus Street
TEL: (952) 361-6700 ▪ FAX: (952) 361-6994	Chaska, MN 55318

Instructor's Credentials — Craig M. Harrington, SRA

PROFESSIONAL DESIGNATION

Mr. Harrington is a designated SRA of the Appraisal Institute. He received his professional designation from the Institute (headquartered in Chicago) on January 17, 1984.

Craig has served on national committees of the Appraisal Institute including chair of Seminars, vice-chair of Curriculum, and member of the Residential Council.

APPRAISAL LICENSE AND PROFESSIONAL AFFILIATIONS

- Certified Residential Real Property Appraiser (No. 4001314) licensed through the State of Minnesota.
- SRA member of the Metro/Minnesota Chapter of the Appraisal Institute. Craig has served in the past as chairman of various chapter committees and has twice served terms on the chapter's board of directors.
- REALTOR® member of the National Association of REALTORS®. Mr. Harrington has been a member in good standing of the Minneapolis Area Association of REALTORS® since 1980.

APPRAISAL INSTRUCTOR EXPERIENCE

Mr. Harrington has instructed state approved appraisal seminars and courses in 35 states and Puerto Rico. Craig Harrington has instructed both pre-license and continuing education and has authored over twenty-five appraisal course and seminar workbooks. He has been actively engaged in teaching appraisal courses since 1991 and is an approved national AQB Certified USPAP Instructor for The Appraisal Foundation.

Mr. Harrington is the developer of the National 7-Hour USPAP Update Course for 2004 and 2005. He is presently co-developing the 15-Hour National USPAP Course (2006) for The Appraisal Foundation. In 2004 Craig developed the first 60 hours of pre-license education for the Appraisal Institute. The first course in that series, Basic Appraisal Principles, is also approved as the required training for the American Society of Farm Managers and Rural Appraisers (ASFMRA) and also the American Society of Appraisers (ASA).

In his native Minnesota Craig Harrington has taught seminars and courses for the Minnesota Office of Land Management, Minnesota HUD Office, University of St. Thomas (Minneapolis Campus), Minnesota Association of Assessing Officers (MAAO), PROSOURCE Educational Services, Metro/Minnesota Chapter of the Appraisal Institute and he has been a faculty member for MILE (Minnesota Institute of Legal Education) in several real estate related seminars.

BUSINESS RESUME

- C. M. Harrington & Associates, President (1991 - Present)
- North Star Title, Inc., Vice President, Appraisal Division Manager (1989-1991)
- Harrington & Harrington, Inc., Chief Review Supervisor (1980-1989)
- TCF National Bank, Staff Appraiser (1976-1980)
- City of Plymouth, Staff Appraiser (1974-1976)

Prior to entering the appraisal profession in 1974, Mr. Harrington was employed as a sales manager and REALTOR® for a real estate brokerage firm in Minneapolis.

APPRAISAL EXPERIENCE

- APPRAISAL MANAGER/CONSULTANT – Craig Harrington served in the appointed position of appraisal manager and consultant to TCF Bank for eight years. While at North Star Title, he supervised the appraisal management for a number of financial institutions and firms in a four-state area.
- REVIEW APPRAISER/ADVISOR– Craig Harrington served as an independent first-mortgage reviewer and arbitrator for financial institutions over many years. He has advised institutional clients on a variety of real estate consulting assignments.
- INDEPENDENT CONSULTANT/APPRAISER – Mr. Harrington specializes in complex residential assignments on real estate that is typically in dispute or subject to litigation. He has testified as an expert witness in court as well as in commissioner hearings involving condemnation. Craig is also a court-appointed eminent domain commissioner for Carver County, Minnesota.

EDUCATION

Mr. Harrington has an associate degree from Normandale Community College with additional studies completed in economics, accounting, and management at the University of Minnesota.

Specialized education includes the following recent seminars and courses:

- Basic Appraisal Principles – 2005 (Appraisal Institute)
- Basic Appraisal Procedures – 2005 (Appraisal Institute)
- National USPAP Instructor Recertification Course – 2004 (Appraisal Foundation)
- National USPAP Instructors Course and Exam – 2002 (Appraisal Foundation)
- Appraisal Consulting – 2004 (Appraisal Institute-Chicago Chapter)
- Course 430 Standards of Professional Practice, Part C – 2002 (Appraisal Institute)
- Asset Valuation – 2001 (Minnesota Institute of Legal Education)
- 2001 Right of Way Professionals Conference – 2001 (MnDOT Office of Land Management)
- GIS Workshop – 2001 (Appraisal Institute)
- FHA Appraisal Inspection – 2000 (Appraisal Institute)
- Course 705, Litigation Appraising – 1999 (Appraisal Institute)
- The Ninth Annual Business Valuation Seminar – 1999 (ASA, IBA and St. Thomas University)
- Eminent Domain and Condemnation Appraising – 1999 (Appraisal Institute)
- Valuation of Detrimental Conditions in Real Estate – 1999 (Appraisal Institute)
- Eminent Domain – 1998 (Minnesota Institute of Legal Education)
- Internet and Appraising – 1998 (Appraisal Institute)
- 1998 Right of Way Professionals Conference – 1998 (MnDOT Office of Land Management)
- Asset Valuation – 1997 (Minnesota Institute of Legal Education)
- 1997 Construction Law Institute – 1997 (Minnesota Institute of Legal Education)
- Eminent Domain and Condemnation Appraising – 1997 (Appraisal Institute)
- Appraising High-Value and Historic Homes – 1997 (Appraisal Institute)
- The Appraiser as Expert Witness – 1996 (Appraisal Institute)
- Appraisal Practices for Litigation – 1996 (Appraisal Institute)
- Property Tax Appeals – 1996 (Minnesota Institute of Legal Education)

The Appraisal Institute conducts a voluntary program of continuing education for its designated members. MAI's and SRA's who meet the minimum standards of this program are awarded periodic educational certification. As of January 1, 2005 Craig Harrington, SRA, has completed the requirements under the continuing education program of the Appraisal Institute.

THE APPRAISAL FOUNDATION

Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

1155 15th Street, NW, Ste. 1111
Washington, DC 20005
(202) 347-7722 phone
(202) 347-7727 fax
www.appraisalfoundation.org

AQB USPAP Instructor ReCertification Course

This certifies that **Craig M. Harrington** *successfully completed the AQB USPAP Instructor* **ReCertification** *Course for 7.0 hours in* **Chicago, IL** *on* **Saturday, May 19, 2007.**

Craig M. Harrington
C.M. Harrington & Associates
PO Box 650
Chanhassen, MN 55317

Instructor ID: 10429

License Number: _____

Mavis Kleso

Verified by Mavis Kleso, Programs Manager

Course Description

Review Case Studies-Residential is unlike anything you've experienced in other classes. You will apply the review process by walking through a case study that focuses on a two-stage review assignment. The first day you'll be put into groups and as a group analyze the property that is the subject of the appraisal report under review. Each group will develop its own opinion of value remembering that the analyses behind the conclusion must be fully supported by including every adjustment and opinion. These tasks will happen BEFORE you see the appraisal report to be reviewed.

While the review groups are puzzling through the case study, there are also a variety of practical applications presented through *Review Reality Check* problems. These problems, along with quizzes are presented throughout the course.

On the second day, you'll continue working in your group by beginning your analysis of the appraisal report and develop opinions of completeness, accuracy, adequacy, relevance and reasonableness (including tests of reasonableness). From there, you will develop opinions of appropriateness and creditability specific to the appraiser's development and you will develop opinions on whether the appraiser's report is appropriate and not misleading, including reasons for disagreement. Day two ends by examining how reviewers can best communicate their results to their client and also to the appraiser whose work was reviewed—if that is part of the reviewer's scope of work.

If you're an appraiser, reviewer, or other real estate professional who regularly works with reviews, this hands-on, application-based course is for you!

Suggested Schedule

SECTION 1. (Day 1 Morning) 205 Minutes

Overview		
8:00–8:30	30 minutes	Registration
Introduction (20 Minutes)		
8:30–8:35	5 minutes	Welcome – Classroom Policy and Procedures
8:35–8:45	10 minutes	Introduction and Preview to Part 1
Part 1. Assignment Identification and the Cost Approach (190 Minutes + Breaks)		
8:45–8:55	10 minutes	Preparing for the Case Study
8:55–9:45	50 minutes	Case Study – Assignment Identification and Cost Approach
9:45–9:55	10 minutes	MORNING BREAK
9:55–11:00	65 minutes	Case Study – Cost Approach
11:00–11:10	10 minutes	MORNING BREAK
11:10–12:15	65 minutes	Case Study – Cost Approach
12:15–1:15	60 minutes	LUNCH BREAK

SECTION 2. (Day 1 Afternoon) 205 Minutes

Part 2. Cost Approach Findings and Sales Comparison Approach (205 Minutes + Breaks)		
1:15–2:15	60 minutes	Case Study Findings – Discussion on Cost Approach
2:15–2:25	10 minutes	AFTERNOON BREAK
2:25–3:35	70 minutes	Case Study – Sales Comparison Approach
3:35–3:45	10 minutes	AFTERNOON BREAK
3:45–4:50	65 minutes	Case Study – Sales Comparison Approach
4:50–5:00	10 minutes	Review and Q & A

SECTION 3. (Day 2 Morning) 205 Minutes

Part 3. Review Analysis and Development of Opinions (205 Minutes + Two 10-min. Breaks)		
8:30–8:40	10 minutes	Preparing for the Second Day
8:40–9:30	50 minutes	Case Study Findings – Discussion on Sales Comp. Approach
9:30–9:40	10 minutes	MORNING BREAK
9:40–10:55	75 minutes	Case Study – Reviewer's Research and Analyses
10:55–11:05	10 minutes	MORNING BREAK
11:05–12:15	70 minutes	Case Study – Developing Review Opinions and Conclusions
12:15–1:15	60 minutes	LUNCH BREAK

SECTION 4. (Day 2 Afternoon) 205 Minutes

Part 4. Reviewer Communication (205 Minutes + Two 10-min. Breaks and Exam)		
1:15–2:25	70 minutes	Case Study Findings – Discussion on the Review Process
2:25–2:35	10 minutes	AFTERNOON BREAK
2:35–2:50	15 minutes	Why Communication Matters
2:50–3:00	10 minutes	How Communication Works
3:00–3:10	10 minutes	Suggestions for Reviewers
3:10–3:30	20 minutes	Oak Street Case Study: Drafting a Memo to the Appraiser
3:30–3:40	10 minutes	AFTERNOON BREAK
3:40—4:00	20 minutes	Review and Preparation for Exam
4:00–5:00	60 minutes	1-Hour Multiple-Choice Exam

Review Case Studies-Residential

Acknowledgments

The following contributors deserve recognition for their efforts in developing this material:

Course developer: Craig M. Harrington, SRA, AI-RRS

Development team: Stephanie Coleman, MAI, SRA, AI-GRS, AI-RRS
Dawn M. Molitor-Gennrich, SRA, AI-RRS
Joseph C. Magdziarz, MAI, SRA, AI-GRS, AI-RRS
Jennifer Marshall, SRA, AI-RRS
Nicholas D. Pilz, MAI, SRA, AI-RRS

The following Education Resources staff of the Appraisal Institute also contributed to the completion of these materials: Sue Siradas, Director, Education Resources; Anne Calek, Senior Manager, Classroom Education; Dawn Martin, Managing Editor, Classroom & Technology-Based Education; Brian Blevins, Senior Production Specialist, Classroom Education, and Alicia Pinkins, Classroom Education Coordinator.

Unless otherwise noted, all graphic artwork was created by Craig Harrington, the course developer.

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One-Hour Multiple-Choice Exam ..... Classroom

Appendix

To Be Determined

Overview

Course Description

Review Case Studies—Residential applies the review process by walking participants through a case study that focuses on a two-stage review assignment.

This designation course is the second in a series and is designed for appraisers, reviewers, and other real estate professionals who regularly work with reviews.

Learning Enhancements

The course has been designed with a variety of elements to enhance your learning experience.

- ***Preview.*** To give you a taste of what is to come, you will find a *Preview* page that begins each part. Included on the *Preview* page is a brief overview of the content, learning objectives to consider as you move through the content, and learning tips that will assist you in understanding the information you're about to learn.

- ***Learning Objectives.*** Each learning objective covers essential information you need to know to fully understand the concepts in the course. Look them over before the part begins so that you have a frame of reference as you move through the material. At the end of each part, reread the objectives. Are you able to do what is stated? If not, this is the time to ask your instructor for help. Or review the concepts that you do not understand.

- ***Example, Problems, and Review Reality Checks.*** Supplementing the discussions, we've included examples, problems, and Review Reality Checks to help you visualize and practice what you are learning.

- ***Fill-in-the-Blanks.*** It is a proven fact that when you write something down, you are more apt to remember it. The Course Handbook has space provided for various problems and discussion questions. Be sure to write out your solutions and annotate the handbook as much as possible. They will be a valuable resource in preparation of the final exam.

- ***Review.*** Each part concludes with a review. Included in the review are the learning objectives and key terms and concepts that have been covered. Also, we've provided recommended readings from textbooks that will reinforce what you have learned in class.

- ***Review Quizzes and Practice Test.*** Short quizzes are included at the end each part. The questions are similar to the types of questions you might find on the

exam. By answering the multiple-choice questions, you will know whether or not you really know the information that was covered in that part.

Classroom Guidelines

To make the classroom environment a positive experience for everyone attending, please follow these guidelines:

- 100% attendance is required. No exceptions.
- Limit use of laptops to classroom projects.
- Communicate with business associates during break time instead of class time.
- Put away reading materials such as newspapers and books that are not used in class.
- Silence cell phones.
- Please do not record the lectures. Recordings are not permitted.
- Refrain from ongoing conversations with those seated near you and other distracting behavior.

General Information

- **Calculator.** A basic-function calculator is required. **Note.** Cellular phones, tablets, iPads and other devices that can store data or connect to the Internet are ***NOT*** permitted during the exam.
- **Breaks.** There will be two 10-minute breaks during the morning session and two 10-minute breaks during the afternoon session unless noted otherwise by the course sponsor. The lunch break is one hour.
- **Attendance sheets** will be distributed during class to verify your attendance during the morning and afternoon sessions.
- **Certificates of completion** will be e-mailed after completion of the course, and attendance during the entire course is required.

USPAP References

All references to the Uniform Standards of Professional Appraisal Practice (USPAP) are taken from the 2016-2017 edition (Washington, D.C.: The Appraisal Foundation).

Recommended Texts

- Uniform Standards of Professional Appraisal Practice, current edition
- *The Appraisal of Real Estate,* 14th edition
- *The Dictionary of Real Estate Appraisal*, 6th edition
- *Appraising the Appraisal: The Art of Appraisal Review*, 2nd edition

Before Teaching the Course

General Comments

Review Case Studies—Residential is a 15-hour course that is presented in two days and includes a 1-hour exam. There is a lot of content to cover in that time span, yet not all of the content is presented by the instructor. Instead, participants will be working in groups for extended stretches of time to solve problems related to a single case study that is the heart of the course.

The instructor notes provide both general and specific guidance on how to present the case study. The prerequisite course, *Review Theory—Residential* sets the knowledge base that this course builds upon. *Review Case Studies* gets right down to business from the start of the class and you will find that this will be an enjoyable course to present. Even so, the instructor will need to invest time in reading through these instructor notes as well as all the course materials prior to teaching for the first time.

Distribution of Materials

The course handbook is supplemented by a case study booklet plus various handouts that coordinate with the case study. Some of the materials will be distributed by the instructor as the case study progresses. It is critical that specific materials not be distributed in advance.

Note: Only the course handbook can be downloaded by participants in advance. The Oak Street Case Study Booklet, the various Fannie Mae reporting forms, and the solutions booklets are distributed in class by the instructor.

The timing for distributing materials is identified in these instructor notes and also in the course handbook. For the first session, the Oak Street Case Study Booklet and the reviewer's version of the URAR form can be distributed when registrants check in on the first day prior to the morning session. The instructor must be at the facility early enough, or provide explicit instructions in advance to the sponsoring chapter as to which materials may be distributed at check-in. The best approach is to provide advance instructions and also be at the facility early to supervise the distribution of materials. The instructor is ultimately responsible for determining when materials are distributed to course participants.

The course materials are designed to foster interaction between participants as they work together on the case study. Interaction between participants and the instructor is also a component in the design of this course. Your enthusiasm toward the material, along with a desire to see participants grasp the review concepts, will make this course a rewarding experience.

Understanding Your Audience

Review Case Studies—Residential was developed for real property reviewers, but it will also prove helpful to those who regularly interact with reviewers.

This second course in the review curriculum is required for Candidates for designation pursuing the Appraisal Institute's residential review designation. In contrast, the course is recommended

for our Designated members who qualify for the fast-track path to the review designation and have already take *Review Theory—Residential*.

At the beginning of the course, you should survey the class with a show of hands to determine how many participants have a background in review. It may also be helpful to find out what professional groups (such as fee reviewers, institutional reviewers, occasional reviewers, etc.) are represented in the classroom.

Prerequisites

Successful completion of the first course in the series, *Review Theory—Residential,* is a prerequisite. Registrants should have carefully reviewed the materials from the first course prior to coming to the classroom. This is important because *Review Case Studies* does not revisit the definitions and concepts presented in *Review Theory* other than at the discretion of the instructor. You may need to reaffirm the prerequisites in your opening introduction, but also let the class know that you are available to assist anyone requiring additional help.

Recommended coursework is listed below.

Appraisers (Recommended Coursework)

- *Real Estate Finance, Statistics, and Valuation Modeling*
- *Residential Market Analysis and Highest & Best Use*

Nonappraisers (Recommended Coursework)

- *Basic Appraisal Principles*
- *Basic Appraisal Procedures*
- *National Uniform Standards of Professional Appraisal Practice,* 15-hour course

Course and Classroom Configuration

The central core of this course is the Oak Street Case Study and for large segments of time the participants will be working in groups under the supervision and guidance of the instructor. The ideal classroom setup is to have **round tables**, or arrange the rectangular tables in a manner that facilitates the interaction of participants, such as pushing two tables together so that participants are facing each other with the tables perpendicular to the screen that is located at the front of the classroom.

The course includes interactive problems called ***Review Reality Checks*** and ***self-study quizzes***. The quizzes will be helpful to the participants in their preparation for the exam at the course conclusion.

Instructor Handbook

Notes to the instructor regarding content, timing, activities, and solutions to problems are incorporated into the instructor's version of the Course Handbook and the Oak Street Case Study Booklet. Answers are prefilled in the instructor version of these materials, whereas participants have blank spaces. The filled-in text appears in *Comic Sans* type. Also included are teaching hints where appropriate. While these notes will assist you while presenting the course, you still need to annotate your instructor handbook and your instructor version of the Oak Street Case Study Booklet with reminders about personal illustrations you want to use in class or additional comments that will aid in effectively presenting this course.

Important note. The student version of the course handbook, case study booklet, and the reviewer's URAR form, do not contain many of the suggested solutions found in the instructor's version. The solutions booklets provide guidance on the review reality check problems and the self-study quizzes. All other guidance found in the instructor's version of these materials is not to be shared with members of the class.

Timing. The Suggested Schedule in the Instructor Handbook reveals specific recommended timing that is absent from the course schedule in the participants' course handbook. Flexibility in pacing is built into the design of the course. It will take several presentations before you get the timing just right. The instructor notes that are integrated into the handbook before each part also contain timing for the segment.

Classroom Education Hours. The Appraisal Institute uses the following rationale to determine classroom education hours:

- As noted in the AQB's *The Real Property Appraiser Qualification Criteria and Interpretations of the Criteria* (Generic Education Criteria, Page 5) "a class hour is defined as 60 minutes, of which at least 50 minutes are instruction attended by the student. The prescribed number of class hours includes time for examinations."
- To meet the requirements of state regulators and the Appraiser Qualifications Board, the Appraisal Institute structures the timelines of its education programs on a 50-minute credit hour.
- When designing education programs, the Appraisal Institute includes 20 minutes of **break time** in the morning session and 20 minutes of break time in the afternoon session. The detailed timelines are included in the materials sent to instructors, the AQB, and the states. Each morning and afternoon includes two 10-minute breaks. There is a one-hour break for lunch.
- Course and seminar timelines can be adapted to meet specific needs. Several examples: 1) Instructors may opt to give one 20-minute break rather than two 10-minute breaks in the morning or afternoon session. 2) The chapter may opt to start a 15-hour course at 8:00 a.m. instead of 8:30 and end at 4:30 p.m. instead of 5:00 p.m.
- **Reminder:** Instructors should not manipulate timing within the 50-minute-hour rule to justify letting the class leave early at the day's conclusion.

Page Numbers. Since the instructor notes are fully integrated into a special instructor's version of the course handbook, you will find that they have their own separate page numbering. The page numbering for the course content is the same as the student version of the Course Handbook.

Course Handbook Design

Preview. Each of the four part to the course begins with a *Preview* page, which provides a brief overview, learning objectives, and learning tips for the material that follows.

Learning Objectives. Each exam question stems from the learning

objectives that appear in the course. By previewing and reviewing the objectives before and after each part, you help reinforce what participants need to know for the exam.

Review. Each part also includes a *review* page, which repeats the learning objectives and may provide recommended readings as well as terms and concepts to remember. Remind participants that they should now be able to recognize terms and concepts and apply all procedures addressed in the objectives.

Learning Aids. The instructor notes for each part provide suggestions on how to present the material.

The course content includes the following types of learning aids:

- ***Case Study.*** The Oak Street Case Study is interactive and engaging. The problems it presents are challenging and will require an analytical process in order to solve them.
- ***Examples.*** These are typically narrative illustrations of concepts or terms covered previously.
- ***Review Reality Check Problems.*** These problems may be undertaken by the participants individually, in groups, or as a class exercise. Solutions to these problems do not appear in the participants' handbooks but they are included in the solutions booklets.
- ***Review Quizzes.*** The quizzes are used to reinforce the information covered in each part, and to help participants study for the exam. Each course part includes 10 or more multiple-choice questions. Answers are provided in the Solutions Booklets.
- There is no practice test at the conclusion of the course as is common in other Appraisal Institute courses. The reason for its absence in this course is that the case study comprises a large portion of the course and it is difficult to develop sufficient test questions based on case study material. Therefore, the regular self-study quizzes at the conclusion of each part serve the purpose of exam prep in lieu of the practice test.
- ***Laminated Copy of the Review Process.*** Participants should be encouraged to keep this copy of the review process handy for reference.

Oak Street Case Study Booklet. There are two versions of the booklet; an instructor version that has suggested solutions prefilled in the appropriate spaces, and a student version that does not. As previously noted, be aware that participants will not receive an additional booklet with suggested solutions on the Oak Street Case Study Booklet. This is in contrast to how we handle solutions booklets cover the solutions to review reality check problems and the self-study quizzes.

Solutions Booklets. Solutions that appear in your Instructor Handbook in the *Comic Sans* font are not in the participants' version of the handbook. However, these solutions are included in two solutions booklets, one for each class day.

These separate booklets are not included with the materials sent directly to registered participants. Rather, they are distributed by the instructor. The

Solutions Booklet for Day 1 should be distributed near the end of class, while the Solutions Booklet for Day 2 should be distributed prior to the lunch break in order to give participants sufficient time to the review solutions before the exam.

Guidance for Self-Study. Direction is offered in these Instructor Notes on the critical concepts the instructor should cover in the course, but each instructor must decide what to cover in detail and what to cover lightly. In fact, the instructor may elect to treat some Review Reality Check (RRC) problems as self-study exercises. This option should only be considered if participants are so engaged in the case study that it is difficult to break away, or there is limited time to address specific RRC problems. Remind participants that they are responsible for knowing the content presented in the course handbook, and that such content is fair game for the exam.

Presentation Method

Information presented here is intended as suggested guidance. Each instructor ultimately decides what works best according to their teaching style.

The course is designed around a case study and the instructor will be in the **role of a supervisor** or facilitator for large stretches of the course. Part 4 is the one section of the course that is more typical of a lecture presentation.

Here's what the presentation method should look like: After welcoming the class and presenting the introductory material, which is primarily focused on instructions for the case study, the instructor's role is that of a supervisor in assisting participants who need help. That means you will be going to various table areas and checking how the groups and individuals are processing the case study material. Of course, the class will need time to begin assimilating the case study content. So the facilitator role may not begin until after participants have been working for a period of time to solve specific issues and problems presented in a case study.

Example. There are six RRC problems to address in Part 1. About 60 minutes into the course the instructor should ask the class to pause from the case study and address the first two Review Reality Check problems. This will take about 10 minutes and after the discussion the instructor can announce the first break in the morning.

Some of the RRC problems are tied directly to issues in the case study while others cover general review concepts, yet have relevance to the case study. The best approach is to address the RRC problems prior to 10-minute breaks or the lunch break.

What we've described is the instructor's role and the teaching approach that should be adopted for a large portion of the course. Participants will appreciate the one-on-one assistance when you interact with them at the table areas. Parts 1 through 3 are in this facilitator style of instruction. But as previously noted, Part 4 and the exam prep will be more in the traditional role of lecture and instructor-led discussion.

PowerPoint Presentation

The PowerPoint slides are fairly limited for this course due to the fact that participants will be working at their table areas on the case study for significant

portions of time. Nonetheless, there are specific sections where the use of PowerPoint is needed—such as when you go over certain suggested solutions during the whole-class discussions. Therefore, you will need the capability to project the PowerPoint slides that are included with this course.

The PowerPoint file is available for download from the Appraisal Institute's Knowledge Center at http://knowledgecenter.appraisalinstitute.org, where you can locate the course in the list of programs you are approved to instruct. You may also contact the Education Network Instructor Coordinator at (312) 335-4100 for assistance.

The PowerPoint files were designed exclusively for use in Appraisal Institute courses. These slides may not be used in any other education program, in whole or in part, without the written permission of the Appraisal Institute.

Instructors may modify the presentation to reflect a personal preference, such as reducing mouse clicks required to advance slide content.

Note. If you'd like to create additional slides to include a photo or aerial image as part of a personal illustration, you should create a separate PowerPoint file and switch to that presentation specifically for the illustration you want present.

The **Microsoft PowerPoint** presentation is compatible with versions 2010–2016, and also the Mac versions 2011–2016. PowerPoint 2007 and earlier versions have not been tested and are not recommended.

It may prove be useful to make a printed copy (two slides per page) of the PowerPoint presentation and have it coil bound. A printed version of the PowerPoint will allow you to know the slide that is coming up next in your presentation—particularly when you go through the suggested solutions. Some versions of PowerPoint have a feature that allows the instructor to see what slide or animation is up next before it is displayed on the screen. This feature may be used in lieu of a printout.

Some instructors find it helpful to insert the word "click" in the side margin of their handbook to alert them when a text animation or a new slide should be displayed. If there are too many mouse clicks to suit your presentation style, feel free to remove as many as you like, assuming that you are proficient in editing PowerPoint slides.

Additional PowerPoint files are included with the materials that instructors will appreciate. The first is an ***Intro-Loop*** that contains introductory information and once placed in presentation mode, the slides will continue to transition and loop back to the beginning until the escape key is pressed. You may wish to activate the Intro-Loop PowerPoint file about 20 minutes before the course is scheduled to begin. The second file is a ***Break Timer*** that can be started at the beginning of a break and the slides will count down the minutes so the class knows how much time is left before the next session begins.

Remember to thoroughly test the projection equipment, software, and presentation before your first class.

Required Equipment

Basic Function Calculator. There are math problems in this course, but none

that "require" the use of a financial calculator. Certain mathematical functions are easier to perform on a calculator such as the HP-12C, but a normal function calculator can also perform the calculations, therefore, that is all that we require.

Alert participants that smartphones may not be used during the exam. Thus, everyone taking the final exam must have a normal calculator with them rather relying on a calculator application on their smartphone.

Textbooks

Recommended: Course Handbook from *Review Theory—Residential*.

Recommended: Uniform Standards of Professional Appraisal Practice (USPAP), latest published edition.

There are no required textbooks for this course. However, there are references in the review sections within each part of the Course Handbook to the following textbooks:

- *Appraising the Appraisal: The Art of Appraisal Review*, 2nd edition. Chicago: Appraisal Institute, 2010.
- *The Appraisal of Real Estate,* 14th edition. Chicago: Appraisal Institute, 2013.

Participants would also benefit from having a copy of

- *The Dictionary of Real Estate Appraisal,* 6th edition, Appraisal Institute, 2015.
- *Appraising Residential Properties,* 4th edition, Appraisal Institute, 2007.
- *Code of Professional Ethics of the Appraisal Institute,* available at www.appraisalinstitute.org/assets/1/7/CPE.pdf

Course Exam

The exam has 30 multiple-choice questions. The exam will be administered on the afternoon of the second day. Participants have 60 minutes to complete it.

Prior to the last 10-minute break, the instructor should distribute the evaluation forms. The schedule includes about 20 minutes for completing course evaluations, exam instructions, and the distribution of the exam answer sheets and booklets. Part of time allotment may be used for self-study exam prep by participants.

There is no formal exam prep such as the PowerPoint review quiz in Review Theory. But if you are ahead of schedule in the afternoon session, you are welcome to present a course review or you can simply allow participants to use the time to self-study the course content prior to the exam.

The exam must commence no later than one hour before the normal conclusion of the course.

Suggested Schedule

SECTION 1. (Day 1 Morning) 205 Minutes

Overview		
8:00–8:30	30 minutes	Registration
Introduction (20 Minutes)		
8:30–8:35	5 minutes	Welcome – Classroom Policy and Procedures
8:35–8:45	10 minutes	Introduction and Preview to Part 1
Part 1. Assignment Identification and the Cost Approach (190 Minutes + Breaks)		
8:45–8:55	10 minutes	Preparing for the Case Study
8:55–9:45	50 minutes	Case Study – Assignment Identification and Cost Approach
9:45–9:55	10 minutes	MORNING BREAK
9:55–11:00	65 minutes	Case Study – Cost Approach
11:00–11:10	10 minutes	MORNING BREAK
11:10–12:15	65 minutes	Case Study – Cost Approach
12:15–1:15	60 minutes	LUNCH BREAK

SECTION 2. (Day 1 Afternoon) 205 Minutes

Part 2. Cost Approach Findings and Sales Comparison Approach (205 Minutes + Breaks)		
1:15–2:15	60 minutes	Case Study Findings – Discussion on Cost Approach
2:15–2:25	10 minutes	AFTERNOON BREAK
2:25–3:35	70 minutes	Case Study – Sales Comparison Approach
3:35–3:45	10 minutes	AFTERNOON BREAK
3:45–4:50	65 minutes	Case Study – Sales Comparison Approach
4:50–5:00	10 minutes	Review and Q & A

SECTION 3. (Day 2 Morning) 205 Minutes

Part 3. Review Analysis and Development of Opinions (205 Minutes + Two 10-min. Breaks)		
8:30–8:40	10 minutes	Preparing for the Second Day
8:40–9:30	50 minutes	Case Study Findings – Discussion on Sales Comp. Approach
9:30–9:40	10 minutes	MORNING BREAK
9:40–10:55	75 minutes	Case Study – Reviewer's Research and Analyses
10:55–11:05	10 minutes	MORNING BREAK
11:05–12:15	70 minutes	Case Study – Developing Review Opinions and Conclusions
12:15–1:15	60 minutes	LUNCH BREAK

SECTION 4. (Day 2 Afternoon) 205 Minutes

Part 4. Reviewer Communication (205 Minutes + Two 10-min. Breaks and Exam)		
1:15–2:25	70 minutes	Case Study Findings – Discussion on the Review Process
2:25–2:35	10 minutes	AFTERNOON BREAK
2:35–2:50	15 minutes	Why Communication Matters
2:50–3:00	10 minutes	How Communication Works
3:00–3:10	10 minutes	Suggestions for Reviewers
3:10–3:30	20 minutes	Oak Street Case Study: Drafting a Memo to the Appraiser
3:30–3:40	10 minutes	AFTERNOON BREAK
3:40—4:00	20 minutes	Review and Preparation for Exam
4:00–5:00	60 minutes	1-Hour Multiple-Choice Exam

Part 1. Assignment Identification and the Cost Approach
(205 min. plus two 10-minute breaks and a 60-minute lunch break)

The introductory content is presented on page 1 of the course handbook and although it is brief, the page covers critical information. A PowerPoint loop that is intended to run prior to the start of the course contains a slide that encourages participants to read page 1 while they are waiting for the class to begin. Prior to presenting the introduction page we assume you will spend a few minutes getting to know the class and also address classroom policy and procedures. Of course, you will need to introduce yourself so the class knows some background about their instructor.

Timing. There are four parts to the course and Part 1 is one of the longer sessions. It extends into the middle of the afternoon. The instructor will need to refer to the course schedule to identify the appropriate timing for breaks. Participants will be working intensely on the case study for most of Part 1, and it is up to the instructor to be aware of the time and announce breaks accordingly.

Introduction

The goal of the introduction is to set the tone for the course, and Part 1 in particular. This is an applications course and we're going to put the class right to work. We think participants will appreciate being in a course that gets down to business from the start.

During the introduction you should review the course strategy that is presented on page 1. Some may have browsed the content in advance, but it may prove beneficial to give the class time to read the content on page 1 for themselves.

The layout of the case study is designed to enhance the educational process. So it is important that participants stay on track with the assigned tasks. If they jump ahead and make assumptions about where the case study is headed, they may end up creating more work for themselves. The instructor should emphasize this point to the class. The goal is for participants to work together and it is the instructor's job to ensure the pace and tone of the course works as designed to create an environment suitable for interactive learning.

The flowchart for the ***Review Process*** follows the opening content of the handbook's Introduction. The chart is included for reference purposes and we do not expect you to cover the flowchart content. Participants should be familiar with this material from the *Review Theory* course. This would be a good time to reaffirm to the class that *Review Case Studies* assumes participants have successfully completed *Review Theory* and that they have reviewed the content of that course prior to coming into the classroom.

The opening introductory content should move along and lead the class to the preview content on page 3 of the course handbook, but there is no need to rush. The goal of the introduction is to ensure that participants have a sufficient understanding of what the course is all about before becoming engrossed in the case study material. Therefore, as you conclude the introduction be sure to ask the class if they have any questions before moving on to the Preview.

Part 1 – Content Tips

Preview. Participants should be familiar with the Preview section, but it is useful to highlight the topics covered in the preview—which are also highlighted on the PowerPoint slides. The intent is to cover this first preview with the class. The preview material covering the other parts of the course may be left as self-study—which is the strategy we used in the *Review Theory* course.

Be aware that participants may be anxious about how they will be tested in the final exam, especially when the course content revolves around a case study. You can assure the class that each exam question is connected to a learning objective, and there are three objectives for Part 1. By challenging the quizzes, solving the Review Reality Check problems, and fully participating in the case study, participants should be adequately prepared for the final exam.

The Preview contains information about **Digging Deeper** material. The content also states that class members may use statistical analysis if comfortable using Excel and have the program on their laptop or tablet. The preview explains why the course does not present **statistical modeling**, even though it is a desirable analytical tool for reviewers. Even so, the case study booklet presents suggestions on the use of such tools, but these are treated as Digging Deeper and will not be tested in the final exam.

Preparing for the Case Study. General guidance for the case study is provided on the opening page of Part 1. The best approach is to have participants read the guidance material and then discuss any questions they might have. The next task is to move the attention of the class into the case study booklet. The remaining content in Part 1 addresses the Review Reality Check (RRC) problems and the self-study quiz. Thus the primary work for the morning session is contained in the Oak Street Case Study Booklet.

Review Reality Check Problems. The class will need to break away from the case study at times to address various RRC problems. The best way to facilitate that is to ask the class to temporarily stop their work on the case study and take time to address the RRC problems in their course handbook. The best times are either before or after a break. The case study is engaging, therefore, don't be surprised that some individuals will forgo their break to continue working, but everyone should be encouraged to take their break and return refreshed.

For Part 1, an instructor can divide the six RRC problems into three sets and address two problems after morning breaks and the last two before lunch.

Oak Street Case Study Booklet

In Part 1 you will see a graphic for the case study. It is located just before the first Review Reality Check (RRC #1).

When you have reached that point, it is time to switch to the Oak Street Case Study Booklet.

Materials. Prior to beginning work on the case study project, the instructor needs to distribute the Oak Street Case Study Booklet and also the partially-filled URAR form that is designed for this portion of the project. The form has a specific purpose in the case study and is part of the review assignment. Most of the factual data is prefilled on the URAR form. However, the analytical portions

and data fields have been left blank for the class to work on.

Note: The instructor's version of the URAR has most data fields completed with suggested content. It is intended to allow instructors to easily facilitate discussion. However, there is no "best" version of the URAR. Participants will use their version of the URAR to facilitate their review of the appraisal report on the second day of the course.

Participants will not receive a copy of the instructor's version of the URAR in their solutions booklets. Therefore, instructors should treat the instructor's version of the URAR similar to the instructor's version of the final exam. It must not be shared with the class or copied.

Assignment Identification. Instructions in the Oak Street Case Study Booklet are self-explanatory and participants can get right to work. Some in the class may have additional questions and may need individual assistance. Please ensure that everyone knows what is expected of them as they begin the case study.

In the general comments to these Instructor Notes we have suggestions for the classroom setup and how tables and seating can be arranged to facilitate group discussion. This should have been accomplished before class begins, but if not, enlist class members to arrange the tables before work commences on the case study. A classroom with roundtables is an ideal setup. However, rectangular tables can be pushed together and the seating arranged so participants face each other. Position the tables so they are perpendicular to the screen to ensure that no one has their back to the projected image at the front of the room. We suggest that you discuss these issues with the educational provider in advance regarding the classroom set up. Remember that the sponsor of the course won't know unless you tell them in advance how to set up the classroom.

Background Information is a subpoint under *Assignment Identification* and the booklet lays out how this section of the case study fits within the overall scheme. One of the issues addressed on the **PowerPoint** slide is how the class will interact. All participants in the classroom are considered reviewers. Therefore, remind participants that they are encouraged to interact with the other reviewers seated at their table area. The interaction should be engaged at two levels. First, participants should be working in two-member teams to facilitate feedback as reviewers analyze the data. Second, all the reviewers at a particular table area ought to be interacting as a group—and this should be ongoing. Reviewers are expected to be regularly spot-checking each other's work. The instructor is in the role of a supervisory reviewer, and may visit each table area at various times to discuss issues with the group and provide assistance as needed. The interaction is important and prepares everyone for the whole class discussions that will begin in the afternoon session.

Point of beginning. This is where the review groups start working together on their own. There are three tasks presented which are connected to the steps in the Review Process. All three tasks are important, but the third task covering Step 6 is the main focus of the participant's work in Day 1.

Participants will quickly be into analyzing the **letter of engagement** followed by the

purchase agreement contract for the subject property of the appraisal report under review. There is plenty of data to digest and the instructor has to be careful not to give away significant clues while addressing the whole class or in small group discussions at the tables.

The instructor's objective is to let the class analyze the data and figure things out—even if they go down a rabbit trail for a period of time. However, if you find that the whole class is bogged down on a particular issue, then provide the needed guidance to get them back on track.

It is appropriate and expected that participants will reach different solutions from what is suggested in the instructor's materials. The intent is for participants to provide support for their opinions and conclusions and thus enhance their analytical review skills. Again, please be careful not to provide solutions. The goal is to analyze rather than completing a reporting form.

While on the topic of appraisal forms, we are using the Fannie Mae URAR like it would be used in real life by a reviewer. In **Step 6 of the Review Process**, the reviewer is concerned with only those portions of the URAR form that help the reviewer to develop their own opinion of value. There is no purpose for reviewers to completely fill out the URAR form. It is to be used purely for review purposes.

Reviewer's Opinion of Value

Cost Approach. After the class has read the engagement letter and analyzed the purchase agreement contract, the next task is to ensure they begin on the cost approach. The guidance provided in the case study booklet explains why we are starting with the cost analysis.

The cost approach is assumed to be appropriate for this 10-year-old subject and the engagement letter states that the cost approach must be included when the subject residence meets defined age requirements as per the engagement agreement.

The cost approach is an 8-step process and the steps are identified in the Oak Street Case Study Booklet. The first step in the 8-step process is the value opinion for the land. However, the data for the cost approach is presented in the case study booklet as **three major tasks**. The first is to estimate the replacement cost of the structural improvements. The second task is to derive a value opinion for the site using an appropriate land valuation method. The third and final task is to estimate depreciation. For the latter analysis we will use both market extraction and the age-life method.

Note: Be aware that the data presented in the case study booklet are not organized for analysis. In fact, the three tasks (just noted) for the approach are not identified. Participants will need to analyze depreciation before they can perform a market extraction of the site value. This is something the class needs to figure out, although you can provide hints by telling participants that they may need to skip ahead and analyze other data in order to complete a specific analytical task or process.

Initial tasks for the reviewer. Remind the class to read the preliminary guidance, which includes the eight procedural steps of the approach. The guidance in this section (i.e., A-2 and A-3) alerts participants that data is not necessarily organized for sequential analysis, and they may use any information in the case

study booklet in their review analysis. Be sure to point this out as they may need to look at neighborhood data to obtain background information that will be helpful when analyzing the site value.

Cost Approach Data. A description of the property is presented from a context of analyzing cost. This general description is followed by illustrations that show the layout of the property improvements. Information is presented in a format that allows the class to crosscheck the gross living area (GLA) calculations.

Cost Rates. Data are presented in the same configuration as that found in the *Marshall and Swift Residential Cost Handbook*, although it is abbreviated for educational purposes. Reviewers should know how to select and adjust the cost rates, but some participants may need individual help on how to properly analyze these rates. In fact, it may be helpful to provide some general guidance to the whole class before they get too far into the analysis. For example, guidance may be needed in applying two-story and one-story rates in the proper way. The very fact that a number of participants will wrestle with this initial analysis is a good thing as it will force them to interact with their fellow reviewers at their table area—as well as with you. So be ready to step in once they've had sufficient time to read through the preliminary information. At that point you can announce that if anyone is stuck or not sure how to select some of the rates, to raise their hand and you will come over and help. But do encourage them to seek the advice of their fellow reviewers.

Light Bulb Moment. Some participants are going to quickly realize that they don't have the knowledge to properly use the Marshall and Swift cost data. This is a critical realization because it means they also don't have the expertise to review cost data in appraisal reports they are reviewing. One of the reasons we placed this analysis at the beginning of the course is that it will promote interaction at the table areas—and also interaction with the instructor, who is in the role of a supervisory reviewer. Be aware that the cost analysis presented in the case study is no more advanced than what is presented in the *Basic Appraisal Procedures* course.

Square Foot Appraisal Form. There are two 1007 forms provided in the booklet for participants to use. The instructor should ask the class to carefully remove one of the cost forms from the booklet so it can be placed adjacent to the pages that cover the cost rates. The case study booklet was designed with this in mind and both forms have no content on the backside of the page. The instructor version of the case study booklet has the suggested rates filled-in on one form, but in the student version, both forms are blank, with the exception of line 14.

Participants will need to transfer cost data from the completed MS 1007 form to the URAR format. Some in the class may question the purpose of the transfer to the URAR, but having the cost data on the URAR will facilitate the review of the subject appraisal report on Day-2.

First Morning Break. Once the class has begun the case study, you will need to give them time to digest the information and the cost data. About 75 minutes from the start of the course, participants should be processing the cost rates and inserting their data on the Marshall and Swift form. At this point ask the class to pause and take a 10-minute break. Inform them that upon their return you

will address the first two Review Reality Check problems in their handbook.

1.1 Review Realty Check. This RRC problem addresses identification of the client and intended users in a review assignment. This is a straightforward problem, but it may prompt questions related to identification issues in Step 1 of the Review Process.

1.2 Review Realty Check. In some review assignments the subject is a review report, rather than an appraisal report. In a review of a review a client may also want the original appraisal report reviewed. This becomes two reviews in one assignment—and may also include the reviewer providing a value opinion (i.e., and appraisal) if the reviewer's scope of work requires agreement or disagreement with the conclusion reached in the two works under review.

Second Morning Break. The next two review reality check problems may be addressed after the second morning break. One of the problems (RRC 1.4) focuses on the issue of entrepreneurial incentive, so you have the option to discuss that problem when the majority of the class is confronting it in the case study. Otherwise, address it when the class returns from the second break.

1.3 Review Realty Check. This RRC problem and the next are specific to the cost approach. The "appropriateness issue" of the cost approach is a multifaceted decision. This RRC problem looks at two aspects, but participants may offer additional insight and they can be discussed if time allows.

1.4 Review Realty Check. The case study requires participants to face the issue of how to identify and apply entrepreneurial incentive as well as the appropriateness of including a real estate brokerage commission in the cost analysis.

Marshall and Swift's *RC Handbook* does not include entrepreneurial incentive or real estate brokerage fees in their cost rates, so this RRC problem may provide an interesting discussion for the class. Each reviewer will ultimately need to make their own decision on how to address these components in their cost analysis.

The case study booklet suggests that entrepreneurial profit is difficult to isolate in residential market sales. If it is identifiable, the market might already reflect the entrepreneurial profit in the property's land value. For this case study we did not adjust the cost rates of the improvements to account for entrepreneurial profit. The fact that it was not identifiable in the market does lessen the reliability of the approach for this 10-year-old residence.

In regards to a real estate broker's commission, our suggested cost analysis includes a 5% commission on the improvements, but we did not apply it to the site value component because the land sales are market-based and would already include a broker's commission, assuming such fees are common in this specific market.

After discussion of the reality check problems, take time to ask if there are any questions related to the case study. Once RRC problems are completed and questions are addressed, the class should get back to work on the case study. It is critical that you monitor the progress of the class to ensure they are moving along at an appropriate pace based on the course schedule.

Analyzing land value. After the class has analyzed the cost rates and derived a current cost for the improvements, the next task is to analyze the sale data to derive the land value. Vacant land sales as well as sales with existing residences are provided to the reviewers in the class in the case study booklet. Deriving the land value is a critical analysis because the participants can then use the results to identify the differences for various site features that extend into the sales comparison approach. Identifying the adjustments can be accomplished by pairing the vacant land sales that are different in one feature. Once the initial adjustments are derived, sales that have more than one feature may be analyzed to derive subsequent adjustments.

Remember that all the data in the case study booklet may be utilized by the reviewer. This is particularly true in understanding **neighborhood history and characteristics** and how both can potentially influence land valuation.

Oak Street Case Study Site Valuation. A total of 10 sales are provided. Six of the sales are vacant sites and four sales have existing improvements that require a market-extraction technique. Sales 1, 4 and 10 have no additional features and are thus considered to be "base" lots. The subject site is also considered to be a base lot. As in the real world, sales don't perfectly adjust when paired, but we kept the analysis for the base lot fairly straightforward. Sales 1 and 4 are base lots with no distinctive features and both are located on Oak Street. We used the mean price of the two sales to derive a base lot price of $80,000. This "composite sale" is our starting point. Participants, however, may decide the base lot value is $79,000 or $81,000 and that is acceptable as well.

Here are some suggested pairings:

Sale 3 and Sales 1+4 are paired to derive the traffic influence on Cedar Parkway. Again, we're using a composite of Sales 1 and 4 (labeled as 1+4) and comparing that composite to Sale 3. The difference in sale prices is $5,000, indicating the traffic influence is 6.25% from the base price of $80,000.

Item	Sale 3	Sales 1+4
Address	4315 Cedar	Oak Street
Sale price	$75,000	$80,000
Dimensions	80' x 160'	80' x 160'
View	None	None
Amenities	None	None
Externalities	Traffic	None

An alternative to the above analysis is to individually pair Sale 3 with Sale 1 and then pair Sale 3 with Sale 4. The indicated range for the traffic adjustment would be $4,000 to $6,000 which is then mean-adjusted to $5,000.

Sale 5 and Sales 1+4 may be used to derive the influence of the creek and trees. Again, we will use a composite of Sale 1 and Sale 4 for this pairing. The difference in sale prices is $4,900, although we will modify this to $5,000 to identify the creek/trees feature. Again, the market is not perfect, so it is appropriate to apply judgment to the reviewer's adjustment process.

Sale 6 and Sales 1+4 may be used to derive the influence of the larger lot size (100' frontage vs. 80'). The difference in sale prices is $7,900, although $8,000

is the finalized adjustment we used to identify this particular site feature.

Sale 2 and Sale 6 may be used to derive the combined influence of the creek, trees and the cul-de-sac. This is a two-step analytical process that requires an adjustment for the creek/trees based on the prior pairing before identifying the value of the cul-de-sac influence.

Some in the class may wonder if the difference in price for Sale 1 and Sale 4 is attributable to the fact that Sale 1 is closer to the creek. That is a judgment call on the part of the reviewer, but our suggested solution makes no distinction between these two sales—just so the instructor is aware of our perspective.

Extracted Sales. There are four sales that have existing improvements and they may be used to **verify the analysis** from the vacant land sale pairings.

Instructor assistance may be necessary at this point because some in the class may not know how to analyze these sales—at least initially. In fact, it would be problematic to analyze these sales without first estimating the depreciation. This is an **important learning point** that the participants need to figure out. As noted previously, the data in the case study booklet is not necessarily presented in the order that best suits the analytical process. That is certainly true in the real world and you may need to share that point again with the class.

The residences in the four "extraction" sales reflect depreciation of 1% per year based on the results carried over from the depreciation analysis. Be aware the market extraction process uses actual age rather than effective age. The 1% depreciation is consistent with the analytical process of extracting depreciation presented in the case study booklet. So treat this as "insider information" for now as this is something the class needs to sort out in their research and analysis. Participants should be encouraged to analyze the depreciation data and then return to complete the market-extraction process of the land value. If they carry out their analysis properly, the depreciation should be 1% per year, or at least close to once percent.

The depreciation used for Sales 7–10 is a *cost-related* estimate that is suitable for this type of analysis. With that said, let's go back to the analysis of the extracted land sales.

Start with Sale 10 since it has no additional site features and is a base lot.

Item	Sale 10
Address	4445 Willow Street
Sale Price	**$275,900**
Current Cost of Improvements *	$215,500
Actual Age	9 Years
Condition	Average
Dimensions	80' x 160'
View	None
Amenities	None
Externalities	None

The current cost of the improvements is $215,500. The age is given as 9 years. If the current cost is depreciated by 9% (i.e., 9 years x 1%), the depreciated improvements are $196,105 (215,500 x 0.91 = 196,105). This amount subtracted from the sale price indicates an extracted land value of $79,795.

Sales 1, 4, and 10 have similar features to the subject. We mentioned earlier that Sale 1 sold for $81,000 and Sale 4 sold for $79,000 and we used these two sales as a "composite" for the base lot. The two sales support a land value of $80,000 for the subject property. But, participants may come up with a different site value for the subject property, as well as slightly different adjustments for the site features, and that's acceptable. In fact, you should hope they have some differences as it will make the discussion in the afternoon more interesting.

Sale 8 will likely be a difficult sale for the class. The site is larger than the base lot, but it is also on a traffic street.

Item	Sale 8
Address	4255 Cedar Parkway
Sale Price	**$295,500**
Current Cost of Improvements *	$241,600
Actual Age	12 Years
Condition	Average
Dimensions	100' x 160'
View	None
Amenities	None
Externalities	Traffic

Here are the calculations for Sale 8: $241,600 x 0.88 = $212,608, which is the depreciated cost. The indicated value for the site is $82,892 and that reflects its larger size (positive) and the traffic influence (negative). So the next step is account for the external influence: $82,892 / 0.9375 = $88,418. This step takes the depreciated cost and applies the 6.25% traffic influence we deduced from vacant land sale pairings. Be aware that 0.9375 is the complement of 0.0625 and we use it here as a shortcut calculation. The next step is to subtract $8,000 for the large lot factor and the result is $80,400 (rounded) as an indicator for the subject's site value.

The same adjustment process may be applied to Sales 7 and 9. But let's walk through Sale 7 just to make sure that you have the extracted process down to the point that you would feel comfortable assisting individuals in the class as well as explaining the process in discussions with the whole class in Part 2.

Item	Sale 7
Address	4435 Birch Circle
Sale Price	**$305,000**
Current Cost of Improvements *	$241,000
Actual Age	10 Years
Condition	Average
Dimensions	80' x 160'
View	Creek/Trees
Amenities	Cul-de-sac
Externalities	None

Here are the calculations for Sale 7: $241,000 x 0.90 = $216,900 which is the contributory value of the depreciated improvements. Subtract that result from the sale price and the result is $88,100. The land price includes the cul-de-sac feature plus the creek/trees feature. We know from the earlier analysis of the vacant land sales that the creek/trees feature was $5,000, so the difference attributed to the cul-de-sac is $3,100, or we can say $3,000. You can also reverse this and solve instead for the amenity of the creek and trees.

Adjustments Derived for Site Amenities. In the case study booklet, locate the *Use Zoning and Designated Flood Areas* map. In the content that follows the map you will find blank spaces for reviewers to insert their derived adjustments for the various site features as well as a space to indicate the value for the subject site. As you walk around the class and check on the table groups you will need to ensure that participants are deriving solutions and filling in these blank spaces. Remember that participants will not receive the suggested solutions in the case study booklet as these are for instructor use only.

The instructor version of the booklet is filled in with suggested solutions so that you can assist the participants in the class as you work with them individually. Reviewers in the class may come up with a number (or range) that differs from our suggested solutions and that is certainly acceptable. The information here is to allow for individual assistance. Whole class discussion is reserved for later in the day when covering Part 2.

Condition of the Residence. The next step presented in the case study booklet is the analysis of the depreciation for the subject dwelling. The assumption is that there is no functional or external obsolescence present in the subject property. Thus, the analysis of the depreciation is exclusive to wear and tear—and for a 10-year old residence the depreciation will not be significant.

Note: It was mentioned earlier that the analysis of the annualized depreciation may need to be carried out prior to completing the analysis of the market-extracted land value. To some extent, this is a chicken or egg dilemma. To properly carry out an extraction process to derive depreciation, the reviewer will need a reasonably reliable estimate of the land value. The good news is that the land value can be derived using the vacant land sales and the depreciation can be initially estimated using the age-life method. The market-extraction process for both land value and depreciation provides additional support that the conclusions are reliable (i.e., a test of reasonableness).

The first task in analyzing depreciation is for participants to read the description of the residence relative to its condition. The analysis presented in the case study booklet allows for both market-extracted depreciation and formula-based, using the age-life method.

The market-extraction process is fairly challenging and will require thoughtful analysis on the part of the participants in the class. It is possible that reviewers in the class may get stumped when they get to this stage of the analysis. You can provide help, but also remember that you will have an opportunity to explain the analytical process to the class in the afternoon session of Part 2.

Extraction Procedure for Depreciation. We included a table with the seven procedural steps to extract depreciation from comparable sales. Each reviewer in the class may tackle the process of extracting depreciation from the sales in their own way. The objective here, and in the discussion that follows in Part 2, is to show the class proper techniques to extract depreciation from sales to ensure more reliable outcomes.

As previously noted, **actual age** is used rather than effective age when using market-extraction techniques. There are several reasons for this. First, using

effective age introduces an unnecessary judgment about the condition of the comparable sales. Second, using effective age has not shown to be more reliable in depreciation outcomes. Finally, using factual data (actual age) lessons the potential for errors.

Estimating Depreciation – Market Extraction. Let's walk through the process and the calculations for **Sale A** found in the case study booklet.

Item	Sale A
Sale Price	$286,900
Cash Equiv. Price	**$286,900**
Lot Size	80' x 160'
Observed Site Features	None
Tax Assessor's Land Value	$76,000
Less Reviewer's Land Estimate	*$80,000*
Contrib. Value of Improvements	*$206,900*
Less Broker's 5%	*$10,345*
Less Contributory Site Improvements	$5,000
Depreciated Value	*$191,555*
Current Cost New	$226,300
Depreciation	*$34,745*
Depreciation %	*15.35%*
Actual Age	15
Deprec. Annual %	*1.02%*

The starting point is to use the cash equivalent price, which is given in each of the sales (to save time).

Sale A has no special site features. We know from the prior analysis of the six vacant land sales that this site should be valued at about $80,000. The first calculation in the extraction process is to subtract the $80,000 site value from the cash equivalent sale price of $286,900. That results in $206,900. The 5% brokerage fee and the contributory value of the site improvements are deducted from $206,900. The calculation is $206,900 x 0.95 = $196,555 less $5,000 = $191,555. This result is now subtracted from current cost new. $226,300 - $191,555 = $34,745 and this is the **dollar amount of depreciation**. The $34,745 has to be divided by the current cost to get the total depreciation as a percent, which in this case is 0.1535 or 15.35%. Divide this percentage by the actual age of 15 years to get the annual depreciation of 1.02%.

The extraction process for the other five sales (B through F) is the same. All the numbers are prefilled in your instructor's version of the case study booklet to indicate our suggested solutions. But be sure to allow the reviewer's in the class the freedom to analyze the data on their own and see where it leads them.

Note: If the majority of participants, or if everyone in the class, is stumped on how to carry out this type of market-extraction analysis, it is acceptable to walk them through the calculations for **Sale A**. But this assistance should be provided only after assessing that most in the class are struggling. That determination comes by sitting down at individual table areas and discussing with the review teams how the analysis is proceeding.

Participants should enter their results from their own market extraction process in the appropriate spaces.

An interesting sidebar to this analysis is that the **total economic life** expectancy can be calculated based on the market-extraction process. Having additional support for total economic life will prove helpful in the age-life method of analyzing depreciation.

To calculate the total economic life expectancy for Sale A; divide 100% by the derived annual depreciation.

100% / 1.02% = 98 years, or

1.00 / 0.0102 = 98 years

At the bottom of the page there are blank spaces to indicate conclusions (which are prefilled for instructors) and also item #7 provides an estimate for total economic life.

Depreciation using Age-Life Method. The next page in the case study booklet provides an opportunity for participants to calculate the depreciation based on the age-life method. Based on the data already presented, participants will likely estimate the effective age at 10 years and the total economic life at 100 years. This is a fairly easy supposition to derive. The residence is just 10 years old and many appraisers would say that the effective age and actual age are the same based on the description of the condition. The prior analysis indicated the total economic at 100 years and that also seems reasonable. The estimated depreciation of 10% (10/100 = 0.10) from the age-life method is $21,847 when applied to the total current costs.

The case study booklet includes a replica of the URAR cost approach. It is there so that participants can practice working out the numbers from the Marshall and Swift form before placing them on the URAR handout. To transfer the data from the Square Foot Appraisal Form to the URAR form, here is a breakdown of the costs—and the purpose is that you will know the procedures for instructional purposes.

1. Add lines 1–13 on the Marshall and Swift form to a subtotal and factor that number by the multipliers on line 24. Take that total and divide it by the GLA of the subject to derive the base cost rate.
2. Add lines 14, 15, 18, and 19 to a subtotal and factor that number by the multipliers on line 24. Take that total and enter it on the form.
3. Take the cost number for line 22 and factor it by the multipliers on line 24. Divide the result by the square foot size of the garage to derive the rate and enter the results on the form.
4. Use the estimated depreciation of 10 percent that we previously analyzed.
5. Add in the brokerage commission of 5%. The real estate brokerage fee in this case applies to the depreciated improvements. That is because the land value is assumed to incorporate a brokerage fee because it is market value rather cost. A critical part of this calculation is that the 5% applies to an unknown number which has to be determined. The calculations are:

   $196,628 + $5,000 = $201,628.

   This figure represents the total cost of the depreciated improvements. The next step is to derive the base cost to which the real estate sale commission applies.

   $201,628 / 0.95 = $212,240.

   Division is used because the percentage applies to a higher

(unknown) base number. Now we can apply the 5% brokerage fee.

$212,240 x 0.05 = $10,612

Background: The methodology for the mathematical calculations has been previously presented in *Basic Appraisal Principles* and also in *Basic Appraisal Procedures*, so they should be familiar to most instructors. It is critical that the instructor feels comfortable with these types of calculations; otherwise you will struggle when you try to explain it to the class in Part 2.

The last step is to add the land value of $80,000 to derive the final estimate by the cost approach. **Note:** Be aware that the cost figures provided to instructors on the URAR form prior to depreciation will be slightly different (about $8) from the figure used on Line 26 of the Marshall and Swift Square Foot Appraisal Form. The reason for the minor difference is how individual components are rounded when the data is transferred to the URAR form. In this case we're rounding cumulative cost rates to a limit of two decimal points. Participants in the class should be aware that they should not expect to perfectly match the pre-depreciated cost in both cost forms—although they will be close.

As you walk around assisting individuals check to see that their conclusion for the cost approach should in the ball park of the suggested solution of $292,240. If there is a significant difference in their cost estimate, assist the reviewer by pointing out areas that may have been overlooked in their analysis. On the other hand, if their total is within $1,000 of our suggested solution, that is certainly reasonable.

1.5 Review Realty Check. Prior to the lunch break there are two RRC problems that should be addressed. The first deals with uncertain information at both the appraiser and the reviewer level. In this case the reviewer needs to use an extraordinary assumption regarding the setback lines from the wetlands that has not been delineated. To be sure, the appraiser, whose work is under review, should have used an extraordinary assumption as well.

1.6 Review Realty Check. This problem addresses a reviewer trying to distinguish between surplus land and excess land. The interesting issue brought out in this problem is that reviewers need to be aware that client requirements affect how a particular issue should be addressed by the appraiser. In this case, an FHA assignment might have a different requirement for excess land than an assignment based on Fannie Mae guidance.

If you are running behind schedule, you have the option to leave these last two Review Reality Check problems in Part 1 as self-study and inform participants that the solutions booklet distributed later in the day includes the suggested answers.

Review – Part 1. Before dismissing for lunch, review the learning objectives and also alert the class of the self-study quiz questions at the end of Part 1.

The PowerPoint includes a bullet item on the last slide that asks the class to read the **Preview for Part 2** after the lunch break. This is a good thing to emphasize in class as well because the content in the Preview lays out the blueprint for the afternoon session.

Lunch Break. Most of the class should have completed the cost approach by the lunch break. For those participants or table groups that are significantly behind, you may need to provide additional guidance to get them back on schedule, or encourage them to take a little time during the lunch break to catch up with the rest of the class.

Introduction

Welcome to the Appraisal Institute's review series. *Review Case Studies—Residential* is the second course in the program and features the seven steps of the *Review Process* (shown on the next page) and does so within a case study application that is designed to enhance the reviewer's skill sets.

Definitions and concepts were addressed in the first course, *Review Theory—Residential*, so revisiting fundamentals will be limited in this class. The intent is to put you to work on the case study in the first session. The Course Handbook provides resources and guidance on review concepts, including problems and quizzes that relate to the case study content, but the **Case Study Booklet** will be the main text for much of this course.

The Oak Street Case Study: There are four parts to the case study and also the course. Part 1 identifies the assignment and analyzes cost approach data on the property that is the subject of the appraisal report under review. Part 2 includes a whole-class discussion on the reviewer's findings from the prior session, and then continues with the analysis of neighborhood, property, and comparable sale data. Part 3 examines the reviewer's findings from the previous day and from there participants begin research and analyses on the subject appraisal report that eventually leads to their review opinions and conclusions. Part 4 includes discussion of the reviewer's findings and then addresses how the reviewer effectively communicates the assignment results. The case study is presented in a progressive manner to feature the steps of the review process for educational purposes.

Both appraisal and appraisal review function within a process. The *Valuation Process* applies to appraisal work and the *Review Process* applies to review work. The Oak Street Case Study is a **two-stage review**—a review of another appraiser's work plus the reviewer's own opinion of value. In this type of assignment, the reviewer often works on the appraisal portion and the review portion at the same time. However, to enhance the learning process, the assignment has been segmented. The Oak Street Case Study essentially begins with Step 6 of the Review Process. Even so, the review problem must be identified and the reviewer's scope of work must be determined (i.e., Steps 1 and 2). Remember that effectual review requires a thorough understanding of appraisal valuation techniques—particularly when support is required for the reviewer's findings and opinions, as it will be in this review assignment.

The case study dominates this course, but there will be opportunities to address and discuss related review topics, so questions are always welcome. The final session of the course addresses how to communicate assignment results when the reviewer is in a position to have direct contact with the appraiser whose work is under review. This topic was not directly addressed in *Review Theory—Residential*, yet such communication is fairly common for institutional and governmental reviewers. All reviewers should know how to communicate assignment results to clients as well as to the appraiser whose work was the subject of the review assignment.

The Review Process

STEP 1 — Identification of the Problem

Identify the client and any other intended users	Identify the intended use of the reviewer's opinions and conclusions	Identify the purpose of the review	Identify the work under review	Identify any assignment conditions connected to the review

↓

STEP 2 — Reviewer's Scope of Work

↓

STEP 3 — Reviewer's Research and Analyses

Consistent with the reviewer's scope of work, examine the work under review regarding

Completeness	Accuracy	Adequacy	Relevance	Reasonableness

↓

STEP 4 — Review of Appraiser's Analyses, Opinions, and Conclusions

Develop an opinion whether analyses are appropriate within the context of the requirements applicable to that work	**Develop an opinion** whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 5 — Review of Appraiser's Report

Develop an opinion whether the report is appropriate and not misleading within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 6 — Development of the Reviewer's Own Opinion of Value

When the scope of work includes the reviewer developing his or her own opinion of value*

↓

STEP 7 — Reviewer's Report Consistent with Intended Use

* When reviewing a review report, the scope of work may include the reviewer's own opinion of the quality of the work that was the subject of the report being reviewed.

Source. Adapted from content in the Uniform Standards of Professional Appraisal Practice (USPAP) and from an illustration of the valuation process in *The Appraisal of Real Estate,* 14th edition. Chicago: Appraisal Institute, 2013, Fig. 4.1, 37.

Part 1 Preview

Assignment Identification and the Cost Approach

Part 1 begins in application mode. The Oak Street Case Study opens with the reviewer's letter of engagement. That letter will help you and fellow reviewers in the class to identify the review problem and determine the initial scope of work. But from that point on the analytical process takes over. Part 1 will encompass the entire morning and is largely focused on analyzing cost rates, depreciation and land value. Part 2 essentially opens as a continuation of Part 1, because it includes an interactive discussion to allow reviewers to share their findings, analyses, opinions and conclusions as a result of their work in Part 1, and also ensure that questions are answered and suggested solutions are explained.

The case study is a **two-stage review assignment** that involves a review of another appraiser's work, plus the reviewer's own opinion of value. The tasks to address in this session are Steps 1, 2, and 6 of the Review Process. Once the problem is identified and the scope of work is determined, the reviewer's work for this assignment will begin with Step 6—which is the development of the reviewer's own opinion of value.

Learning Objectives

To prepare for Part 1, read the following learning objectives, and refer back to them as you study this part of the Course Handbook.

- ☐ Identify the review problem and determine the reviewer's scope of work for a case study of a two-stage review assignment.
- ☐ Research and analyze the cost approach section of the case study assignment and derive supported findings, opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues revealed in the case study and to specific steps within the review process.

Learning Tips

Key point: Some participants may wonder why a review course is dedicating a whole day to the analysis of the appraisal portion (i.e., the reviewer's own opinion of value) within the case study assignment. The answer is that most reviewers struggle with developing *appropriate support* in their review opinions and the necessary relevant evidence and logic for their findings. Much of the required support in review work involves appraisal concepts and techniques. The case study in this course will walk reviewers through the process of how to develop credible support by analyzing data at the fundamental level. The process

will be challenging. We won't be using Excel pivot tables and regression, even though they are viable analytical tools. Instead, the intent is to focus on what is behind the analytical concept that supports a particular adjustment or review opinion. To analyze at that level takes time, but it will be productive in enhancing your review skills.

Self-study quizzes. There are four sets of quizzes in the Course Handbook designed to aid in your preparation for the final exam. Since the quizzes are intended for self-study, your instructor will not review them in class, although you're welcome to ask questions after you've studied the answers that are provided in the Solutions Booklet.

Solutions Booklet. The instructor will distribute a booklet each day that contains solutions to the self-study quizzes. Typically, the booklet is distributed in the afternoon session prior to the conclusion of the class. However, your instructor may choose to distribute the Solutions Booklets in a different manner.

Please use the Solutions Booklets as they are intended. The review quizzes and problems provided in the Course Handbook will help you to comprehend and also review content necessary to pass the final exam. It is in your best interest to check solutions only after you have challenged the questions. The review quizzes are aligned with the learning objectives and will give you an example of the types of questions you may encounter in the final exam.

Oak Street Case Study Booklet. At the beginning of the class session, the instructor will distribute the Oak Street Case Study Booklet and required forms. The booklet contains pertinent subject and market information such as field observations, MLS data, maps, building sketches and so forth. We can't provide all the data that you may have access to in an actual review, but you will have the information you need as a reviewer.

The Oak Street Case Study Booklet has its own set of instructions and guidance, so please refer to the booklet once the work on the case study begins.

Digging Deeper

Throughout the course, you will notice content that is designated with a book and pencil graphic. Treat this material as a resource tool. In some cases, we wanted to provide additional content related to a topic. However, you will not be tested on the additional information in the final exam.

Statistical Modeling: Analytical techniques such as linear and multiple regression are not presented in this course for two primary reasons. First, the data samples used are not truly conducive to statistical analysis, and second, many participants may not be familiar with the use of analytical software such as Excel. Even so, you are welcome to use statistical analysis, even though its usefulness may be limited. All statistical information in the course will be treated as Digging Deeper material.

Part 1.
Assignment Identification and the Cost Approach

I. Preparing for the Case Study

The Case Study Booklet and its accompanying handouts (Fannie Mae forms) provide each participant with the necessary information to complete the primary objective.

Case Study Essentials
Slow down: The case study is challenging. It will test your appraisal and review abilities. The case study requires careful analysis. There is no benefit and no need to speed through the materials in order to finish quickly. The process is as critical as the outcome. **Nothing is hidden:** Don't look for things that are not there and don't overlook things that are obvious or clearly stated. The application of good review techniques and use of analytical skills are the primary objectives of the case study. **Get involved and participate.** Don't work in a vacuum. Enlist the help of fellow reviewers at your table area—after all, they are working on the same project. You will receive the most benefit if you work as a team to resolve valuation and review problems. **Support all findings and opinions:** Other than statements of fact, each reviewer must support his or her analyses, opinions and conclusions.

A. General guidance

1. Begin by getting your materials organized. You will need the Oak Street Case Study Booklet and Fannie Mae URAR form. Both items are distributed in class by your instructor or you may have received them at the registration table.

2. Part 1 of the course addresses three steps of the review process.

   a. **Step 1:** Address the five elements in the **identification of the problem**—or alternatively, the elements that can be identified at this point.

   b. **Step 2:** Determine the reviewer's initial scope of work.

   c. **Step 6:** The review assignment includes the development of the reviewer's own opinion of value. The appraisal portion of the review (i.e., Step 6) will be the primary focus for Day 1.

B. Getting ready for the case study

1. Participants will spend most of Part 1 using the Oak Street Case Study Booklet. The course handbook is designed to connect with the case study and to present real-world problems (i.e., Review Reality Checks), self-study quizzes and a final exam practice test. Your instructor will announce breaks as well as pauses in the case study work to address various *Reality Check* problems that relate to specific sections of the case study or the review process.

2. In Part 4, the Course Handbook provides content on reviewer communication with the client and the appraiser whose work is under review. Until that point, use the self-study quizzes to prepare for the final exam and be prepared to discuss specific Review Reality Check problems when asked by your instructor.

Go to Part 1 of the Oak Street Case Study Booklet

II. Review Reality Check Problems

1.1 Review Reality Check

I received a review assignment from an AMC on an FHA case file. How should I identify the client and intended users for this assignment?

What would you suggest to the reviewer?

The client is the financial institution (or lender). HUD is an intended user if this is an FHA review and not an internal review performed exclusively for the lender. The AMC may, or may not, be an intended user as the AMC may be acting as an agent for the client. Reviewer communication with the client or its agent is necessary to properly identify the client and intended users as part of Step 1 of the review process.

1.2 Review Reality Check

A client has asked me to review a review report. The scope of work includes providing a review of the original appraisal report. For this assignment do I need to provide my own opinion of value as well?

What would you suggest to the reviewer?

This is two-stage review assignment, but may turn out to be a three-stage review. The first is the review of the review. The second stage is the review of the original appraisal report. The third stage depends on whether the scope of work requires the reviewer to agree or disagree with the value opinion in appraisal report under review. If it does, then Step 6 of the review process applies to the assignment.

STANDARD 3 addresses a review of the review that also includes the reviewer providing a review of the original appraisal report. See SR 3-3 (c) and SR 3-5 (i) as reference.

1.3 Review Reality Check

My client requires appraisers on its roster to include the cost approach whenever it is appropriate—which often means the reviewer has to decide the "appropriateness issue" because USPAP requires the cost approach only when it is necessary for credible assignment results.

Related to this concern are the two check boxes in the Cost Approach section of the Fannie Mae 1004 to indicate whether Reproduction or Replacement Cost New was used. I know the rates provided in the *Marshall & Swift Residential Cost Handbook* are replacement costs, yet I see appraisal reports from time-to-time in which "Reproduction" is checked. Why does the appraiser check that box? Should I address this in my review report—even though I consider it a trivial error?

What suggestions would you give the reviewer on these two issues?

Regarding the first issue, higher depreciation applied to the property improvements indicates less reliability in the cost approach. The point of when it crosses the "credibility" threshold is a judgment call made on a case-by-case basis. Second, reproduction cost and replacement cost are essentially equal in newer properties. Reproduction cost becomes an issue when the building components of the improvements are no longer available or common in building practices. Generally, when replacement cost is distinctly different than reproduction cost, the cost approach is probably at the credibility threshold. However, some assignments such as historic residences require reproduction in lieu of replacement cost.

1.4 Review Reality Check

I'm reviewing the cost approach in appraisal report. The cost analysis is based on data from *Marshall and Swift's Residential Cost Handbook*. There are two items in the cost analysis which I question. This first is the entrepreneurial incentive and whether the appraiser considered it or not. The second item is a brokerage commission when the transaction involves a resale of an existing property—and assuming properties in the area are typically sold through real estate brokerages. Shouldn't these cost items be addressed in the cost approach?

What would you suggest to the reviewer?

Inclusion of the entrepreneurial incentive is one of the steps in the cost approach. In residential properties it may be difficult to identify and it is specific to the improvements rather than the site. If the appraiser can quantify entrepreneurial profit in the market, it should be addressed as a separate line item. If not, the appraiser may need to comment whether the entrepreneurial incentive is reflected in the cost estimate (as a line item) or in the cost rates. Marketing costs such as brokerage fees are an indirect cost and are not included in the base cost provided by Marshall and Swift. If they are common in the market for the appraised property, the brokerage fee should be added to the costs. This excludes the land value since it is a market-derived estimate that includes the brokerage fee, assuming such fees are characteristic of the market.

1.5 Review Reality Check

I'm reviewing an appraisal report in which an older residence is located on a property that is adjacent to a wetlands area. As part of my review, I contacted the environmental coordinator at the municipality. She said the wetlands area has not been delineated, but it is generally considered a high quality wetland that requires fairly extensive setbacks that might affect the existing improvements. The appraisal report notes the presence of the adjacent wetlands area and in particular the positive view amenity, but there is no further discussion in the appraisal report. I'm uncertain if the potential setback lines affect the value of the property since the wetlands have not been delineated. How I should address this issue in my review report.

What would you suggest to the reviewer?

The reviewer should be aware that Fannie Mae might not purchase or securitize a mortgage on a property that is subject to land-use regulations, which would include wetland laws. The setback lines or other provisions may prevent the reconstruction or maintenance of the property improvements if they are damaged or destroyed. Because the wetlands are not delineated, the extent of how the property value might be affected is unknown. The issue should be addressed in the review report to at least alert the client of the potential effect on value. The reviewer's conclusions should include an extraordinary assumption specific to this issue.

1.6 Review Reality Check

The residence in the appraisal report under review is on 10 acres. The comments in the report indicate this is an oversized lot for the neighborhood, but not for the market area. All the comparable sales were outside the neighborhood boundaries. The property has public utilities, so I'm wondering if the site should be considered for excess land. How should I handle this in my review report?

What would you suggest to the reviewer?

To some extent, the answer depends on who the client is. If this is a review of an FHA case file, HUD considers excess land as that which is not needed to serve or support the existing improvement. If the 10 acres truly qualifies as excess land rather than surplus land, FHA would want the appraiser to value the property under a hypothetical condition and exclude the excess land. In contrast, Fannie Mae considers it acceptable practice to appraise only a portion of the total property site. Even in an FHA assignment, the reviewer must consider whether the larger size lot is typical of the market area. If it is, the FHA guidance on excess land may not apply.

Review Part 1

Learning Objectives

Now that you've completed Part 1, you should be able to

- ☐ Identify the review problem and determine the reviewer's scope of work for a case study of a two-stage review assignment.
- ☐ Research and analyze the cost approach section of the case study assignment and derive supported findings, opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues revealed in the case study and to specific steps within the review process.

Terms and Concepts to Remember

Age-life method

Cash equivalency

Cost-related adjustment

Direct and indirect costs

Entrepreneurial incentive

Entrepreneurial profit

Market-extraction

Qualitative support

Quantitative support

Relative comparison analysis

Self-Study Review Quiz

This multiple-choice quiz is intended to enhance your self-study time and provide a review of Part 1 content. This is a "closed book" quiz. Choose the *most* correct answer.

Important Note: Some questions in this quiz assume general knowledge that all appraisers and reviewers should possess prior to taking this course. Therefore, if you have difficulty on specific questions, it may suggest that you need to brush up on your knowledge of basic appraisal principles. Even so, don't be overly concerned as the Solutions Booklet includes explanations of how math questions were solved. Remember that you can always approach your instructor for additional assistance.

1. What is the analytical process for a reviewer when the work under review involves a purchase and the review package includes a copy of the sales contract?

   A. The reviewer must perform a legal analysis to ensure the sales contract is complete and valid.

   B. The reviewer should not analyze the sales contract, but instead review the appraisal report to verify that the appraiser analyzed the sales contract.

   * C. The reviewer verifies the accuracy of the factual information and that the appraiser's analysis of the sales contract addresses all relevant issues that may affect the value opinion.

   D. The reviewer must read the contract to ensure that the contents did not bias the appraiser's value opinion.

2. A reviewer received an FHA case file from an appraisal management company that regularly assigns reviews for Westfall Bank. Generally, how should the reviewer analyze the identification of the client and other intended users in the review assignment?

   * A. Westfall Bank is the client and HUD is an intended user. The appraisal management company may, or may not, be an intended user.

   B. The appraisal management company is the client and Westfall Bank is an intended user.

   C. Westfall Bank and the appraisal management company are co-clients and both are intended users.

   D. The appraisal management company is the client and sole intended user.

3. Which of the following examples best illustrates a three-stage review assignment?

   A. A review that includes the reviewer's own opinion of value, plus the direct communication of the results of that opinion to the client and the appraiser who performed the original appraisal report.

   B. A review of three separate appraisal reports that involve the same property.

* C. A review of a review report that includes the reviewer's own review opinion of the original appraisal, plus the reviewer's opinion of value of the property that is the subject of the appraisal report.

   D. A review plus an appraisal by the reviewer if the reviewer disagrees with the value opinion in the appraisal report.

4. A member of a review group that you supervise is working on a number of appraisal reports involving a large construction project. The reviewer asked about the difference, if any, in entrepreneurial incentive when compared to entrepreneurial profit. What is the best explanation?

   A. There is no difference between entrepreneurial incentive and entrepreneurial profit as they essentially measure the same thing.

   B. Entrepreneurial profit is a hard (or direct) cost, whereas, entrepreneurial incentive is a soft (or indirect) cost.

* C. Entrepreneurial profit is the difference between the total costs of development for a property and the market value after completion, whereas, entrepreneurial incentive is the amount a developer expects to receive for providing coordination expertise in a construction project.

   D. Entrepreneurial profit includes the developer's overhead, profit margin and business risk in the building project, whereas, entrepreneurial incentive is an economic inducement dependent on the agents of production.

5. A reviewer is analyzing an appraisal report involving a renovation project. The reviewer's initial analysis estimated cost of the project at $140,000, but market evidence indicates that the project would just add 70 percent of its cost to the value of the property. Real estate brokerage fees are common in the neighborhood and average six percent. Based on this information, what is the indication of the reviewer's initial analysis as to what the renovation project might add in value?

* A. $104,255 *($140,000 x 0.70 = $98,000 / 0.94)*

   B. $103,880

   C. $98,000

   D. $102,083

6. The current cost of the improvements on a rural property is estimated at $545,340. The appraiser states in the appraisal report that the actual age is 15 years, but the county records indicate it is 19 years. If the reviewer agrees with appraiser's estimate of 80 years for the residence's economic life, what is the annual percent of depreciation?

   A. 23.75%

   B. 18.75%

* C. 1.25% *(1 / 80 = 0.0125 or 1.25%)*

   D. 1.58%

7. An appraisal report states the total life expectancy of the subject's residential improvements is 80 years. The reviewer carried out a market extraction and found that annual depreciation for the subject is 1.3% per year of actual age. Based on the reviewer's findings, what is your conclusion?

   A. A conclusion cannot be reached on this without knowing the actual age of the improvements.

   B. The life expectancy of 80 years is not reasonable because the reviewer's market extraction process indicates 125 years.

   C. The life expectancy of 80 years is not reasonable because the reviewer's market extraction process indicates 102 years.

* D. The life expectancy of 80 years is reasonable because the reviewer's market extraction process indicates 77 years. *(1 / 0.013 = 76.9)*

8. Identify the three most viable land valuation procedures used for analyzing residential properties?

   A. Market extraction, sales comparison, and land residual.

* B. Sales comparison, market-extraction, and allocation.

   C. Sales comparison, ground rent capitalization, and market extraction.

   D. Linear regression, sales comparison, and land residual.

9. The appraisal report under review has the site value at $150,000. The current replacement cost of the improvements is $385,000. If the appraiser estimated the total economic life expectancy at 90 years on this newly constructed residence and the remaining economic life at 60 years due to a negative external factor, what is the indicated value using the cost approach?

* A. $406,667 *(60 / 90 = 0.667 x $385,000 = $256,667 + $150,000)*

B. $278,334

C. $356,667

D. $427,500

10. In the first step of the review process, what is critical to identify in the reviewer's conclusions and opinions of another appraiser's work?

A. The reviewer's opinions and conclusions are retrospective compared to the appraiser's effective date.

B. The reviewer must identify the effective date of the reviewer's opinions and conclusions of quality in the work under review.

C. The reviewer's opinions and conclusions must be based on the version of USPAP in effect on the effective date identified in the work under review.

* D. The reviewer must Identify the intended use of the reviewer's opinions and conclusions.

11. What is true of driveways, walkways, retaining walls, and inground swimming pools related to a reviewer's analysis of the cost approach in the work under review?

A. These components must be included and depreciated at the same rate as the main residence.

* B. These are contributory site improvements that should be treated separately from the main structural improvements of the residence.

C. These site improvements always require higher depreciation due to functional obsolescence.

D. The reviewer must ensure that no value was assigned to them in the value of the property that is the subject of the work under review.

12. During a reviewer's analysis of the cost approach involving a newly constructed property, how should the reviewer address indirect cost components that were included by the appraiser?

* A. Indirect costs should be included if the costs are typically included in new construction projects and reflected in the market for similar properties.

B. The reviewer must identify all indirect costs and exclude them from the cost approach.

C. The reviewer must include indirect costs for all components included by the builder for the property under review.

D. The reviewer must itemize all indirect cost components so that they can be depreciated separately.

13. When the work under review has a preset scope of work that is printed on the appraisal reporting form, what must the reviewer consider?

A. Whether the scope of work actually performed is the same as what is prepended on the form.

B. There might be additional scope of work components identified by the appraiser in other sections of the report.

* C. All of the listed answers are correct.

D. Whether the scope of work should have been expanded in order to ensure credible assignment results.

14. The work under review has a large lot that is uncommon for the neighborhood. What type of analysis should the reviewer watch for in the appraisal report?

A. That the appraiser performed an oversized lot analysis to measure the functional obsolescence to the large parcel size.

B. The appraisal report must include sales of large lot properties even if located some distance away from the property.

* C. An analysis that addresses the possibility for excess land and whether the appraiser made the correct conclusions based on market evidence.

D. That the highest and best use includes an analysis addressing that the property may have another potential use.

15. The review assignment requires the appraiser to accept the property description data presented in the appraisal report as factual. How should the appraiser address that information in the review report based on Step 1 of the review process?

A. The reviewer must use a hypothetical condition to accept the property description data.

* B. This is an assignment condition and the data is accepted based on an extraordinary assumption.

C. This is part of the intended use and purpose of the review assignment.

D. The reviewer must still verify the data, even if minimally, to ensure that it is accurate.

Review quizzes are intended to be taken during your personal study time. Suggested answers are found in the Solutions Booklet

Part 2. Cost Approach Findings and Sales Comparison Approach
(205 minutes + two 10-min. breaks)

Cost Approach Findings

Upon returning from the lunch break, the first task is to engage the whole class in a discussion to address the results of the reviewer's research, analysis and conclusions during the morning session.

Inform the class to return to the **course handbook** for the discussion as indicated on the PowerPoint slide. The case study booklet also directs participants to do the same on the opening page for Part 2. At this point in the course the reviewers at each table group should have completed the cost approach and are now ready to discuss their findings.

General guidance. The instructor has up to 60 minutes for the discussion. The course handbook outlines how the whole class discussion should be presented. Some of the content is in the Preview to Part 2.

Participants will gain the greatest benefit if they share their URAR form that has their results with another reviewer in the class. This should be someone that they did not work with during the morning session. By sharing their report, reviewers will see another viewpoint and, in essence, review another reviewer's work. You can't force class members to share their work during the discussion session, but you can certainly encourage them to do so.

Analytical topics to address. The course handbook presents six questions to help get the discussion process started. These are simply suggestions and the instructor can add their own discussion issues. The primary task is to address the outcomes from the current cost estimate, land analysis, depreciation estimate, and final numbers filled in on the URAR form in the case study booklet.

In regards to that last component, the PowerPoint allows the instructor to go through our suggested figures. This should be the last test to go through with the class before moving on to the sales comparison approach. It is important to emphasize that the presented numbers are simply another reviewer's viewpoint (such as the supervisory reviewer). The purpose of providing the figures is to ensure that participants have not overlooked a significant issue in their cost analysis work.

Before heading back to the *Oak Street Case Study Booklet*, there is a PowerPoint slide that presents Steps 1, 2, and 6 of the Review Process. This is a good time to remind the class that as a result of working through Step 6 right after Step 2 is that the review will proceed more efficiently for the other step in the process. It is also important to note that there is nothing unusual in performing Step 6 after completing Steps 1 and 2 of the Review Process.

Prior to the first afternoon break the instructor should take the class through the first two Review Reality Check problems.

2.1 Review Realty Check. This RRC problem addresses an appraisal report with a deficient highest and best use analysis. In the discussion of this problem, it would be helpful to remind the class of review fundamentals. In Part

8 of the Handbook for Review Theory—Residential there is a discussion of how a reviewer "removes" from the appraiser's report the part the reviewer cannot accept, thereby creating a hole in the report, which the reviewer must then fill with his or her own data and analyses.

Doing good analytical work today in Step 6 of the Review Process will help reviewers in the class to identify the potential holes the next day when they begin reviewing another appraiser's work on the same property.

2.2 Review Realty Check. The topic for this RRC problem might prove helpful as the reviewers begin their work on analyzing the neighborhood for the Oak Street Case Study. It is a straightforward problem that addresses public park land and how it should be treated in the neighborhood section of the URAR.

First Afternoon Break. After completing the RRC problems, the class can take a 10-minute break. Upon their return, class should begin working in the case study booklet in Part 2.

Reviewer's Opinion of Value – Continued

Neighborhood and Property Description. With the cost approach behind us the reviewers in the class can now begin the analysis for completing the sales comparison section. The case study booklet presents background information about the neighborhood and market area as well as descriptive information about the property that is the subject of the appraisal report under review.

A good amount of the descriptive data about the improvements is already prefilled on the reviewer's URAR and Market Conditions Addendum (1004MC). These forms were distributed to the class during the morning session. The 1004MC form contains limited content that is necessary for the reviewers to understand the market conditions.

The information in the *Oak Street Case Study Booklet* about the neighborhood and property description is self-explanatory for the most part, so we will jump ahead to the sales comparison approach and the selection of the comparable sales.

Sales Comparison Approach. The case study booklet provides the necessary instructions for this analysis. The URAR form presents the comparable sales in the same order that they appear in the case study booklet. The purpose of having the sales preprinted on the form is that it makes it easy for everyone to refer to a sale (or comp) without the needing to provide the street address.

Participants may identify their ranking order for the sales by simply writing a number on the form next to the sale.

Each reviewer should plan on studying all six comparable sales. After they've done that, then they can choose three sales that they deem most comparable to the subject property. If there is time, the reviewer should attempt to adjust all six sales. This is the primary method to understand the comparability of the sales. The reality is that most appraisers would find any of these sales well suited for comparability to the subject property.

It should be assumed that these are the best sales available that were located in the subject's identified neighborhood. So this is a given of this case study that is not subject to debate. Other sales can be assumed to be either more dated or

located in competing neighborhoods. The bottom line is that these are the sales we are going to use.

Comparable Sale Selection and Analysis. After the six sales have been studied, the reviewers in the class should prioritize their selection down to the best three. Once that is settled, reviewers can begin analyzing the data provided in the case study booklet to derive adjustments

All adjustments used by the reviewers should be supported by market data or supported through the use of additional evidence and logical explanation.

Eight of the adjustments can be derived from pairing sales. The case study booklet contains data on 12 sales for that purpose. Note that these are different sales than the six MLS sales available for the sales comparison analysis grid. Moreover, additional data is available to derive cost-related adjustments. Reviewers in the class may wish to use whatever quantitative and qualitative adjustment techniques they find helpful in their analysis—but the adjustments must be supported in some reasonable manner. Adequate support can also mean that some adjustments require the reviewer to walk through an explanation of how the adjustment was derived using reasoned logic.

Paired Data Analysis. The assumption is that reviewers should know how to pair sales to derive adjustments. However, the reality is that some participants are going to struggle in this process. Therefore, it is appropriate for the instructor, in the role of a supervisory reviewer, to provide individual assistance on some of the pairings. In some cases a whole table may need with the analysis.

There are no written solutions for the participants to indicate the appropriate matchups for the paired sales and how the adjustments were derived. So be ready to provide individual assistance.

To assist you in providing guidance to the class, here are the suggested pairings you may use when assisting individuals at various table areas.

- **Sales A and F** are exactly alike except for age. This is likely the **best pair to begin** the analysis.
- **Sales A and G** may be paired to analyze the adjustment for the half bath.
- **Sales A and D** may be paired to analyze the adjustment for GLA.
- **Sales C and G** may be paired to analyze the adjustment for the difference in the number of garage stalls and it is specific to comparing a 2-car to a 3-car garage.
- **Sales F and J** may be paired to analyze the adjustment for masonry fireplace as compared to a property that has no fireplace.

The site feature adjustments have already been previously identified when participants worked on the analysis of the land value. Nonetheless, reviewers should verify that these particular sales also support the previously identified site feature adjustments. Be aware that the following pairing process should be done in sequence.

- **Sales K and L** may be paired to analyze the adjustment for traffic influence.

- **Sales H and K** may be paired to analyze the adjustment for the larger lot size.

The last adjustment to identify is seller concessions. This one might prove to be difficult for participants to analyze. In this case the market is indicating that seller paid-points are adjusting at 80% of what it would be if calculated on a dollar-for-dollar basis, which is an interesting way to analyze it from a market perspective.

Is best to be the adjustment for seller concessions as a last set of pairings. In other words, all the other adjustments have been identified except seller concessions.

The data includes 3 sales with seller-paid points to be analyzed. The place to start is with **Sales B and L**. Then pair **Sales E and J**. Finally, pair up **Sales I and L**. Other sales may be analyzed in lieu of the suggested pairings identified here.

On Day 2, the opening discussion for the sales comparison approach findings will include PowerPoint slides that will provide samples of pairings. One of those slides will be a step-by-step process of how the adjustment for seller concessions were derived.

Derived Market Adjustments. Reviewers should use the blank spaces in the case study booklet to indicate their market adjustments from the paired data analysis. Adjustments provided by participants may be in a range rather a single point number or percentage. The solutions provided in the instructor's version of the case study booklet are not provided in the solution's booklet. So remember that there is no need to push reviewers toward a "correct" solution. You can provide guidance, but the adjustments that participants derive will be what reviewers will use in their analysis of the subject appraisal report for Part 3 on Day 2.

Cost-related adjustments. The case study booklet includes some additional adjustments based on information that was provided in the morning session on the cost approach. Participants could derive these numbers on their own, but they are provided in this section of the case study booklet as a convenience.

Adjusting the Sales on the URAR. After participants have derived the various adjustments, the actual process of adjusting out the comparable sales will move along quickly.

The sales adjust in a straightforward manner. Some reviewers in the class may adjust for additional features. But they may run into the fact that there is no identifiable market support for certain quality attributes. Therefore, the best approach might be to address such features in the reconciliation process. If some reviewers make an adjustment for certain features, and they can provide adequate support through a reasoned explanation, that is acceptable.

Comparable Sale 2 requires traffic adjustment. We use $18,300 for this adjustment, but many reviewers in the class may have a smaller adjustment. Proper technique is to understand that the 6.25% traffic influence applies to the price the property would have sold for without the presence of the external factor. Therefore, the existing sale price should be divided by 0.9375 in order to ascertain what the property would have sold for without the traffic influence. The calculations are:

$273,900 / 0.9375 = $292,160.

$292,160 x 0.0625 = $18,260, or rounded to $18,300.

Each comparable sale has about seven to nine adjustments, which is on the high side. It might be useful to point out that fact to the class and remind participants that the case study is designed to enhance review skills, and working through a lot of the adjustments aids that process. This is an educational endeavor.

Second Afternoon Break should come about 70 minutes after the earlier afternoon break—and this is the last break of the day. Figure into your timing for this break that you should ask the class to pause in the case study and address the next to RRC problems.

2.3 Review Reality Check. Reviewers are often faced with discrepancies in the site size of the property that is the subject of the appraisal report under review. Sometimes approves out to be a moot point because the appraiser selected sales that reflect the same land site characteristics. However, the reviewer has to be careful if the comparable sales do not reflect the land characteristics in the subject property.

2.4 Review Reality Check. Reviewers dealing with GLA issues in certain split-level residences is a common headache. The solution to this problem presents a reasonable approach to resolving the issues.

Concluding to a value opinion. There is one more session for participants to wrap up the sales comparison approach. The instructor will need to check with the various table groups to ensure the reviewers are completing the adjustments in the sales comparison approach and also discussing their findings with the other reviewers seated around them.

This is the last session of the day and the sales comparison approach will not be discussed I the whole class until the next morning, in Part 3.

As the time gets closer to the end of the day, participants should have carried out all the necessary analyses in the sales comparison approach. Decision time now arrives. Participants will need to conclude a value opinion for the property that is the subject of the review assignment.

The good thing about this last process taking place at the end of the day is that participants who are behind in their analyses can take it on as a homework project. Some participants simply work at a different pace and this allows them to get caught up prior to the next session.

Go over with the whole class everything that they worked on in their groups to this point. That discussion, plus the RRC problems in Part 2, will take the rest of the day.

There is one last RRC problem to be addressed before doing the final review for the session. If short on time, RRC problem can be assigned as self-study.

2.5 Review Reality Check. This problem addresses sales concessions and an appraiser's faulty understanding of the guidance presented in the URAR.

Review and Q & A. Questions and answers should be not cover issues that will be discussed in the opening session of Day 2. The review and Q & A here might address the schedule for the next day and how to prep for the exam during self-study time. Along that line, this is a good time to remind participants to work

on the self-study quiz questions found in the review section of Part 1.

If you have not done so already, be sure to distribute the **Solutions Booklets** to the class before dismissing for the day.

Cost Approach Findings and Sales Comparison Approach

This session begins after the lunch break. Participants should have now worked through the data on the cost approach. Part 2 begins with a whole-class discussion of the findings, analyses, opinions and conclusions that were derived in Part 1 of the Oak Street Case Study. An essential component of the learning process is to realize how other reviewers in the class analyzed the various components of the case study and then compare the analyses to your own findings and conclusions. In many instances, you may discover that the analytical procedure you pursued on a particular component is confirmed as the best approach to solving the issue. In other instances, you may find that others in the class uncovered a different pathway to solve the problem that results in higher credibility or perhaps efficiency.

The opening discussion session will take some time. After that, the primary task for Part 2 is to analyze the selection of comparable sales and the adjustments for the comparable sales. In order to analyze the sales a reviewer must have an understanding of the market area, neighborhood, and competing properties located in the neighborhood in which the appraised property is located.

Learning Objectives

To prepare for Part 2, read the following learning objectives, and refer back to them as you study this part of the Course Handbook.

- ☐ Compare and evaluate the analytical procedures connected to the cost approach portion of the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Research and analyze the sales comparison approach section of the case study assignment and derive supported findings, opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues brought up in the case study.

Learning Tips

In the opening discussion session participants have a significant opportunity to enhance their review skills. By now, you should have completed the cost approach as part of Step 6 of the review process. Receiving constructive feedback on your work endeavor is a helpful process to every reviewer. One way to gain the most benefit is to share your

analytical work with a fellow reviewer as the instructor leads the discussion and proceeds through the various processes step-by-step. Sharing your work in this manner is encouraged rather than required. The easy way to do this is to exchange URAR forms with an individual at your table area or a reviewer at an adjacent table area. This would exclude a team member that you directly worked with during the morning session. The goal is to have an independent set of eyes looking at your work.

If you decide to exchange your work with another reviewer, it will work best if you sit near each other during the whole-class discussion session. Under this set up you will have the opportunity to view another reviewer's work, yet be able to easily look over and see the URAR that you worked on. Again, it is best to share your work with another reviewer in the class that was not your team member partner. This will maximize the benefits received in the course—which is all about review.

Sales comparison approach. When you begin work on this approach, one of the early tasks is to select the best sales for comparison. Remember that proper selection of comparable sales is a significant analytical tool that should not be treated lightly. Take the time to review and analyze the sales. The six sales available for the selection process are generally good comps that almost any appraiser would be happy to have. Thus the objective is to select the best sales based on whatever criteria you determine.

Adjustments used in the sales comparison approach **must be supported**, so keep that in mind as you make your adjustments that lead to an indicated value for each comparable sale. Once you have your three sales fully adjusted, you are welcome to adjust the other sales if there is sufficient time. However, be careful about working ahead of your fellow reviewers at your table area. The greatest benefits will come by working with you and your table group and team members.

A whole-class discussion of your findings, analyses, opinions and conclusions relative to the sales comparison approach will be carried out at the start of Day 2.

Looking ahead to part 3. The case study is the core of this course and the prerequisites for *Case Studies* require each registrant to be familiar with the course materials from *Review Theory* so it can be applied and practical ways to enhance your review skills.

Part 2.
Cost Approach Findings and Sales Comparison Approach

I. Cost Approach Findings

The Preview to Part 2 includes suggestions in the Preview, and particularly in the Learning Tips, on how to gain the most benefit from the discussion session. If you have not read the Preview to Part 2, please do so before proceeding further.

A. General guidance.

1. This is a whole class discussion that will be moderated by your instructor. The objective is to walk through the analytical issues that participants confronted in Part 1 and learn how other reviewers in the class tackled the issues.

    a. This process will have similarity to what each table area may have already carried out. In other words, while working through the various analytical processes in Part 1, the reviewers at your table area should have discussed the problems and issues that arose during Part 1.

    b. The discussion now expands to the whole class. This will allow more viewpoints and suggestions to be presented.

2. After a particular issue or analytical process is discussed by the class, your instructor may elect to provide his or her opinions (or not), but the aware there is no "ideal" or "correct" solution to the case study.

    a. What you have determined during your analyses, is what you will use during the remainder of your review work. Remember that review opinions <u>are</u> opinions, and hopefully yours are credible.

    b. As part of the discussion process, the instructor may elect to walk through the analytical procedures of the case study that required calculations. This is to ensure correct methodology was used, even though conclusions may differ to some extent.

3. During the discussion process, you may evaluate and defend or critique various analyses, opinions and conclusions presented. All is fair game in this discussion.

4. Questions, comments, and your participation and interaction during discussion session should always be done in a courteous and professional manner. The goal is to help your fellow reviewer present appropriate analyses and solutions that lead to the most credible opinions and conclusions.

5. The instructor (i.e., review supervisor) is responsible for opening the discussion session and providing any additional instructions.

B. Analytical topics to address during the discussion session.

1. What issues did you uncover in Step 1 while identifying the review problem?

2. What critical issues did you find in the letter of engagement and the sale contract?

3. What was the outcome of your analysis of the cost new for the residence?

4. What was the outcome of your land sales analysis, including the extracted sales? The results should be written in your case study booklet.

5. What was the outcome of your extracted depreciation and as well as using the age-life method. What was your estimate of the total economic life?

6. What numbers did you insert in the URAR cost approach?

II. Sales Comparison Approach

Go to Part 2 of the Oak Street Case Study Booklet

III. Review Reality Check Problems

2.1 Review Reality Check

I'm reviewing a property that has two contiguous building sites of about the same size. Each has its own legal description and property tax identification number. A large residential dwelling is located on the one site, and a swimming pool and detached garage is located on the second site. The appraisal report states the highest and best use is the present use. All the comments in the report treat the property as if it were one site with one address and there is no further discussion in relation to the highest and best use of the site(s) as vacant or improved. The review assignment requires that I provide my own value of value.

What would you suggest to the reviewer in this assignment?

It is possible that the highest and best use is the present use. However, it appears the appraiser did not undertake a highest and best use analysis to make that determination. The second site may be excess land, but that is not a given. The highest and best use analysis should identify whether the existing improvements of the swimming pool and detached garage should be demolished and removed. There is also the possibility that the property may be more valuable as one entity. In other words, the value of both parcels as vacant and ready to be used as one entity may be its highest and best use. A proper HBU analysis is a "hole that needs to be filled" by the reviewer because the analysis is deficient in the appraisal report.

2.2 Review Reality Check

I'm looking at the Neighborhood section of the URAR appraisal report that I'm reviewing and half of the identified neighborhood is public park. Under *Neighborhood Characteristics* how should I review what the appraiser has reported as built-up if the land in the other half of the neighborhood is only 60 percent improved?

What would you suggest to the reviewer?

The term "built-up" applies to developable land that is available. The public park is developed land that is not available. So the public park is not considered in the "built-up" analysis. In the Neighborhood Characteristics, the reviewer should consider the land available as the remaining half that is not public part and it should be reported as 25 to 75% built-up.

2.3 Review Reality Check

The property under review borders a small lake. The appraiser states in the site section that the size of the property is 2.27 acres and the given dimensions match up to that size. But as I look at the aerial photos of the site, it appears smaller than the acreage indicated on the report. The MLS and public records from the county offices indicate it is 2.27 acres, and it is likely the appraiser took the lot size directly from the assessor's data. When I measured the property and calculated the size to the shoreline, I get 1.43 acres. I think my calculations are correct, but how do I challenge the appraiser's data when it matches with other data sources?

What would you suggest to the reviewer in this assignment?

It is likely that the site boundary extends into the lake such that a portion of it is under the water. The water level of the lake may change from year to year, but a portion of the site may always be under the water. It appears the appraiser may not have been aware of that fact. The critical issue is the comparable sales. If they are of similar size in the upland area to the subject and the remainder of their site area is partially under water, the valuation may be sufficiently supported in the appraisal. However, if the comparable sales are of similar size (i.e. 2.27 acres) and no portion of their land is under water, the valuation adjustment of those comparable sales may be flawed. This is a test of reasonableness based on data in the site section.

2.4 Review Reality Check

I'm working on an appraisal report of a five-level split. The appraiser has included the finished area of a level that is partially below grade in the GLA. It gets confusing because part of the same level has unfinished space. The lowest level of the split is treated as basement and it had no finish on that level. So basically, the appraiser treated all finished areas as GLA and the unfinished areas as basement. When I looked at the sales comparison analysis, two of the comps are five-level splits and the appraiser treated the GLA in the same manner. However, the third comp was a bi-level in which the lower level was nearly 100% finished. For this comp, the appraiser used all the finished area has GLA and there is essentially no basement. It seems to me the appraiser's approach to the GLA is all wrong.

What would you suggest to the reviewer in this assignment?

If all three comps were like the subject in the GLA, the appraiser may get by with this incorrect method of calculating the GLA. The reason would be that the comps are treated in the same manner. However, in this case the third comp should not be used at all. The reviewer will need to find another multi-level split that matches up with the subject and comps 1 and 2. The GLA should be based on the area that is above ground and adjustments can be made for finished levels below grade. The reviewer may need to expand the market area in order to find the additional comparable sale. The review issues are accuracy and appropriateness as the appraiser did not properly calculate the GLA and also used an inappropriate comp.

2.5 Review Reality Check

I'm having some issues with how an appraiser has analyzed seller concessions in the report I'm reviewing. In the appraiser's comments, he states that the definition of market value on the URAR indicates that *no adjustments are necessary for those costs which are normally paid by sellers as a result of tradition or law in the market; these costs are readily identifiable since the seller pays these costs in virtually all sales transactions.* The appraiser also comments that the same definition also states that any adjustment should approximate the market's reaction to the financing or concessions based on the appraiser's judgment.

Based on that information the appraiser concludes that sellers are typically paying six points as a concession and this is accepted in the market. All of the comparables used in the appraisal report don't have seller-paid concessions higher than six points and thus no adjustments were made to bring them to cash equivalency. Is this appraiser's explanation acceptable?

What would you suggest to the reviewer?

The appraiser's explanation is a distortion of what Fannie Mae states in the guidance to the definition of market value. First, Fannie Mae guidance in the market value definition must be interpreted based on the guidance Fannie Mae publishes in its Selling Guide. Second, the seller concessions need to be adjusted to reflect what the comparable properties would sell for without the concessions.

Review Part 2

Learning Objectives

Now that you've completed Part 2, you should be able to

- ☐ Compare and evaluate the analytical procedures connected to the cost approach portion of the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Research and analyze the sales comparison approach section of the case study assignment and derive supported findings, opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues brought up in the case study.

Terms and Concepts to Remember

Qualitative analysis techniques

Quantitative analysis techniques

Self-Study Review Quiz

This multiple-choice quiz is intended to enhance your self-study time and provide a review of Part 1 content. This is a "closed book" quiz. Choose the *most* correct answer.

Important Note: Some questions in this quiz assume general knowledge that all appraisers and reviewers should possess prior to taking this course. Therefore, if you struggle on specific questions, it means you need to brush up on your knowledge of basic appraisal principles. Don't be overly concerned as the Solutions Booklet will have a full explanation of how math questions were solved, and once you revisit the basics you should have little difficulty. Remember that you can always approach your instructor for additional assistance.

1. A reviewer's analysis of market prices shows an increase of 6 percent in the 12 months after the effective date of the report under review. The reviewer is considering an additional "hindsight sale" that sold for $375,000 and the sale was 2 months after the appraisal's effective date. What is the adjusted price of this sale after accounting for the change in market conditions?

   A. $348,750

   * B. $371,250 *(0.06 / 12 x 2 = 0.01 - 1 x $375,000)*

   C. $375,000

   D. $378,787

2. A reviewer is investigating an adjustment of a comparable for seller concessions. The property sold for $470,000 and the agent confirmed that the seller agreed to pay 6 points toward the buyer's financing on a $376,000 mortgage. The reviewer's research indicates the market recognizes about 50 cents on the dollar for such concessions. Based on this evidence, what is the adjusted sale price of the comparable sale without the concession?

   A. $447,400

   B. $455,900

   C. $441,800

   * D. $458,700 *(-0.06 / 2 x $376,000 = $11,280 + $470,000)*

3. A $5,400 adjustment in the sales comparison approach was supported in the comment section by noting it was a cost-related adjustment. The reviewer found that the actual cost of the adjusted item was $6,000 and depreciation from all sources was 10 percent. If no other comments were made by the appraiser, is the adjustment reasonable?

   A. No the adjustment should be higher or lower than $5,400 because the depreciation for a single item is not the same as it for the entire structure.

   * B. No, the adjustment of $5,400 is based purely on depreciated cost and should be processed further to reflect the interaction of buyers and sellers.

   C. Yes, this is the proper technique for a cost-related adjustment.

   D. Yes, the adjustment of $5,400 is reasonable, but the reviewer must ensure that it could not be derived directly from the market, such as through pairing of sales

4. The review assignment involved a proposed construction. One of the first things that stood out to the reviewer was the GLA adjustments. The appraiser used the cost per square foot in the cost approach to adjust for differences in GLA. Is this appropriate in light of the improvements being new?

   * A. No, because the cost rate includes all construction components such as site excavation, kitchen and baths, etc. and the GLA adjustment is for additional square footage.

   B. No, it should be about 10 percent less than cost to reflect the resale market.

   C. Yes, cost is the same as value when the residence is new.

   D. Yes, this adjustment would be correct—but assumes the appraiser has separately adjusted for any functional and/or external obsolescence.

5. To support an opinion in which there was disagreement with the outcome of an appraisal report, the reviewer used qualitative support by identifying a number of sales as superior, inferior, or similar and then bracketed the sales into a probable range of values. Is this an acceptable method of support?

   A. Yes, the reviewer used ranking analysis

   B. No, the reviewer used a faulty paired data analysis

   * C. Yes, the reviewer used a relative comparison analysis

   D. Yes, the reviewer used a cost-related analysis

6. When a reviewer disagrees with opinions and conclusions in an appraisal report that is under review, what must the appraiser do?

A. The reviewer must only disclose in the review report what sections in which the reviewer disagreed.

B. The reviewer must contact the appraiser to discuss his or her findings.

* C. The reviewer must provide support for the area of disagreement in the review report.

D. The reviewer must prepare a complete new appraisal.

7. A reviewer's analysis of market data in a neighborhood indicates properties backing up to a highway are negatively affected by 10 percent. If the subject property does not have this external obsolescence, what is the adjustment to a comparable property that sold for $450,000 and backs up to the highway?

* A. +$50,000 *($450,000 / 0.90 = $500,000 - $450,000)*

B. –$45,000

C. +$45,000

D. –$40,000

8. A reviewer observed that there was no adjustment of a sale that had $12,000 in seller-paid mortgage discount points. Why would the comparable sale need adjusting if the sale of the subject property also included similar seller concessions?

A. There should be no adjustment if both have similar concessions

B. The adjustment should account only for the difference between the concessions identified for the subject and the comparable sale.

C. The financing terms of comparable sales must always be adjusted on a dollar for dollar basis regardless of the subject's terms.

* D. The subject must be appraised assuming a cash equivalent price rather than its actual terms with seller concessions, which may inflate the price.

9. What qualitative analysis is a credible method to support adjustments in the sales comparison approach when the reviewer is developing a value opinion?

A. Ranking analysis

* B. Relative comparison analysis

C. Trend analysis

D. All the listed answers are correct

Use the following sale data for questions 10 through 14.

ITEM	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
Sale Price	$350,000	$366,000	$365,000	$329,000	$340,000
Site Amenity	None	Pond	Pond	None	None
Actual Age	10	15	10	15	15
GLA Size	2,000	2,200	2,000	2,100	2,000
Garage	Yes	Yes	Yes	No	Yes

10. What adjustment is indicated from the market for the pond site amenity?

A. $7,000

B. $10,000

* C. $12,000 *(Compare Sales 1 and 3)*

D. $15,000

11. What per year adjustment is indicated from the market for age difference?

* A. $2,000 per year *(Compare Sales 1 and 5)*

B. $5,000 per year

C. $7,000 per year

D. $10,000 per year

12. What is the adjustment per square foot for the difference in GLA?

A. $35 per square foot

B. $50 per square foot

* C. $70 per square foot *(Compare Sales 3 and 5)*

D. $100 per square foot

13. What is the adjustment for garage versus no garage?

A. $5,000

B. $7,000

C. $12,000

* D. $18,000 *(Compare Sales 4 and 5)*

14. If the subject property has a pond view amenity, is 10 years old with a GLA of 2,000 sq. ft. and has a garage, what is the indicated value?

A. $340,000

B. $350,000

* C. $362,000 *(Use Sale 1 add $12,000 for the pond amenity)*

D. $365,000

Review quizzes are intended to be taken during your personal study time. Suggested answers are found in the Solutions Booklet.

Part 3. Review Analysis and Development of Review Opinions
(205 minutes + two 10-min. breaks)

Preparing for the Second Day

The opening session for Day 2 provides a quick overview of the tasks to be covered. The instructor should encourage participants to read the **Preview** content as it contains background information and guidance on the topics to be covered in Parts 3 and 4 prior to the final exam.

Some participants may be anxious about the final exam that comes at the end of the day. The opening session is a good time to address any anxiety issues and reaffirm to the class to review the learning objectives, the review reality check problems, and the quiz questions. Those are the primary areas to study for the exam, although general concepts presented in the case study (such as adjustment techniques) are also potential content areas for the exam.

Case Study Findings

Discussion on the sales comparison approach. 50 minutes has been allotted for this is a whole-class discussion. The instructor should inquire of the various table groups, which comparable sales they selected and if there are significant differences in the conclusions of value from among the table groups. The instructor can also cover issues related to how adjustments were derived for use in the market comparison sale grid. If the whole class discussion is completed in less than in the allotted time, then it is best to get the group into the next task without delay. The intent is to have the case study findings discussion move along at a brisk pace.

General guidance. The same format used in prior whole-class discussions may be applied to this discussion.

Participants will gain the greatest benefit if they share their URAR form that has their results with another reviewer in the class. This should not be someone that they worked with in a two-person team during Day 1. By sharing their report, reviewers will see another viewpoint and gain additional insights. As before, you can't force class members to share their work during the discussion session. Hopefully, they have learned the tangible benefits of sharing their work.

Analytical topics to address. The course handbook presents five questions to help get the discussion started. These are just starter questions, and the instructor may add or create different types of questions to foster the whole-class discussion.

Case Study – Reviewer's Research and Analyses

This session begins to dig into the core of the review assignment that began on the first day. A lot of prep work has been completed thus far and that will make the review work in Steps 3, 4 and 5 of the Review Process move along quickly. Even so, there are a lot of issues to address and that is why it is important to go over the instructions with the class.

Instructions. The appraisal report that is the subject of the review assignment should now be distributed. As the URAR is being passed out, it is important to reaffirm to the class that guidance has

been provided in the course handbook, and participants should review that content before jumping into the project.

As the class begins analyzing the appraisal report, the instructor should visit the various table areas. One of the issues to verify is that the reviewers are addressing the **five qualities** in Step 3, as well as developing opinions related to Steps 4 and 5. Reviewers should also perform **tests of reasonableness** as appropriate as they undertake their research and analysis.

The **10 questions** addressed in the Fannie Mae 2000 form are presented with extended space for the reviewers to comment on their findings. As you talk to the reviewers at the table areas, be sure to remind them that they should be developing opinions related to Steps 3, 4 and 5 (and not just the five qualities Step 3). Thus, the comment area allows for discussion of reporting issues that are misleading as well as comments about tests of reasonableness that the reviewer may have undertaken.

The instructor notes for the 10 questions are provided in the course handbook instead of this section in order to better facilitate the discussion process for the instructor when assisting table groups. The guidance notes in the course handbook should also be used when the instructor is undertaking the whole-class discussion at the opening of Part 4.

The Oak Street Case Study Booklet under Part 3 includes the guidance that is printed on the Fannie Mae 2000 review form. Participants may use this information as they carry out their review analysis and development of opinions.

There are four RRC problems presented in Part 3. There may be limited time to address these RRC problems due to participants' dedication to working on the case study during the morning session.

3.1 Review Reality Check. The first problem addresses an appraisal report that inadequately deals with boarded-up residences in the neighborhood.

3.2 Review Reality Check. This problem tests whether the reviewer can perform a test of reasonableness on the what would otherwise be factual information. The appraiser's estimate of the taxes is not accurate.

3.3 Review Reality Check. The problem addresses proper identification of the property characteristics. This can be a test of reasonableness tied to the appraiser's selection of comparable sales. If the appraiser has good comps, then the misidentification of the building type becomes a trivial error.

3.4 Review Reality Check. The problem deals with an appropriate adjustment for a sales concession. The appraiser's adjustment is $10,000 and the reviewer's preliminary adjustment indicates $16,800, which may not be supported by market evidence. The bottom line is the reviewer cannot dismiss the appraiser's adjustment as inadequate unless data can show support for the reviewer's preliminary adjustment figure of $16,800.

Morning Breaks. There are two breaks scheduled and the instructor will need to take breaks at the times suggested in the course schedule.

Prior to each break, the instructor should try to address at least two review reality check problems. As previously noted, if the instructor senses that the class is behind schedule, some or all of the RRC

problems in Part 3 can be treated as self-study. In that case, be sure to distribute the solutions booklet for Day 2 prior to the lunch break or earlier.

Lunch Break. Prior to dismissing the class for the lunch break, the instructor should distribute the solutions booklet for Day 2. This will help participants in their study preparations for the exam that comes later in the afternoon.

Review Analysis and the Development of Review Opinions

This session begins with a session to discuss the case study findings connected to the sales comparison approach that was analyzed the previous day. After that, the rest of the morning session is dedicated to Steps 3, 4 and 5 of the Review Process.

The primary work on the Oak Street Case Study will now shift back to the course handbook. This will allow reviewers to refer back to the materials in the Oak Street Case Study Booklet more easily while completing the review tasks.

Learning Objectives

To prepare for Part 3, read the following learning objectives, and refer back to them as you study this part of the Course Handbook.

- ☐ Compare and evaluate the analytical procedures connected to the sales comparison approach portion of the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Research and analyze an appraisal report which is the subject of the case study and develop credible review opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues brought up in the case study.

Learning Tips

In the opening discussion session of Day 2 participants have another opportunity to enhance their review skills. Reviewers should have completed the sales comparison approach as part of Step 6 of the review process. As before, participants may share their work by exchanging the URAR form with an individual at your table area or a reviewer at an adjacent table area. The case study work is enhanced if you allow an independent set of eyes to look at your work while you get to observe another perspective.

Remember that it is best to sit near the other reviewer during the whole-class discussion session. This allows you to view the other reviewer's work, yet be able to see the URAR that you worked on. Again, it is best to share your work with another reviewer in the class that was not your team member partner. This will maximize the benefits received in the course. The more opportunities you have to review, the better.

Steps 3 through 5 of the Review Process. After the instructor distributes the appraisal report to be reviewed, participants will be working through the report and developing opinions of quality related to both development and reporting. This process will go move along at a good pace because you will have already researched and developed supported opinions about the property that is the subject of the work under review.

Remember that Step 3 covers both development and reporting, whereas Step 4 is exclusive to development and Step 5 is exclusive to reporting. The course handbook replicates, to a limited degree, the 10 questions addressed in the Fannie Mae 2000 review form. Even so, the course handbook expands on those questions to include opinions in addition to completeness and accuracy.

Looking ahead to Part 4. After the lunch break there will be a whole-class discussion to go over the reviewer's findings, opinions and conclusions. What follows is guidance and discussion about how the reviewer communicates the results to the client as well as to the appraiser, if direct communication with the appraiser is included in the reviewer's scope of work.

Part 3.
Review Analysis and Development of Review Opinions

I. Preparing for the Second Day

A. Tasks for Part 3.

1. The first session addresses the **case study findings** from the previous day. This is a whole-class discussion that is specific to the sales comparison approach and conclusion of value. Please read the Preview on the prior pages for additional background information and guidance.

2. Once the whole-class discussion is completed, the focus will be on Steps 3, 4, and 5 of the Review Process. Reviewers will now have the appraisal report, which is the subject of the review assignment.

   a. During this session, the course handbook will be the primary workspace. This will allow reviewers to use the Oak Street Case Study Booklet as reference material while working through Steps 4 through 5.

   b. The review process should move along at a faster pace than the sessions in Day 1 because the background research has been completed. Even so, the reviewer needs to convert the research into developed opinions of quality specific to the work under review.

B. Tasks for Part 4.

1. This is final discussion with the whole class to address the reviewer's research and review opinions based on the work from the morning session.

2. The last topic to address in the course is how the reviewer communicates assignment results to the client and, if required by the scope of work, the appraiser whose work is under review.

   - Step 7 of the Review Process was covered in *Review Theory—Residential*, so this session is not about writing the report per se, but more attuned to how the reviewer effectively communicates the assignment results.

3. Final exam. The conclusion to the course is the final exam and there will be time set aside to prepare for it.

II. Case Study Findings

Much of the whole-class discussion for this session will involve the work that was completed in the Oak Street Case Study Booklet. Once the discussion of sales comparison approach is complete, the next tasks will be completed in the course handbook.

A. General guidance.

1. The whole class discussion will be moderated by your instructor and will function much the same as the prior case study findings. The objective is to walk through the analytical issues that participants confronted in Part 2 and learn how other reviewers in the class addressed the issues.

2. The discussion on the sales comparison approach and opinion of value will prove to be beneficial when reviewers begin analyzing the appraisal report that is the subject of the review assignment.

3. Be prepared to not only discuss your findings, but also defend your analyses of adjustments, as well as your indicated value conclusion.

4. Questions, comments, and your participation and interaction during discussion session should always be done in a courteous and professional manner. The goal is to help your fellow reviewer present appropriate analyses and solutions that lead to the most credible opinions and conclusions.

5. The instructor (i.e., review supervisor) is responsible for opening the discussion session and providing any additional instructions.

B. Analytical topics to address during the discussion session.

1. What issues did you uncover in Step 1 while identifying the review problem?

2. What sales did you select as being the most comparable to the property that is the subject of the appraisal report under review?

3. What was the outcome of your analysis of the adjustments?

4. What disagreements did you have with your fellow reviewers in regards to adjustments?

5. What was the outcome of your opinion of value?

III. Case Study – Reviewer's Research and Analyses

A. Instructions

1. The URAR that is the subject of the review assignment should be distributed at this time.

2. Steps 3, 4 and 5 of the Review Process (flowchart is on the next page) are the tasks that the reviewer will be engaged in for this morning session.

   a. Step 3 addresses five characteristics that the reviewer is examining in subject appraisal report. The opinions being developed in this process apply to both development and reporting.

   b. Step 4 takes the opinions specific to development that were uncovered in Step 3 and refines them into opinions of appropriateness and credibility, as well as addressing areas of disagreement.

   c. Step 5 takes the opinions specific to reporting that were uncovered in Step 3 and refines them into opinions of appropriateness and whether the report is misleading in any manner. The reviewer also addresses areas of disagreement specific to reporting.

   d. **Important note**. All of the above work is often carried out simultaneously as the reviewer is analyzing the subject appraisal report. Therefore, reviewers may elect to address issues in an all-inclusive approach as they go through the sections of the URAR, or reviewers may choose to compartmentalize each section of the appraisal reporting form the steps of the review process individually. That is a reviewer's decision.

3. On the pages that follow, reviewers will find a "rough" reproduction of the Fannie Mae 2000 form, but the course handbook provides additional room for opinions that go beyond completeness and accuracy.

   a. Use the space that is provided to write your opinions specific to Steps 3–5.

   b. Some sections of the Fannie Mae 2000 address primarily factual content and will not require a lot of comments, while other sections will require deeper analysis and explanation of the reviewer's opinions.

4. Following the past protocols of the case study, remember to discuss your findings with the other reviewers at your table area. This will be particularly helpful in developing review opinions specific to both development and reporting in the work under review.

B. Questions for reviewers to consider while reviewing the subject assignment.

1. **What opinion of completeness, accuracy, adequacy, relevance and reasonableness did you find in both the development and reporting components of the work under review?**

2. **What tests of reasonableness did you perform?**

3. **What is your opinion of appropriateness related to the appraiser's analytical development in the work under review?**

4. **What is your opinion of related to the credibility of the appraiser's opinions and conclusions in the work under review?**

5. **Did you have any disagreements with the appraiser's analysis, opinions and conclusions?**

6. **Did you have any opinions that the appraiser's reporting was not appropriate or that it was misleading?**

7. **Did you have any reasons for disagreement with the appraiser's reporting?**

8. **What holes needed to be filled and how did you fill them?**

C. On the following page is the Review process flowchart diagram that may be helpful as a reference.

D. Review Reality Check problems are handled differently in this session as they are not inserted at strategic points in the review analysis. Instead the RRC problems will be addressed at appropriate times determined by your instructor.

The Review Process

STEP 1 — Identification of the Problem

Identify the client and any other intended users	Identify the intended use of the reviewer's opinions and conclusions	Identify the purpose of the review	Identify the work under review	Identify any assignment conditions connected to the review

↓

STEP 2 — Reviewer's Scope of Work

↓

STEP 3 — Reviewer's Research and Analyses

Consistent with the reviewer's scope of work, examine the work under review regarding

Completeness	Accuracy	Adequacy	Relevance	Reasonableness

↓

STEP 4 — Review of Appraiser's Analyses, Opinions, and Conclusions

Develop an opinion whether analyses are appropriate within the context of the requirements applicable to that work	**Develop an opinion** whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 5 — Review of Appraiser's Report

Develop an opinion whether the report is appropriate and not misleading within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 6 — Development of the Reviewer's Own Opinion of Value

When the scope of work includes the reviewer developing his or her own opinion of value*

↓

STEP 7 — Reviewer's Report Consistent with Intended Use

* When reviewing a review report, the scope of work may include the reviewer's own opinion of the quality of the work that was the subject of the report being reviewed.

Source. Adapted from content in the Uniform Standards of Professional Appraisal Practice (USPAP) and from an illustration of the valuation process in *The Appraisal of Real Estate,* 14th edition. Chicago: Appraisal Institute, 2013, Fig. 4.1, 37.

One-Unit Residential Appraisal Field Review Report

The purpose of this appraisal field review report is to provide the lender/client with an opinion on the accuracy of the appraisal report under review.

Subject Section

SECTION 1 – COMPLETE FOR ALL ASSIGNMENTS
1. Is the information in the subject section complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

Instructor Notes: Comments in these 10 sections are not provided to the class. They are provided solely for the instructor's guidance.

There are two qualities in Step 3 to be addressed in the Subject Section, although other qualities are possible. The reviewer should be looking for ***completeness*** *and* ***accuracy*** *in the report's data. The reviewers in the class will quickly see that most of the information provided by the appraiser is the same as what was prefilled on their reviewer's URAR. The one difference is the appraiser's disclosure of the information and data sources connected to the listing exposure of the subject. The information does not include a listing history, including changes in the listing price and days on market (DOM) linked to the changes. Some reviewers may feel this issue is connected to* ***adequacy*** *in addition to completeness. The DOM reported in this section is "continuous" rather than "cumulative". So. if the property was off the market for just one day when the price was lowered, then the DOM would be 60 days. Therefore, the reviewers need to be careful in overreacting to the appraiser's data.*

Contract Section

2. Is the information in the contract section complete and accurate? ☐ Yes ☐ No ☐ Not Applicable
If Yes, provide a brief summary. If No, explain

As was the case for the Subject Section, the appraiser's analysis of the contract is primarily addressed under completeness and accuracy. The report accurately discloses the sale price and the points paid by the seller. However, there is no disclosure of the personal property included with the sale. This is more of a disclosure issue as it may have no impact on the appraised value. As such, it may be treated as a trivial error, but the reviewer may reserve this as a test of reasonableness for other sections of the appraisal report.

The appraiser's information about the analysis of the contract may be considered as completeness and adequacy issues, and even border on relevance.

Note: For the contract date the report would normally state the calendar date of sale, but for the purposes of the case study it is stated parenthetically as pending.

Neighborhood Section

3. Is the information in the neighborhood section complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

The Neighborhood Characteristics are the same as the reviewer's URAR. The One-Unit Housing Trends are the same except that marketing time is reported as under 3 months rather than 3-6 months. Price and Age are within a reasonable range of the reviewer's findings. No issue on Present Land Use %.

Neighborhood boundaries define the same area as the reviewer's findings. The Neighborhood Description doesn't paint an adequate picture of the local history—which is important in this case. The report doesn't address the tornado event along with the reason behind the updating of the subject and newly built residences in the area. Indeed, the description appears to be a lot of canned comments that could apply to any neighborhood. The same can be said of the market conditions comments. Relevance and adequacy are the two primary qualities for reviewers to address.

The appraisal report doesn't need to list all the positive and negative attributes because the comparable sales are from the same area and reflect these factors. However, the appraisal report should address some issues that affect marketability such as proximity to the creek and adjacent park area.

Site Section

4. Is the information in the site section complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

The site information in the report is complete and reasonably accurate. The comment on the highest and best use was pleasantly unexpected. It could be a canned comment. If so, it was a good HBU canned comment. The same cannot be said of the boilerplate comments addressing adverse factors and external factors affecting the site. These comments can apply to most any property.

In defense of the appraisal report, there is not a lot to say regarding the site, which is why many appraisers use canned comments in these situations. A reviewer could mention the issue of relevance, but it likely is not worth pursuing since the comments are not incorrect or misleading.

Improvements Section

5. Is the data in the improvements section complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

The factual information in this section is accurate and complete. The comments at the end of page 1 of the URAR continue the boilerplate approach. The appraiser gave the UAD condition as C3 and what is disturbing is that the appraisal report quotes the GSEs definition of a C3 rating rather than describing the actual condition of the property. Is the appraiser's use of this comment irrelevant or misleading? Probably not, but it is telling and serves as an alert for the reviewer to be watchful going forward. The reports effective age of 5 years is consistent with description of a C3 rating.

The last two comments regarding physical deficiencies/adverse conditions and whether the property generally conforms are unnecessary since the "No" box is checked. That said, it is a trivial issue and can be handled under a general statement that the appraisal report contained a number of boilerplate comments that were not relevant and did not add to the understanding of the property. The reviewer needs to be careful on this point about getting frustrated with such comments. The comments are not wrong or misleading for this property assignment. So it is best to treat it as a trivial matter. The one comment that hopefully is not a canned statement is the verification of the attic insulation. Was this a carryover from a cloned FHA assignment? Hard to tell since it is included with all the other boilerplate comments.

Comparable Sales Selection

6. Are the comparable sales selected location only, physically, and functionally the most similar to the subject property? ☐ Yes ☐ No If Yes, provide a brief summary. If No, provide a detailed explanation as to why they are not the best comparable sales

The appraiser selected three sales and the comparables are reasonable and should be adequate to evaluate the subject's value. These sales are positioned in the course handbook and on the reviewer's URAR as Sales 4, 1 and 5. These are good comps, albeit they are the ones that can more readily support a higher value for the subject, if manipulated.

The reviewers in the class may argue about the appraiser's selection of sales, but the bottom line is that the selected comps are fine.

Sales Comparison Approach Section

7. Are the data and analysis (including the individual adjustments) presented in the sales comparison approach complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

The appraiser makes a number of compelling arguments for the adjustments and indicated sale prices that some reviewers in the class may be swayed by them. That is what makes this case study interesting. At first glance, the appraiser's adjustments look plausible. Ask the class this question: If you had not performed the analysis in Day 1, and were looking at this data for the first time, how many of you would have thought this was an appropriate value conclusion—and would have agreed or concurred?

It is important to remember that the reviewer's in the class will have different adjustments and conclusions than those suggested in the instructor's version of the URAR. There is no ideal solution to be put forward. The critical issues to address in regards to the sales comparison approach under review is whether the analysis is appropriate and credible and whether the report is misleading in any manner. Another issue is whether there is a material error.

COMP #1: This sale is not adjusted for the $11,250 in seller-paid concessions. Moreover, the appraiser misstates the information as have no concessions. The adjustments for age and the porch are the other two significant adjustments that are absent or inadequate on the sales adjustment grid. There is no market condition adjustment and no adjustment for the security system.

Sales Comparison Approach Section - Continued

7. Are the data and analysis (including the individual adjustments) presented in the sales comparison approach complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, explain

Additional comments:

COMP #1 – Continued: It could be argued that the security system was not recognized by the market. It certainly wasn't recognized by the appraiser, because there is no mention of it. Thus, it appears it was overlooked.

COMP #2: The seller concessions for were $7,488. The appraiser adjusted the concession for $5,000, which might be reasonable. There is no "time" adjustment to reflect the rising market conditions, nor an age adjustment. The appraiser indicates that COMP # 2 is of the same quality and features as the subject. That adjustment might be difficult to disprove as are some of the other "adjustments" that appraiser did not make. An argument can be made for not making adjustments, but not based on erroneous content.

COMP #3: The lack of adjustments for this sale works in the appraiser's favor, particularly for the age adjustment. There is incorrect information such as the second fireplace that is missing and the larger garage and deck. The appraiser also makes only a modest adjustment for GLA to account for the 240 SF difference in size.

Income and Cost Approaches

8. Are the data and analysis presented in the income and cost approaches complete and accurate? ☐ Yes ☐ No ☐ Not developed If No, explain

No income approach was performed.

Cost approach: The reported land value is reasonable and the appraiser did at least look at the vacant land sales, although there may have been no analysis. It appears that the cost rates were just thrown in, but they are reasonable even if the reviewer could not replicate them from the cost course cited. The was no inclusion of the broker's commission. No surprise there, and it would not be needed when made-up numbers was used in the cost approach.

The estimated physical depreciation is also at 1 percent per year, but the appraiser uses the effective of 5 years, which is wrong, but an effective way to make it look reasonable.

Sale or Transfer History

9. Is the sale or transfer history reported for the subject property and each of the comparable sales complete and accurate? ☐ Yes ☐ No If Yes, provide a brief summary. If No, analyze and report the correct sale or transfer history and the data source(s).

There were no prior sales for the subject or comparable sales with the specified time periods.

Opinion of Market Value

10. Is the opinion of market value in the appraisal report under review accurate as of the effective date of the appraisal report? ☐ Yes ☐ If No, complete Section II.

SECTION II – COMPLETE ONLY IF REVIEW APPRAISER ANSWERS "NO" TO QUESTION 10 IN SECTION I.
1. Provide detailed reasoning for disagreement with the opinion of value in the appraisal report under review.
2. State all extraordinary assumptions used (i.e. gross living area, room count, condition, etc.)
3. Provide a new opinion of value as the effective date of the appraisal report using the below sales comparison analysis grid. (NOTE: this may or may not include the use of the same comparable sales in the appraisal report under review.)
Summary of Value Conclusion (including detailed support for the opinion of value and reasons why the new comparable sales are better than the sales used in the appraisal report under review).
REVIEW APPRAISER'S OPINION OF MARKET VALUE (Required only if review appraiser answered "No" to Question 10 in Section 1)

There is no identified section in the Fannie Mae review form to address the appraiser's reconciliation.

The review of this assignment places the reviewer in a difficult, if not dangerous, position. What the appraiser has going for him/her is a value conclusion that is supported by a valid contract sale and comparable sales with minimal adjustments, all located within a few blocks of the subject. Most appraisers can go to court with that in their back pocket—and win.

What the reviewer should do is pick the battles very carefully that he/she wishes to address. The best approach is to go after the material errors, such as the misstated seller concessions and other misstatements of fact—and bring in the other comparable sales to support the review opinions.

Reviewer's Additional Comments

ADDITIONAL COMMENTS
The instructor's approach to the whole-class discussion is to allow reviewers in the class to address their findings—and they will want to do that with zeal. The instructor only needs to provide gentle guidance here. Continue to ask questions prompting discussion of Steps 3 through 5 of the Review Process. • *What opinion of completeness, accuracy, adequacy, relevance and reasonableness did you find in both the development and reporting components of the work under review?* • *What tests of reasonableness did you perform?* • *What is your opinion of appropriateness related to the appraiser's analytical development in the work under review?* • *What is your opinion of related to the credibility of the appraiser's opinions and conclusions in the work under review?* • *Did you have any disagreements with the appraiser's analysis, opinions and conclusions?* • *Did you have any opinions that the appraiser's reporting was not appropriate or that it was misleading?* • *Did you have any reasons for disagreement with the appraiser's reporting?* • *What holes needed to be filled and how did you fill them?*

IV. Review Reality Check Problems

There are four Review Reality Check problems. Your instructor will address these problems at appropriate points in the session, or the instructor may elect to sign these as self-study problems.

3.1 Review Reality Check

There are vacant and boarded up residences in the neighborhood as identified in the appraisal report under review. The appraiser addressed the issue of the vacancies by stating that the comparables sales were selected from the same area. There were no other comments specific to the issue.

How should the reviewer evaluate the appraiser's work based on what was provided in the appraisal report?

The appraiser's analysis is no adequate, nor complete. The appraiser needed to address the reasons for the vacancies or boarded-up properties in factual terms (by providing data related to demand/supply, foreclosure rates, tax sales, etc.) and discuss how this factor affects the market value and marketability of the property being appraised and other properties in the neighborhood. To have credibility, the appraiser needed to present relevant evidence and logic regarding the vacancies to address client concerns based on the intended use.

3.2 Review Reality Check

The residence in the appraisal report under review is a proposed construction. The real estate taxes based on the appraised value of $700,000 is estimated in the appraisal report as $8,400.

The tax formula for homesteaded parcels is the assessed value times the tax rate of 132 mills. The assessor uses 75 percent of the market value to derive the assessed value.

Based on this information, is the $8,400 tax a reasonable estimate?

Instructor guidance: *The formula is $700,000 x 0.75 = $525,000 assessed value x 0.0132 = $6,930. This suggests the estimated tax provided in the appraisal report appears high, but it merits further investigation. A call to the assessor's office should be made to contrast their estimate with the reviewer's findings.*

3.3 Review Reality Check

I am reviewing a quad home, which is basically a square structure with a residence located in each quarter. The property is located in a planned unit development (PUD) and the association fee covers the maintenance of the building exterior, the common lawn area and road and driveway access. The appraisal report indicated the building type as semi-detached and the other two checkboxes for "Type" were left blank. I'm unsure whether the dwelling is correctly identified in the report.

What insight would you give the reviewer in this assignment?

A quad home should be identified as "attached" as it will share two common walls with the other units. Is it technically an end unit? The appraiser may mark it as such as long as it is also identified as an attached dwelling. Checking the box as semi-detached may be a trivial matter. But this is where a test of reasonableness helps in that determination. The concern is whether the mislabeling carries over into the selection of comparable sales. If the appraiser compares a twin home residence to the subject property, that would be a problem because they are not of the same type. In that case, proper identification is critical to the valuation.

3.4 Review Reality Check

I am reviewing an appraisal report and the comps the appraiser selected are actually pretty good, but the adjustments for sale concessions is another matter.

One of the comps sold when the market was still dealing with tight credit. At the time of sale, the seller agreed to pay 6 points to lower the buyer's mortgage payment in order to obtain the seller's desired price. I verified that the buyer paid $350,000 for the property and the buyer put $70,000 as a down payment. The appraiser made an adjustment of $10,000 and indicated that it was typical of the market. How do I carry out my test of reasonableness?

What insight would you give the reviewer?

Start with the basic calculations:

1) $350,000 sale price less $70,000 = $280,000 mortgage

2) Seller-paid points: $280,000 x .06 = $16,800 concession

3) $350,000 sale less $16,800 = $333,200 cash equivalent price

The reviewer will need to further analyze the market to ensure whether the cash equivalent price of $333,200 reflects what similar properties sell for without seller concessions. Such sales may indicate a higher price for the subject property than that indicated by the mechanical adjustment. The appraiser's adjustment appears inadequate, but it may not be dismissed unless the reviewer can find additional market support.

V. Useful Information

The following information is provided from Basic Appraisal Procedures.

A. Elements of comparison

1. ***Real property rights conveyed.*** When comparable sales have the same property rights as the subject, no adjustment is needed. If the subject were being appraised in fee simple and a comparable were subject to long-term leases at other than market rent, the appraiser should consider an adjustment for this difference. The procedure for such an adjustment is beyond the scope of this course.

2. ***Financing.*** Non-market financing can affect the sale prices of comparable properties. The mode and terms of financing must be investigated and an adjustment made (if necessary) to **establish a cash equivalent price**.

3. ***Conditions of sale.*** An adjustment for these may be necessary to reflect the motivations of the buyer and the seller. Some situations include
   The buyer or seller is in hurry (a job transfer or a death in the family)

   - Sales between relatives
   - Sales between wholly owned subsidiaries
   - Forced sales (such as a foreclosure or an auction)

   Arm's-length transaction. *A transaction between unrelated parties who are each acting in his or her own best interest.*

4. ***Expenditures made immediately after purchase.***

   - Some appraisers make this adjustment before considering any others.
   - A knowledgeable buyer considers expenditures that will have to be made upon purchase of a property because these costs affect the price the buyer agrees to pay.
   - Such expenditures may include costs to cure deferred maintenance (for example, resurface a parking lot or replace a roof), costs to demolish and remove any portion of the improvements, costs to petition for a zoning change, or costs to remediate environmental contamination.
   - An uninformed buyer might pay an inflated price, whereas an informed market buyer would discount the price to account for the anticipated expenditures.

5. ***Market conditions.*** This is commonly referred to as a "time adjustment." That is inaccurate because the change reflected in the adjustment is brought about by a change in market conditions, not the passage of time. These adjustments are usually measured as a percentage of previous prices. Examples of market conditions that may affect sale prices include changes in

    - Income tax laws
    - Economic conditions—recession or depression
    - Supply and demand
    - Interest rates
    - Inflation rates

6. ***Location.***

    - The adjustment is for differences in locational characteristics between the comparable and the subject.
    - The subject and comparable can be located in different neighborhoods or even in dissimilar locations in the same neighborhood, project, or building. This adjustment is generally made on a percentage basis.

7. ***Physical characteristics.*** The value added or lost by the presence or absence of a differing item in a comparable property does not usually equal the cost of installing or removing the item. Appraisers make the adjustment according to the contributory value of the item or component. The cost to cure deferred maintenance items, however, may be reflected in an adjustment in the sales comparison approach. Physical differences may include

    - Site size
    - Building size
    - Quality of construction
    - Age
    - Condition
    - Functional utility

8. ***Economic characteristics.*** These include all the attributes of a property that affect its net operating income, such as

   - Operating expenses
   - Quality of management
   - Tenant mix
   - Rent concessions
   - Lease terms
   - The appraiser must recognize that a property's physical and locational characteristics affect its income-producing capability. While details about the economic characteristics of a property are studied, direct adjustments for such characteristics must be made carefully.

9. ***Use/Zoning***

   - An appraiser must address any difference in the use or highest and best use of a potential comparable and the subject property.
   - Zoning is a primary consideration in the selection of comparables.

10. ***Non-realty components***

   - These do not constitute real property but may be included in the sale price of either the comparables or the subject.
   - Examples include furnishings or business equipment. These components should be analyzed separately.

The table below describes Fannie Mae's guidance for the lender requirements in evaluating sales or financing concessions (from the Selling Guide).

Evaluating Financing Concessions in Sales
The dollar amount of sales or financing concessions paid by the seller must be reported for the comparable sales if the information is reasonably available.
Appraisers must provide the sales and financing concession information that was available and verified for the comparable sales.
If information is not available because of legal restrictions or other disclosure-related problems, the appraiser must explain why the information is not available. **Note:** Fannie Mae will not accept an explanation that indicates that the appraiser did not make an effort to verify the information. If the appraisal report form does not provide enough space to discuss this information, the appraiser must make an adjustment for the concessions on the form and include an explanation in an addendum to the appraisal report.
When a quantitative sales comparison analysis is used, the amount of the negative dollar adjustment for each comparable with sales or financing concessions should be equal to any increase in the purchase price of the comparable that the appraiser determines to be attributable to the concessions.
Adjustments based on dollar-for-dollar deductions that are equal to the cost of the concessions to the seller as a strict cash equivalency approach would dictate are not appropriate.
Adjustments must reflect the difference between what the comparables actually sold for with the sales concessions and what they would have sold for without the concessions so that the dollar amount of the adjustments will approximate the reaction of the market to the concessions.
Positive adjustments for sales or financing concessions are not acceptable.
For example, if local common practice or law results in virtually all of the property sellers in the market area paying a 1% loan origination fee for the purchaser, and a property seller in that market did not pay any loan fees or concessions for the purchaser, the sale would be considered as a cash equivalent sale in that market.
The appraiser must recognize comparable sales that sold for all cash or with cash equivalent financing and use them as comparable sales if they are the best indicators of value for the subject property. Such sales also can be useful to the appraiser in determining those costs that are normally paid by sellers as the result of common practice or law in the market area.

Review Part 3

Learning Objectives

Now that you've completed Part 3, you should be able to

- ☐ Compare and evaluate the analytical procedures connected to the sales comparison approach portion of the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Research and analyze an appraisal report which is the subject of the case study and develop credible review opinions and conclusions.
- ☐ Solve Review Reality Check problems that relate to issues brought up in the case study.

Self-Study Review Quiz

This multiple-choice quiz is intended to enhance your self-study time and provide a review of Part 3 content. This is a "closed book" quiz. Choose the *most* correct answer.

1. A reviewer is analyzing the subject section of a URAR. Which of the five quality characteristics in Step 3 of the Review Process are the most appropriate for this analysis?

   A. Completeness and relevance.

   B. Relevance and accuracy.

   * C. Completeness and accuracy.

   D. Reasonableness and adequacy.

2. The appraisal report under review checked the box for "Pool" to identify that there was a swimming pool located on the property. However, there were no descriptive comments in the report about what type of pool it was, or about the pool's current condition. What characteristic should the reviewer consider in his or her opinion of the work under review specific to this particular issue?

   A. Accuracy

   * B. Adequacy

   C. Completeness

   D. Relevance.

3. A reviewer is performing a test of reasonableness on an appraisal report's conditions of sale adjustments to analyze the

   * A. differences in the sale prices of comparable properties due to the motivations of buyers or sellers.

   B. changes in market prices due to appreciation.

   C. differences in the sale prices of comparable properties due to favorable financing terms.

   D. differences in the sale prices of comparable properties due to proximity to negative influences.

4. The site section in the work under review uses generic terms to describe the zoning identification. What review quality opinion best applies in this situation?

A. Accuracy

* B. Adequacy

C. Completeness

D. Reasonableness

5. The property that is the subject of the review is located in a market where values are increasing at 3.5% per year. The reviewer is analyzing a comparable property that sold 15 months ago at a price of $456,000 and the appraiser made an adjustment of $20,000 adjustment for market conditions? Is the appraiser's adjustment reasonable?

A. No, a reasonable adjustment is $12,500

B. No, a reasonable adjustment is $16,000

* C. Yes, assuming a straight-line calculation *(0.035 /12 x 15 x $456,000)*

D. Yes, assuming the appraiser made a negative adjustment

6. What is true about an appraiser making statements that are supported by market evidence in regards to neighborhood demographics?

A. The appraiser cannot make statements in the appraisal report that are specific to the characteristics of the neighborhood.

B. The appraiser must include the supporting evidence in the appraisal report.

C. Statements that are supported by market evidence are always acceptable.

* D. Statements are inappropriate if they violate fair housing laws.

7. The appraisal report stated in the comments to the improvements section: "The subject property is a two-story detached structure built in 1946 with stucco siding and no evidence of dampness or settlement." What quality consideration should the reviewer consider based on this comment?

A. Accuracy

B. Adequacy

C. Completeness

* D. Relevance

8. A reviewer is performing a test of reasonable on a market condition adjustment. If a property was listed for $134,000 for 90 days, sold 54 months ago for $131,000, and resold today for $149,000, what is the annual rate of change on a straight-line basis?

A. 2.5%

B. 2.6%

C. 3.0% *($131,000 - $149,000 = $18,000 / $131,000 / 54 x 12)*

* D. 4.0%

9. The appraised property is a 3-unit small residential income property. The appraisal report states the zoning allows a maximum of two units. The appraiser included the income from the third unit in the appraisal because it is typical of properties in the area that are zoned for two units. What should the reviewer do?

A. The reviewer must accept the appraiser's conclusion if the market indicates it is typical of the area.

B. The reviewer must disagree and exclude the income and also the value of the kitchen improvements connected to the third unit

* C. The reviewer should check with the entity that enforces zoning in the area and also check the client's requirements specific to this situation before making any opinions on the matter.

D. The reviewer must call the municipality to report the illegal third unit.

10. A reviewer is questioning the size of the site indicated in an appraisal report. When viewing the site on the plat map, the reviewer realized it is a trapezoid with the two bases identified as 100 feet and 120 feet. The reviewer used an engineer's scale on the plat map and estimated the distance between the two bases at 75 feet. What is indicted size of the site?

A. 7,500 sq. ft.

* B. 8,250 sq. ft. *(solution 100 + 120 x 75 /2)*

C. 9,000 sq. ft.

D. 16,500 sq. ft.

Review quizzes are intended to be taken during your personal study time. Suggested answers are found in the Solutions Booklet.

Part 4. Reviewer Communication
(205 minutes + two 10-min. breaks and Exam)

Case Study Findings

Discussion on the Review Process. The schedule allows for 70 minutes to discuss the reviewer's finding specific to Step 3, 4 and 5 of the Review Process. This should provide adequate time to address the issues that the reviewers uncovered in the appraisal report they reviewed in the morning session. The discussion of the case study findings should move along at a brisk pace, as intended—and it should be a lively discussion with a lot of class participation.

The instructor should go through each of the **10 questions** from the Fannie Mae 2000 review form. Remember to use the instructor guidance that is prefilled in the course handbook under Part 3. While addressing the 10 questions, the instructor can inquire about issues specific to Step 3, then Step 4 and lastly, Step 5 of the Review Process. You can ask about what tests of reasonableness the reviewers performed and whether the tests were useful in their analysis. Poll the various table groups to learn the outcomes of their findings and discuss the differences of opinions.

For this whole-class discussion, reviewers do not need to share their work with another reviewer in the class, unless the majority of the participants truly want to share. The best reason not to share their work during this whole-class discussion is that the session is likely to be animated and interactive, as intended, and participants will want to write notes in their course handbook in the blank spaces that are provided. That is easier to do when they have their own work in front of them.

General guidance. The same general format used in the prior whole-class discussions may be applied to this discussion with the exception that there is no need to encourage sharing of the reviewer's analysis with another class member.

Topics to address during the discussion. The course handbook presents six questions to help get the discussion started. The instructor may wish to add or create different types of questions to foster the discussion.

It will take time to go through each of the 10 questions addressed in Part 3. Some sections in the URAR can be summed up more quickly than others. Use the instructor notes provided in the comment area below each question to guide the discussion. The goal is to get the participants thinking about all aspects that need to be addressed within Steps 3, 4 and 5 of the Review Process.

Instructors will need to monitor the time as it will likely go by quickly and each of the 10 questions must be addressed in class because there are no suggested solutions included in the solutions booklet that participants receive for Day 2 of the course.

Therefore, mark in your course handbook the amount of time allotted for each question based on your judgment. The average allotted for each section of the URAR calculates to about seven minutes.

The Subject, Contract and Improvements sections will take less time since there are less issues to discuss. This should leave additional time for the more critical sections of the subject appraisal report to be discussed with the class.

The final outcome of the reviewer's findings will be difficult for many in the class. The case study was designed to bring out difficult decisions for the reviewer. Use the instructor guidance provided in the course handbook and let the participants come to their own conclusions. Remember, there is no best solution that the course is trying to push. It is the process that is important here and to allow participants to reach their own conclusions.

First Afternoon Break. Once the discussion for the case study findings has been concluded, the instructor can take the first afternoon 10-minute break.

Why Communication Matters

This session will run like a normal course presentation. The instructor will follow content outlined in the course handbook and also on the PowerPoint slides.

Some participants might not initially appreciate discussion about the reviewer's communication with the appraiser whose work is under review. However, many reviewers fine that in a review assignment where communication with the appraiser is expected, it can be the most challenging part. Some reviewers have found it to be so challenging that they've given up providing review services altogether.

Participants are encouraged to share their experiences and ideas.

This section presents the different ways a review assignment may be carried out with respect to the reviewer–appraiser contact.

4.1 Review Reality Check. The reviewer needs to be cautious about treating into the area of appraiser independence. This RRC problem can easily foster additional discussion about reviewers who have tried to influence an appraiser, so watch the time given to this particular problem.

4.2 Review Reality Check. This is a straightforward problem that should be easy to address with the class.

How Communication Works

This section might be better titled "How Communication Doesn't Work" because a key point to stress is that when one party to the conversation becomes defensive, communication shuts down. Reviewers need to learn how to prevent this from happening. The next RRC problem addresses preventative steps a reviewer can take on this very issue.

4.3 Review Reality Check. The reviewer's communication process with the appraiser actually begins before the conversation gets underway. He reviewer can diffuse potential issues by simply asking questions in the right way.

Suggestions for Reviewers

This section includes a "do" list and a "don't" list for effective communication. Spend time discussing these as time permits.

4.4 Review Reality Check. This problem builds on the prior RRC problem by giving additional ideas to enhance communication. Certain words that the reviewer may use can provoke unintended responses. Words such as

"errors" or "violate" might be best avoided during a conversation between reviewer and appraiser.

Oak Street Case Study

Drafting a memo to the appraiser. This Is a practical application that allows the reviewer to draft some notes of how they would communicate the results of their review findings to the appraiser whose appraisal report is under review.

20 minutes is allotted for this exercise. Therefore, give the class about 10 minutes to write out their draft memo and then asked for volunteers to share what they wrote. If you are running ahead of schedule, this exercise can be extended as needed. However, the time might be better spent in reviewing course content prior to the exam.

Upon completion of the draft memo and follow up discussion, the last **10-minute break of the afternoon** should be taken.

Preparing for the Exam. In the review section of Part 4 following the self-study quiz, there is a section that addresses the exam. This is self-study material, so the instructor only need to point it out.

There is no formal review of the course content prior to the exam. The reason is because timing may not allow a formal review that incorporates PowerPoint slides similar to what was provided in *Review Theory—Residential.* The instructor can make a decision whether to lead a review of the course contents, or simply allow the participants to study quietly on their own prior to the final preparations in advance of distributing the exam booklets in answer sheets.

The exam is 30 multiple-choice questions and the instructor must ensure that the exam booklets are open no later than one hour before the scheduled end time of the course. Normally that would be 4:00 PM. Remember that it takes at least 10 minutes to provide instructions and prepare the classroom for the exam.

Part 4 Preview

Reviewer Communication

In *Review Theory—Residential*, a session was devoted to Step 7 of the Review Process, which is the ***Reviewer's Report Consistent with Intended Use***. The focus of that session was the written communication of the review report that is transmitted to the client. The topic of oral reports was addressed, but the emphasis was on written communication to the client and other intended users. One of the topics not addressed in the prior course was how an appraiser communicates with the appraiser whose work is the subject of the review. When the reviewer's scope of work includes such communication, it also involves, by default, necessary communication with the client to ensure that the appraiser-reviewer interaction stays on track within the intended use of the assignment.

Residential review assignments may call for the reviewer to interact on some level with the appraiser whose work is the subject of the review. This can be challenging for reviewers, as it requires skills that go beyond those generally required in appraisal practice. Yet possessing these skills can be the difference between a successful reviewer and an unsuccessful one. In Part 4, the focus will be on reviewer communication skills and ways to enhance them.

Learning Objectives

To prepare for Part 4, read the following learning objectives, and refer back to them as you study this part.

- ☐ Compare and evaluate the review opinions developed for the appraisal report in the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Identify the various ways a review assignment may be carried out with regard to interaction between the reviewer and the appraiser.
- ☐ Recognize what constitutes effective communication.
- ☐ Identify best practices for effective communication between the reviewer and the appraiser.
- ☐ Write an effective memo as a reviewer to the appraiser in the Oak Street Case Study about the reviewers concerns with an appraisal report.

Learning Tips

The challenge of interpersonal communication is faced by reviewers every day, though it is rarely discussed. Communicating with the appraiser whose work is under review can be a source of extreme frustration. Be sure to note the suggestions provided on how a reviewer can make this part of the assignment smoother and easier—for both the reviewer and the appraiser.

In this session, reviewers will have an opportunity to apply what they learn in Part 4 by writing a memo to the appraiser whose work they reviewed in the Oak Street Case Study.

Preparing for the Exam

At the conclusion of the Review section to Part 4, you will find information that provides guidance in preparation of exam. This content follows the Self-Study Quiz in the Review portion within this part.

Part 4.
Reviewer Communication

I. Case Study Findings

Review Analysis and the Development of Review Opinions

The first task in Part 4 is a whole-class discussion to address the reviewer's findings specific to the appraisal report that is the subject of the assignment in the Oak Street Case Study.

A. General guidance.

1. The whole-class discussion will be moderated by your instructor and will function much the same as the prior case study findings.

2. The objective is to walk through the **10 questions** presented on the Fannie Mae 2000 review form and address opinions specific to Steps 3, 4 and 5 of the Review Process.

3. Be prepared to discuss and defend your review opinions. If your performed a test of reasonableness that you found helpful, be ready to share that insight with the other reviewers in the class.

4. Questions, comments, and your participation and interaction during discussion session should always be done in a courteous and professional manner. The goal is to help your fellow reviewer present appropriate analyses and solutions that lead to the most credible opinions and conclusions.

5. The instructor (i.e., review supervisor) is responsible for opening the discussion session and providing any additional instructions.

B. Topics to address during the discussion session.

1. What opinions of completeness, accuracy, adequacy, relevance and reasonableness did you develop in each of the 10 questions?

2. What opinions of appropriateness and credibility did you develop specific Step 4 of the Review Process as you analyzed the report under review?

3. What areas of disagreement did you have specific to the appraiser's development work in the report under review?

4. What opinions of appropriateness specific to the appraisal report did you develop based on Step 5 of the Review Process. Did you discover any content in the report that was misleading?

5. Did you have any disagreement with the reporting provided in the work under review?

6. Did you agree or disagree with the appraisal report's conclusion of value?

II. Why Communication Matters

Review assignments can go in many directions with regard the interaction of the reviewer with the intended users. Some involve reviewer-appraiser communication and some do not. When the assignment includes interaction with the appraiser whose work is the subject of the review, there is also some necessary communication that needs to be addressed with the client specific to that reviewer-appraiser communication.

A. The reviewer's assignment might include any of the following:

   1. Engaging or selecting the appraiser, remaining in contact with him or her throughout the appraisal process, reviewing the appraisal report, and then working with the appraiser to address any concerns or make clarifications

   2. Reviewing the appraisal report after the appraiser has completed it, then working with the appraiser to address any concerns or make clarifications

   3. Reviewing the appraisal report after the appraiser has completed it, then addressing any concerns in the review report without any further input or contact with the appraiser—sometimes referred to as a "corrective review"

   4. Completing the review of the appraisal report without ever knowing who prepared it

B. In scenarios 3 and 4 above, communicating with the appraiser is not an issue because it does not happen.

C. The remainder of this discussion addresses scenarios 1 and 2, where communication with the appraiser is a key part of the reviewer's assignment.

D. Reviewer–appraiser communication may take place under a number of scenarios.

   1. Review assignments for financial institutions—either as a staff reviewer or an independent contract reviewer.

   2. Reviewer for a regulatory agency or government entity—again either as staff or an independent.

E. Effective communication can make the difference between a review assignment that is rewarding and productive, and one that is a nightmare for all parties involved.

   1. Most people—appraisers included—are sensitive to criticism.

   2. However, honest and meaningful criticism encourages people to improve their skills and gives them direction on how to do that.

   3. Appraisal is a complex process that provides ample opportunity for error. Appraisers can always find room for improvement. An effective review can facilitate this.

F. Reviewers must exercise caution while communicating with an appraiser to ensure that the appraiser's independence is not threatened. Appraiser independence is part of the **Dodd-Frank Act** and is included in state licensing laws.

G. Whenever the reviewer's scope of work requires communication with the appraiser, the reviewer needs to **communicate with the client** to know precisely the level of communication that is to take place with the appraiser.

   1. Is the reviewer to meet directly with the appraiser, either personally or via telephone?

   2. Is there an intermediary between the reviewer and the appraiser? At this level of communication, the reviewer interacts with the appraiser, but not directly because a moderator is positioned between the two.

   3. Is all communication between the reviewer and the appraiser to be in written form, such as email messages or other written forms of communication?

   4. What decision-making powers does the reviewer have while communicating with the appraiser?

   5. Will the appraiser be given a copy of the reviewer's summary results that stem from the communication between the two?

   6. The reviewer's communication with the client should clarify issues presented in the above questions as part of Steps 1 and 2 of the Review Process.

4.1 Review Reality Check

I am a Senior Reviewer with a government agency. My job involves contracting with fee appraisers and reviewing their work. If I find issues, I contact them via email or telephone and ask for clarifications and/or corrections. Several appraisers I've worked with have taken my comments a little hard and have accused me of infringing on their independence. I am very sensitive to that accusation; I don't want to do anything improper or to ask the appraisers to do anything improper.

What suggestions would you offer to the reviewer in this situation?

There can be a fine line between making suggestions for improvement and unduly influencing the appraiser. Reviewers need to know where that line is and respect it. Most appraisers are more than willing to fix errors or provide clarifications; they don't want reports under their signature to be flawed. However, when professional disagreements arise, neither the appraiser nor the reviewer should feel obligated to sign a report with which he or she does not agree.

4.2 Review Reality Check

I was engaged by a lending institution to review an appraisal report. The scope of my assignment included discussing the report with the appraiser. I completed my review report and sent it to my client. The appraiser subsequently contacted me and asked for a copy of my review report. I declined and reminded the appraiser that confidentiality rules do not permit me to provide a copy of my report without my client's authorization. The appraiser replied that this is unfair. She said that since the appraisal report is hers, she's entitled to know what I said about it in my review report.

What suggestions would you offer to the reviewer in this situation?

The reviewer is correct. Providing the review report to the appraiser without the client's authorization is not permitted under standards or the Appraisal Institute's Code of Professional Ethics (CPE). An appraiser is not "entitled" to the review report just because he or she prepared the appraisal report under review.

III. How Communication Works

We practice interpersonal communication every day throughout our lives. So why aren't we better at it?! Communication among professionals—especially professionals in the opinion business—can be fraught with complications because of varying communication styles, personalities, and levels of expertise.

A. *Communication style* refers to how you say what you say.

   1. The party on the receiving end may react more to the way the message is delivered than to the message itself.

   2. What you say may be right, but if the way you say it is wrong, you're still wrong.

   3. Choice of words is important.

      a. But words can have different shades of meaning to different people.

      b. A good communicator continually monitors the reactions of the listeners to see if the message is getting across as intended.

B. Complicating factors can include the following:

   1. Situation or context in which the communication takes place

   2. Timing of the message

   3. Physical and emotional state of each party at the time

   4. Degree to which each party is committed to communicating effectively

C. Both parties have to want communication to happen, or it will not.

D. **When conversations become confrontational and one party becomes defensive, communication stops.**

E. The most successful communication takes place in person.

   1. In-person communication between appraisers and reviewers is not always practical.

   2. Communication by telephone can allow for a great deal of conversation to happen in a short time. It also allows each participant's tone of voice to be expressed.

   3. Email communication allows for more careful choice of words and refining the message before it is delivered. However, email communication can come across as cold and austere; the tone of the conversation may be easily misinterpreted. Further, sending emails back and forth can become time-consuming and unproductive.

4.3 Review Reality Check

I contacted the appraiser whose work I'm reviewing to ask for clarification of a minor point made in the market conditions addendum. I'm not sure if I said something wrong, but the appraiser immediately became defensive and accused me of lacking geographic competency. At the end of the conversation, I realized I'd gotten nowhere. All the phone call did was annoy the appraiser and ruin any chance of me finishing this review.

What suggestions would you offer to the reviewer in this situation?

Reviewers need to understand how to diffuse a confrontation before it escalates. When one party gets defensive, communication ceases. One tip: Try raising questions rather than making accusations. For example, "I didn't see where you put your estimate of exposure time. Did I miss that?" as opposed to "You didn't include exposure time." Other phrases that can be useful:

- *"I'm not saying you're wrong, I just want to be clear…."*
- *"Help me to understand this…."*
- *"Maybe we can say that another way so there's no room for the intended user to misunderstand."*

IV. Suggestions for Reviewers

Here are some practical tips for reviewers when communicating with appraisers (Adapted from Richard C. Sorenson, MAI, Appraising the Appraisal, 162–167).

A. Make sure you've done your homework before contacting the appraiser.

   1. Know what content is where in the appraiser's report.

   2. Try to understand the appraiser's way of reasoning through the appraisal problem.

   3. Make careful notes about what you plan to discuss.

   4. Plan your conversation. Be prepared to present your points in an organized manner.

B. Know when to raise an issue and when not to.

   1. Not every issue is critical. Stick to what's important and relevant.

   2. There's always room for improvement. But that doesn't mean it always has to be made. Will the correction affect the credibility of the appraisal opinions and conclusions? If the correction is not made, will the report be misleading?

   3. Keep in mind the objective: To provide the client with a credible value opinion.

C. Practice effective communication (and it does take practice).

D. The "do" list and the "don't" list:

   1. **Do:**

      a. Be fair, and come across that way.

      b. Begin the conversation on a positive note.

      c. Convey your concerns in a positive, constructive manner.

      d. Be an active listener. Active listening requires patience, openness, and a true desire to understand. See the issue from the appraiser's point of view.

      e. Be receptive to innovative techniques. Do not automatically assume a technique is wrong just because it is different. Consider the appraiser's rationale with an open mind. Look forward to learning something new and creative yourself.

f. Ask questions that are straightforward, direct, specific, and simple. State the issue as precisely as you can. Ask questions in a nonjudgmental manner. Try not to appear condescending or otherwise insult the intelligence of the appraiser.

g. Focus on major problems. Identify key issues and concerns and downplay problems that are not pertinent to the value conclusion.

h. Direct your criticism to the report, not the appraiser. Always remember that the appraisal is under review, not the appraiser. Structure your questions and comments from this perspective.

i. Discuss the strengths as well as the deficiencies of the appraisal. Appraisers don't often get positive feedback when it's deserved. The reviewer may be the only person in a position to provide it.

j. If you are proved wrong, admit it and back down. If you know you are right, however, defend your position strongly.

k. Plan for the interaction to take more time than you think it should.

2. **Don't:**

a. Put the appraiser on the defensive.

b. Call the appraiser to criticize a report and to give him or her your own preconceived assumptions and value conclusion.

c. Accept vague answers or "smoke and mirrors" explanations. Let the appraiser know you want specifics.

d. Overreact if the report contains minor typos, inconsistent wording, rounding errors, or inconsequential mathematical mistakes.

e. Frustrate the appraiser with unreasonable demands to meet your standard of perfection. Perfection is a worthy goal, but it is often unrealistic and unattainable in the real world.

f. Expect the appraiser to write a demonstration-quality appraisal report. This is an unrealistic, unnecessary expectation.

g. Jump on the appraiser's responses with an accusative tone. Do not inadvertently provoke the appraiser and put him or her in a reactive, defensive position. This will interfere with addressing the real issues, which are generally technical in nature.

h. Lecture the appraiser or speak in a patronizing voice, which will create hostility and increase interpersonal conflict. Never threaten.

i. Ask loaded, leading, confrontational, tricky, or argumentative questions. It is fine to ask probing questions, but be sure your wording and manner do not influence the response.

j. Ask questions with double-negatives, two-part questions, and questions that are long and complicated.

k. Allow personal appraiser relationships to cloud the objectivity of your review.

l. Become enmeshed in a checklist mentality. A checklist must not become the ultimate determinant of an appraisal's acceptability; it is merely a tool to help reviewers systemize the process.

4.4 Review Reality Check

I'm an appraiser who had an upsetting conversation with the reviewer of my appraisal report. The reviewer started by saying that she found "lots of errors" in my report and that I "violated USPAP." She then listed about 12 items. Honestly, the most serious mistake she pointed out was that I adjusted my comps for market conditions when in the neighborhood section I said it was stable. I made notes about the issues she raised but I'm not sure I got them all and don't want to call her back to ask.

What suggestions would you offer to the reviewer in this situation?

This reviewer put the appraiser on the defensive at the outset of the conversation. The appraiser feels too intimidated to call the reviewer back to clarify which items require correction. So the appraiser will probably not make all the requested corrections. The reviewer could have listed the 12 or so items in an email so the appraiser could study them on her own time. Also, the reviewer could have taken a more optimistic approach to the conversation.

V. Oak Street Case Study: Drafting a Memo to the Appraiser

It's now time to apply what you've learned to your findings from the Oak Street Case Study. Below are some pointers that could help this process go more smoothly—for both you and the appraiser.

A. When writing a memo to the appraiser to address issues in the appraisal report, the reviewer must keep in mind that the objective of the memo is to elicit a favorable response.

   1. A poorly written or insulting memo will not elicit a favorable response.

   2. Remember, putting the appraiser on the defensive will cause communication to stop.

   3. It is often more difficult to come across as polite and well intentioned in a written communication than in person, regardless of what you say.

   4. It may be helpful to precede a written communication with a spoken one—a phone call or even a phone message in a friendly tone of voice—to let the appraiser know the memo is on its way.

B. **Instructions:** In the following exercise, refer as needed to the suggestions in this part on effective reviewer-appraiser communication.

   1. The assignment calls for you to have the appraiser resolve any issues based on your findings.

   2. Write a memo to the appraiser asking him/her to address your concerns.

Reviewer's Memo to the Appraiser

REVIEWER'S MEMO
There is no sample memo provided to the instructor because each reviewer may have reached different opinions and conclusions. As addressed in the whole-class discussion on the reviewer's findings, the reviewer should focus on the material errors in the work under review and how they might impact the appraiser's conclusions. *Due to limited time, remind reviewers that their memo should be brief and address their primary concerns and not get into trivial matters.* *Once the participants have had some time to craft their memo, the instructor can ask for volunteers to read their memo, or simply ask the whole class what issues they brought up in their memo and how they worded their memo to not put the appraiser in a defensive mode.*

Review Part 4

Learning Objectives

Now that you've completed Part 4, you should be able to

- ☐ Compare and evaluate the review opinions developed for the appraisal report in the case study assignment and discuss these findings with fellow reviewers in the class.
- ☐ Identify the various ways a review assignment may be carried out with regard to interaction between the reviewer and the appraiser.
- ☐ Recognize what constitutes effective communication.
- ☐ Identify best practices for effective communication between the reviewer and the appraiser.
- ☐ Write an effective memo as a reviewer to the appraiser in the Oak Street Case Study about the reviewers concerns with an appraisal report.

Recommended Reading

Appraising the Appraisal: The Art of Appraisal Review, 2nd ed., Chapter 10

Terms and Concepts to Remember

Confrontational	Defensive	Timing of the message

Self-Study Review Quiz

Read each multiple-choice question carefully and select the one best answer. Try to answer the questions without looking back in your handbook.

1. A reviewer is responsible for contracting with fee appraisers and then reviewing their work. The reviewer must

   A. approve all work from appraisers the reviewer engages. Otherwise it looks as though the reviewer made a poor choice of appraisers.

   B. do everything possible and necessary to have the appraisal corrected before it goes to the client.

   C. let the appraiser know up front that it isn't likely the first draft of his or her work will be found acceptable.

   * D. understand where the line is between making suggestions for improvement and unduly influencing the appraiser.

2. When a party to a conversation becomes defensive

   A. a third party will need to intervene.

   * B. communication ceases.

   C. the conversation moves to the next level.

   D. the other party has made his or her point.

3. A reviewer telephones an appraiser to discuss the appraisal report. At the outset of the call, the appraiser asks if the discussion could be postponed until the next morning because the appraiser has another deadline to meet. However, the reviewer needs to complete the review by the end of the day. The reviewer should

   A. contact the client and ask that the client require the appraiser to discuss the appraisal with the reviewer today.

   B. explain to the appraiser that the deadline for the review is today so the conversation must continue.

   C. reassure the appraiser that the conversation won't take long.

   * D. recognize that the timing of the message could complicate the communication if the conversation continues.

4. Before contacting an appraiser to discuss an appraisal report, the reviewer should

A. develop his or her own opinion of value.

B. evaluate the appraiser's competency level.

* C. make careful notes.

D. proofread the report.

5. A review assignment requires the reviewer to

A. get the appraiser to agree with the reviewer.

B. get the appraiser to consider the comparables provided by the client.

C. get the client to agree with the appraiser.

* D. maintain an objective, unbiased stance.

6. A reviewer finds a math error in the appraisal report that does not affect any outcomes. When discussing the report with the appraiser, the reviewer should

* A. mention the error but not emphasize it.

B. not mention the error.

C. provide proof that the error was made.

D. tell the appraiser the error must be corrected.

7. When writing a memo to an appraiser to address problems in the appraisal, the reviewer should

A. defend his or her position.

B. inspire the appraiser to want to improve the report.

C. not accept excuses.

* D. provide data and analysis to support his or her points of concern.

8. The client has asked a reviewer to “work with” the appraiser to provide an acceptable report. The reviewer is not expected to provide his or her own value opinion or to note corrections in the review report. The reviewer and the appraiser cannot agree on an issue that greatly affects the value. The reviewer should

   A. advise the client not to hire the appraiser again.

   B. negotiate with the appraiser about the issue so the final value conclusion is halfway between the appraiser’s opinion and the reviewer’s opinion.

   * C. notify the client of the disagreement and suggest an alternative approach for the review assignment such as the reviewer providing his or her own opinion of value in the review report.

   D. report the appraiser to the state appraiser board.

9. Appraisers may welcome criticism if

   A. it is about USPAP violations.

   * B. it is meaningful and constructive.

   C. it is meaningful and not misleading.

   D. the reviewer will make a complaint to the state appraiser board otherwise.

10. Communication with the appraiser via email about issues with the appraisal report has benefits and disadvantages. Email

   * A. allows for refining the message before it is delivered but it can come across as cold and austere.

   B. allows the sender to avoid talking to the recipient but may not be welcomed because people in general get too many.

   C. can conceal tone of voice but nearly always causes more defensiveness.

   D. is fast but cheap.

Review quizzes are intended to be taken during your personal study time. Suggested answers are found in the Solutions Booklet.

Self-Study – Preparing for the Exam

The following content is designed to help you prepare for the Review Case Studies—Residential exam. This is a self-study session.

I. Preparing for the Exam

A. Basic information

1. The exam is comprised of 30 multiple-choice questions.
2. Participants are allowed one hour to complete the exam.
3. The exam is closed book, and all materials must be removed from the table area.
4. A basic-function calculator may be helpful for some exam questions. **Important Note:** laptops, cellular phones, tablets, iPads, wearable technology (smart watch, Apple Watch, Google Glass, etc.), and other devices that can store data or connect to the Internet are ***NOT*** permitted during the exam. In addition, all watches, wallets, bags, and purses must be removed and stored out of reach prior to taking the exam.
5. Participants may leave the classroom to use the restroom facilities, but they must leave their exam face down on the table while out of the room.

B. Guidance on studying for the final exam

1. The objectives contain the content that will be tested.
2. Focus on the *Terms and Concepts to Remember* as presented on the review page of each part.

C. Guidance on taking the final exam

1. Read each question completely.
2. Choose the most correct answer. Some answers may be correct to a limit, but there is an answer that is correct and specific to the question.
3. Do not read information into questions beyond the information stated in the questions.
4. Review your questions and double-check any math as needed.

II. Content Covered in the Course

The following outline provides the approximate percentage for content covered in the exam. It will help you know where to concentrate your studies.

Part 1. Assignment Identification and the Cost Approach (percent TBD)

Part 2. Cost Approach Findings and Sales Comparison Approach (percent TBD)

Part 3. Review Analysis and the Development of Review Opinions (percent TBD)

Part 4. Reviewer Communication (percent TBD)

Review Case Studies-Residential

Instructor's Exam

The Review Process

STEP 1 — Identification of the Problem

Identify the client and any other intended users	Identify the intended use of the reviewer's opinions and conclusions	Identify the purpose of the review	Identify the work under review	Identify any assignment conditions connected to the review

↓

STEP 2 — Reviewer's Scope of Work

↓

STEP 3 — Reviewer's Research and Analyses

Consistent with the reviewer's scope of work, examine the work under review regarding

Completeness	Accuracy	Adequacy	Relevance	Reasonableness

↓

STEP 4 — Review of Appraiser's Analyses, Opinions, and Conclusions

Develop an opinion whether analyses are appropriate within the context of the requirements applicable to that work	**Develop an opinion** whether the opinions and conclusions are credible within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 5 — Review of Appraiser's Report

Develop an opinion whether the report is appropriate and not misleading within the context of the requirements applicable to that work; and	**Develop reasons** for any disagreement

↓

STEP 6 — Development of the Reviewer's Own Opinion of Value

When the scope of work includes the reviewer developing his or her own opinion of value*

↓

STEP 7 — Reviewer's Report Consistent with Intended Use

* When reviewing a review report, the scope of work may include the reviewer's own opinion of the quality of the work that was the subject of the report being reviewed.

Source. Adapted from content in the Uniform Standards of Professional Appraisal Practice (USPAP) and from an illustration of the valuation process in *The Appraisal of Real Estate,* 14th edition. Chicago: Appraisal Institute, 2013, Fig. 4.1, 37.

Read each question completely; follow directions carefully. *ALL* of the data needed to answer the questions is contained in the questions themselves. Every question has one answer that is best and therefore regarded as correct. Do *NOT* create additional facts or information.

1. A reviewer noted in the work under review that the estimated annual depreciation rate for the residence was given as 2 percent. As a test of reasonableness, what should the reviewer expect to see for the appraiser's total economic life?

* A. 50 years *(100% / 2%)*

B. 75 years

C. 100 years

D. 200 years

Source: Part 1 – Oak Street Case Study Booklet (page 31)

2. A reviewer is performing a test of reasonableness on the cost approach for a new construction based on the following information in the appraisal report:

- Land value is $95,000 and is supported by independent market sales
- Current cost is $330,000
- Brokerage commissions of 4% are common in the area for new construction

What is a reasonable conclusion of the cost approach based on this information?

A. $343,750

* B. $438,750 *($330,000 / 0.96 + $95,000)*

C. $442,708

D. $446,064

Source: Part 1 – RRC 1.4 (page 9) and Oak Street Case Study Booklet (page 31)

3. The appraisal report under review included a market extraction to derive the total depreciation as a percent and then annualized the result for adjustment purposes. The reviewer did a test of reasonableness to see if the annualized depreciation was…

A. based on the age-life method.

B. based on the effective age of the residence.

* C. based on the actual age of the residence.

D. based on residual-life method.

Source: Part 1 – RRC 1.4 (page 9) and Oak Street Case Study Booklet (page 31)

4. When the scope of work for an assignment requires a two-stage review, what does that mean?

* A. A review plus the reviewer's own opinion of value

B. A review with two different scopes of work

C. A review that separates the development from the reporting

D. A review that requires communication with the client and communication with the appraiser whose work is under review

Source: Part 1 – Introduction (page 1) and RRC 1.2 (page 7)

5. A reviewer is doing a test of reasonableness on the site value reported in an appraisal report under review. If there are no vacant land sales in the market area, what is the most viable land valuation procedure for analyzing the property's land value?

A. Sales comparison

* B. Market extraction

C. Ground rent capitalization

D. Land residual technique

Source: Oak Street Case Study Booklet (page 30) and the quiz for Part 1 in the Course Handbook (page 16)

6. The building site for subject in the work under review is much larger than the other lots in the neighborhood. The reviewer checked with the city planner and the site has the potential to be subdivided. As a test of reasonableness, what should the reviewer look for to be addressed in the appraisal report?

A. The issue of surplus land in the highest and best use analysis

* B. The issue of excess land in the highest and best use analysis

C. The issue of interim use in the highest and best use analysis

D. The issue of consistent use in the highest and best use analysis

Source: Part 1 – Part 1, RRC 1.6 (page 11) and quiz question #14 (page 18)

Use the data below of vacant lot sales to answer questions 7, 8, and 9.

Item	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5
Sale price	$151,000	$210,000	$135,000	$149,000	$175,000
Size	1 Acre	2 Acres	1 Acre	1 Acre	1 Acre
View	Neutral	Pond	Neutral	Neutral	Pond
Externalities	Neutral	Neutral	Traffic Noise	Neutral	Neutral

7. Based on the vacant land sales, what should a reviewer expect for an adjustment if the property that is the subject of the appraisal report under review has no pond and is compared to a sale that does have a pond view?

A. $10,000

B. $15,000

* C. $25,000 *(Sale 1 or Sale 2 compared to Sale 5)*

D. $60,000

Source: Oak Street Case Study Booklet (page 26)

8. What adjustment should the reviewer consider to be reasonable if the subject site is 2 acres and some comparables in the report under review have 1-acre sites?

A. $15,000

B. $25,000

* C. $35,000 *(Sale 1 or Sale 2 compared to Sale 5, then to Sale 2)*

D. $60,000

Source: Oak Street Case Study Booklet (page 26)

9. What should the reviewer consider a reasonable adjustment if the property that is the subject of the appraisal report under review has traffic noise and some of the comparable sales in the report under review do not?

* A. $15,000 *(Sale 1 or Sale 2 compared to Sale 3)*

B. $25,000

C. $35,000

D. $60,000

Source: Oak Street Case Study Booklet (page 26)

10. A comparable property sold for $650,000 with an 80 percent mortgage and the seller agreed to pay 7 points. The reviewer is checking to ensure the indicated value in the appraisal report is based on cash equivalence price. If the reviewer's research indicates that the market can identify about 70 percent of seller-paid concessions, what cash equivalent price should the reviewer use for this sale?

    A. $604,500

    B. $613,600

    * C. $624,500

    D. $650,000

    Source: Part 2 – Course Handbook, RRC 2.5 (page 29) and Oak Street Case Study Booklet (page 53)

11. After careful analysis a reviewer disagrees with the value conclusion reached in an appraisal report that is under review. In light of this result, what must the reviewer do?

    A. The reviewer must use an extraordinary assumption connected to the area of disagreement.

    B. The reviewer create a hole in the appraisal report specific to that disagreement.

    * C. The reviewer must provide support for the disagreement with the value conclusion in the review report.

    D. The reviewer must prepare a complete new appraisal from scratch to prove the reviewer's conclusion.

    Source: Oak Street Case Study Booklet (pages 1 and 3)

12. In the neighborhood section of the work under review the reviewer noted that a box was checked to indicate that property values were declining, but all sales in the sales comparison approach were adjusted in support of an increasing market. If the reviewer's research shows the market was indeed increasing, what can the reviewer conclude from this test of reasonableness?

    A. It is a material error and a misleading appraisal report.

    * B. It is a trivial error and the wrong box was checked in the Neighborhood section.

    C. It is gross negligence that affects the value conclusion.

    D. The reviewer needs to create a hole in the sales comparison approach and redo the approach.

    Source: Oak Street Case Study Booklet (page 58 – Item 8)

13. A reviewer is performing a test of reasonableness on a comparable sale that sold for $200,000 and reflects the noise, odors and lighting from a nearby manufacturing plant that may not be fully accounted in the work under review. If the reviewer's research indicates such properties are negatively affected by 20 percent, what is the adjustment for this sale if the subject does not have this external influence?

A. $20,000

B. $30,000

C. $40,000

* D. $50,000 *($200,000 / 0.80 = $250,000 - $200,000)*

Source: Oak Street Case Study Booklet (page 53)

14. What is the primary concern of a reviewer in regards to personal property included in the comparable sales in the work under review?

A. The reviewer needs to ensure that the appraiser removed the value of any personal property from the subject's selling price.

B. The reviewer needs to ensure that the appraiser's value of the subject's personalty is reflected in the comparable sales in the appraisal report.

C. The reviewer needs to ensure that the appraiser was aware of any personal property in the subject's sale price.

* D. The reviewer needs to ensure the appraiser identified the personalty in the comparable sales and adjusted the prices to reflect real property only.

Source: Oak Street Case Study Booklet (page 54)

15. The appraisal report under review notes seller concessions in the comparable sales, but the concessions are not adjusted and there is no explanation. What quality issue should the reviewer address in relation to the absence of seller concessions?

A. accuracy of the work under review

* B. adequacy of the work under review

C. reasonableness of the work under review

D. relevance of the work under review

Source: Course Handbook, Part 3 (page 42 and 45)

16. A reviewer is developing opinions of appropriateness and credibility relative to Step 4 of the review process in the appraisal report under review. What should the reviewer first consider when developing these opinions?

    A. The intended use and purpose of the review assignment

    * B. Review opinions developed in Step 3 relative to completeness, accuracy, adequacy, relevance, and reasonableness

    C. The scope of work disclosed in the appraisal report under review

    D. The reviewer's opinions from Step 5 on how the appraiser communicated the opinion and conclusion in the work under review

    Source: Course Handbook, Part 3 (page 41)

17. The Site section in the URAR under review, the appraiser checked the no-box to the question regarding adverse site conditions or external factors and then added the comment that there were no adverse site conditions or external factors. Which quality opinion should the reviewer consider the appraiser's statement?

    A. adequacy

    B. completeness

    C. reasonableness

    * D. relevance

    Source: Course Handbook, Part 3 (page 42 and 47)

18. Which quality best describes an appraisal report that satisfies the minimum requirements of the assignment's intended use?

    * A. adequacy

    B. completeness

    C. reasonableness

    D. relevance

    Source: Course Handbook, Part 3 (page 42)

19. What should a reviewer's reasons for disagreement be based on regarding the reporting aspect of the work under review?

A. the appraiser's reconciliation process within the context of the requirements applicable to the work

B. the appropriateness and credibility of the analyses and conclusions presented

* C. the appropriateness of the appraisal report and whether any of the content is misleading within the context of the requirements applicable to the work

D. the appraiser's development of reasonable analyses within the context of the requirements applicable to the work

Source: Course Handbook, Part 3 (pages 41 and 43)

20. When a reviewer is performing a test of reasonableness relative to an appraisal report under review, what context must be considered?

A. assignment conditions of the appraisal under review

B. intended user of the review

C. effective date stated in the appraisal report under review

* D. intended use of the appraisal

Source: Course Handbook, Part 3 (page 43) and RRC 3.1 (page 57)

21. A reviewer identified a component in the work under review and compared it to a benchmark, or a secondary source, to assess the reliability of the data, analyses, and outcomes. What best describes this review technique?

A. review process

B. reviewer's research and analyses

* C. test of reasonableness

D. context of intended use

Source: Course Handbook, Part 3, RRC 3.3 (page 59) and RRC 3.4 (page 60)

22. The contract section in the appraisal report under review stated the sale was arm's length but referred to a supplement for additional comments related to the appraiser's contract analysis. However, there was no contract analysis addressed in the supplement. What review quality should the reviewer address this under?

    A. Accuracy

    * B. Completeness

    C. Reasonableness

    D. Relevance

    Source: Course Handbook, Part 3 (page 42 and 45)

23. A reviewer observes that all of the comparable sales selected by an appraiser were inferior in overall amenities as compared to the subject property. What quality characteristic best characterizes this issue for the reviewer's opinions of quality?

    A. Accuracy of the work under review

    B. Misleading information within the work under review

    C. Completeness of the work under review

    * D. Reasonableness of the work under review

    Source: Course Handbook, Part 3 (page 42)

24. What is a common outcome when a reviewer discusses assignment results and the other party to the conversation becomes defensive?

    A. A third party will need to intervene.

    * B. Communication with the party ceases.

    C. The conversation is making progress.

    D. The reviewer's integrity and independence is evident.

    Source: Course Handbook, Part 4, RRC 4.3 (page 77) and (page 79)

25. In an assignment that requires the reviewer to discuss assignment results with the appraiser, what preparation should the reviewer undertake to ensure good the best results?

A. Develop the reviewer's own opinion of value

B. evaluate the appraiser's competency level.

* C. Make careful notes about what is to be discussed

D. Proofread the reviewer's report.

Source: Course Handbook, Part 4, (page 78)

26. A reviewer discovered several trivial errors in the work under review. How should the reviewer address these errors when discussing the report with the appraiser?

* A. The reviewer can mention the errors, but should focus on the primary concerns of the review results.

B. The reviewer must not mention the trivial errors to ensure that the appraiser doesn't become defensive.

C. The reviewer must point out all errors to help the appraiser do better work in the future.

D. The review should require the appraiser to correct all errors in the appraisal report, both trivial and material.

Source: Course Handbook, Part 4, RRC 4.3 (page 77) and (page 82)

27. Which of the following communications from a reviewer is most likely to put an appraiser on the defensive in regards to having adequate support for adjustments?

* A. I noticed several potential USPAP violations do to the lack of support for your adjustments.

B. Help me to understand how you addressed the support for your adjustments in your appraisal report.

C. If the support for the adjustments were addressed in more detail, would that enhance the credibility of your value conclusion?

D. I didn't see the support for these adjustments, did I miss them?

Source: Course Handbook, Part 4, RRC 4.3 (page 77)

28. A transaction between unrelated parties who are each acting in his or her own best interest best defines?

    A. Market price

    * B. An arm's length transaction

    C. Market value

    D. A bilateral contract

    Source: Course Handbook, Part 3, (page 61)

29. How does a reviewer determine the type and level of communication when the scope of work requires the reviewer to address assignment with the appraiser whose work is under review?

    * A. Through communication with the client as part of Step 1 of the Review Process

    B. Through professional standards that set out the requirements for an oral report

    C. It is dependent on the types of errors found in the appraisal report under review

    D. By researching the qualifications of the appraiser to better understand the appraiser's education and experience

    Source: Course Handbook, Part 4, (page 73)

30. The appraisal report under review stated that he subject property was located in a blue-collar Irish-Catholic neighborhood. What quality opinion should the reviewer address this under?

    A. Accuracy

    B. Completeness

    C. Reasonableness

    * D. Relevance

    Source: Course Handbook, Part 3 (page 42 and 47)

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September 9, 2016

Patty Morrow
Missouri Real Estate Appraisers Commission
3605 Missouri Blvd.
Jefferson City, MO 65109-7111

Dear Ms. Morrow,

Enclosed are approval applications for the following Appraisal Institute courses:

Residential & Commercial Valuation of Solar	15 hours CE/14 hours CE
Review Case Studies - Residential	15 hours CE/14 hours CE

PLEASE NOTE: Residential & Commercial Valuation of Solar is a major revision of an existing Appraisal Institute classroom course with the same title. You may expunge or replace the previous approval if and when this version receives approval.

All necessary materials are attached. If you have any questions or concerns, please feel free to contact me.

Thank you,

Dan Doepke
State Certification Supervisor
T (312) 335-4217
F (312) 335-4251
ddoepke@appraisalinstitute.org

Recd $25- 9-21-16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: x **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL.* All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): McKissock, LP
2. Mailing Address: 218 Liberty Street Warren, PA 16365
3. Contact Person: Jackie Vincent
4. Phone: 800-328-2008 Fax: 814-723-3016
5. Website: www.mckissock.com Email: jackie.vincent@mckissock.com
6. Course Title and Number: The Income Approach: An Overview
7. Number of Classroom Hours: 7 hours Number of Exam Hours: N/A
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet: N/A

    _____ Principles _____ USPAP _____ Income _____ Elective

11. Instructor(s): Dan Bradley
12. Method of Presentation: _____ Traditional Classroom _____ Correspondence X Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: McKissock, LP
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

OFFICIAL CERTIFIED COURSE SUMMARY CERTIFICATE

The number one credential for quality instructional design and delivery of distance education courses offered for professional education.

Administrative Information

Course Title: The Income Approach: An Overview
Course Number: 6724
Certified: 08/03/2016
Expires: 08/03/2019
Status: Approved
Industry(ies): Appraisal

Provider: McKissock, LLC
Address: P.O. Box 1673
Warren, Pennsylvania 16365
Phone: 386-310-2719
Contact: Ashley Northrop <regulatorycompliance@mckissock.com>

Course Information

Provider Type: Primary Provider
Delivery Method: Internet
Final Exam: Yes
Proctored Exam: No

***Clock Hours:** 7
†Clock Hour Enforcement Mechanism: Yes
Difficulty Rating: Intermediate

Description: This course will serve as a review and reinforcement of the principles of income capitalization approach. It is intended for licensed and certified real property appraisers, both residential and non-residential appraisers. It is assumed that participants in this course have completed the required qualifying education courses necessary for licensing or certification, including: -Basic Appraisal Principles; -Basic Appraisal Procedures; and -Residential Sales Comparison and Income Approaches; or -General Appraiser Income Approach.

Course Notes: This course has been certified with and without a mechanism that mandates students spend precisely the stated number of hours in the course. However, the course may be facilitated without the timing mechanism in jurisdictions that do not require such without compromising certification.

Instructors: Daniel Bradley (CDEI)

**Course Approval Information

This course may not be approved in any jurisdiction or the provider has chosen not to include which jurisdictions the course is approved in.

Disclaimers

* Professional reviewers have determined that the amount of content to be presented in this course, as specified in the provider's timed outline, should take the stated time to complete. This certification does not suggest the course will take the hours listed if implemented into a distance education learning system that uses an inferior instructional design. In addition, IDECC does not guarantee or audit the performance of classroom instructors to ensure the appropriate clock hours of instruction are presented to students.

** Regarding course approval information, the course provider may list here the jurisdictions that have approved this course for professional credit. Information in regard to jurisdictional course approval is not maintained by IDECC but by course providers. If no jurisdictions appear in the course approval area, the provider may not yet be approved by a regulatory agency to offer the course. Please contact the provider if you have a question in regard to course approval information.

† A "Clock Hour Enforcement Mechanism" is course feature that mandates students spend X amount of time in the course. This mechanism is not required for certification but is required in certain jurisdictions. The absence of a clock hour enforcement mechanism does not compromise certification and the typical student taking the course can still be expected to take the appropriate amount of time to complete the course.

AQB Approved Course

THE APPRAISAL FOUNDATION
Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

Sent Via Email to: ashley.northrop@mckissock.com

Tuesday, August 9, 2016

QE	CE/E	CE
		7

Ms. Ashley Northrop
McKissock, LP
218 Liberty Street
Warren, PA 16365

Dear Ms. Northrop:

We are pleased to inform you that your course has been approved under the Course Approval Program of the Appraiser Qualifications Board (AQB) of The Appraisal Foundation.

Course Provider:	McKissock, LP
Course Title:	The Income Approach: An Overview
Instructional Hours:	7.00
Exam Hours:	0.00
Total Hours:	7.00
Delivery Method:	Asynchronous Internet (Distance)
Approval Start Date:	8/09/2016
Approval End Date:	8/03/2019

The overall content of this course has been determined to be in compliance with the education criteria established by the AQB. Approval does not mean that every statement or item within the course has been checked for accuracy. Opinions set forth in the course material or by instructors do not necessarily reflect the viewpoint of the AQB or The Appraisal Foundation. Neither the AQB nor The Appraisal Foundation is responsible for any errors, omissions, or misstatements in the course material or by instructors.

Prior to renewal of this course please review the AQB Course Approval Program Policies and Procedures Manual.

Please feel free to contact us if you have any questions or if we can be of further assistance.

Sincerely,

Appraiser Qualifications Board

Appraiser Qualifications Board

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License _X_ Continuing Education
_____ Renewal _x_ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Dan Bradley

   Mailing Address: 2525 Freeport Drive Natrona Heights, PA 15065

   Business Phone: 800-328-2008

   Business Fax: N/A

3. Name and address of school/organization for whom you will instruct:
   McKissock, LP
   218 Liberty Street
   Warren, PA 16365

   School/Organization: McKissock, LP

4. Title of program/course or portion of program/course to be taught by the instructor:

   The Income Approach: An Overview

5. Which portion(s) to be taught by the instructor?

   All portions.

   Total Hours: 7 hours

   Pre License Hours: N/A Continuing Education Hours: 7 hours

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume.						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume.					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume.					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

(Signature of Appraiser Education Administrator)

9-9-16

(Date)

DANIEL A. BRADLEY, SRA, GAA

2725 Freeport Road
P.O. Box 25
Natrona Heights, PA 15065
(724) 226-0960 ext. 215
dbradley@crehomes.com

MEMBERSHIPS AND CURRENT LICENSES

Certified Real Estate Appraiser
Pennsylvania State Certified General Appraiser
Certification #: GA000640L

Real Estate Associate Broker
Licensed Pennsylvania Real Estate Associate Broker
License #: AB051270L

Real Estate Instructor
Certified National USPAP Instructor – The Appraisal Foundation
Licensed Real Estate Instructor- Pennsylvania, Virginia, Indiana

Pennsylvania State Board of Certified Real Estate Appraisers
Professional Member
Appointed November 15, 2004 by Governor Edward G. Rendell
Installed December 9, 2004
Currently serving as Vice Chairman

Professional Designations
Appraisal Institute – SRA Designation
National Association of Realtors Appraisal Section – GAA Designation

Realtor Member
National Association of Realtors
Pennsylvania Association of Realtors
Greater Allegheny Kiski Area Board of Realtors

Memberships
Appraisal Institute, Designated Member
National Assocation of Realtors Appraisal Section
Council of Pennsylvania Real Estate Appraisers
FHA Appraiser Roster
VA Appraisal Panel

GENERAL EDUCATION

Clarion University of Pennsylvania September 1983 – May 1987
Received Bachelor of Science degree in Communications, with a concentration in Real Estate.
Graduated Cum Laude. Cumulative GPA: 3.445/4.0.

APPRAISAL EDUCATION

Appraisal Institute/Society of Real Estate Appraisers

SRA Course 101 – Introduction to Appraising Real Property	1/88
Standards of Professional Appraisal Practice	3/91
FHA and the Appraisal Process	7/99
Serving the Client: Use of Streamlined Appraisal Process	10/00
Scope of Work Decisions in Residential Appraising	3/03
Business Practices and Ethics	4/04
Introduction to FNMA Guidelines and Requirements	3/04
Convincing Residential Appraisals	2/05
FHA and the New Residential Appraisal Report Forms	2/06
Advanced Residential Applications & Case Studies Part 1	7/07
Advanced Residential Report Writing Part 2	7/07
Real Estate Finance, Statistics, and Valuation Modeling	11/07

McKissock, LP

Appraising High Value Residential Properties	3/05
Environmental Pollution: Mold and Air Quality	4/05

Appraisal Foundation

Instructor Orientation for National USPAP Course	5/99
USPAP Update for Instructors and Regulators	3/00
AQB Instructor Certification Course	6/02
AQB Instructor Recertification Course	1/05, 1/07

Pennsylvania Realtors Institute

The Essentials – What Every Appraiser Should Know	12/05
Attacking and Defending an Appraisal in Litigation	12/05
Environmental Due Diligence	12/05
Marketing and Valuation of Antique and Historic Homes	12/05

National Association of Independent Fee Appraisers

Real Estate Fraud and the Appraiser's Role	5/00

Pennsylvania Department of Transportation

Trial Tactics in Condemnation Cases	9/05

Polley Associates

Appraisal of Income Producing Property	12/91
Narrative Appraisal Report Writing	11/91
Real Estate Contemporary Finance	5/92
Residential Construction	6/92
Real Estate Investment	8/92

Nelson-Hummel Seminars

The New URAR and FIRREA	10/93
Evaluations and Other Limited Scope Assignments	5/94

Lincoln Graduate Center

Manufactured Housing Appraisal	3/95

APPRAISAL/REVIEW EXPERIENCE

Czekalski Real Estate, Inc. Natrona Heights, PA	February 1987 - Present
Position:	Certified General Appraiser
Pennsylvania Dep't of State Harrisburg, PA	July 2001 – October 2004
Position:	Contracted Appraisal Reviewer

INSTRUCTIONAL EXPERIENCE

Polley Associates Newtown Square, PA	November 1992 - November 1999
Position:	Instructor
McKissock Appraisal School Warren, PA	December 2001 - Present
Position:	Instructor

I have also instructed real estate and appraisal courses for Penn State University's DuBois and Fayette County branches, and Butler County Community College. I am currently certified by the Appraisal Qualifications Board as a USPAP instructor. I have also participated in authoring and updating curricula for several course providers, including Polley Associates, McKissock Appraisal School and Penn State University, for the following courses:

- Appraisal of Residential Property
- Appraisal of Income Property
- Appraisal Standards of Practice and Ethics
- Appraising for the Secondary Market
- Limited Appraisals and the Scope of Work Decision
- Pennsylvania Laws and Regulations
- Relocation Appraisal
- Mortgage Fraud: Protect Yourself
- Appraising Complex and Difficult Residential Properties

BIOGRAPHY

I am a graduate of Clarion University of Pennsylvania, with a Bachelor of Science degree in Communications, and currently hold both a Pennsylvania general appraiser certification and an associate broker license. I have over 20 years' experience appraising various types of real estate, including residential, commercial/industrial, and special-purpose properties. Between 2001 and 2004 I also served as a contracted appraisal reviewer for the Pennsylvania Department of State. I completed reviews on residential and commercial property appraisals that were utilized in disciplinary proceedings against appraisal licensees.

I have been instructing and developing curricula for real estate appraisal courses since 1992. Currently, I am an instructor for McKissock Appraisal School, one of the largest appraisal education providers in the country, and have taught courses in appraisal theory and standards to students throughout the United States, for both qualifying and continuing education. I hold an SRA designation from the Appraisal Institute, a GAA designation from the National Association of Realtors Appraisal Section, and am currently serving as Vice Chairman of the Pennsylvania State Board of Certified Real Estate Appraisers.

The Income Approach: An Overview

(7 Hours)

Course Description

This course will serve as a review and reinforcement of the principles of income capitalization approach. It is intended for licensed and certified real property appraisers, both residential and non-residential appraisers. It is assumed that participants in this course have completed the required qualifying education courses necessary for licensing or certification, including:

- Basic Appraisal Principles;
- Basic Appraisal Procedures; and
- Residential Sales Comparison and Income Approaches; or
- General Appraiser Income Approach.

We will cover the economic principles and definitions pertinent to valuation of income-producing properties, and properties that are capable of producing income. We will illustrate and utilize income capitalization techniques, including direct capitalization and income multipliers.

We will work on some exercises and examples using the HP 12C financial calculator and it will necessary for the students to use a 12C. Keystroke solutions will be offered. If you do not own an HP 12C, you can download an HP 12C "app" for your smartphone as an alternative.

Income and expense operating statements will be illustrated for use with commercial properties. We will cover the production of income from potential gross income (PGI) to net operating income (NOI).

We will also cover the use of the Small Residential Income Property Appraisal Form (SRIPAR, also known as Fannie Mae Form1025).

Course Learning Objectives

- Explain the basic valuation formulas and summarize the difference between return on investment and return of investment
- Identify and define various types of value
- Identify and define various types of leases and rents
- Explain the applicability of GRM analysis
- Extract gross rent multipliers and gross income multipliers
- Estimate market rent using units of comparison
- Apply multipliers to value properties
- Summarize the different types of gross and net income
- Differentiate between operating expense items and other items that are not operating expenses
- Relate the components of an income and expense statement
- Extract capitalization rates using comparable sales
- Apply the band of investment and residual methods

- Summarize yield capitalization and the differences between yield capitalization and direct capitalization
- Complete the comparable rentals and subject rent schedule sections of the 1025 form
- Complete the unit indicators in the sales comparison approach section of the 1025 form
- Define and summarize the reconciliation process

Course Schedule

Chapter 1		
Course Introduction and Chapter Overview	2	Min
Basic Value Principles	2	Min
Real Estate Investors and Income Capitalization	2	Min
Amenities	3	Min
CYU 1-1	2	Min
Risk and Investment Choices	3	Min
Liquidity, Real Estate and Leverage	3	Min
CYU 1-2	2	Min
Income and Value	5	Min
CYU 1-3	2	Min
Real Property vs. Real Estate: Definitions and Examples	5	Min
CYU 1-4	2	Min
Income: Leases and Rents	7	Min
CYU 1-5	2	Min
Chapter 1 Quiz	7.5	Min
Total	49.5	Min
Chapter 2		
Chapter Overview	2	Min
Direct Capitalization: Definition and Multipliers	3	Min
Statistics: Range, Mean, Median and Mode	3	Min
CYU 2-1	2	Min
Residential Income Approach	5	Min
CYU 2-2	2	Min
Single Unit Investment	5	Min
CYU 2-3	2	Min
Estimating Market Rent	3	Min
Exercise 2A & Solution	3	Min
Exercise 2A Quiz	4	Min
Elements of Comparison, Adjustments, Fannie Mae Form 1007	5	Min
CYU 2-4	2.5	Min
Gross Rent Multiplier	7	Min
Utility Expenses	2	Min
Expense Ratios	2	Min
Lease Terms	3	Min
CYU 2-5	2	Min
Exercise 2B & Solution	3	Min

Exercise 2B Quiz	2.5	Min
GRM Reconciliation Example and Solution	3	Min
Reconciliation: GRM, Statistical	3	Min
Exercise 2C & Solution	3	Min
Exercise 2C Quiz	2.5	Min
Fannie Mae Form 1004	3	Min
Gross Income Multiplier	3	Min
Exercise 2D & Solution	3	Min
Exercise 2D Quiz	1.5	Min
Relationship: Rates and Multipliers	3	Min
CYU 2-6	2	Min
Chapter 2 Quiz	10	Min
Total	100	Min

Chapter 3		
Chapter Overview	2	Min
Income Capitalization and PGI	5	Min
CYU 3-1	2	Min
Vacancy and Collection Loss, EGI	5	Min
CYU 3-2	2	Min
Expenses: Definitions, Fixed, Variable	7	Min
Replacement Allowance and Total Expenses	3	Min
CYU 3-3	2	Min
Net Operating Income and Pre-Tax Cash Flow	2	Min
Operating Statements	5	Min
CYU 3-4	2	Min
Exercise 3A	2	Min
Exercise 3A Quiz	4	Min
Chapter 3 Quiz	7.5	Min
Total	50.5	Min

Chapter 4		
Chapter Overview	2	Min
Income Capitalization Rate and Reconciliation	2	Min
CYU 4-1	2.5	Min
Exercise 4A	2	Min
Exercise 4A Quiz	3	Min
Methods of Rate Extraction	3	Min
Band of Investment	3	Min
Mortgage Constant	2	Min
Equity Capitalization Rate	3	Min
Band of Investment	2	Min
CYU 4-2	2.5	Min
Band of Investment: Land + Building	3	Min
DCR	4	Min

Residual Techniques	3	Min
Yield Capitalization	5	Min
Discounting	5	Min
Yield Capitalization and Other Types of Rates, Incomes and Annuities	5	Min
Discounted Cash Flow Analysis	2	Min
CYU 4-3	2	Min
Chapter 4 Quiz	5	Min
Total	61	Min
Chapter 5		
Chapter Overview	2	Min
SRIPAR Form 1025 and Gross Income	3	Min
Differences in 2-4 Unit Appraisal	3	Min
Highest and Best Use, Example and Solution	2	Min
CYU 5-1	3	Min
Improvements Section	6	Min
Comparable Rental Section	6	Min
Gross Building Area, Fannie Mae GBA and GLA	3	Min
Analysis of Rental Data	3	Min
Subject Rent Schedule and Utilities	4	Min
Exercise 5A and Solution	2	Min
CYU 5-2	8	Min
Sales Comparison Approach	7	Min
Reconciliation	3	Min
Adjustments, Ranking and Summary	2	Min
Income Approach 2-4 Units	7	Min
Final Reconciliation Process	3	Min
Final Opinion of Value	2	Min
CYU 5-3	2.5	Min
Chapter 5 Quiz	5	Min
Total	76.5	Min
Chapter Totals	337.5	Min
Final Exam	12.5	Min
Course Total	**350**	**Min**

McKISSOCK
P.O. BOX 1673, WARREN, PA 16365

General Information

Continuing Education Approval

McKissock has been approved to teach appraisal continuing education in all 50 states, as well as the US Virgin Islands. Additionally, McKissock has been approved to teach real estate continuing education and Pre-Licensing/Upgrading education courses in many of those states. A detailed list of which courses are approved in which states is available upon request.

Seminar Facilities

McKissock does not have a central location for instruction, but instead teaches throughout the country in various hotel facilities and convention centers. The location of the main office in which all records are kept (for at least 5 years) is in Warren, PA. The sites chosen for instruction are selected on the basis of their accessibility and convenience, and the overall quality of the facility.

Equipment Used

The instructors use LCD projectors and laptops, as well as a PowerPoint slide presentation designed specifically for each course, to facilitate teaching. Or, overhead projectors may be used with a slide presentation (instead of LCD projection units). Certain courses may also use computer equipment or other audio/visual equipment.

Entry Criteria/Prerequisites, Examinations (Continuing Education)

There are no restrictions as to who may attend any course given by McKissock. There are no prerequisites to any courses. The student must have an appraisal certification (or real estate certification, if applicable) if he or she wishes to receive continuing education credits. For all of McKissock's appraisal continuing education courses, there will be no formal graded exam at the conclusion of the course unless mandated by the particular requirements of a given state.

Entry Criteria/Prerequisites, Examinations (Pre-Licensing/Basic Education)

There are no restrictions as to who may attend any course given by McKissock. For all of McKissock's pre-licensing and upgrade education courses, there will be a closed book final exam at the conclusion of the course. The exam must be passed by a minimum of 70%, unless state law requires a higher passing score (75% for Nevada Real Estate, 85% in Maine, 90% in Iowa). If a person fails to pass the final exam, they may opt to retake an alternate exam. Upon the second failed attempt, they may opt to take the entire course again, at no additional charge.

Certificates of Completion

For On-Line Classes: Upon receiving the completed survey, a course completion certificate will be issued to the student indicating that the student has successfully completed the distance-learning course. Certificates of completion will be posted directly to the "My McKissock" account after the student has submitted the Course Evaluation form. As a back up to ensure the student receives the certificate, our database will recognize if a student has printed their certificate from the on-line account. If that has not happened, a certificate will be sent via email within 2-5 days. However, if the state the customer has requested credit in requires an original signature then the certificate will be mailed to them within 2-5 business days.

For Classroom Classes: All certificates will be sent via Email within 5-7 business days EXCEPT for the following states which require an original signature: New York (Appraisal & Real Estate), North Carolina (Appraisal & Real Estate), and West Virginia (Real Estate Only). If the customer is requesting credit for one of these states then their certificate will be sent via standard mail delivery within 5-7 business days.

Textbooks/Handouts

The textbooks used for each course have been designed specifically for these courses. Course handouts include various materials that might interest the student (each handout is related to the course topic) or information, which the student will need in order to implement course instruction. Course textbooks and handouts are included in the registration fee for all appraisal and real estate continuing education classes. All students must possess a current copy of the Official USPAP Book for the National USPAP Update course, the National USPAP Update Equivalent course, or the National USPAP course.

Attendance Policy

McKissock adheres to the Appraiser Qualifications Board's policy, which is attendance of each full classroom hour. A classroom hour is defined by the Appraiser Qualifications Board as 50 minutes out of every 60 minute hour. The states of AZ, CT, KS, MS, DC, VT, TN, ME, SC, MN, MI, IA, OR, KS, NY, MA, NH, GA & TX require 100% attendance in order for the student to receive continuing and pre-licensing education credits. Attendance is monitored throughout the day with attendance sheets passed out after every break. Students will not receive certificates of completion for the course if the attendance requirements are not met to McKissock's satisfaction.

Refund Policy

Students may receive a full refund from McKissock if not completely satisfied. Students must request refund within 24 hours of attending the course. If a student cancels at least one day before the course, he or she may receive a full refund, or may choose to make up the course in another location or on another date at no charge. If a student does not show up for a course, he or she may make up the course in another location or on another date at no charge.

McKISSOCK
P.O. BOX 1673 • WARREN, PA • 16365 • 814-723-6979 • Fax: 814-723-7289 • www.mckissock.com

Distance Education Course Policies and Procedures

Registration:

A student may register for a free user account on our Virtual Classroom system to preview any of our online courses. At this time, they are required to create a username and password for the system, which will be used for all future online course transactions.

They may sample a predetermined number of chapters in each course prior to subscribing to the course, and the system is designed to keep track of their progress. To enroll in a course, the student may choose to pay by credit card; or they may opt to enroll by phone during normal business hours.

Examinations:

Continuing Education Courses:

Each course is divided into Chapters. Within each Chapter there are mini-quizzes which require a passing score to proceed through the Chapter. Additionally, there are end of Chapter quizzes which require a passing score. The combination of the mini-quizzes and end of Chapter quizzes ensures the student's comprehension of the material. The quiz questions (in all cases) are randomly chosen from a database for that section of the course, so if a user does not pass the quiz, the program lets them go back to review the section and then generates another random sample of questions with the same completion requirement. This process helps to ensure that the student understands all of the concepts covered in each section before continuing on to new material. At the end of the course, the student will be required to pass a cumulative final examination. They may review the course again and make a second attempt, but they will not get credit for the course until they successfully pass the exam. The same question bank methodology applies to the final examination.

Qualifying (Pre-License) Education Courses:

Each qualifying (pre-license) education course is set up exactly the same as a standard continuing education course. However, if required by state (or federal) regulation, a live, proctored final examination may also be required for successful course completion. The proctored final examination must be passed with minimum score of 70% in most states (72% for the National USPAP Course in all states). Since this is a proctored examination, the passing score will be determined by each individual state regulatory agency's requirements, but will never be less than 70%.

Support:

Questions regarding course content or technical issues may be submitted via email to McKissock or the course instructor using the conveniently located link on the left-hand Help Tab of each course or via the "Contact Us" tab at the top of each page of our website. Students may also call our 800-number during our regular business hours, as follows, to speak with a customer service representative.

Weekdays: 7:00am - 12:00pm (Eastern Time)
Weekends: 12:00 noon - 3:30pm (Eastern Time)

Interactivity:

Discussion boards, active links, interactive quizzes, exercises, case studies, and emails are established for each individual Virtual Classroom course. Students may use these resources for help or additional information. Additional Courses Resources are also established for our online courses and can be found on the individual state webpage on www.mckissock.com.

P.O. BOX 1673 • WARREN, PA • 16365 • 814-723-6979 • Fax: 814-723-7289 • www.mckissock.com

Completion:
Once the course has been completed, a survey page will be displayed. The final survey page must be completed and submitted to us to indicate that the student has finished the course successfully. (We may also login and view the status of all quizzes and final exams completed through our administration panel.)

This survey helps us to monitor the quality of our course and allows us to make any changes we feel are necessary to ensure that we are offering education that is consistent with the on-site classroom courses we present. Completion results are kept both in an online database and in our office at 218 Liberty Street, Warren, PA 16365 for a minimum of five (5) years. Our database records are logged to show all relevant information for each student and are backed up nightly, weekly, and monthly to ensure that we never lose information regarding students' certificates, etc.

Upon receiving the completed survey and proctored exam results (if required), a course completion certificate will be issued to the student indicating that the student has successfully completed the distance-learning course. Certificates of completion will be posted directly to the "My McKissock" account after the student has submitted the Course Evaluation form. However, if the state the student has requested credit in requires an original signature then the certificate will be mailed to them within 2-5 business days.

Electronic rosters may also be submitted to the individual state regulatory boards as mandated.

Attendance Policy:
Attendance is measured by successful completion of the online course. In order to successfully complete the course, an individual must progress through the material and acquire a passing score on all assessments.

Course Review:
All courses will be reviewed on an annual basis. Information will be compiled from student evaluation forms and changes will be made accordingly. All students are requested to give their feedback on the overall quality of our educational offering, addressing among other issues, the knowledge and abilities of the instructor. A course-instructor evaluation is distributed to all students via the course completion form. All responses are collected via web database and email and consolidated for the permanent file for that course. Prior to filing the responses away, they are reviewed and signed off by the product team to identify and address any issues that require additional attention.

McKISSOCK

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INSTRUCTOR QUALIFICATION PROCEDURES

10/4/06 REVISION

PURPOSE

The purpose of this document is to outline all formal and informal minimum and desirable professional standards for instructors of appraisal, real estate and other topics, and to summarize the procedures used by McKissock to verify these qualifications for prospective instructors. It is hoped that these written procedures will assist interested state professional regulatory bodies in their efforts to review and approve McKissock applications, while at the same time offering a basic overview of the process for the benefit of prospective instructors.

This document is intended to reflect only the minimum procedures and standards used by McKissock in all situations, when there is otherwise no conflict with the rules and regulations of regulatory agencies with whose approval and under whose jurisdiction a given McKissock function is held. Integral to these procedures is an explicit acknowledgement that when these general procedures either conflict with or fall short of the rules and regulations of a relevant governing regulatory agency under whose jurisdiction a function is held, the rules and regulations of that agency shall supercede this document on all items that are otherwise inconsistent or lacking in this document.

MINIMUM INSTRUCTOR QUALIFICATIONS

As a bare formal minimum, all McKissock instructors must meet the following three requirements:

1. Either a minimum of five years of full-time professional experience directly related to the topic being taught, or a four-year college degree.
2. Professional proficiency with the topics(s) being taught, demonstrated to the satisfaction of McKissock
3. Professional public speaking and teaching ability, demonstrated to the satisfaction of McKissock.

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DESIRABLE INSTRUCTOR QUALIFICATIONS

The following qualifications, though not mandatory in all cases, reflect the philosophy used, above and beyond our formal minimum qualifications to select exceptional individuals in the field to act as instructors. Though these guidelines are informal, they summarize the qualities that are most heavily weighted in our potential instructor interview and selection process:

1. Nationally acknowledged relevant professional designations.
2. Academic contributions to the field, above and beyond direct professional experience; for example, published articles, authored text books, course design.
3. Extensive past history of teaching experience in the industry
4. Expert-level mastery of at least one topic to be taught. In other words, though all McKissock instructors teach several different course topics at a level of full professional proficiency, the selection process strongly favors potential instructors who also demonstrate total expertise in one core subject on which they can speak with authority.
5. Current state professional license or certification in the field being taught.
6. Exceptional professional communication skills and public speaking ability.

It is important to emphasize that though these six qualifications are the most heavily weighted issues in the instructor approval process, this list is simply an attempt to objectively describe a fundamentally subjective process. This having been said, and acknowledging that some of these items are somewhat subjective, the vast majority of McKissock instructors have in fact demonstrated all six of these qualifications. Ultimately however, within the restrictions of the "Minimum Instructor Qualifications" summarized on page 1, it is the subjective judgment of McKissock that determines whether a given instructor candidate is qualified.

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QUALIFICATION PROCESS

As a highly visible national-level education provider, McKissock is contacted by over 100 interested potential instructors annually. This section outlines the steps typically taken to identify favorable candidates and verify their qualifications and abilities prior to the offering of a teaching position.

1. All candidates are requested to submit a current resume, along with a letter of intent to apply for a teaching position.
2. An informal telephone screening interview is conducted between the candidate and at least one of the owners of McKissock to determine if the candidate's stated qualifications and circumstances warrant additional consideration.
3. Favorable candidates are invited to a face-to-face interview with at least one of the owners of McKissock.
4. All reasonable efforts are made by McKissock to directly observe the candidate in a live teaching setting, prior to the offering of a teaching position. In the event that this is simply not feasible, this phase may be handled after the offering of a temporary position, as described in item 6, below.
5. Once all of the above steps have been taken, and McKissock is satisfied with the professional qualifications and abilities of the instructor, a teaching position offer may be made.
6. If the candidate has otherwise demonstrated his or her qualifications to the satisfaction of McKissock but has not yet demonstrated teaching abilities in a live setting, directly observed by McKissock, a temporary teaching position offer may be made to give the candidate the opportunity to demonstrate teaching ability in a controlled setting.

Comments on a temporary offer: A temporary offer means that the instructor candidate has not yet demonstrated his or her teaching abilities in a live setting to the satisfaction of McKissock, but has otherwise demonstrated the necessary qualifications. For a temporary offer, arrangements are made for the new instructor to attend and instruct classes in conjunction with another experienced McKissock instructor. At the judgment of both instructors in attendance, the new temporary instructor will play the most aggressive role that both instructors are comfortable with, in teaching the class and administrating the overall seminar. Once the temporary instructor has used this intermediate opportunity to demonstrate teaching abilities to the satisfaction of McKissock, the temporary offer may be upgraded to a final offer, and the new instructor may then act autonomously in the on-site teaching of classes and logistical execution of other seminar details

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FEEDBACK PROCESS

All students are requested to give their feedback on the overall quality of our educational offering, addressing among other issues, the knowledge and abilities of the instructor. A one-page course-instructor evaluation is distributed to all students. Students may respond anonymously. All responses are collected via email and consolidated for the permanent file for that course. Prior to filing the responses away, they are reviewed and signed off by the following individuals to identify and address any issues that require additional attention:

- The instructor of the course in question
- All shareholders of McKissock.
- McKissock's Education Manager

It is important to note that certain state regulatory agencies have a prescribed form and procedure for this feedback process. When the educational function falls under the jurisdiction of such an agency, McKissock may opt to follow the procedures of that agency rather than the standard procedure described above.

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LOG-IN INSTRUCTIONS FOR ON-LINE COURSE

1. Go to http://admin.mckissock.com

2. Log In using the following User Name and Password:

Username: Appraisal
Password: Reviewers

3. Click on the course name under the course search tab to begin the review process.

For ease of use for the reviewer, we have disabled the passing score for the quizzes.

If you have any questions, please contact us at 1-800-328-2008 or via email at regulatorycompliance@mckissock.com.

Thank you!

Certificate of Completion

This is to certify that

Charlie Brown – Sample License #

has successfully completed the course:

Sample Course

for sample (7) hours of appraisal continuing education credit
for the State of Sample.

Given via distance education at: https://www.mckissock.com

Date: July 9, 2009

Richard D. McKissock

Richard D. McKissock
Education Director, McKissock

McKISSOCK, LP.

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000011 SEP 21 16

September 9, 2016

Missouri Real Estate Appraisers Commission
3605 Missouri Blvd.
Jefferson City, MO 65102
Attn: Patty Morrow

Subject: New Online Continuing Education Course Applications

Dear Ms. Morrow:

Please find enclosed the applications for our newest online continuing education courses,

- The Income Approach: An Overview – 7 hours
- Residential Property Inspection for Appraisers – 7 hours

With the applications are detailed course descriptions and IDECC/AQB approval letters.

The following materials are included for your review:

- Sample Advertising Flier
- Distance Education Course Policies and Procedures
- General Information Sheet
- Instructor Qualification Procedures
- Instructor Resume
- Log-In Instructions for the Online Course
- Sample Course Completion Certificate

A check in the amount of $50.00 is also enclosed to cover the cost of the course application fee.

If you have any questions or require additional information please do not hesitate to contact me at jackie.vincent @mckissock.com or 1-800-328-2008.

Sincerely,

Jackie Vincent
Senior Regulatory Compliance Specialist
McKissock, LP

Rec'd #25 - 9.21.16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: x **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL.* All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): McKissock, LP
2. Mailing Address: 218 Liberty Street Warren, PA 16365
3. Contact Person: Jackie Vincent
4. Phone: 800-328-2008 Fax: 814-723-3016
5. Website: www.mckissock.com Email: jackie.vincent@mckissock.com
6. Course Title and Number: Residential Property Inspection for Appraisers
7. Number of Classroom Hours: 7 hours Number of Exam Hours: N/A
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet: N/A

    _____ Principles _____ USPAP _____ Income _____ Elective

11. Instructor(s): Dan Bradley
12. Method of Presentation: _____ Traditional Classroom _____ Correspondence X Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: McKissock, LP
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

OFFICIAL CERTIFIED COURSE SUMMARY CERTIFICATE

The number one credential for quality instructional design and delivery of distance education courses offered for professional education.

Administrative Information

Course Title: Residential Property Inspection for Appraisers

Course Number: 6723

Certified: 08/13/2016

Expires: 08/13/2019

Status: Approved

Industry(ies): Appraisal

Provider: McKissock, LLC

Address: P.O. Box 1673
Warren, Pennsylvania 16365

Phone: 386-310-2719

Contact: Ashley Northrop <regulatorycompliance@mckissock.com>

Course Information

Provider Type: Primary Provider

Delivery Method: Internet

***Clock Hours:** 7

Final Exam: Yes

†Clock Hour Enforcement Mechanism: Yes

Proctored Exam: No

Difficulty Rating: Intermediate

Description: This course is a primer on how to inspect a residential property, and it is designed to be meaningful and relevant for experienced appraisers and novice appraisers alike. Newer appraisers are likely to find a lot of new and useful information in this course. More experienced appraisers are expected to receive a few tips and tricks, and also get some affirmation about their current inspection practices.

Course Notes:

Instructors: Daniel Bradley (CDEI)

**Course Approval Information

This course may not be approved in any jurisdiction or the provider has chosen not to include which jurisdictions the course is approved in.

Disclaimers

* Professional reviewers have determined that the amount of content to be presented in this course, as specified in the provider's timed outline, should take the stated time to complete. This certification does not suggest the course will take the hours listed if implemented into a distance education learning system that uses an inferior instructional design. In addition, IDECC does not guarantee or audit the performance of classroom instructors to ensure the appropriate clock hours of instruction are presented to students.

** Regarding course approval information, the course provider may list here the jurisdictions that have approved this course for professional credit. Information in regard to jurisdictional course approval is not maintained by IDECC but by course providers. If no jurisdictions appear in the course approval area, the provider may not yet be approved by a regulatory agency to offer the course. Please contact the provider if you have a question in regard to course approval information.

† A "Clock Hour Enforcement Mechanism" is course feature that mandates students spend X amount of time in the course. This mechanism is not required for certification but is required in certain jurisdictions. The absence of a clock hour enforcement mechanism does not compromise certification and the typical student taking the course can still be expected to take the appropriate amount of time to complete the course.

AQB Approved Course

THE APPRAISAL FOUNDATION
Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

Sent Via Email to: ashley.northrop@mckissock.com

QE	CE/E	CE
		7

Tuesday, September 6, 2016

Ms. Ashley Northrop
McKissock, LP
218 Liberty Street
Warren, PA 16365

Dear Ms. Northrop:

We are pleased to inform you that your course has been approved under the Course Approval Program of the Appraiser Qualifications Board (AQB) of The Appraisal Foundation.

Course Provider:	McKissock, LP
Course Title:	Residential Property Inspection for Appraisers
Instructional Hours:	7.00
Exam Hours:	0.00
Total Hours:	7.00
Delivery Method:	Asynchronous Internet (Distance)
Approval Start Date:	9/6/2016
Approval End Date:	8/13/2019

The overall content of this course has been determined to be in compliance with the education criteria established by the AQB. Approval does not mean that every statement or item within the course has been checked for accuracy. Opinions set forth in the course material or by instructors do not necessarily reflect the viewpoint of the AQB or The Appraisal Foundation. Neither the AQB nor The Appraisal Foundation is responsible for any errors, omissions, or misstatements in the course material or by instructors.

Prior to renewal of this course please review the AQB Course Approval Program Policies and Procedures Manual.

Please feel free to contact us if you have any questions or if we can be of further assistance.

Sincerely,

Appraiser Qualifications Board

Appraiser Qualifications Board

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License _X_ Continuing Education
_____ Renewal _x_ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Dan Bradley

   Mailing Address: 2525 Freeport Drive Natrona Heights, PA 15065

   Business Phone: 800-328-2008

   Business Fax: N/A

3. Name and address of school/organization for whom you will instruct:

   McKissock, LP
   218 Liberty Street
   Warren, PA 16365

   School/Organization: McKissock, LP

4. Title of program/course or portion of program/course to be taught by the instructor:

   Residential Property Inspection for Appriasers

5. Which portion(s) to be taught by the instructor?

   All portions.

   Total Hours: 7 hours

   Pre License Hours: N/A Continuing Education Hours: 7 hours

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume.						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume.					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume.					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

(Signature of Appraiser Education Administrator)

9-9-16

(Date)

DANIEL A. BRADLEY, SRA, GAA

2725 Freeport Road
P.O. Box 25
Natrona Heights, PA 15065
(724) 226-0960 ext. 215
dbradley@crehomes.com

MEMBERSHIPS AND CURRENT LICENSES

Certified Real Estate Appraiser
Pennsylvania State Certified General Appraiser
Certification #: GA000640L

Real Estate Associate Broker
Licensed Pennsylvania Real Estate Associate Broker
License #: AB051270L

Real Estate Instructor
Certified National USPAP Instructor – The Appraisal Foundation
Licensed Real Estate Instructor- Pennsylvania, Virginia, Indiana

Pennsylvania State Board of Certified Real Estate Appraisers
Professional Member
Appointed November 15, 2004 by Governor Edward G. Rendell
Installed December 9, 2004
Currently serving as Vice Chairman

Professional Designations
Appraisal Institute – SRA Designation
National Association of Realtors Appraisal Section – GAA Designation

Realtor Member
National Association of Realtors
Pennsylvania Association of Realtors
Greater Allegheny Kiski Area Board of Realtors

Memberships
Appraisal Institute, Designated Member
National Assocation of Realtors Appraisal Section
Council of Pennsylvania Real Estate Appraisers
FHA Appraiser Roster
VA Appraisal Panel

GENERAL EDUCATION

Clarion University of Pennsylvania September 1983 – May 1987
Received Bachelor of Science degree in Communications, with a concentration in Real Estate.
Graduated Cum Laude. Cumulative GPA: 3.445/4.0.

APPRAISAL EDUCATION

Appraisal Institute/Society of Real Estate Appraisers

SRA Course 101 – Introduction to Appraising Real Property	1/88
Standards of Professional Appraisal Practice	3/91
FHA and the Appraisal Process	7/99
Serving the Client: Use of Streamlined Appraisal Process	10/00
Scope of Work Decisions in Residential Appraising	3/03
Business Practices and Ethics	4/04
Introduction to FNMA Guidelines and Requirements	3/04
Convincing Residential Appraisals	2/05
FHA and the New Residential Appraisal Report Forms	2/06
Advanced Residential Applications & Case Studies Part 1	7/07
Advanced Residential Report Writing Part 2	7/07
Real Estate Finance, Statistics, and Valuation Modeling	11/07

McKissock, LP

Appraising High Value Residential Properties	3/05
Environmental Pollution: Mold and Air Quality	4/05

Appraisal Foundation

Instructor Orientation for National USPAP Course	5/99
USPAP Update for Instructors and Regulators	3/00
AQB Instructor Certification Course	6/02
AQB Instructor Recertification Course	1/05, 1/07

Pennsylvania Realtors Institute

The Essentials – What Every Appraiser Should Know	12/05
Attacking and Defending an Appraisal in Litigation	12/05
Environmental Due Diligence	12/05
Marketing and Valuation of Antique and Historic Homes	12/05

National Association of Independent Fee Appraisers

Real Estate Fraud and the Appraiser's Role	5/00

Pennsylvania Department of Transportation

Trial Tactics in Condemnation Cases	9/05

Polley Associates

Appraisal of Income Producing Property	12/91
Narrative Appraisal Report Writing	11/91
Real Estate Contemporary Finance	5/92
Residential Construction	6/92
Real Estate Investment	8/92

Nelson-Hummel Seminars

The New URAR and FIRREA	10/93
Evaluations and Other Limited Scope Assignments	5/94

Lincoln Graduate Center

Manufactured Housing Appraisal	3/95

APPRAISAL/REVIEW EXPERIENCE

Czekalski Real Estate, Inc. Natrona Heights, PA	February 1987 - Present
Position:	Certified General Appraiser
Pennsylvania Dep't of State Harrisburg, PA	July 2001 – October 2004
Position:	Contracted Appraisal Reviewer

INSTRUCTIONAL EXPERIENCE

Polley Associates Newtown Square, PA	November 1992 - November 1999
Position:	Instructor
McKissock Appraisal School Warren, PA	December 2001 - Present
Position:	Instructor

I have also instructed real estate and appraisal courses for Penn State University's DuBois and Fayette County branches, and Butler County Community College. I am currently certified by the Appraisal Qualifications Board as a USPAP instructor. I have also participated in authoring and updating curricula for several course providers, including Polley Associates, McKissock Appraisal School and Penn State University, for the following courses:

- Appraisal of Residential Property
- Appraisal of Income Property
- Appraisal Standards of Practice and Ethics
- Appraising for the Secondary Market
- Limited Appraisals and the Scope of Work Decision
- Pennsylvania Laws and Regulations
- Relocation Appraisal
- Mortgage Fraud: Protect Yourself
- Appraising Complex and Difficult Residential Properties

BIOGRAPHY

I am a graduate of Clarion University of Pennsylvania, with a Bachelor of Science degree in Communications, and currently hold both a Pennsylvania general appraiser certification and an associate broker license. I have over 20 years' experience appraising various types of real estate, including residential, commercial/industrial, and special-purpose properties. Between 2001 and 2004 I also served as a contracted appraisal reviewer for the Pennsylvania Department of State. I completed reviews on residential and commercial property appraisals that were utilized in disciplinary proceedings against appraisal licensees.

I have been instructing and developing curricula for real estate appraisal courses since 1992. Currently, I am an instructor for McKissock Appraisal School, one of the largest appraisal education providers in the country, and have taught courses in appraisal theory and standards to students throughout the United States, for both qualifying and continuing education. I hold an SRA designation from the Appraisal Institute, a GAA designation from the National Association of Realtors Appraisal Section, and am currently serving as Vice Chairman of the Pennsylvania State Board of Certified Real Estate Appraisers.

Residential Property Inspection for Appraisers
(7 Hours)

Course Description

This course is a primer on how to inspect a residential property, and it is designed to be meaningful and relevant for experienced appraisers and novice appraisers alike. Newer appraisers are likely to find a lot of new and useful information in this course. More experienced appraisers are expected to receive a few tips and tricks, and also get some affirmation about their current inspection practices.

Course Learning Objectives

- Summarize the reasons why appraisers inspect properties
- Recognize the importance of scope of work in property inspection
- Identify property inspection best practices
- Identify site inspection issues that affect appraisers
- Summarize best practices related to inspecting exterior of improvements
- Recognize different housing styles
- Summarize the appraiser's responsibilities when making interior inspections
- Identify interior details, common deficiencies, and quality ratings
- Recognize common environmental hazards found in properties
- Identify the tools commonly used for measuring and the benefits and drawbacks of each
- Summarize the ANSI Z765 Standard for measuring single-family residences
- Recognize applicable Fannie Mae and Freddie Mac guidelines with regard to measuring single-family residences, condominium units, and 2-4 family dwellings
- Summarize FHA inspection requirements
- Recognize situations where appraisals are performed based on plans and specs
- Identify issues with inspecting properties for retrospective appraisal assignments
- Recognize the necessity of disclosing scope of inspection as part of the scope of work
- Identify the pitfalls of using boilerplate language
- Summarize the use of disclosures and disclaimers

Course Schedule

Chapter 1 - Introduction

Why Inspect Properties and Types of Inspections	5 Minutes
CYU 1-1	2 Minutes
Roles and Definition, Inspection Skills	5 Minutes

CYU 1-2	2.5	Minutes
When Does the Inspection Start?	5	Minutes
Tales of the Property Owner, Pets, Neighbors, Safety, Tools and Equipment	5	Minutes
Recording your Observations, Limitations of Photographs	5	Minutes
CYU 1-3	3	Minutes
Chapter 1 Quiz	5	Minutes
Total	37.5	Minutes

Chapter 2 Site and Exterior of Improvements

Before You Inspect, Inside, Outside, Topography	5	Minutes
CYU 2-1	2.5	Minutes
Drainage, Frontage and Shape, Flood Plain	5	Minutes
Utilities, Landscaping and Driveway	5	Minutes
CYU 2-2	3.5	Minutes
Easements, Environmental Conditions, Lead Paint	4	Minutes
Measuring Improvements and Exterior	5	Minutes
Conditions that Limit Inspection and Scary Story	4	Minutes
CYU 2-3	3	Minutes
Architectural Styles	8	Minutes
CYU 2-4	2	Minutes
Chapter 2 Quiz	7.5	Minutes
Total	54.5	Minutes

Chapter 3 - Interior Inspection

Where to Start and Question List	5	Minutes
CYU 3-1	2	Minutes
Taking Notes and Floor Plan Sketch	5	Minutes
Measuring Interior Rooms	4	Minutes
Readily Observable - Walk-through Inspection	4	Minutes
Main Living Area, Bathrooms, Remodeling Trends	5	Minutes
CYU 3-2	3.5	Minutes

Bedrooms, Attic, Basement	5	Minutes
Electrical Wiring	5	Minutes
CYU 3-3	3.5	Minutes
Environmental Issues	5	Minutes
Quality and Condition	5	Minutes
CYU 3-4	3.5	Minutes
Chapter 3 Quiz	7.5	Minutes
Total	63	Minutes

Chapter 4 - Measuring Improvements

Measurement Basics and Tools	5	Minutes
The Requirement to Measure	3.5	Minutes
Example - Scope of Work and Solution	4	Minutes
CYU 4-1	3	Minutes
Standards vs. Guidelines - ANSI Z765	5	Minutes
Exercise and Solution - 4A	10	Minutes
Exercise and Solution - 4B	10	Minutes
CYU 4-2	2.5	Minutes
Measuring and Rounding	3	Minutes
Open Areas, Ceiling Height, Other Finished and Unfinished Areas, Annex	5	Minutes
Other Standards, ANSI and USPAP	4	Minutes
Fannie and Freddie	5	Minutes
2-4 Units, Gross Living Area, Above or Below Grade	4	Minutes
CYU 4-3	3.5	Minutes
Chapter 4 Quiz	5	Minutes
Total	72.5	Minutes

Chapter 5 - Special Situations

FHA Inspections	5	Minutes
Defective Conditions	5	Minutes
CYU 5-1	3	Minutes

Observation of the Unknown	5	Minutes
Mechanical Systems and Appliances	4	Minutes
CYU 5-2	3	Minutes
Other FHA Issues	5	Minutes
CYU 5-3	3	Minutes
Plans and Specifications	5	Minutes
Skills and Allowances	5	Minutes
Partially Finished Construction	4	Minutes
CYU 5-4	3	Minutes
Retrospective Appraisals	5	Minutes
Assessment Records	5	Minutes
MLS, Oral Information, Photographs	5	Minutes
CYU 5-5	2	Minutes
Chapter 5 Quiz	7.5	Minutes
Total	74.5	Minutes

Chapter 6 - Reporting the Inspection

Scope of Work	5	Minutes
Reporting the Inspection and Example	5	Minutes
CYU 6-1	3	Minutes
Creating a Scope of Inspection Section	5	Minutes
Templates	4	Minutes
Disclosures, Disclaimers, and Level of Detail	4	Minutes
Suspected Deficiencies	5	Minutes
CYU 6-2	3	Minutes
Chapter 6 Quiz	4	Minutes
Total	38	Minutes

Chapter Totals		
Final Exam	10	Minutes
Course Total	**350**	**Minutes**

McKISSOCK
P.O. BOX 1673, WARREN, PA 16365

General Information

Continuing Education Approval

McKissock has been approved to teach appraisal continuing education in all 50 states, as well as the US Virgin Islands. Additionally, McKissock has been approved to teach real estate continuing education and Pre-Licensing/Upgrading education courses in many of those states. A detailed list of which courses are approved in which states is available upon request.

Seminar Facilities

McKissock does not have a central location for instruction, but instead teaches throughout the country in various hotel facilities and convention centers. The location of the main office in which all records are kept (for at least 5 years) is in Warren, PA. The sites chosen for instruction are selected on the basis of their accessibility and convenience, and the overall quality of the facility.

Equipment Used

The instructors use LCD projectors and laptops, as well as a PowerPoint slide presentation designed specifically for each course, to facilitate teaching. Or, overhead projectors may be used with a slide presentation (instead of LCD projection units). Certain courses may also use computer equipment or other audio/visual equipment.

Entry Criteria/Prerequisites, Examinations (Continuing Education)

There are no restrictions as to who may attend any course given by McKissock. There are no prerequisites to any courses. The student must have an appraisal certification (or real estate certification, if applicable) if he or she wishes to receive continuing education credits. For all of McKissock's appraisal continuing education courses, there will be no formal graded exam at the conclusion of the course unless mandated by the particular requirements of a given state.

Entry Criteria/Prerequisites, Examinations (Pre-Licensing/Basic Education)

There are no restrictions as to who may attend any course given by McKissock. For all of McKissock's pre-licensing and upgrade education courses, there will be a closed book final exam at the conclusion of the course. The exam must be passed by a minimum of 70%, unless state law requires a higher passing score (75% for Nevada Real Estate, 85% in Maine, 90% in Iowa). If a person fails to pass the final exam, they may opt to retake an alternate exam. Upon the second failed attempt, they may opt to take the entire course again, at no additional charge.

Certificates of Completion

For On-Line Classes: Upon receiving the completed survey, a course completion certificate will be issued to the student indicating that the student has successfully completed the distance-learning course. Certificates of completion will be posted directly to the "My McKissock" account after the student has submitted the Course Evaluation form. As a back up to ensure the student receives the certificate, our database will recognize if a student has printed their certificate from the on-line account. If that has not happened, a certificate will be sent via email within 2-5 days. However, if the state the customer has requested credit in requires an original signature then the certificate will be mailed to them within 2-5 business days.

For Classroom Classes: All certificates will be sent via Email within 5-7 business days EXCEPT for the following states which require an original signature: New York (Appraisal & Real Estate), North Carolina (Appraisal & Real Estate), and West Virginia (Real Estate Only). If the customer is requesting credit for one of these states then their certificate will be sent via standard mail delivery within 5-7 business days.

Textbooks/Handouts

The textbooks used for each course have been designed specifically for these courses. Course handouts include various materials that might interest the student (each handout is related to the course topic) or information, which the student will need in order to implement course instruction. Course textbooks and handouts are included in the registration fee for all appraisal and real estate continuing education classes. All students must possess a current copy of the Official USPAP Book for the National USPAP Update course, the National USPAP Update Equivalent course, or the National USPAP course.

Attendance Policy

McKissock adheres to the Appraiser Qualifications Board's policy, which is attendance of each full classroom hour. A classroom hour is defined by the Appraiser Qualifications Board as 50 minutes out of every 60 minute hour. The states of AZ, CT, KS, MS, DC, VT, TN, ME, SC, MN, MI, IA, OR, KS, NY, MA, NH, GA & TX require 100% attendance in order for the student to receive continuing and pre-licensing education credits. Attendance is monitored throughout the day with attendance sheets passed out after every break. Students will not receive certificates of completion for the course if the attendance requirements are not met to McKissock's satisfaction.

Refund Policy

Students may receive a full refund from McKissock if not completely satisfied. Students must request refund within 24 hours of attending the course. If a student cancels at least one day before the course, he or she may receive a full refund, or may choose to make up the course in another location or on another date at no charge. If a student does not show up for a course, he or she may make up the course in another location or on another date at no charge.

McKISSOCK

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Distance Education Course Policies and Procedures

Registration:

A student may register for a free user account on our Virtual Classroom system to preview any of our online courses. At this time, they are required to create a username and password for the system, which will be used for all future online course transactions.

They may sample a predetermined number of chapters in each course prior to subscribing to the course, and the system is designed to keep track of their progress. To enroll in a course, the student may choose to pay by credit card; or they may opt to enroll by phone during normal business hours.

Examinations:

Continuing Education Courses:

Each course is divided into Chapters. Within each Chapter there are mini-quizzes which require a passing score to proceed through the Chapter. Additionally, there are end of Chapter quizzes which require a passing score. The combination of the mini-quizzes and end of Chapter quizzes ensures the student's comprehension of the material. The quiz questions (in all cases) are randomly chosen from a database for that section of the course, so if a user does not pass the quiz, the program lets them go back to review the section and then generates another random sample of questions with the same completion requirement. This process helps to ensure that the student understands all of the concepts covered in each section before continuing on to new material. At the end of the course, the student will be required to pass a cumulative final examination. They may review the course again and make a second attempt, but they will not get credit for the course until they successfully pass the exam. The same question bank methodology applies to the final examination.

Qualifying (Pre-License) Education Courses:

~~Each qualifying (pre-license) education course~~ is set up exactly the same as a standard continuing education course. However, if required by state (or federal) regulation, a live, proctored final examination may also be required for successful course completion. The proctored final examination must be passed with minimum score of 70% in most states (72% for the National USPAP Course in all states). Since this is a proctored examination, the passing score will be determined by each individual state regulatory agency's requirements, but will never be less than 70%.

Support:

Questions regarding course content or technical issues may be submitted via email to McKissock or the course instructor using the conveniently located link on the left-hand Help Tab of each course or via the "Contact Us" tab at the top of each page of our website. Students may also call our 800-number during our regular business hours, as follows, to speak with a customer service representative.

Weekdays: 7:00am - 12:00pm (Eastern Time)
Weekends: 12:00 noon - 3:30pm (Eastern Time)

Interactivity:

Discussion boards, active links, interactive quizzes, exercises, case studies, and emails are established for each individual Virtual Classroom course. Students may use these resources for help or additional information. Additional Courses Resources are also established for our online courses and can be found on the individual state webpage on www.mckissock.com.

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Completion:
Once the course has been completed, a survey page will be displayed. The final survey page must be completed and submitted to us to indicate that the student has finished the course successfully. (We may also login and view the status of all quizzes and final exams completed through our administration panel.)

This survey helps us to monitor the quality of our course and allows us to make any changes we feel are necessary to ensure that we are offering education that is consistent with the on-site classroom courses we present. Completion results are kept both in an online database and in our office at 218 Liberty Street, Warren, PA 16365 for a minimum of five (5) years. Our database records are logged to show all relevant information for each student and are backed up nightly, weekly, and monthly to ensure that we never lose information regarding students' certificates, etc.

Upon receiving the completed survey and proctored exam results (if required), a course completion certificate will be issued to the student indicating that the student has successfully completed the distance-learning course. Certificates of completion will be posted directly to the "My McKissock" account after the student has submitted the Course Evaluation form. However, if the state the student has requested credit in requires an original signature then the certificate will be mailed to them within 2-5 business days.

Electronic rosters may also be submitted to the individual state regulatory boards as mandated.

Attendance Policy:
Attendance is measured by successful completion of the online course. In order to successfully complete the course, an individual must progress through the material and acquire a passing score on all assessments.

Course Review:
All courses will be reviewed on an annual basis. Information will be compiled from student evaluation forms and changes will be made accordingly. All students are requested to give their feedback on the overall quality of our educational offering, addressing among other issues, the knowledge and abilities of the instructor. A course-instructor evaluation is distributed to all students via the course completion form. All responses are collected via web database and email and consolidated for the permanent file for that course. Prior to filing the responses away, they are reviewed and signed off by the product team to identify and address any issues that require additional attention.

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INSTRUCTOR QUALIFICATION PROCEDURES

10/4/06 REVISION

PURPOSE

The purpose of this document is to outline all formal and informal minimum and desirable professional standards for instructors of appraisal, real estate and other topics, and to summarize the procedures used by McKissock to verify these qualifications for prospective instructors. It is hoped that these written procedures will assist interested state professional regulatory bodies in their efforts to review and approve McKissock applications, while at the same time offering a basic overview of the process for the benefit of prospective instructors.

This document is intended to reflect only the minimum procedures and standards used by McKissock in all situations, when there is otherwise no conflict with the rules and regulations of regulatory agencies with whose approval and under whose jurisdiction a given McKissock function is held. Integral to these procedures is an explicit acknowledgement that when these general procedures either conflict with or fall short of the rules and regulations of a relevant governing regulatory agency under whose jurisdiction a function is held, the rules and regulations of that agency shall supercede this document on all items that are otherwise inconsistent or lacking in this document.

MINIMUM INSTRUCTOR QUALIFICATIONS

As a bare formal minimum, all McKissock instructors must meet the following three requirements:

1. Either a minimum of five years of full-time professional experience directly related to the topic being taught, or a four-year college degree.
2. Professional proficiency with the topics(s) being taught, demonstrated to the satisfaction of McKissock
3. Professional public speaking and teaching ability, demonstrated to the satisfaction of McKissock.

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DESIRABLE INSTRUCTOR QUALIFICATIONS

The following qualifications, though not mandatory in all cases, reflect the philosophy used, above and beyond our formal minimum qualifications to select exceptional individuals in the field to act as instructors. Though these guidelines are informal, they summarize the qualities that are most heavily weighted in our potential instructor interview and selection process:

1. Nationally acknowledged relevant professional designations.
2. Academic contributions to the field, above and beyond direct professional experience; for example, published articles, authored text books, course design.
3. Extensive past history of teaching experience in the industry
4. Expert-level mastery of at least one topic to be taught. In other words, though all McKissock instructors teach several different course topics at a level of full professional proficiency, the selection process strongly favors potential instructors who also demonstrate total expertise in one core subject on which they can speak with authority.
5. Current state professional license or certification in the field being taught.
6. Exceptional professional communication skills and public speaking ability.

It is important to emphasize that though these six qualifications are the most heavily weighted issues in the instructor approval process, this list is simply an attempt to objectively describe a fundamentally subjective process. This having been said, and acknowledging that some of these items are somewhat subjective, the vast majority of McKissock instructors have in fact demonstrated all six of these qualifications. Ultimately however, within the restrictions of the "Minimum Instructor Qualifications" summarized on page 1, it is the subjective judgment of McKissock that determines whether a given instructor candidate is qualified.

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QUALIFICATION PROCESS

As a highly visible national-level education provider, McKissock is contacted by over 100 interested potential instructors annually. This section outlines the steps typically taken to identify favorable candidates and verify their qualifications and abilities prior to the offering of a teaching position.

1. All candidates are requested to submit a current resume, along with a letter of intent to apply for a teaching position.
2. An informal telephone screening interview is conducted between the candidate and at least one of the owners of McKissock to determine if the candidate's stated qualifications and circumstances warrant additional consideration.
3. Favorable candidates are invited to a face-to-face interview with at least one of the owners of McKissock.
4. All reasonable efforts are made by McKissock to directly observe the candidate in a live teaching setting, prior to the offering of a teaching position. In the event that this is simply not feasible, this phase may be handled after the offering of a temporary position, as described in item 6, below.
5. Once all of the above steps have been taken, and McKissock is satisfied with the professional qualifications and abilities of the instructor, a teaching position offer may be made.
6. If the candidate has otherwise demonstrated his or her qualifications to the satisfaction of McKissock but has not yet demonstrated teaching abilities in a live setting, directly observed by McKissock, a temporary teaching position offer may be made to give the candidate the opportunity to demonstrate teaching ability in a controlled setting.

Comments on a temporary offer: A temporary offer means that the instructor candidate has not yet demonstrated his or her teaching abilities in a live setting to the satisfaction of McKissock, but has otherwise demonstrated the necessary qualifications. For a temporary offer, arrangements are made for the new instructor to attend and instruct classes in conjunction with another experienced McKissock instructor. At the judgment of both instructors in attendance, the new temporary instructor will play the most aggressive role that both instructors are comfortable with, in teaching the class and administrating the overall seminar. Once the temporary instructor has used this intermediate opportunity to demonstrate teaching abilities to the satisfaction of McKissock, the temporary offer may be upgraded to a final offer, and the new instructor may then act autonomously in the on-site teaching of classes and logistical execution of other seminar details

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FEEDBACK PROCESS

All students are requested to give their feedback on the overall quality of our educational offering, addressing among other issues, the knowledge and abilities of the instructor. A one-page course-instructor evaluation is distributed to all students. Students may respond anonymously. All responses are collected via email and consolidated for the permanent file for that course. Prior to filing the responses away, they are reviewed and signed off by the following individuals to identify and address any issues that require additional attention:

- The instructor of the course in question
- All shareholders of McKissock.
- McKissock's Education Manager

It is important to note that certain state regulatory agencies have a prescribed form and procedure for this feedback process. When the educational function falls under the jurisdiction of such an agency, McKissock may opt to follow the procedures of that agency rather than the standard procedure described above.

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LOG-IN INSTRUCTIONS FOR ON-LINE COURSE

1. Go to http://admin.mckissock.com

2. Log In using the following User Name and Password:

Username: Appraisal
Password: Reviewers

3. Click on the course name under the course search tab to begin the review process.

For ease of use for the reviewer, we have disabled the passing score for the quizzes.

If you have any questions, please contact us at 1-800-328-2008 or via email at regulatorycompliance@mckissock.com.

Thank you!

Certificate of Completion

This is to certify that

Charlie Brown – Sample License #

has successfully completed the course:

Sample Course

for sample (7) hours of appraisal continuing education credit
for the State of Sample.

Given via distance education at: https://www.mckissock.com

Date: July 9, 2009

Richard D. McKissock

Richard D. McKissock
Education Director, McKissock

McKISSOCK, LP.

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000011 SEP 21 16

September 9, 2016

Missouri Real Estate Appraisers Commission
3605 Missouri Blvd.
Jefferson City, MO 65102
Attn: Patty Morrow

Subject: New Online Continuing Education Course Applications

Dear Ms. Morrow:

Please find enclosed the applications for our newest online continuing education courses,

- The Income Approach: An Overview – 7 hours
- Residential Property Inspection for Appraisers – 7 hours

With the applications are detailed course descriptions and IDECC/AQB approval letters.

The following materials are included for your review:

- Sample Advertising Flier
- Distance Education Course Policies and Procedures
- General Information Sheet
- Instructor Qualification Procedures
- Instructor Resume
- Log-In Instructions for the Online Course
- Sample Course Completion Certificate

A check in the amount of $50.00 is also enclosed to cover the cost of the course application fee.

If you have any questions or require additional information please do not hesitate to contact me at jackie.vincent @mckissock.com or 1-800-328-2008.

Sincerely,

Jackie Vincent
Senior Regulatory Compliance Specialist
McKissock, LP

Rec'd $25 - 9.27.16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

0000 16 SEP 27

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL.* All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): American Society of Farm Managers and Rural Appraisers
2. Mailing Address: 720 S. Colorado Blvd., Suite 360-S Glendale, CO 80246
3. Contact Person: Deanna Ilk
4. Phone: 303-692-1222 Fax: 303-758-0190
5. Website: www.asfmra.org Email: dilk@asfmra.org
6. Course Title and Number: ASFMRA 87th Annual Convention Day 1
7. Number of Classroom Hours: 6 Number of Exam Hours: 0
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income X Elective

11. Instructor(s): Steve Elmore, Mary Kay Thatcher, Karin Gross, Dan Frieberg, Kristine Tidgren, Clover Carroll, Stephen Frerichs, David Kerns and Paul Johnson
12. Method of Presentation: X Traditional Classroom _____ Correspondence _____ Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: American Society of Farm Managers and Rural Appraisers
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Steve Elmore

   Mailing Address: 7100 NW 62nd Avenue Johnston, IA 50131-1150

   Business Phone: (515) 727-7140

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers

   950 S. Cherry St. Suite 508

   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of NE				1991	BS	Economics & Public Administration

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
DuPont			1998		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lR

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _x_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Mary Kay Thatcher

   Mailing Address: 600 Maryland Ave. SW Suite 1000W Washington DC 20024

   Business Phone: (202) 406-3661

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
AFBF			1982		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I Ok

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Karen Gross

   Mailing Address: 1111 Constitution Ave NW Washington, DC 20224-0001

   Business Phone: _____

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Georgetown				1987	MLT	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
IRS			1988		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lR

(Signature of Appraiser Education Administrator)

5-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Dan Frieberg

   Mailing Address: 2200 Grannett Ave. Des Moines, IA 503021

   Business Phone: (515) 334-5560

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Iowa State					BS	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
Premier Crop Systems	CEO				

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lk

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Kristine Tridgren

   Mailing Address: 2321 N. Loop Drive, Suite 200 Ames, Iowa

   Business Phone: (515) 294-6365

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers

   950 S. Cherry St. Suite 508

   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of Texas			May	1998	JD	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
IA State University		11	2013		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I Ok

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _x_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Clover Carroll

   Mailing Address: 2305 South Day Street #226 Brenham, Texas 77833

   Business Phone: (888) 598-7798

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Sam Houston St Univ		1991		1996		Criminal Justice

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
New Story Media		Jan	2012		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I Ok

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Stephen Frerichs

   Mailing Address: 507 Cathedral Drive Alexandria, VA 22314

   Business Phone: (703) 212-9416

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers

   950 S. Cherry St. Suite 508

   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of MN			Dec	1987	MS	Economics

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
AgVantage, LLC		Sept	2001		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I Ok

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Dave Kurns

   Mailing Address: 1716 Locust St. Des Moines, IA 50309

   Business Phone: (515) 284-3735

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
Successful Farming	Editorial Content Director	Aug	2012		now

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lR

(Signature of Appraiser Education Administrator)

9.21.16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Paul Johnson

   Mailing Address: 926 JUDSON, #2E EVANSTON, IL 60202

   Business Phone: 773-814-2493

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers

   950 S. Cherry St. Suite 508

   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 1

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 6

   Pre License Hours: _____ Continuing Education Hours: 6

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of WI					BA	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
CFI	President and owner				

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lR

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

ASFMRA 87th Annual Convention – Day 1
List of Instructors and Resumes

Steve Elmore
DuPont Pioneer
7100 NW 62nd Avenue
Johnston, IA 50131-1150
steven.elmore@pioneer.com
(515) 727-7140

Mary Kay Thatcher
American Farm Bureau Federation
600 Maryland Ave. SW
Suite 1000W
Washington DC 20024
mkt@fb.org
(202) 406-3661

Karen Gross
Office of the Chief Counsel, IRS
1111 Constitution Ave NW
Washington, DC 20224-0001

Dan Frieberg
Premier Crop Systems, LLC
2200 Grannett Ave.
Des Moines, IA 503021
dan@premiercrop.com
(515) 334-5560

Kristine Tridgren
Iowa State University
2321 N. Loop Drive, Suite 200
Ames, Iowa
ktidgren@iastate.edu
(515) 294-6365

Clover Carroll
New Story Media
2305 South Day Street #226
Brenham, Texas 77833
(888) 598-7798

Stephen Frerichs
AgVantage LLC
507 Cathedral Drive
Alexandria, VA 22314
sfrerichs8@comcast.net
(703) 212-9416

Dave Kurns
Successful Farming, Meredith Corporation
1716 Locust St.
Des Moines, IA 50309
david.kurns@meredith.com
(515) 284-3735

Paul Johnson
CFI
926 JUDSON, #2E
EVANSTON, IL 60202
PJOHNSON.CFI@GMAIL.COM
773-814-2493

Steven L. Elmore
CHIEF AGRICULTURAL ECONOMIST
& DIRECTOR OF GLOBAL MARKET INTELLIGENCE
DuPont Pioneer
7100 NW 62 Ave - Johnston, IA 50131-1150
Office: 515-535-6895, Cell: 515-240-5953
Steven.Elmore@Pioneer.com

DuPont Biography:

Steve is a Director of Global Market Intelligence & Chief Agricultural Economist at DuPont Pioneer. He joined Pioneer in January of 1998 as Market Economist. Since that time, his role has expanded within DuPont and he serves as the agricultural economist for DuPont and was named to his current position in June 2012. Prior to joining Pioneer, Steve worked as the U.S. Agriculture Market and Policy Analyst for the Food and Agricultural Policy Research Institute (FAPRI) in Economics Department at Iowa State University.

As a Director of Market Intelligence, Steve provides leadership for understanding the global marketplace where DuPont conducts agricultural and nutrition business as well as global risk analysis in relation to production and business analysis of policy, supply and use (food, feed, fuel and fiber) of world agricultural commodities for many of the DuPont businesses.

Steve represents DuPont Pioneer externally and speaks frequently to customers, trade associations, government employees & policy makers and other business teams on a global basis.

He also led the economics external panel that formed the foundation of the developed the DuPont Food Security Index working with the Economist Intelligence Unit (EIU).

Steve grew up in rural Nebraska and now lives in the Des Moines, Iowa, USA area with his wife and their two sons.

Employment History in the Profession:

- Pioneer/DuPont: Various Roles. (1998-Present)
  - Chief Ag Economist and Director – Global Market Intelligence DuPont Pioneer (June 2012-present).
  - Director – Market Information, Economics and Insurance and holds the role of Chief Agricultural Economist, Pioneer – A DuPont Business. (April 2010 – June 2012)
  - Sr. Agricultural Economist, Global Market Economics and Hedge group. (June 2008-April 2010)
  - Sr. Marketing Manager, Global Market Economics and Demand Planning (February 2006-June 2008)
  - Marketing Manager, Global Market Economics (September 2001-February 2006)
  - Project Mangaer, Six Sigma – Blackbelt (January 2000-August 2001)
  - Market Economist, Global Market Information Group (January 1998-December 1999)
- Iowa State University: Iowa and U.S. Agriculture Market & Policy Analyst for the Food and Agricultural Policy Research Institute (FAPRI) in the Center for Agriculture and Rural Development (CARD) – Department of Economics. (1995-1998)
- First National Omaha – Kearney, NE Branch: After Hours Financial Operations. (1987-1991)

Formal Education;

- University of Nebraska – Kearney: Double Major BS in Economics & BS in Public Administration (1991)
- Texas A&M University: College of Agriculture – Roberts Fellowship in Forest Science (1991-92)
- University of Nebraska – Lincoln: Agriculture Economics MS (1994).

Current External Committees:

- U.S. Congressional Budget Office (CBO) – Corn, Wheat, Cotton & Soybean Baseline Review Board.
- U.S. Federal Reserve Board's Agricultural and Food Roundtable.

Recent External Presentations:

U.S. Ag Economics as We Approach 2016
Delta Council Mid-Year Board of Directors Meeting
Stoneville, MS, USA – November 6, 2015

National Agricultural Credit Committee (NACC) Annual Meeting
U.S. Federal Reserve Bank, Tenth District
Kansas City, MO, USA – October 16-17, 2014

Global Economic Growth, the Key for Domestic Agricultural Markets
U.S. Grains Council - 53rd Annual Board of Delegates Meeting
Ottawa, Ontario, Canada – July 29-31, 2013

Global Ag Economics in 2012 & Into 2013
American Society of Farm Managers and Rural Appraisers Annual Meeting
Indianapolis, IN, USA – October 31, 2012

Agriculture in the Western Hemisphere
Governor's (State of Iowa) Trade Mission to Brazil
Porto Alegre, Rio Grande do Sul, Brazil – July 25, 2012

Agriculture in the Western Hemisphere
Governor's (State of Iowa) Trade Mission to Brazil
Porto Alegre, Rio Grande do Sul, Brazil – July 25, 2012

Ag Economic Situation - How did we get here and where are we going?
4th Annual Corn Congress
Buenos Aires, Argentina – November 7, 2011

United States Corn and Soybean Situation and Outlook
Soy and Grain Trade Summit
St. Louis, MO, USA – November 1, 2011

Global Ag Economic Situation
Farmers Day
Middleton, Republic of South Africa – September 21, 2011

Global Corn Market Outlook in 2011
United States Ag Industry Outlook Conference
Denver, CO, USA – April 2, 2011

Agriculture – The Needed Long Run Potential
Crop Insurance Research Bureau (CIRB) Annual Meeting
Palm Springs, CA, USA – February 2, 2011

Economic Situation & Outlook in the Crop Sector
American Society of Farm Managers and Rural Appraisers 81st Annual Meeting
Orlando, FL, USA – November 3, 2010

Future of Agriculture: Contributing to or Constraining Economic Prosperity
National Association of Business Economists (NABE) Annual Meeting
Denver, CO, USA – October 11, 2010

Potential of American Row Crop Agriculture

ProExporter Annual Seminar
Kansas City, MO, USA – March 18, 2010

Ag Economy-Strong Fundamentals...Impacted by the General Economy
AgTrends Conference 2010
Mahnomen, MN, USA – March 23, 2010

U.S. Situation and Outlook
National Corn Growers Awards Dinner
Newton, IA, USA – February 10, 2010

Corn and Soybean Economics – After the Economic Recession
U.S. Federal Reserve Bank, Food & Agricultural Roundtable
Kansas City, MO, USA – November 19, 2009

Outlook in the Grains Sector Panel Discussion
JP Morgan Commodities Forum
New York, NY, USA – October 20, 2009

Long Range Economic Outlook for Agriculture
United States Dept. of Agriculture – Nat'l Ag Stats Service, Executive Committee
Nebraska City, NE, USA – October 6, 2009

Global Corn Economics
Global Ag Investing Annual Conference
New York, NY, USA – June 22, 2009

Public Publications (Prior to DuPont Employment):

The FAPRI Process of Analysis
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 3, No. 1 and 2 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 10-11, March 31, 1997

Iowa Ag Economic Outlook
Author(s): Samarendu Mohanty, Dermot J. Hayes, Roxanne Clemens, William H. Meyers, Darnell B. Smith, Steven L. Elmore, James Rude, C. Phillip Baumel, Jacinto Fabiosa, Frank Fuller
Vol. 3, No. 1 & 2 , Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 19, March, 1997

Impact of EEP Removal on U.S. Wheat (The)
Author(s): Staff FAPRI, William H. Meyers, Darnell B. Smith, Dermot J. Hayes, Samarendu Mohanty, Steve Elmore, James Rude, Frank H. Fuller, V. Premakumar, Sudhir Chaudhary
CARD Briefing Paper #97-BP 15, March 1, 1997

FAPRI 1997 U.S. Agricultural Outlook
Author(s): William H. Meyers, Dermot J. Hayes, Darnell B. Smith, Samarendu Mohanty, Sudhir Chaudhary, Steve Elmore, Jacinto Fabiosa, Frank Fuller, Chad Hart, Karen Kovarik, V. Premakumar, James Rude, Ian Shaw, Dharmaraju Kakani, Karnum Chandrashekar. FAPRI Staff Report Series (CARD), FAPRI Staff Report Series (CARD), FAPRI 1-97, January 31, 1997

FAPRI 1997 World Agricultural Outlook
Author(s): William H. Meyers, Dermot J. Hayes, Darnell B. Smith, Samarendu Mohanty, Sudhir Chaudhary, Steve Elmore, Jacinto Fabiosa, Frank Fuller, Chad Hart, Karen Kovarik, V. Premakumar, James Rude, Ian Shaw, Dharmaraju Kakani, Karnum Chandrashekar. FAPRI Staff Report Series (CARD), FAPRI Staff Report Series (CARD), FAPRI 2-97, January 31, 1997

The EU Export Tax: Impact on U.S. Markets

Author(s): William H. Meyers, Steven L. Elmore Iowa Ag Review, Vol. 2, No. 4 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State Univesity, pp. 5-7, September 30, 1996

The Impacts of 1996 Weather on Crop Markets
Author(s): Steven L. Elmore, Darnell B. Smith, William H. Meyers
Iowa Ag Review, Vol. 2, No. 4 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 1-4, September, 1996

Iowa Ag Outlook
Author(s): Steven L. Elmore, Darnell B. Smith, William H. Meyers, Chad Hart, Bruce A. Babcock, John D. Lawrence
Vol. 2, No. 4 , Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 16, September, 1996

FAPRI 1996 International Agricultural Outlook
Author(s): Stanley R. Johnson, William H. Meyers, Dermot J. Hayes, Darnell B. Smith, Michael D. Helmar, V. Premakumar, Sudhir Chaudhary, Steve Elmore, Ellen Leise, Karen Kovarik, Samarendu Mohanty, Dharmaraju Kakani, Ian Shaw, Chad Hart.
FAPRI Staff Report Series (CARD), FAPRI Staff Report Series (CARD), FAPRI 2-96, September 1, 1996

FAPRI 1996 U.S. Agricultural Outlook
Author(s): Stanley R. Johnson, William H. Meyers, Dermot J. Hayes, Darnell B. Smith, Michael D. Helmar, V. Premakumar, Sudhir Chaudhary, Steve Elmore, Ellen Leise, Karen Kovarik, Samarendu Mohanty, Dharmaraju Kakani, Chad Hart, University of Missouri-Columbia, CNFAP
FAPRI Staff Report Series (CARD), FAPRI Staff Report Series (CARD), FAPRI 1-96, August 1, 1996

FAPRI 1996 Baseline: Projections under the FAIR Act
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 3 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 7-9, June, 1996

Outlook for U.S. Corn and Soybeans in 1996
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 3 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 2-5, June 1, 1996

Summary of the 1996 Farm Bill: The Federal Agriculture Improvement and Reform (FAIR) Act of 1996
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 3 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 1, 5-7, June 1, 1996

Possible Results of Freedom to Farm: A FAPRI Analysis of the Congressional Compromise on Agriculture
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 2 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 2,6-8, March, 1996

Senate 1996 Farm Bill Highlights
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 2 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 5, March, 1996

Comparing the House and Senate Farm Bill Proposals
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore
Iowa Ag Review, Vol. 2, No. 1 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 1,4-6, December, 1995

Farm Freedom or Freedom to Farm?
Author(s): William H. Meyers, Darnell B. Smith, Steven L. Elmore

Iowa Ag Review, Vol. 1, No. 4 , CARD Staff Report, Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 9, September 30, 1995

Iowa Ag Review
Author(s): Bruce A. Babcock, Nabil M. Chaherli, P.G. Lakshminarayan, Darnell B. Smith, Steven L. Elmore, Greg Pautsch, William H. Meyers, Chad Hart
Vol. 1, No. 4 , Ames: Center for Agriculture and Rural Development, Iowa State University, pp. 16, September, 1995

FAPRI Analysis of the Proposed 'Agenda 2000' European Union CAP Reforms
Author(s): William H. Meyers & Abner W. Womack & Dermot J. Hayes & Darnell B. Smith & Samarendu Mohanty & Sudhir Chaudhary & Steven L. Elmore & Jacinto F. Fabiosa & Frank H. Fuller & Chad E. Hart & Karen Kovarik. 1998
Abstract: The FAPRI modeling system used for the analysis provides information about the impact of the European Union's (EU) proposed

"Impact of EEP Removal on U.S. Wheat, The," Center for Agricultural and Rural Development (CARD) Publications 97-bp15, Center for Agricultural and Rural Development (CARD) at Iowa State University. Author(s): FAPRI Staff & William H. Meyers & Darnell B. Smith & Dermot J. Hayes & Samarendu Mohanty & Steven L. Elmore, 1997.

Mary Kay Thatcher
Senior Director of Congressional Affairs
American Farm Bureau Federation

Mary Kay Thatcher has worked as a lobbyist for the American Farm Bureau Federation for 28 years. She currently serves as Senior Director of Congressional Relations where she lobbies primarily on issues covering farm programs, crop insurance, conservation, and credit.

In the past few years, she has also spearheaded AFBF's participation about the topic of farm data, security and privacy. She currently serves as President of the Ag Data Transparency Evaluator, a tool developed by Ag Tech Providers and farm/commodity groups to help farmers understand the contracts they sign to share their farm data.

Mary Kay served in the "first" Bush Administration as a political appointee as the director of congressional and public affairs of the Farm Credit Administration. In that capacity, she was responsible for the policy direction and management of the agency's congressional and public affairs activities.

Prior to joining AFBF in 1982, Thatcher served as a legislative assistant for agriculture and trade to Sen. Roger Jepsen of Iowa. She is a graduate of Iowa State University where she earned degrees in animal science and agricultural economics.

Thatcher is a fifth generation Iowa farmer. She grew up on a 500-acre Iowa beef, hay and corn farm. She now manages a farm in Iowa producing corn and soybeans, as well as a cow/calf operation.

March 2016

KARIN GROSS

10 Eagle Ridge Court
Bethesda, MD 20817

(202) 317-4609
kgross7007@gmail.com

LEGAL EXPERIENCE

Internal Revenue Service, Office of the Chief Counsel, Washington, DC
Attorney/Senior Technician Reviewer/Branch Manager, Income Tax and Accounting, 1988 - Present

- Supervisory attorney responsible for all aspects of charitable deduction issues relating to contributions of appreciated property and qualified appraisals.
- Provide litigation advice and brief writing assistance to IRS Chief Counsel litigators nationwide and Department of Justice Appellate Division litigators.
- Provide legal advice to IRS staff including revenue agents, appeals officers, field attorneys, art appraisers, real estate appraisers, and conservation easement appraisers.
- Provide legal advice for audit techniques guide on conservation easements.
- Provide in-house training of IRS agents and Chief Counsel litigators.
- Served as principal drafter of IRS proposed appraisal regulations for contributed property and the regulations on substantiation of cash and noncash contributions.
- Provide public outreach on behalf of the IRS with presentations at law schools and professional meetings of attorneys and appraisers.

Attorney/Assistant Branch Chief, Interpretive Division, 1986 - 1988

- Served as Attorney-Advisor. Promoted quickly to Assistant Branch Chief.
- Specialized in charitable contributions, Indian tribes, political organizations, and tax accounting.

U.S. House of Representatives, Office of the Legislative Counsel, Washington, DC
Attorney, 1978 - 1986

- Drafted legislation for and provided counsel/advice to Members of Congress and staffers.
- Specialized in tax legislation.

EDUCATION

Georgetown University School of Law
M.L.T., 1987

University of Wisconsin Law School - Madison
J.D., with honors, 1978

University of Wisconsin - Madison
M.A., 1974

University of Maryland - College Park
B.A., with honors, 1973

HONORS AND AWARDS

- Sheldon S. Cohen Chief Counsel Award, 2005
- Detailed to Her Majesty's Revenue and Customs, London, April - July 2006 (provided legal advice to UK government on international tax issues under US and UK law)

REPRESENTATIVE PRESENTATIONS

- IRS Appraisal Rules for Conservation Easements, Napa Valley Land Trust, Napa, CA, May 7, 2015
- *What the IRS Requires for Appraisals*, 2015 American Society of Appraisers Personal Property Conference, The Yale Club, New York City, March 27, 2015
- *How the IRS Chief Counsel's Office Addresses Appraisal Issues*, 2014 IRS Valuation Summit, Appraisal Foundation, Grand Hyatt, Washington, DC, October 21, 2014
- *Federal Tax Laws Impacting Conservation Easements*, Conservation Easements Conference, National State Attorneys General Program, Columbia Law School, New York City, May 9, 2014
- *Conservation Easements and the IRS: What Does "In Perpetuity" Mean?*, Vermont Law School, South Royalton and Montpelier, Vermont, November 17 and 18, 2014
- *Conservation Easements*, Land Trust Alliance, Providence, Rhode Island, October 2, 2014
- *Philanthropy and the Law*, Art Law Day, New York University, New York City, November 9, 2012
- *Conservation Easements*, D.C. Bar Association Exempt Organizations Committee, April 25, 2012
- Guest Lecturer, Charitable Contribution Deductions, New York University School of Law, 2013
- Guest Lecturer, Conservation Easements, Georgetown University School of Law, 2014

BAR ADMISSIONS

- District of Columbia

PROFESSIONAL AFFILIATIONS

- Member, DC Bar Association
- Member, Board of Advisors, National Center on Philanthropy and the Law, New York University School of Law, 2009-2012

Dan Friedberg
CEO Premier Crop Systems, LLC
2200 Gannett Ave.
Des Moines, IA 53021
PH: 515-334-5560
Email: dan@premiercrop.com

Dan Frieberg is CEO of Premier Crop Systems, LLC. Premier Crop is a leading precision ag data processing and analysis company located in Des Moines and entering their 19th crop year. Premier Crop data analysis drives better agronomic decisions that lead to higher yields and increased profits for their customers across the Midwest. Our customers are leading retailers, agronomists and growers who are interested in discovering new knowledge that can be used to make better planning, production, and marketing decisions. With access to best management practices information, they are able to be more efficient, more profitable, and better stewards. Premier Crop is proud to be the behind-the-scenes technology provider for the best precision ag programs in the country.

Dan grew up on a farm in Iowa and graduated from Iowa State University. His career includes wholesale fertilizer sales, retail management, serving as CEO of the Iowa Fertilizer and Chemical Association and later the Agribusiness Association of Iowa and business consulting.

Education – BS – Iowa State University

Work Experience
Wholesale Fertilizer Sales – Twin State Eng and Chemical – Davenport, IA
Retail Agronomy – Business Owner/Manager – Canaan Fluids – Fairfield, IA
Iowa Fertilizer and Chemical Association – Agribusiness Association of Iowa – CEO – Des Moines
Self-employed Business Consultant
Premier Crop Systems – founder and manager since 1999

Kristine A. Tidgren
Center for Agricultural Law & Taxation
Iowa State University
2321 N. Loop Drive, Suite 200, Ames, Iowa
(515) 294-6365
ktidgren@iastate.edu

CURRENT POSITION

Center for Agricultural Law and Taxation, Iowa State University, Ames, Iowa
Assistant Director, March 2016 - Present
Staff Attorney, November 2013 – Present

- Conduct research and write articles and blogposts on a wide range of agricultural law and taxation topics. Writing includes a columns for *Wallace's Farmer* and other farm publications. Wrote chapters for the University of Illinois Federal Tax Workbook in 2014 and 2015. Frequently interviewed by various media outlets regarding agricultural law and tax topics.
- Speak to a variety of groups, including practitioners, landowners, and producers. Prepare and teach CLE classes for groups such as the Iowa Bar Association, the Nebraska Bar Association, and the Kansas Bar Association. Prepare, organize, and teach at seminars providing continuing education credit for CPAs, attorneys, appraisers, real estate professionals, and others. Conduct educational seminars for a variety of industry groups and trade associations.
- Taught a four-credit agricultural law class to 103 upper level students enrolled in the College of Agriculture and Life Sciences at Iowa State University in the Spring of 2016.

EDUCATION

The University of Texas School of Law, Austin, Texas
J.D., with honors, May 1998; Member, Order of the Coif

Iowa State University, Ames, Iowa
B.A. in Journalism and Psychology, May 1989; Member, Kappa Tau Alpha

OTHER EXPERIENCE

Tidgren Law Office, PLLC, Carroll, Iowa
General Practice Attorney, May 2012 – November 2013.

LexisNexis, Dayton, Ohio (home-based employee)
Attorney Writer/Editor, January 2001 – November 2013

Spencer Fane Britt & Browne LLP, Kansas City, Missouri
Business Litigation Associate, September 1998 - September 1999

Electronic Data Systems Corporation (EDS), Plano, Texas
Systems Engineer / Project Manager, September 1989 - August 1995

OTHER

Licensed to practice law in Missouri (1998), Kansas (1999/inactive), and Iowa (2011)
Member: Iowa Bar Association, American Agricultural Law Association

Clover Carroll
CEO
New Story Media

Summary

Clover Carroll is the CEO of New Story Media. He and his team of talented industry professionals produce cinematic experiences that capture the moment and the audience.

Clover has produced commercials, pilots, and product films for over 15 years. He also filmed/produced/directed/co-hosted the travel show "Down The Road" developed from his series published monthly in Texas LIVE Magazine. He has extensive experience in the Music Industry and has recorded and produced several albums. Experienced Cinematographer, Director of Photography, Producer, Director, Audio Video specialist and Audio Engineer.

Specialties

Adobe Premiere Pro, Adobe After Effects, Adobe Audition, Adobe Encore, Adobe Photoshop, Adobe Illustrator, Abelton Live, Sonar Cakewalk, Pro tools, Pix4D, DJI Inspire 1

Experience

CEO
New Story Media
January 2012 – Present (4 years 9 months) Brenham Texas

Director of Photography
New Story Media
January 2012 – Present (4 years 9 months) Brenham, Texas

Leads the camera team and crews working on film, television production and other live action pieces and is responsible for achieving artistic and technical decisions related to the image.

Film/Video Producer
New Story Media
January 2012 – Present (4 years 9 months)

Editor/Motion Graphic Artist
New Story Media
January 2012 – Present (4 years 9 months)Brenham

Digital Marketing Director
New Story Media

January 2012 – Present (4 years 9 months)Brenham, Texas

Photographer
New Story Media
January 2012 – Present (4 years 9 months)

Audio Engineer
New Story Media
January 2012 – Present (4 years 9 months)Brenham

Camera Operator
New Story Media
January 2012 – Present (4 years 9 months)

Owner
Back At The Ranch
January 1996 – 2016 (20 years)

Worship/Associate Pastor
Brenham Bible Church
January 2006 – January 2014 (8 years 1 month)Brenham Texas

Owner
BATRPRO Productions
January 2004 – January 2012 (8 years 1 month) Brenham Texas

Executive Producer
The Ranch Road Show
January 2005 – January 2009 (4 years 1 month)

Projects

Acton Children's Business Fair
December 2014

http://www.childrensbusinessfair.org/

Organizations

My Entrepreneurial Journey
entreprenuership training program
Starting January 2011

Acton School of Business, Austin, Texas (2011)

Publications

Down The Road
Texas LIVE Magazine/B&M Publications

Education

Sam Houston State University
Bachelors of Criminal Justice, Criminal Justice
1991 – 1996

Certifications

Drone Pilot Certification

Skycatch
Starting January 2015

Section 333 Exemption for the commercial use of UAVs

Federal Aviation Administration, License 11537

STEPHEN FRERICHS

703-212-9416
703-212-9418 (fax)
sfrerichs8@comcast.net

PROFESSIONAL EXPERIENCE

Over 25 years of agricultural policy and lobbying experience in Washington D.C. In depth knowledge of major pieces of farm bill legislation, the appropriations process and USDA inner workings. I am dedicated to the client and interested in long term relationships, not simply a gun for hire.

Present - Sept. 2001 **AgVantage, LLC**
Government Relations, Senior Business Consultant

- Owner of AgVantage, LLC an agricultural government relations and consulting firm based in Alexandria, Virginia. Clients include Rain and Hail, LLC, The Nature Conservancy, the United Soybean Board, American Society of Farm Managers and Rural Appraisers, and the American Farm Bureau Federation.

Aug. 2001- Dec. 1997 **McLeod, Watkinson and Miller**
Government Relations/ Economist

- Manager of the American Association of Crop Insurers (AACI). A non-profit trade association with over 10,000 members. Responsible for all aspects of the association including: advocating association policy in Congress and the Administration; drafting, analyzing, interpreting, and monitoring relevant legislation; analyzing and monitoring regulatory issues; planning, executing and tracking the association's budget; and managing the association's staff.

Dec. 1997- July 1990 **Office of Management and Budget, Executive Office of the President**
Deputy Branch Chief, Agriculture Branch/ Senior Budget Examiner
Professional Achievement Awards in 1997, 1995, 1994 and 1991.

- Advised OMB policy officials on planning, budget, legislation, and regulatory issues; performed legislative, economic, management, regulatory, and organization analysis for assigned program areas; monitored and evaluated progress made by departments and agencies in implementing and executing the President's policy.

July 1990- Jan. 1989 **Economic Research Service, U.S. Department of Agriculture**
Economist

EDUCATION

Dec. 1987 M.S. Economics, University of Minnesota
May 1985 B.S. St. Olaf College, Minnesota

David Kurns

Successful Farming

Des Moines, IA

Summary

I have experience in creating a strategy, building a profitable enterprise, building a creative and dynamic team, and creating content across a variety of media: newspapers, magazines, Internet, video, etc.

In addition, I have led groups of professionals: in startups, corporate groups, and magazine centers.

I believe I excel at building a team and focus around successful consumer communication -- no matter the platform. I have done this for consumer brands and for client brands, as well.

Specialties: Innovation, communication, evaluating digital businesses, managing a dynamic team, inspiring others, focusing on objectives in a creative environment, reaching consumers with marketing objectives

Experience

Editorial Content Director, Successful Farming

Meredith Corp.
August 2012 – Present (4 years 2 months) Des Moines, Iowa Area

As head of the editorial team at Successful Farming, I am the steward of the brand that founded the Meredith Corporation in 1902.

Successful Farming is not just an agricultural publication, it is a multimedia platform that includes Agriculture.com and other websites, the Successful Farming Machinery Show on TV, a radio show, specialty magazines, social media, a mobile platform, and more.

The staff includes authoritative editors steeped in their content categories. It also includes talented design and production staff.

In short, this is a 114-year-old franchise with a startup mentality.

Editorial Content Director

Successful Farming
2012 – 2016 (4 years)

Director, Corporate Development

Meredith Corp.
January 2009 – August 2012 (3 years 8 months)

Explores, acquisitions, strategic investments, and partnerships with companies that drive business goals: revenue, Web traffic, enhanced customer data, and other measurable targets. Identifies new business opportunities for trusted and stellar brands from Meredith Corporation.

Interactive Editorial Director, Meredith Integrated Marketing

Meredith

March 2006 – January 2009 (2 years 11 months)

Developed and lead Internet strategy for this marketing services agency within a media company. Assisted launching web, email, video and other digital solutions for major national marketers, such as Kraft Foods, Principal Financial, Carnival Cruises, Charming Shoppes, among others.

Editor in Chief, Meredith Interactive

Meredith

1994 – 2006 (12 years)

From 1994-96, I launched the first Web sites for Meredith (agriculture.com and BHG.com).

From 1996-2000, we launched numerous Web sites and CD-ROM titles in the home and family category.

In 2001, became editor in chief of Meredith Interactive, managing a staff of more than 25 and 10 sites. Oversaw strategy and new product development, including developing partnerships with 3rd party technology and portal entities.

Assistant Managing Editor, SIP

Meredith

June 1989 – July 1994 (5 years 2 months)

I started as a copy editor in the Special Interest Publications division within the Publishing Group of Meredith. This group was the hotbed of innovative niche magazine titles in a period of great growth. I was then promoted to copy chief, then to Assistant Managing Editor.

News Editor

Quad-City Times

June 1982 – May 1989 (7 years)

I started as a copy editor on the night news desk. After a couple of years, I was promoted to Night News Editor, heading up the entire night copy desk operation and responsible for Page 1 and the entire News section. I also was a Design Editor, responsible for the design staff and implementing a new pagination system for the news operation. I also spent time as Day News Editor while the newspaper had an afternoon edition.

Reporter, Nevada Bureau

Ames Tribune

December 1982 – June 1983 (7 months)

I covered the news from rural Story County city councils and school boards. I was responsible for daily new coverage in addition to a twice-a-week page focused solely on Story County.

CFI

US-Cuba Trade Relations & Investment

Paul D. Johnson

Paul Johnson is the President and Owner of CFI, a company focused on commerce between the United States and Cuba. We work closely with the business and political communities to improve trade relations and investment between the U.S. and Cuba. We focus on improving agriculture production, supply chains, trade, investment, and the sustainability of our shared natural resources.

Over the past twenty years Paul has studied and lived in Cuba as a student of it's culture, language, history, religion, and sport. His thesis on the Economic Development of Havana, which was researched in 1999, focused his attention on doing business with Cuba. He started an export company called Chicago Foods International that has exported food products to Cuba since 2008. He has exported containers of various food products catering to both Cuba's tourism industry and growing Cuban national market.

In 2013, Paul formed the Illinois Cuba Working Group whose mission is to improve trade relations between Illinois and Cuba. The group was created by an Illinois Resolution, unanimously approved in the Illinois General Assembly. The group consists of State agricultural organizations representing farmers, producers, and manufacturers, the Illinois Department of Agriculture, Illinois Chamber of Commerce and members of the Illinois General Assembly.

In 2014, Paul helped create the United States Agriculture Coalition for Cuba whose mission is to improve agricultural trade between both countries. He is the co-chair of this coalition that consists of over one hundred national agricultural organizations and corporations that work closely with members of the Senate and House as well as the Executive branch to build lasting trade relations with Cuba.

Paul was raised in the Edison Park neighborhood of Chicago, and attended New Trier High School. He graduated from the University of Wisconsin, Madison with a B.A. in International Relations. He received his M.A. from the University of Illinois at Chicago. He has appeared on the BBC, CNN, Al Jazeera, Fox Business, PBS, New York Times, Global Trade Magazine, and Entrevision. He has also participated in numerous conferences around the country speaking about U.S. and Cuba trade relations.

Additional information of affiliated organizations can be found at: www.chicagofoodsinternational.com and www.illinoiscuba.org. Information about the USACC can be viewed at: www.usagcoalitionforcuba.org.

ASFMRA 87th Annual Convention – Day 1 Descriptions

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SEP 28 2016

State of the Union
Where are we now? In the future? Where have we been?
Presented By: Steve Elmore

The agricultural economy is dynamic and has had significant impact in businesses from the land and inputs to rural and urban consumers. In this session we will focus on where we are now. We will look back to the past to try to judge the impact of the events that shaped the ag economy; in that way we can gain an understanding on the factors that will shape the future agricultural business environment.

It Isn't Your Father's Washington DC
Presented by: Mary Kay Thatcher

What has changed about the way Washington does and doesn't work? Can we expect the gridlock to continue? Do we have any friends in DC?

Introduction to Charitable Contributions
For Appraisers of Donated Real Property Including Conservation Easements
Presented by: Karin Gross

Karen Gross will review the IRS rules for a deductible charitable contribution of real estate, with a summary of the general law for charitable contributions and the specific appraisal rules for real estate. She will summarize the Internal Revenue Code provisions for a qualified appraisal and a qualified appraiser, including the transitional rules in Notice 2006-96 and the regulations (assuming they are finalized before November 10). She will explain the special rules for deduction of conservation easements, including the most recent statutory changes and case law.

Using Your Agronomic Data to Make Better Decisions
Presented by: Dan Frieberg

We will explore the many ways farm managers can use the agronomic data from the fields they manage to make better, more profitable and more sustainable decisions.

How to Prepare a Qualified Appraisal Under IRS Rules
Presented by: Karen Gross

Karen Gross will explain the deemed value rules, which the regulations explain as the before and after approach. She will also discuss recent conservation easement valuation cases decided in Tax Court, syndications, and the appraiser penalty for valuation misstatements. Finally, she will discuss the contiguous parcel rule and the enhancement rule.

Water Wars and Other Hot Agricultural Law Topics
Presented by: Kristine Tidgren

In this session, Kristine will provide an update on the latest legal developments impacting agriculture. She will explain the status of a federal Clean Water Act lawsuit filed by the Des Moines Board of Water Works Trustees against drainage districts in three Iowa counties and its implications for rural landowners nationwide. She will also review recent water quality litigation and other key legal developments, highlighting their impact on American farms and their owners.

Drone Technology
Applications for Appraisal and Management Business
Presented by: Clover Carroll

This session will prove drones are an amazing resource and incredible tool for land real estate brokers. Carroll will show how using drones legally is vital in a professional real estate practice. Learn about what types of Drone you should use, the history of drone regulations, the Section 333 Exemption and how to obtain one, the FAA's current and developing regulations and more. Get legal and start using drones in your business!

Legislative Update
Present by: Stephen Frerichs

The 2014 Farm Bill was signed in law by President Obama in February of 2014. The Administration is in the process of implementing this comprehensive law. The farm bill directly impacts land values, farm decisions and farm management. The objective of the session is to better understand how the Administration is implementing the law and what the impact will be for farm managers and rural appraisers.

Open Trade with Cuba: Ag Industry Opportunities
Presented by: David Kerns and Paul Johnson

David Kurns Description
Dave Kurns spent 4 days in Cuba in early 2016. It was his first trip to the island nation, and one he shared with the 390,000 subscribers to Successful Farming magazine and its website, Agriculture.com. Kurns will share his observations of his visit to the country, how American agriculture can expand there and some lessons learned from visiting a working farmer.

Paul Johnson Description:
This presentation will focus on commercial opportunities between the U.S. and Cuba in the context of current political and cultural relations. Emphasis will be given to agricultural opportunities and needs in Cuba as well as the structure of Cuban agricultural political and commercial reforms.

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ASFMRA 87th Annual Convention – Day 1
Learning Objectives

State of the Union
Where are we now? In the future? Where have we been?
Presented By: Steve Elmore

Learning Objectives
Set the context for the topic.
Current Supply, Demand & Prices.
What was the impact on the ag business environment?
What will be impacting the future business environment?

It Isn't Your Father's Washington DC
Presented by: Mary Kay Thatcher

Learning Objectives
How can we get anything done?
What should we expect in 2017?
What can we do in the state legislatives?

Introduction to Charitable Contributions
For Appraisers of Donated Real Estate Property Including Conservation Easements
Presented by: Karin Gross

Learning Objectives
Overview of what the IRS rules for a deductible charitable contribution of real estate
The specific rules for an appraisal for charitable contributions
IRS code provisions for what a qualified appraiser and appraisal are
Overview of Transitional rules in Notice 2006-96
The most recent statutory changes and case law for the deduction of conservation easement

Using Your Agronomic Data to Make Better Decisions
Presented by: Dan Frieber

Learning Objectives
Understand general concepts of collecting and building an agronomic database for your fields
Understand and appreciate equipment capability and introducing how to validate treatments
Appreciate how better decisions can be made using your hybrid variety selection data
Appreciate how better decisions can be made using your planting rates data
Appreciate how better decisions can be made using your nutrient decisions data
Appreciate how better decisions can be made using your sub field profitability data
Appreciate how better decisions can be made using your management practices data

How to Prepare a Qualified Appraisal Under IRS Rules
Presented by: Karen Gross

Learning Objectives
The value rules for before and after the appraisal.
What happened in a recent conservation easements case decided in Tax Court.
What the contiguous parcel rule is.
What the enhancement rule is.

Water Wars and Other Hot Agricultural Law Topics
Presented by: Kristine Tidgre

Learning Objectives
Describe the legal claims being made in this lawsuit and update learners on current status of those claims
Analyze the merits of the lawsuit and describe the impact potential rulings may have on producers and landowners.
Review recent court cases relating to the Clean Water Act and the new Clean Water Rule. Explain how the litigation and its results could impact farm owners.
Describe recent rulings, cases, and legislative updates important to agriculture. Review how these legal issues affect rural landowners.

Drone Technology
Applications for Appraisal and Management Business
Presented by: Clover Carroll

Learning Objectives
How the real estate profession is using drones in their day to day business.
The kind of drones used for observing property.
Drone regulations and what Section 333 is and how to apply for the exemption.
The current FFA regulations about drones and what regulations are being developed around drones.

Legislative Update
Present by: Stephen Frerichs

Learning Objectives
Describe in detail the changes made in the commodity, conservation and crop insurance titles of the 2014 farm bill.
Outline the decisions that farmers and land owners will make as a result of the 2014 farm bill changes.
Analyze the implications of the 2014 farm bill to farm managers and rural appraisers.

Open Trade with Cuba: Ag Industry Opportunities
Presented by: David Kerns and Paul Johnson

David Kerns

Learning Objectives
Cubans do not own their land, but rent it from the government.
The need more farm and farmers. Agricultural trade is limited and only with cash in advance.
The farm he visited has 16 workers and grows vegetables (60 varieties), produces honey and raises livestock.

Paul Johnson

Learning Objectives
Define the challenges and reforms taking place both in DC and Havana with particular emphasis on changes between Dec. 17th and today.
Define important cultural and historical references that assist in building commercial relations with the aim of defining a strategy to advance.
Define present commercial agricultural opportunities and needs in Cuba.

ASFMRA 87th Annual Convention – Day 1

8:30 am – 9:30 am	State of the Union Where are we now? In the future? Where have we been?	
9:30 am – 10:30 am	It Isn't Your Father's Washington DC	
11:00 am – 12:00 pm	Introduction to Charitable Contributions For Appraisers of Donated Real Property Including Conservation Easements	Option 1
11:00 am – 12:00 pm	Using Your Agronomic Data to Make Better Decisions	Option 2
1:00 pm – 2:00 pm	How to Prepare a Qualified Appraisal Under IRS Rules	Option 1
1:00 pm – 2:00 pm	Water Wars and Other Hot Agricultural Law Topics	Option 2
2:00 pm – 3:00 pm	Drone Technology Applications for Appraisal and Management Business	
3:45 pm – 4:30 pm	Legislative Update	
4:30 pm – 6:00 pm	Open Trade with Cuba: Ag Industry Opportunities	

Individual Timelines

State of the Union
Where are we now? In the future? Where have we been?
Presented By: Steve Elmore

Time	Topic
10 minutes	Introduction
20 minutes	Situation
15 minutes	Historical Policy Setting
15 minutes	Future/Conclusions

It Isn't Your Father's Washington DC
Presented by: Mary Kay Thatcher

Timed Outline	
5 minutes	Welcome
10 minutes	What's Changed in DC
10 minutes	New issues
10 minutes	Has DC deferred to states
25 minutes	Questions and Answers

Introduction to Charitable Contributions
For Appraisers of Donated Real Property Including Conservation Easements
Presented by: Karin Gross

Timed Outline	
15 minutes	Review the IRS rules for a deductible charitable contribution of real estate
15 minutes	Summary of general law for charitable contributions and the specific appraisal rules for real estate
15 minutes	Summarize the Internal Revenue Code provisions for a qualified appraisal and a qualified appraiser, Transitional rules in Notice 2006-96 and the regulations
15 minutes	Explain the special rules for deduction of conservation easements, including the most recent statutory changes and case law

Using Your Agronomic Data to Make Better Decisions
Presented by: Dan Frieberg

Timed Outline	
5 minutes	Background
10 minutes	Learning Blocks – what's possible
10 minutes	Hybrid-Variety Selection
10 minutes	Planting Rates
10 minutes	Nutrient decisions
5 minutes	Sub field profitability
10 minutes	Management practices

How to Prepare a Qualified Appraisal Under IRS Rules
Presented by: Karen Gross

Timed Outline	
20 minutes	Explain the deemed value rules, which the regulations explain as the before and after approach
20 minutes	Discuss recent conservation easement valuation cases decided in Tax Court, syndications, and the appraiser penalty for valuation misstatements.
20 minutes	Discuss the contiguous parcel rule and the enhancement rule

Water Wars and Other Hot Agricultural Law Topics
Presented by: Kristine Tidgren

Timed Outline	
20 minutes	Des Moines Water Works Lawsuit Background
10 minutes	Des Moines Water Works Implications
15 minutes	Other Clean Water Act Litigation Overview
15 minutes	Hot Agricultural Law Topics Review

Drone Technology
Applications for Appraisal and Management Business
Presented by: Clover Carroll

Timed Outline	
15 minutes	How to legally use drones in the profession
15 minutes	Types of drones
15 minutes	Drone regulation, Section 333
15 minutes	Current and developing FAA regulations

Legislative Update
Present by: Stephen Frerichs

Timed Outline	
15 minutes	Describe in detail the changes made in the commodity, conservation and crop insurance titles of the 2014 farm bill
15 minutes	Outline the decisions that farmers and land owners will make as a result of the 2014 farm bill changes
15 minutes	Analyze the implications of the 2014 farm bill to farm managers and rural appraisers

Open Trade with Cuba: Ag Industry Opportunities
Presented by: David Kurns and Paul Johnson

Timed Outline		
10 minutes	Observations while in Cuba	David Kurns
10 minutes	How agricultural can expand in Cuba	David Kurns
10 minutes	The Cuban working farm	David Kurns
15 minutes	Political Reforms and Challenges – DC / Havana	Paul Johnson
15 minutes	Cultural and Historical Lessons	Paul Johnson
15 minutes	Commercial opportunities and pitfalls	Paul Johnson
15 minutes	Q&A	David Kurns & Paul Johnson

The Most Trusted Rural Property Professionals

ASFMRA

AMERICAN SOCIETY OF FARM MANAGERS AND RURAL APPRAISERS ®

CERTIFICATE OF ATTENDANCE

Student Name

Student Address
City, State Zip

SSN : _____ STATE LICENSE NO. : _____

has attended

ASFMRA 87th Annual Convention Day 1

City, State

Approval Number:

Date Start – Date End

Student attended all instructional presentations

Course Hours: 7

This class is approved by the ____ Appraisal Board

Brian Stockman
Executive Vice President
Date certificate completed

The American Society of Farm Managers and Rural Appraisers, Inc.
720 S. Colorado Blvd., Suite 360-S, Glendale, Colorado 80246 ♦ (303) 758-3513

GENERAL *information*

Accommodations, Meals & Transportation
Meals, sleeping accommodations, transportation and airfare are the responsibility of the attendee. It is recommended that you make hotel reservations 30 to 45 days in advance of the course to secure the special room rate for ASFMRA. Please inform the hotel that you are attending an ASFMRA course. Room rates quoted are for the specific room block held by the hotel for that course offering; blocks are released 4 to 5 weeks prior to the course. Attendees are also responsible for transportation and airfare to and from the class. It is recommended that a refundable ticket be purchased.

The ASFMRA reserves the right to change faculty, and to cancel, limit or reschedule courses at any time. If a course is canceled or rescheduled, all tuition received will be refunded in full. The ASFMRA is NOT responsible for related expenses incurred due to course cancellation or rescheduling.

Americans with Disabilities Act
Please provide the ASFMRA Education Department with 30-days advance written notification and appropriate documentation if you require accommodation in the form of auxiliary aids.

Attendance
To obtain state and ASFMRA credit, students are required to be present for all classroom hours. Verbal and written roll call is taken twice a day.

Calculators
A financial calculator (HP-12c, HP-17bII or HP-19bII) or equivalent is required for all appraisal and management courses and examinations. The HP-12c is preferred. The ASFMRA does not furnish calculators or equipment instruction.

Cancellation, Transfer, Refund Policy & Fees
All cancellation and transfer requests must be made in writing or by email. If a participant cancels ten or fewer working days before the course begins but prior to the first day of class, a $25 fee will be charged. No fee will be charged for cancellation received prior to ten working days before the course begins. Students who register for a course and do not appear for the course forfeit their fees. If a participant must withdraw from a course after it has started, the on-site instructor must be told when and why and the participant must send a written explanation to the ASFMRA's Education Department within 30 days.

Students may transfer to a different location or send someone else in their place without penalty.

Certificate of Completion
A certificate of completion will be issued contingent upon successful completion of the course or seminar and e-mailed to the student within one month of completion of the course.

Challenge Exams
Challenge examinations are available for ASFMRA courses required for accreditation for ARA and RPRA except ASFMRA Ethics, USPAP, A304, A400, A360, A370, A380 and A390 if a student feels he/she has sufficient background and experience to do so. Requests to take a challenge examination must be made in writing and received by the Education Department a minimum of two weeks prior to taking the examination and must be accompanied by the appropriate fees. Permission to challenge an examination is at the discretion of the Appraisal Education/Accrediting Committee. Arrangements for taking a challenge examination are made by contacting the Education Department.

Pass/Fail grades for the examination will be available from the Education Department within ten days following the examination. If a challenge examination is successful, a certificate of completion will be issued from ASFMRA.

If a passing grade is not achieved the first time the challenge examination is taken, a student must complete the entire course before testing again.

Please note that most states will not give appraiser certification credit for examinations only. It is your responsibility to know whether your state accepts credit for challenge examinations.

Continuing Education
The ASFMRA conducts a continuing education program which provides an opportunity for its members to update their skills and improve their expertise in their professions. The program is mandatory for Accredited and Professional members and requires 60 hours of continuing education every three years. Best in Business Ethics requirements also be current. An Appraiser must have a 7-hour USPAP course every two years. Associate, Professional and Accredited members are required to take ASFMRA Best in Business Code of Ethics every six years.

To receive credit, a member should enter their continuing education on the ASFMRA website. Log into the Member Login, click on Update Profile and in the drop down list, go to Continuing Education Credits. Logs should be completed by December 15 each year.

Chapters are to request pre-approval of continuing education hours 30 days before their activity begins. Courses not sponsored by the ASFMRA may also be submitted 30 days in advance for pre-approval.

GENERAL *information*

Course Notebooks
Course notebooks are included in the tuition and will be distributed during registration at the course site. Course notebooks may be purchased individually from the Education Department. However, materials are updated periodically and the purchase price of the notebook will not be deducted from the tuition if an individual chooses to take the course at a later date.

Enrollment
Class size is limited and space fills quickly, so register early! Enrolling at least 30 days in advance is recommended. Because enrollment is limited, applicants should not assume they have been enrolled until they receive an email confirmation. Enrollment is on a first-come, first-served basis. If a course is filled, applicants are notified and given the options of putting their names on a waiting list for any cancellations, transferring to another course or receiving a refund.

Examinations/Grading Policies/Pass-Fail
Examinations are included in the tuition fee and given at the end of each course. Examination results are normally mailed to course participants within six weeks. Instructors will have the discretion to discuss class performance with individual students. The ASFMRA requires a 70% to pass all courses. Some state regulatory boards require a 70% or higher to be a passing grade. Please contact your state regulatory agency about specific requirements. (For students wanting appraiser pre-licensing credit in the states of Florida and Georgia, the passing grade must be 75% or higher.)

Homework
Daily assignments such as evening reading, homework and case studies may apply to any courses.

IRS Compliance
We have entered into an agreement with the Office of Director of Practice, Internal Revenue Service, to meet the requirements of 31 Code of Federal Regulations, section 10.6(g), covering maintenance of attendance records, retention of program outlines, qualifications of instructors, and length of class hours. This agreement does not constitute an endorsement by the Director of Practice as to the quality of the program or its contribution to the professional competence of the enrolled individual.

Non-discrimination
Course fees, entrance standards, and standards for successful completion of ASFMRA courses are not based on the student's race, color, sex, religion, familial status, or disability.

Prerequisites (Equivalency)
The ASFMRA does not recommend that a student enroll in a course without proper preparation. It is assumed that when a student does enroll in a course, he or she has mastered the material covered in previous coursework as extra time will not be provided to review this material.

Re-examinations
Any student who attends a course but is not successful in passing the final examination may schedule one re-examination without attending the entire course again if he/she feels comfortable with the material that was presented. The examination must be taken within twelve months of the first examination and must be pre-arranged with the Education Department a minimum of two weeks prior to taking the examination. Please note the course name, date and location of the examination that was not successfully completed. Only one re-examination is permitted.

Pass/Fail grades for the examination will be available from the Education Department within 10 days after the examination is taken. A certificate of completion will be issued upon successful completion of the examination.

Required Equipment & Textbooks
Required textbooks, equipment and optional materials are listed on the individual course pages. All texts and reference material for an ASFMRA course should be ordered at least 30 days before the course is scheduled to begin. Textbooks may be purchased in advance but only required textbooks will be available for purchase at the course site. Required textbooks should be brought to the course as they are often referred to by the instructors or necessary to complete homework assignments.

State Certification
ASFMRA strives to ensure courses are approved in all states, but we cannot guarantee their approval. To verify approval of an offering, please contact Deanna Ilk at 303.692.1222 or dilk@asfmra.org or your state.

Student Counseling Services
Students are welcome to work directly with course instructors during and after the course should they have questions or desire counseling regarding the course materials and/or their performance on examinations.

INSTRUCTOR QUALIFICATION AND TRAINING POLICY

How to become a qualified active instructor of the Society of Farm Managers and Rural Appraisers or maintain current status as a qualified active instructor.

I. To achieve Qualified Active Status

Individuals interested in teaching ASFMRA courses must submit an application on the form provided by the ASFMRA to the Education Department. Applicants are required to be accredited members of ASFMRA unless an exemption is granted by the appropriate Education Committee. They are also required to attend the ASFMRA Instructor Workshop and complete an audit/assist in that order.

The Instructor workshops are offered on a periodic basis in conjunction with the ASFMRA Annual Convention or Summer Education Week. Please contact the ASFMRA Education Department to find out when the next workshop is scheduled.

Following attendance at an Instructor Workshop, the individual will be invited to audit/assist at a scheduled Society course or seminar when an opportunity is available. Expenses and a minimum honorarium will be paid the prospective instructor by the Society. Requirements of the audit/assist program are as follows:

A. The prospective instructor must audit the entire course or seminar.
B. The prospective instructor will, at the direction of the experienced faculty team, present a minimum of two "guest lectures" to the class.
C. The prospective instructor will be reviewed by the students and the experienced faculty team.
D. If verification is received that the prospective instructor has audit/assisted at the entire course or seminar, and student and faculty ratings are acceptable, then the individual will be qualified and added to the Society's list of certified instructors for that course or seminar.
E. Certification may be expanded to those courses or seminars determined to be comparable by the appropriate Education Committee.
F. The new instructor will recognize that a teaching assignment cannot be guaranteed.
G. If the critique of the initial presentation at the school/seminar is negative, the prospective instructor will be advised of specific areas of weakness and may be invited to repeat attendance at another school/seminar.
H. If the instructor is going to teach online courses for ASFMRA they must meet all the other provisions of this policy and be Certified Distance Education Instructor (CDEI) in accordance with the International Distance Education Certification Center (IDECC).

II. To Retain Qualified Active Status

Those instructors who are currently qualified active must meet the following requirements to maintain that status:

A. Maintain acceptable ratings from students
B. Attend a national Instructor Workshop at least once every three years.

C. An instructor who is qualified to teach a particular course, and wishes to be qualified to teach another course must audit that course unless the appropriate Education/Seminar Committee waives this requirement.

D. A Qualified Active Instructor who does not teach a course/seminar for a period of four years will be dropped from the Qualified Active status.

E. Any instructor making derogatory remarks in front of a class concerning the ASFMRA, the facility, and/or student materials will be considered violation of his/her instructor contract.

F. Any instructor who independently adds or changes course material without prior approval of the appropriate Education Chair, the Course Coordinator, and the ASFMRA Education Director will be considered in violation of his/her instructor contract.

G. Any instructor who makes inappropriate or off-color remarks in class under any circumstances will lose their Qualified Active Status with ASFMRA.

H. If the instructor is going to teach online courses for ASFMRA they must meet all the other provisions of this policy and be Certified Distance Education Instructor (CDEI) in accordance with the International Distance Education Certification Center (IDECC).

III. Provisional Instructor

If an individual is deficient in any of the areas of performance, the Education Coordinator will send a letter to the individual specifying the problem areas and recommending one or more of the following within one year as a way to retain the status as a certified instructor:

A. Audit a scheduled offering of the specific course.

B. Attend an Instructor Workshop.

C. Correct the specific problem areas as outlined by the Education Coordinator.

If these conditions are met by the instructor, the appropriate Education Committee will return the instructor to Qualified Active Status. If the conditions are not met, or, if they are completed but there is still no evidenced improvement, the instructor will be removed from the Qualified Instructor.

IV. Chapter Instructor

A. Is a current ASFMRA Accredited member

B. Teaches at the chapter level

C. Completes ASFMRA instructor application, attends an Instructor Workshop with successful completion of demonstration of presentation skills, and is approved by the education committee

D. Attend Instructor Workshop every 2 years

E. Instructs selected ASFMRA seminars. Not all seminars can be instructed due to the specific qualifications needed for a specific topic, such as the Wind Power Seminar.

F. May teach on the national level if no other instructor is available as determined by the Education Committee.

G. In order to approve a Chapter Instructor to teach a seminar, a qualified instructor who has taught the course or the course developer must interview the Chapter Instructor by phone to ensure they understand the content. This is in lieu of the audit-assist that is required for courses.

Method Used to Measure the Quality of the Education being offered
The American Society of Farm Managers and Rural Appraisers usually employs the developer(s) of the course/seminar to teach the course/seminar. Once a course has been established and other instructors are able to teach the course. The developer provides them with instructor notes.

Criteria for Evaluating Each Course/Instructor:
Students complete a course/instructor evaluation form at the end of the course/seminar. The survey is done thought a system called Survey Monkey. The link to the survey is sent to the student the last day of class and is asked to fill out the survey within 5 days. Once the survey is complete It is downloaded and distributed to the instructor(s) and they Education Committee.

Verifying Attendance:
Instructors verify attendance by using a sign in/sign out roster for the entirety of the course/seminar. Students must attend the 100% of the offering to receive credit.

Record Maintenance/Storage:
Records are stored on site at the ASFMRA National Office located at 950 S. Cherry St, Suite 508 Denver, CO 80246. PH: 303-758-3513 Fax: 303-758-0190 Records are maintained for 25 years

Course Name, Location, Month and Year

1. Default Section

COURSE EVALUATION
The following items have been selected for your response because we think they will provide us with information that will assist us in providing quality education programs to meet your needs and interest. Please evaluate the following comments, indicating your response in the appropriate column on the right.

2. Course Organization

1. COURSE ORGANIZATION

	Excellent	Good	Fair	Poor
Comprehensiveness of coverage	○	○	○	○
Continuity	○	○	○	○
Adequacy of material	○	○	○	○
Level of material	○	○	○	○
Availability/supplemental material	○	○	○	○
Work load - length of assignments	○	○	○	○
Examination	○	○	○	○

3. VALUE TO YOU

1. VALUE TO YOU

	Excellent	Good	Fair	Poor
Practical value, applicability	○	○	○	○
Mental challenge\subject matter	○	○	○	○
Level of interest	○	○	○	○
Stimulation	○	○	○	○

4. Instructor - Instructor Name

ASFMRA offers many education programs each and our goal is to make each education experience as productive as possible. While our instructors are excellent management, consulting and appraisal professionals, we value your opinion as to their effectiveness as an instructor. Please answer these questions for the following instructor:

Course Name, Location, Month and Year

1. Instructor Preparation and Presentation - Instructor Name

	Excellent	Good	Fair	Poor
Organization of lectures	◯	◯	◯	◯
Knowledge of subject	◯	◯	◯	◯
Productive/efficient use of class time	◯	◯	◯	◯
Coverage of key points	◯	◯	◯	◯
Ability to get ideas across	◯	◯	◯	◯
Ability to stay on the subject	◯	◯	◯	◯
Ability to use visual aid effectively	◯	◯	◯	◯

2. Class Participation/Response - Instructor Name

	Excellent	Good	Fair	Poor
Receptiveness to student questions	◯	◯	◯	◯
Encouragement of class discussion	◯	◯	◯	◯
Tolerance to disagreement of Options	◯	◯	◯	◯

3. Personal Characteristics - Instructor Name

	Excellent	Good	Fair	Poor
Speaking voice, enunciation	◯	◯	◯	◯
Professional manner	◯	◯	◯	◯
Personal appearance	◯	◯	◯	◯

4. Acceptability as an Instructor - Instructor Name

	Excellent	Good	Fair	Poor
Control of class	◯	◯	◯	◯
Rating as a lecturer	◯	◯	◯	◯
Ability to motivate students	◯	◯	◯	◯
Ability to provide satisfactory answers	◯	◯	◯	◯

Course Name, Location, Month and Year

5. Based on your experience in this class, would you take another course with Instructor Name **?**

- ◯ Yes
- ◯ No
- ◯ Maybe

Comments

6. Please provide any additional comments regarding Instructor Name **here.**

5. Personal

1. What did you like best about this course?

2. What did you find of least value to you?

3. What topics were not included that you would have liked to have had covered?

4. Would you recommend this course to others?

- ◯ Yes
- ◯ No

Why or why not?

5. Are there any topics you'd like to see developed into a course or seminar by ASFMRA?

6. Are you an ASFMRA member?

- ◯ Yes
- ◯ No

Course Name, Location, Month and Year

7. Based on your experience, would you take another course offered by ASFMRA?

- ◯ Yes
- ◯ No
- ◯ Maybe

Comments

8. Your age range?

- ◯ 20-29
- ◯ 30-39
- ◯ 40-55
- ◯ 55+

9. How far did you travel to attend this offering?

- ◯ 0-50 Miles
- ◯ 51-200 Miles
- ◯ 201-500 Miles
- ◯ 500+ Miles

10. Based on your current experience, would you be willing to provide a testimonial to be used in promoting this offering? It is an anonymous and you would be referenced as "former student".

- ◯ Yes
- ◯ No

Course Testimonial

6. Thank You!

Thank you for your participation in this course and for completing this survey!

The Most Trusted Rural Property Professionals

ASFMRA

American Society of Farm Managers and Rural Appraisers, Inc.

September 21, 2016

RECEIVED
SEP 26 2016

Vanessa Beauchamp
Executive Director
Missouri Real Estate Appraisers Commission
3605 Missouri Blvd. P.O. Box 1335
Jefferson City, MO 65109

RE: Seminar Approval

Dear Ms. Beauchamp,

Enclosed you will find approval application for the following American Society of Farm Managers and Rural Appraisers seminars:

*ASFMRA 87th Annual Convention Day 1	6 hours CE
**ASFMRA 87th Annual Convention Day 2	3 hours CE

*This seminar is scheduled to be held November 10, 2016 in Indian Wells, CA.
**This seminar is scheduled to be held November 11, 2016 in Indian Wells, CA.

If you should need anything else, please let me know.

Sincerely,

Deanna Ilk
State Certification and Continuing Education Coordinator
303-692-1222
dilk@asfmra.org

Enclosures

720 S. Colorado Blvd., Suite 360-S • Glendale, CO 80246
(303) 758-3513 • Fax (303) 758-0190 • www.asfmra.org

Morrow, Patty

From: Deanna Ilk <DIlk@asfmra.org>
Sent: Wednesday, September 28, 2016 11:00 AM
To: Morrow, Patty
Subject: RE: MO Course 87th Annual Convention Day 1
Attachments: ASFMRA 87 Annual Conventionl Day 1 descriptions.pdf; ASFMRA 87 Annual Conventionl Day 1 Learning Objectives.pdf; ASFMRA 87th Annual Convention Instructor list.pdf; ASFMRA 87th Annual Conventionl Day 1 Timeline.pdf

Hi Patty,

Sorry about that. Here is the information for Day 1.

Thank you,
Deanna

Deanna Ilk
State Certification and Continuing Education Coordinator
American Society of Farm Managers and Rural Appraisers
720 S. Colorado Blvd., Suite 360-S | Denver, CO 80246
Direct: 303.692.1222 | Fax: 303.758.0190

The Most Trusted Rural Property Professionals | www.asfmra.org

Early-bird pricing for the Annual Meeting and Trade Show expires on October 14, 2016!
Register now and book your hotel room – rooms are going fast!

From: Morrow, Patty [mailto:patty.morrow@pr.mo.gov]
Sent: Wednesday, September 28, 2016 9:51 AM
To: Deanna Ilk
Subject: MO Course 87th Annual Convention Day 1

September 28, 2016

Ms. Ilk,

The Missouri Real Estate Appraisers Commission has received the course application for the ASFMRA 87th Annual Convention Day 1. Please be advised that the CD attached is labeled as Day 1, however, the information contained on the CD is for Day 2. Please submit the course description; detailed course outline and learning objectives. These items may be emailed to me directly. Upon receipt of the required documentation further review can occur.

If you have any questions, please contact this office.

Patty Morrow
Processing Technician III
Missouri Real Estate Appraisers Commission
Missouri Board of Occupational Therapy
Missouri Board for Respiratory Care
Office of Tattooing, Body Piercing and Branding
Missouri Department of Insurance, Financial Institutions & Professional Registration

Recd $25 - 9.27.16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

0000017 SEP 27 16

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL*. All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): American Society of Farm Managers and Rural Appraisers
2. Mailing Address: 720 S. Colorado Blvd., Suite 360-S Glendale, CO 80246
3. Contact Person: Deanna Ilk
4. Phone: 303-692-1222 Fax: 303-758-0190
5. Website: www.asfmra.org Email: dilk@asfmra.org
6. Course Title and Number: ASFMRA 87th Annual Convention Day 2
7. Number of Classroom Hours: 3 Number of Exam Hours: 0
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General

10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income X Elective

11. Instructor(s): ~~Stephen Padgette~~, Dan Dooley and Mark Dotzour Shawna Lemke
12. Method of Presentation: X Traditional Classroom _____ Correspondence _____ Internet

    _____ Video Tape _____ Remote TV _____ Computer

13. Owner of Course Materials: American Society of Farm Managers and Rural Appraisers
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Shawna Lemke

   Mailing Address: 800 North Lindbergh Blvd. St. Louis, MO 63167

   Business Phone: (314) 694-7279

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers

   950 S. Cherry St. Suite 508

   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 2

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 3

   Pre License Hours: _____ Continuing Education Hours: 3

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of WI					BS	Chemistry

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
Monsanto					

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I Ok

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Dan Dooley

   Mailing Address: 1215 K Street Suite 2012 Sacramento, CA 95864

   Business Phone: (559) 449-1111

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 2

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 3

   Pre License Hours: _____ Continuing Education Hours: 3

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ of CA				1973	BS	Ag Econ

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
New Current Water and Land					

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lk

(Signature of Appraiser Education Administrator)

9-21-6

(Date)

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____Pre-License x Continuing Education

_____Renewal _X_Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Mark Dotzour

   Mailing Address: 2115, TAMU College Station, TX 77843

   Business Phone: (979) 862-6292

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   American Society of Farm Managers and Rural Appraisers
   950 S. Cherry St. Suite 508
   Denver, CO 80246

   School/Organization: American Society of Farm Managers and Rural Appraisers

1. Title of program/course or portion of program/course to be taught by the instructor:

   ASFMRA 87th Annual Convention Day 2

2. Which portion(s) to be taught by the instructor?

   Their presentation

   Total Hours: 3

   Pre License Hours: _____ Continuing Education Hours: 3

1. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes **No** (If "Yes", attach explanation)

2. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Commission of Appraisers?
   Yes **No** (If "Yes", attach explanation)

3. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Univ TX					PhD	

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of

completion of the USPAP Instructor Training Course from the Appraisal Foundation.

1. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
ASFMRA				current	appraisal

2. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
Texas A&M					

(Attach additional pages as necessary)

3. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made

Deanna I lR

(Signature of Appraiser Education Administrator)

9-21-16

(Date)

ASFMRA 87th Annual Convention – Day 2
List of Instructors and Resumes

Shawna Lemke
Monsanto
800 North Lindbergh Blvd.
St. Louis, MO 63167
shanwa.lin.lemke@monsanto.com
(314) 694-7279

Dan Dooley
New Current Water & Land LLC
1215 K Street Suite 2012
Sacramento, CA 95864
ddooley@newcurrentwater.com
(559) 449-1111

Mark Dotzour
Real Estate Center at Texas A&M University
2115, TAMU
College Station, TX 77843
Dotzour@tamu.edu
(979) 862-6292

Shawna Lemke, PhD
Corporate Engagement
Director, Food & Nutrition Engagement
Monsanto Company

Shawna leads Food & Nutrition Engagement as part of Monsanto's Corporate Engagement team. In this role, Shawna works with a variety of stakeholders with common interests in improving global food and nutrition security and the continual improvement of the sustainability of food throughout the value chain. In addition, she and her team connect with a variety of food professionals in dialogue and to share experiences about modern agricultural practices.

Shawna has over 12 years of experience in product safety and nutrition in the agricultural and pharmaceutical industries. She has held roles in managing pre-clinical and clinical phases of drug development, and conducting nutritional and food safety evaluation of products. She led the clinical program to establish the nutritional value of soybean oil containing the omega-3 fatty acid, stearidonic acid (SDA). Shawna most recently led the Toxicology and Nutrition Center at Monsanto, with oversight of human safety evaluation for crop protection chemicals and crops developed through biotechnology

Shawna was born in Southern California and raised in rural Wisconsin. She attended the University of Wisconsin- Green Bay and received a B.S. in Chemistry with a minor in Environmental Sciences. Shawna holds a PhD in Toxicology from Texas A&M University and completed post-doctoral training in Human Nutrition at UC-Davis.

Daniel "Dan" M. Dooley

Dan Dooley has nearly 40 years of experience in farming, government, practicing resources and water law, and managing large complex organizations. He has created complex organizations and negotiated settlements of very complex and protracted litigation. He is frequently asked to speak to very diverse groups about emerging water and resource policy issues and is noted for his ability to communicate with groups with opposing views on key policy issues.

Education
B.S. Agricultural Economics, University of California, Davis 1973
J.D. McGeorge School of Law, University of Pacific 1976

Licenses
Member, State Bar of California, in Good Standing, since December 1976, #70674

Areas of Expertise
Water and Resources Law and Policy; Government Relations; Local Agency Law, Policy and Management; Water Rights; State and Federal Compliance and Permitting; Farming Practices; University Research and Management

Affiliations
Member, Board of Advisors, California Water Foundation; Member, Advisory Board, Public Policy Institute of California, Water Policy Center; Member, Board of Directors, Sustainable Conservation; Member, Advisory Board, Rosenberg International Water Policy Forum; Former member, National Academy of Sciences, Board on Agriculture and Natural Resources; Former member, Steering Committee, United Nations Foundation's "Solutions from the Land" project; Former member and Chair, California Water Commission; California Agricultural Leadership Program, Participant XVIII

Relevant Experience and Positions

Founding Partner DOOLEY HERR & PELTZER LLP - DOOLEY HERR & PELTZER is a general civil and business law firm with particular emphasis on water, agricultural, environmental, land use and business law. Dooley distinguished himself by successfully bridging environmental and economic considerations in a number of innovative projects. Dooley represented a wide range of public agency and private clients. He served as the City Attorney for Visalia and as general counsel for numerous irrigation and water districts. Additionally, Dooley represented clients in Sacramento and Washington, DC on water and natural resource policy issues.

Dooley was responsible for fashioning a wetlands mitigation project, which successfully provided alternative habitat for waterfowl previously impacted by agricultural drainage operations. The project was recognized nationally and used as a model for private/public partnership programs to resolve environmental regulatory dilemmas. Between 2005 and 2007, Dooley negotiated a settlement of protracted litigation regarding restoration of the San Joaquin River and reintroduction of salmon in the River. The settlement resolved conflicts among and between 14 environmental and fishery organizations, 28 federal water contractors, 4 federal agencies and several state agencies. The

settlement links the restoration activities with maintenance of the agricultural economy historically supported by water from the San Joaquin River.

Informal Senior Policy Advisor, Governor Jerry Brown – During the spring and summer of 2014, Dooley served as an informal Senior Advisor to Governor Jerry Brown's administration on matters related to managing the drought and development of groundwater legislation. In this role, Dooley participated in drafting session on the Sustainable Groundwater Management Act and as a liaison to external stakeholders, particularly those in the agricultural community. He also served on the technical committee of the California Water Foundation charged with developing core principles for groundwater legislation.

Senior Vice President, External Relations, University of California, Office of the President - As head of External Relations, Dooley leads the Division's efforts in working with colleagues across the UC System to build public understanding and support for the University's mission of teaching, research, and public service. The Division is focused on establishing strong relationships with external constituencies and building broad understanding of the many ways in which UC contributes to the lives of all Californians. Dooley's External Relations responsibilities include directing the University offices of State and Federal Government Relations, Alumni Affairs, Institutional Advancement, Issues Management and Policy Coordination and Communications. Dooley has successfully led efforts to negotiate a long-term funding agreement with the State of California and has overseen government relations efforts at the state and federal level supporting the Unversity's $24 Billion annual budget.

Vice President, Agriculture and Natural Resources, University of California, Office of the President - As head of ANR, Dooley led the statewide research and public service organization responsible for activities in agriculture, natural resources, environmental sciences, family and consumer sciences, forestry, human and community development, 4-H/youth development and related areas. ANR programs and services include nearly 1,000 faculty, specialists and advisors with Cooperative Extension offices in 52 California counties and regions, and California's Agricultural Experiment Station, located on the UC Berkeley, Davis and Riverside campuses. Dooley led a planning effort to position the Division to meet challenges through the next 20 years. The plan has become the guidepost for budgeting and position allocations within the Division. With research contracts and grants, the annual expenditures of the Division exceeded $300 Million.

Chief Deputy Director, California Department of Food & Agriculture – Appointed by Governor Jerry Brown, Dooley had responsibility for general department administration, including: preparation and presentation of the Department's budget to the State Legislature, and other administrative and legislative activities related to issues affecting California agriculture.

Specific responsibility included management of the State's pesticide regulatory program, the pest detection and control programs, and all commodity inspection services in the State of California. Inspection and pest control and exclusion programs involved considerable interaction with the United States Department of Agriculture, and many programs were operated cooperatively with the USDA. Dooley led an effort to reorganize and expand the State pesticide regulatory program and bring it into compliance with the California Environmental Quality Act. The reorganization constituted the basis of the current California Department of Pesticide Regulation.

Dr. Mark G. Dotzour (pronounced Dot sir) is the Chief Economist and Director of Research for the Real Estate Center at Texas A&M University in College Station, Texas. He earned his Ph.D. in the Department of Finance at the University of Texas at Austin in 1987 and served as Associate Professor of Real Estate and Finance at Wichita State University for 10 years. At WSU he taught real estate appraisal, land development and corporate finance classes. As Chief Economist, he is currently doing market research to monitor how global and national trends are likely to impact residential and commercial real estate markets.

Prior to his academic career, he was president of Gleneagles Development, Inc., developing residential subdivisions in Wichita, Kansas. He also served as president of Dotzour Inc., Realtors, which was a residential brokerage firm in Wichita.

He has been at the Real Estate Center since August, 1997. Since then, he has published 94 articles in magazines and given over 1,290 presentations to more than 217,000 people. His research findings and comments have been published in the Wall Street Journal, Money Magazine, USA Today and Business Week and was a guest on the Jim Lehrer Newshour on PBS.
Dotzour regularly makes presentations at national and state conventions. His audiences include residential and commercial real estate brokers, bankers, Chambers of Commerce, economic development organizations, homebuilders, construction and engineering firms, CPAs, wealth managers and foundations.

Dr. Dotzour and his wife LuAnn have been married for 40 years. They have two children and two grandchildren. His father was a professional golfer. He grew up on the golf course, but you couldn't tell it from his current 15 handicap. He and LuAnn have spent a lot of time prowling small bookstores all over America looking for old books about Wall Street, economic history and science fiction.

ASFMRA 87th Annual Convention – Day 2 Descriptions

Everyone Eats! Opportunities for Agriculture to Engage in the Burgeoning Interest in How Food is Produced
Presented By: Shawna Lemke

This presentation will describe the current landscape of consumer interest in food and agriculture and how that is shaping communication and actions taken by the food value chain. We will also explore the most comment (mis)perceptions around key agriculture technologies. Finally, we will look to the future of ag innovation and discuss how the agricultural community can engage in the important discussions occurring today around how food is grown.

California Water - Currents
Presented by: Dan Dooley

An overview of the current states of water policies, supplies and the impact on the land valuation in California

The Economic Outlook Post-Election
Presented by: Mark Dotzour

This presentation will inform attendees about the economic context of their markets. They will gain an understanding of the forces shaping demand for and supply of their products. By grasping the nature of the dynamic interplay of physical, social, economic and legal forces shaping the economy, attendees can provide more informed service to their clients and their communities.

The presentation focuses on currently unfolding trends in economic and social issues that will impact real estate markets in the near future. Students will gain an insight into the likely path of future trends as they unfold.

ASFMRA 87th Annual Convention – Day 2
Learning Objectives

Everyone Eats! Opportunities for Agriculture to Engage in the Burgeoning Interest in How Food is Produced
Presented By: Shawna Lemke

Learning Objectives
Learn about important cultural and demographic shifts that have shaped consumer perceptions around agriculture and what those perceptions are today.
Address the most common misconceptions around GMOs and GMO labeling and pesticides
Share where the leading edge of agricultural innovation is headed
Make participants aware of resources that can help them talk with consumers and other stakeholders

California Water - Currents
Presented by: Dan Dooley

Learning Objectives
Description of the status of the implantation of ground water law
Understanding of California water fix and impact on longer water reliability
Implications for California agriculture

The Economic Outlook Post-Elections
Presented by: Mark Dotzour

Learning Objectives
To discuss how global economic trends are impacting real estate markets
To enable students to interpret economic information to enhance their abilities to counsel their clients about current market conditions.
To inform students about how national economic trends will impact the land markets in the United States.

ASFMRA 87th Annual Convention – Day 2

7:30 am – 8:45 am	Everyone Eats! Opportunities for Agriculture to Engage in the Burgeoning Interest in How Food is Produced
8:45 am – 9:45 am	California Water - Currents
10:15 am – 11:45 am	The Economic Outlook Post-Election

Individual Timelines

Everyone eats! Opportunities for Agriculture to Engage in the Burgeoning Interest in how Food is Produced
Presented By: Shawna Lemke

Timed Outline	
20 minutes	Cultural and demographic shifts around consumer perceptions around agriculture
10 minutes	What consumer the perceptions are today
20 minutes	Misconceptions around GMO, GMO Labeling and pesticides
15 minutes	Where is this all heading
10 minutes	Resources to help them talk with consumers and other stakeholders

California Water - Currents
Presented by: Dan Dooley

Timed Outline	
10 minutes	Introduction and overview
15 minutes	Sustainable Groundwater Management Act
15 minutes	California Water Fix
5 minutes	Impact on Agriculture
15 minutes	Q&A

The Economic Outlook Post-Election
Presented by: Mark Dotzour

Timed Outline	
15 minutes	The Outlook for US job growth in the next 12 months
15 minutes	The outlook for interest rates in the next 12 months
15 minutes	How changes in the international economy impact US land markets
15 minutes	How changes in the national economy impact US land markets
15 minutes	How federal monetary policy is affecting US real estate markets
15 minutes	How global stock and bond markets may impact US land markets

The Most Trusted Rural Property Professionals

ASFMRA

AMERICAN SOCIETY OF FARM MANAGERS AND RURAL APPRAISERS ®

CERTIFICATE OF ATTENDANCE

Student Name

Student Address
City, State Zip

SSN : _____ STATE LICENSE NO. : _____

has attended

ASFMRA 87th Annual Convention Day 2

City, State

Approval Number:

Date Start – Date End

Student attended all instructional presentations

Course Hours: 3

This class is approved by the ____ Appraisal Board

Brian Stockman
Executive Vice President
Date certificate completed

The American Society of Farm Managers and Rural Appraisers, Inc.
720 S. Colorado Blvd., Suite 360-S, Glendale, Colorado 80246 ♦ (303) 758-3513

GENERAL *information*

Accommodations, Meals & Transportation
Meals, sleeping accommodations, transportation and airfare are the responsibility of the attendee. It is recommended that you make hotel reservations 30 to 45 days in advance of the course to secure the special room rate for ASFMRA. Please inform the hotel that you are attending an ASFMRA course. Room rates quoted are for the specific room block held by the hotel for that course offering; blocks are released 4 to 5 weeks prior to the course. Attendees are also responsible for transportation and airfare to and from the class. It is recommended that a refundable ticket be purchased.

The ASFMRA reserves the right to change faculty, and to cancel, limit or reschedule courses at any time. If a course is canceled or rescheduled, all tuition received will be refunded in full. The ASFMRA is NOT responsible for related expenses incurred due to course cancellation or rescheduling.

Americans with Disabilities Act
Please provide the ASFMRA Education Department with 30-days advance written notification and appropriate documentation if you require accommodation in the form of auxiliary aids.

Attendance
To obtain state and ASFMRA credit, students are required to be present for all classroom hours. Verbal and written roll call is taken twice a day.

Calculators
A financial calculator (HP-12c, HP-17bII or HP-19bII) or equivalent is required for all appraisal and management courses and examinations. The HP-12c is preferred. The ASFMRA does not furnish calculators or equipment instruction.

Cancellation, Transfer, Refund Policy & Fees
All cancellation and transfer requests must be made in writing or by email. If a participant cancels ten or fewer working days before the course begins but prior to the first day of class, a $25 fee will be charged. No fee will be charged for cancellation received prior to ten working days before the course begins. Students who register for a course and do not appear for the course forfeit their fees. If a participant must withdraw from a course after it has started, the on-site instructor must be told when and why and the participant must send a written explanation to the ASFMRA's Education Department within 30 days.

Students may transfer to a different location or send someone else in their place without penalty.

Certificate of Completion
A certificate of completion will be issued contingent upon successful completion of the course or seminar and e-mailed to the student within one month of completion of the course.

Challenge Exams
Challenge examinations are available for ASFMRA courses required for accreditation for ARA and RPRA except ASFMRA Ethics, USPAP, A304, A400, A360, A370, A380 and A390 if a student feels he/she has sufficient background and experience to do so. Requests to take a challenge examination must be made in writing and received by the Education Department a minimum of two weeks prior to taking the examination and must be accompanied by the appropriate fees. Permission to challenge an examination is at the discretion of the Appraisal Education/Accrediting Committee. Arrangements for taking a challenge examination are made by contacting the Education Department.

Pass/Fail grades for the examination will be available from the Education Department within ten days following the examination. If a challenge examination is successful, a certificate of completion will be issued from ASFMRA.

If a passing grade is not achieved the first time the challenge examination is taken, a student must complete the entire course before testing again.

Please note that most states will not give appraiser certification credit for examinations only. It is your responsibility to know whether your state accepts credit for challenge examinations.

Continuing Education
The ASFMRA conducts a continuing education program which provides an opportunity for its members to update their skills and improve their expertise in their professions. The program is mandatory for Accredited and Professional members and requires 60 hours of continuing education every three years. Best in Business Ethics requirements also be current. An Appraiser must have a 7-hour USPAP course every two years. Associate, Professional and Accredited members are required to take ASFMRA Best in Business Code of Ethics every six years.

To receive credit, a member should enter their continuing education on the ASFMRA website. Log into the Member Login, click on Update Profile and in the drop down list, go to Continuing Education Credits. Logs should be completed by December 15 each year.

Chapters are to request pre-approval of continuing education hours 30 days before their activity begins. Courses not sponsored by the ASFMRA may also be submitted 30 days in advance for pre-approval.

GENERAL *information*

Course Notebooks
Course notebooks are included in the tuition and will be distributed during registration at the course site. Course notebooks may be purchased individually from the Education Department. However, materials are updated periodically and the purchase price of the notebook will not be deducted from the tuition if an individual chooses to take the course at a later date.

Enrollment
Class size is limited and space fills quickly, so register early! Enrolling at least 30 days in advance is recommended. Because enrollment is limited, applicants should not assume they have been enrolled until they receive an email confirmation. Enrollment is on a first-come, first-served basis. If a course is filled, applicants are notified and given the options of putting their names on a waiting list for any cancellations, transferring to another course or receiving a refund.

Examinations/Grading Policies/Pass-Fail
Examinations are included in the tuition fee and given at the end of each course. Examination results are normally mailed to course participants within six weeks. Instructors will have the discretion to discuss class performance with individual students. The ASFMRA requires a 70% to pass all courses. Some state regulatory boards require a 70% or higher to be a passing grade. Please contact your state regulatory agency about specific requirements. (For students wanting appraiser pre-licensing credit in the states of Florida and Georgia, the passing grade must be 75% or higher.)

Homework
Daily assignments such as evening reading, homework and case studies may apply to any courses.

IRS Compliance
We have entered into an agreement with the Office of Director of Practice, Internal Revenue Service, to meet the requirements of 31 Code of Federal Regulations, section 10.6(g), covering maintenance of attendance records, retention of program outlines, qualifications of instructors, and length of class hours. This agreement does not constitute an endorsement by the Director of Practice as to the quality of the program or its contribution to the professional competence of the enrolled individual.

Non-discrimination
Course fees, entrance standards, and standards for successful completion of ASFMRA courses are not based on the student's race, color, sex, religion, familial status, or disability.

Prerequisites (Equivalency)
The ASFMRA does not recommend that a student enroll in a course without proper preparation. It is assumed that when a student does enroll in a course, he or she has mastered the material covered in previous coursework as extra time will not be provided to review this material.

Re-examinations
Any student who attends a course but is not successful in passing the final examination may schedule one re-examination without attending the entire course again if he/she feels comfortable with the material that was presented. The examination must be taken within twelve months of the first examination and must be pre-arranged with the Education Department a minimum of two weeks prior to taking the examination. Please note the course name, date and location of the examination that was not successfully completed. Only one re-examination is permitted.

Pass/Fail grades for the examination will be available from the Education Department within 10 days after the examination is taken. A certificate of completion will be issued upon successful completion of the examination.

Required Equipment & Textbooks
Required textbooks, equipment and optional materials are listed on the individual course pages. All texts and reference material for an ASFMRA course should be ordered at least 30 days before the course is scheduled to begin. Textbooks may be purchased in advance but only required textbooks will be available for purchase at the course site. Required textbooks should be brought to the course as they are often referred to by the instructors or necessary to complete homework assignments.

State Certification
ASFMRA strives to ensure courses are approved in all states, but we cannot guarantee their approval. To verify approval of an offering, please contact Deanna Ilk at 303.692.1222 or dilk@asfmra.org or your state.

Student Counseling Services
Students are welcome to work directly with course instructors during and after the course should they have questions or desire counseling regarding the course materials and/or their performance on examinations.

INSTRUCTOR QUALIFICATION AND TRAINING POLICY

How to become a qualified active instructor of the Society of Farm Managers and Rural Appraisers or maintain current status as a qualified active instructor.

I. To achieve Qualified Active Status

Individuals interested in teaching ASFMRA courses must submit an application on the form provided by the ASFMRA to the Education Department. Applicants are required to be accredited members of ASFMRA unless an exemption is granted by the appropriate Education Committee. They are also required to attend the ASFMRA Instructor Workshop and complete an audit/assist in that order.

The Instructor workshops are offered on a periodic basis in conjunction with the ASFMRA Annual Convention or Summer Education Week. Please contact the ASFMRA Education Department to find out when the next workshop is scheduled.

Following attendance at an Instructor Workshop, the individual will be invited to audit/assist at a scheduled Society course or seminar when an opportunity is available. Expenses and a minimum honorarium will be paid the prospective instructor by the Society. Requirements of the audit/assist program are as follows:

A. The prospective instructor must audit the entire course or seminar.
B. The prospective instructor will, at the direction of the experienced faculty team, present a minimum of two "guest lectures" to the class.
C. The prospective instructor will be reviewed by the students and the experienced faculty team.
D. If verification is received that the prospective instructor has audit/assisted at the entire course or seminar, and student and faculty ratings are acceptable, then the individual will be qualified and added to the Society's list of certified instructors for that course or seminar.
E. Certification may be expanded to those courses or seminars determined to be comparable by the appropriate Education Committee.
F. The new instructor will recognize that a teaching assignment cannot be guaranteed.
G. If the critique of the initial presentation at the school/seminar is negative, the prospective instructor will be advised of specific areas of weakness and may be invited to repeat attendance at another school/seminar.
H. If the instructor is going to teach online courses for ASFMRA they must meet all the other provisions of this policy and be Certified Distance Education Instructor (CDEI) in accordance with the International Distance Education Certification Center (IDECC).

II. To Retain Qualified Active Status

Those instructors who are currently qualified active must meet the following requirements to maintain that status:

A. Maintain acceptable ratings from students
B. Attend a national Instructor Workshop at least once every three years.

C. An instructor who is qualified to teach a particular course, and wishes to be qualified to teach another course must audit that course unless the appropriate Education/Seminar Committee waives this requirement.

D. A Qualified Active Instructor who does not teach a course/seminar for a period of four years will be dropped from the Qualified Active status.

E. Any instructor making derogatory remarks in front of a class concerning the ASFMRA, the facility, and/or student materials will be considered violation of his/her instructor contract.

F. Any instructor who independently adds or changes course material without prior approval of the appropriate Education Chair, the Course Coordinator, and the ASFMRA Education Director will be considered in violation of his/her instructor contract.

G. Any instructor who makes inappropriate or off-color remarks in class under any circumstances will lose their Qualified Active Status with ASFMRA.

H. If the instructor is going to teach online courses for ASFMRA they must meet all the other provisions of this policy and be Certified Distance Education Instructor (CDEI) in accordance with the International Distance Education Certification Center (IDECC).

III. Provisional Instructor

If an individual is deficient in any of the areas of performance, the Education Coordinator will send a letter to the individual specifying the problem areas and recommending one or more of the following within one year as a way to retain the status as a certified instructor:

A. Audit a scheduled offering of the specific course.

B. Attend an Instructor Workshop.

C. Correct the specific problem areas as outlined by the Education Coordinator.

If these conditions are met by the instructor, the appropriate Education Committee will return the instructor to Qualified Active Status. If the conditions are not met, or, if they are completed but there is still no evidenced improvement, the instructor will be removed from the Qualified Instructor.

IV. Chapter Instructor

A. Is a current ASFMRA Accredited member

B. Teaches at the chapter level

C. Completes ASFMRA instructor application, attends an Instructor Workshop with successful completion of demonstration of presentation skills, and is approved by the education committee

D. Attend Instructor Workshop every 2 years

E. Instructs selected ASFMRA seminars. Not all seminars can be instructed due to the specific qualifications needed for a specific topic, such as the Wind Power Seminar.

F. May teach on the national level if no other instructor is available as determined by the Education Committee.

G. In order to approve a Chapter Instructor to teach a seminar, a qualified instructor who has taught the course or the course developer must interview the Chapter Instructor by phone to ensure they understand the content. This is in lieu of the audit-assist that is required for courses.

Method Used to Measure the Quality of the Education being offered
The American Society of Farm Managers and Rural Appraisers usually employs the developer(s) of the course/seminar to teach the course/seminar. Once a course has been established and other instructors are able to teach the course. The developer provides them with instructor notes.

Criteria for Evaluating Each Course/Instructor:
Students complete a course/instructor evaluation form at the end of the course/seminar. The survey is done thought a system called Survey Monkey. The link to the survey is sent to the student the last day of class and is asked to fill out the survey within 5 days. Once the survey is complete It is downloaded and distributed to the instructor(s) and they Education Committee.

Verifying Attendance:
Instructors verify attendance by using a sign in/sign out roster for the entirety of the course/seminar. Students must attend the 100% of the offering to receive credit.

Record Maintenance/Storage:
Records are stored on site at the ASFMRA National Office located at 950 S. Cherry St, Suite 508 Denver, CO 80246. PH: 303-758-3513 Fax: 303-758-0190 Records are maintained for 25 years

Course Name, Location, Month and Year

1. Default Section

COURSE EVALUATION

The following items have been selected for your response because we think they will provide us with information that will assist us in providing quality education programs to meet your needs and interest. Please evaluate the following comments, indicating your response in the appropriate column on the right.

2. Course Organization

1. COURSE ORGANIZATION

	Excellent	Good	Fair	Poor
Comprehensiveness of coverage	○	○	○	○
Continuity	○	○	○	○
Adequacy of material	○	○	○	○
Level of material	○	○	○	○
Availability/supplemental material	○	○	○	○
Work load - length of assignments	○	○	○	○
Examination	○	○	○	○

3. VALUE TO YOU

1. VALUE TO YOU

	Excellent	Good	Fair	Poor
Practical value, applicability	○	○	○	○
Mental challenge\subject matter	○	○	○	○
Level of interest	○	○	○	○
Stimulation	○	○	○	○

4. Instructor - Instructor Name

ASFMRA offers many education programs each and our goal is to make each education experience as productive as possible. While our instructors are excellent management, consulting and appraisal professionals, we value your opinion as to their effectiveness as an instructor. Please answer these questions for the following instructor:

Course Name, Location, Month and Year

1. Instructor Preparation and Presentation - Instructor Name

	Excellent	Good	Fair	Poor
Organization of lectures	◯	◯	◯	◯
Knowledge of subject	◯	◯	◯	◯
Productive/efficient use of class time	◯	◯	◯	◯
Coverage of key points	◯	◯	◯	◯
Ability to get ideas across	◯	◯	◯	◯
Ability to stay on the subject	◯	◯	◯	◯
Ability to use visual aid effectively	◯	◯	◯	◯

2. Class Participation/Response - Instructor Name

	Excellent	Good	Fair	Poor
Receptiveness to student questions	◯	◯	◯	◯
Encouragement of class discussion	◯	◯	◯	◯
Tolerance to disagreement of Options	◯	◯	◯	◯

3. Personal Characteristics - Instructor Name

	Excellent	Good	Fair	Poor
Speaking voice, enunciation	◯	◯	◯	◯
Professional manner	◯	◯	◯	◯
Personal appearance	◯	◯	◯	◯

4. Acceptability as an Instructor - Instructor Name

	Excellent	Good	Fair	Poor
Control of class	◯	◯	◯	◯
Rating as a lecturer	◯	◯	◯	◯
Ability to motivate students	◯	◯	◯	◯
Ability to provide satisfactory answers	◯	◯	◯	◯

Course Name, Location, Month and Year

5. Based on your experience in this class, would you take another course with Instructor Name ?

- ◯ Yes
- ◯ No
- ◯ Maybe

Comments

6. Please provide any additional comments regarding Instructor Name here.

5. Personal

1. What did you like best about this course?

2. What did you find of least value to you?

3. What topics were not included that you would have liked to have had covered?

4. Would you recommend this course to others?

- ◯ Yes
- ◯ No

Why or why not?

5. Are there any topics you'd like to see developed into a course or seminar by ASFMRA?

6. Are you an ASFMRA member?

- ◯ Yes
- ◯ No

Course Name, Location, Month and Year

7. Based on your experience, would you take another course offered by ASFMRA?

- ◯ Yes
- ◯ No
- ◯ Maybe

Comments

8. Your age range?

- ◯ 20-29
- ◯ 30-39
- ◯ 40-55
- ◯ 55+

9. How far did you travel to attend this offering?

- ◯ 0-50 Miles
- ◯ 51-200 Miles
- ◯ 201-500 Miles
- ◯ 500+ Miles

10. Based on your current experience, would you be willing to provide a testimonial to be used in promoting this offering? It is an anonymous and you would be referenced as "former student".

- ◯ Yes
- ◯ No

Course Testimonial

6. Thank You!

Thank you for your participation in this course and for completing this survey!

The Most Trusted Rural Property Professionals

ASFMRA

American Society of Farm Managers and Rural Appraisers, Inc.

September 21, 2016

RECEIVED
SEP 26 2016

Vanessa Beauchamp
Executive Director
Missouri Real Estate Appraisers Commission
3605 Missouri Blvd. P.O. Box 1335
Jefferson City, MO 65109

RE: Seminar Approval

Dear Ms. Beauchamp,

Enclosed you will find approval application for the following American Society of Farm Managers and Rural Appraisers seminars:

*ASFMRA 87th Annual Convention Day 1	6 hours CE
**ASFMRA 87th Annual Convention Day 2	3 hours CE

*This seminar is scheduled to be held November 10, 2016 in Indian Wells, CA.
**This seminar is scheduled to be held November 11, 2016 in Indian Wells, CA.

If you should need anything else, please let me know.

Sincerely,

Deanna

Deanna Ilk
State Certification and Continuing Education Coordinator
303-692-1222
dilk@asfmra.org

Enclosures

Morrow, Patty

From: Deanna Ilk <DIlk@asfmra.org>
Sent: Wednesday, September 28, 2016 11:05 AM
To: Morrow, Patty
Subject: RE: MO Course Application

Stephen Padgette had to pull out. He is no longer speaking.

Deanna Ilk
State Certification and Continuing Education Coordinator
American Society of Farm Managers and Rural Appraisers
720 S. Colorado Blvd., Suite 360-S | Denver, CO 80246
Direct: 303.692.1222 | Fax: 303.758.0190

The Most Trusted Rural Property Professionals | www.asfmra.org

Early-bird pricing for the Annual Meeting and Trade Show expires on October 14, 2016!
Register now and book your hotel room – rooms are going fast!

From: Morrow, Patty [mailto:patty.morrow@pr.mo.gov]
Sent: Wednesday, September 28, 2016 9:55 AM
To: Deanna Ilk
Subject: MO Course Application

September 28, 2016

Deanna,
The Missouri Real Estate Appraisers Commission has received the course application for ASFMRA 87th Annual Convention Day 2. The application lists Stephen Padgette as an instructor, however, the instructor application and resume for Shawna Lemke has been received. Please be advised if Stephen Padgette will be an instructor for this course.

Thanks

Patty Morrow
Processing Technician III
Missouri Real Estate Appraisers Commission
Missouri Board of Occupational Therapy
Missouri Board for Respiratory Care
Office of Tattooing, Body Piercing and Branding
Missouri Department of Insurance, Financial Institutions & Professional Registration
573-751-0038 REAC
573-751-0877 OT
573-522-5864 RT
573-526-8288 Tattoo
573-526-3489 Fax
patty.morrow@pr.mo.gov

ExchangeDefender Message Security: Check Authenticity

Rcvd $25 - 9.27.16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

SEP 27 16

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL*. All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): Allterra Group, LLC
2. Mailing Address: 9927 Stephen Decatur Highway, Suite G16, Ocean City, MD 21842
3. Contact Person: Karen Connolly
4. Phone: 513-490-0226 Fax: 513-785-0900
5. Website: www.valuationexpo.com Email: info@allterragroup.com
6. Course Title and Number: 2016 Keynote/Industry Update/Big Data
7. Number of Classroom Hours: 7 Number of Exam Hours: N/A
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General
10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income X Elective
11. Instructor(s): Rob Chrisman, Cheryl Walker, Gerald Kifer, Susan Allen, George Opelka, Michael Bradley, Michael Floyd
12. Method of Presentation: X Traditional Classroom _____ Correspondence _____ Internet

    _____ Video Tape _____ Remote TV _____ Computer
13. Owner of Course Materials: Allterra Group, LLC
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Rob Chrisman

   Mailing Address: 514 Cambridge Street, San Francisco, CA 93134

   Business Phone: 415-794-7506

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Keynote/Industry Update/Big Data

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

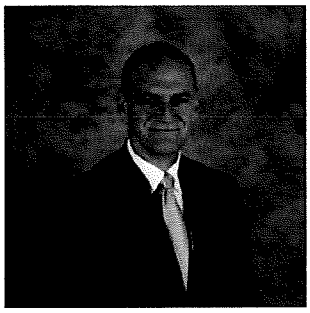
(Date)

Rob Chrisman
President

work rchrisman@robchrisman.com
work rob.chrisman@stratmorgroup.com
work San Francisco CA
note Updated 8/30/2016

DOB

work (415) 794-7506



Rob Chrisman began his career in mortgage banking - primarily capital markets - 31 years ago in 1985 with First California Mortgage, assisting in Secondary Marketing until 1988, when he joined Tuttle & Co., a leading mortgage pipeline risk management firm. He was an account manager and partner at Tuttle & Co. until 1996, when he moved to Scotland with his family for 9 months.

He returned to the United States in mid-1997 and ran Secondary for Standard Financial, a sub-prime lender in northern California. In late 1997 Rob was hired by CrossLand Mortgage to start, and be the president of, a sub-prime company named OnCall Mortgage (a division of CrossLand). OnCall Mortgage was in existence until Wells Fargo purchased First Security Bank (the owner of CrossLand) at the end of 2000.

Rob then joined CMG Mortgage, a wholesale mortgage bank, as the Director of Secondary Marketing. In early 2003 and re-joined Tuttle Risk Management Services, Inc. TRMS (now Compass) provides mortgage pipeline risk management for mortgage companies and thrifts that seek to originate and sell loans into the secondary mortgage market. In November of 2006 Rob left TRMS to become the Director of Capital Markets for RPM Mortgage, a retail residential lender, leaving there in late 2008 to focus on not only publishing a widely read daily market commentary on current mortgage events but also on his family.

He is on the board of directors of Peoples Bank, a mid-sized depository in Kansas, of Inheritance Funding Corporation, a financial services company which advances capital to heirs, of International City Mortgage, of Axis AMC, and of the California MBA. He is also a member of the Secure Settlements Advisory Board, an associate of the STRATMOR Group, and of the Mortgage Bankers Association of the Carolinas and its membership committee. Rob has provided expert witness services for mortgage and real estate-related cases, has lectured to groups around the country.

Rob holds a BS from Cal Poly, San Luis Obispo, and an MBA from UC Berkeley.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Cheryl Walker

   Mailing Address: 451 7th Street SW, Washington DC 20410

   Business Phone: 202-402-6880

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Keynote/Industry Update/Big Data

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ● (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ● (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Cheryl Walker
Director Valuation Policy Division

work Cheryl.B.Walker@hud.gov
work 451 7th St. SW
Washington DC
20410
note Updated 8/26/2016

DOB 8/1/1962

work (202) 402-6880

Cherylayne "Cheryl" Walker

U.S. Department of Housing and Urban Development

Cheryl Walker joined HUD in October 2000 and currently serves as the Director of the Home Valuation Policy Division (HVPD) responsible for the development, implementation, and oversight of all FHA appraisal reporting standards and property eligibility requirements for single family dwellings and origination policy for the Home Equity Conversion Mortgage (HECM) program.

Prior to joining HVPD in January 2015, Ms. Walker served fourteen years as the Director of the Real Estate Owned (REO) Division in HUD's Philadelphia Homeownership Center where she was responsible for overseeing the acquisition and disposition of FHA's REO portfolio in 15 states and the District of Columbia. Ms. Walker also gained extensive experience in the mortgage industry through various positions held at Coopers & Lybrand, LLC, the New Jersey Housing & Mortgage Finance Agency and the Resolution Trust Corporation. Cheryl holds a Bachelors of Business Administration degree in Accounting from Howard University and the Certified Public Accountant designation.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Gerald Kifer

   Mailing Address: 810 Vermont Avenue, NW, Washington DC 20410

   Business Phone: 540-671-6396

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Keynote/Industry Update/Big Data

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Grundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

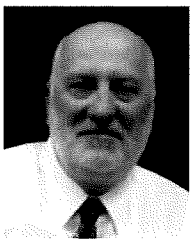
Gerald Kifer
Supervisor Appraiser

work gerald.kifer@va.gov
home gkifer7015@earthlink.net
home 810 Vermont Ave., N.W.
Washington DC
20410
work 810 Vermont Ave NW
Washington DC
20410
United States of America
note Updated 8/21/2016

DOB 2-16-1951

home (540) 465-8674
work (202) 632-8805
mobile (540) 671-6396

Gerald Kifer
Supervisory Appraiser Department of Veterans Affairs VA Central Office
Washington, DC



Gerald Kifer entered the Real Estate Appraisal Industry in Northern Ohio in 1972. As an independent fee appraiser, he served a range of clients from mortgage lenders and insurance companies to private individuals and law firms. In 1975, he joined a regional savings and loan company as staff appraiser where he worked in both residential and small commercial valuation. He returned to private practice from 1978 to 1984. He joined the (then) Veterans Administration as a staff appraiser in the Cleveland Regional Office in 1984 with valuation duties throughout the State of Ohio, becoming Assistant Chief Appraiser in 1986. In 1990 Gerald transferred to VA Headquarters in Washington DC where he held a number of valuation related positions with varied duties, ultimately being named Supervisory Appraiser for the Dept. of Veterans Affairs (VA) in 1992, a position he held until leaving VA to assume the position of Director, Valuation Policy Division of FHA in July of 2010. Mr. Kifer returned to the VA as the Supervisory Appraiser in August of 2011. Mr. Kifer is a veteran of the United States Marine Corps and has served as a Congressional Fellow working on Capitol Hill in Washington. He has worked in valuation public policy positions in Washington for over twenty-years. He has been an instructor of numerous appraisal training courses in varying venues during his career.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Susan Allen

   Mailing Address: 4 First American Way, Santa Ana, CA 92707

   Business Phone: 714-250-6514

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Keynote/Industry Update/Big Data

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

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7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Susan Allen
Vice President, Collateral Solutions

other suallen@FACorelogic.com
other suallen@corelogic.com
work 4 First American Way
Santa Ana CA 92707
United States of America
note Updated 8/30/2016

DOB

work (714) 250-6514
mobile (714) 673-2562

CoreLogic

Susan Allen
Senior Vice President,
Valuation Solutions

Susan Allen has more than twenty years of experience as a risk and operations executive and currently serves as senior vice president of Valuation Solutions for CoreLogic.

Susan previously served as vice president of Global Fraud and Valuations for CoreLogic where she was responsible for managing property valuation and fraud solutions in the U.S. and abroad, developing industry leading risk management products and consulting with clients to improve lending and servicing decisions.

Prior to joining CoreLogic, Susan was chief collateral officer for JP Morgan Chase where she was responsible for generating, purchasing and evaluating property valuations and establishing, monitoring and defending risk policies. She served on committees overseeing operations risk, fraud risk and compliance risk, and assisted with the integration of Washington Mutual's collateral risk operations and policies into JP Morgan Chase.

Susan previously held a similar collateral risk position with General Motors Acceptance Corporation, where she tested and deployed AVM and mortgage fraud solutions and managed valuations departments. Prior to that, she served as senior risk manager for U.S. Bank, managing credit card fraud, anti-money laundering solutions, deposit account fraud and internet fraud. While at U.S. Bank, she successfully leveraged models, technology and operations to significantly reduce fraud losses and increase approvals.

Susan also previously served as a senior consultant for several international financial services firms, providing risk management technology and analytics services to Macquarie Bank, Ford Motor Credit and Conseco Capital Management. Susan is a regular speaker at banking conferences and frequently publishes articles regarding the latest developments in risk management analytics.

Susan holds a Bachelor of Arts degree in finance from Michigan State University and an MBA in international economics from Indiana University.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: George Opelka

   Mailing Address: 145 City Place, Suite 200, Palm Coast, FL 32164

   Business Phone: 800-234-8727 x846

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
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   Pre License Hours: N/A Continuing Education Hours: 7

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   Yes ◯ **No** ● (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
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8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

George Opelka
Senior Vice President, Sales & Marketing

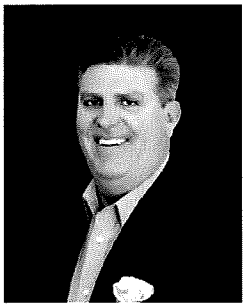
other gopelka@aciweb.com
work 145 City Place

Suite 200
Palm Coast FL
32164
United States of America
work 145 City Place
Suite 200
Palm Coast FL
32164
United States of America
note Updated 8/30/2016

DOB

work (800) 234-8727 x846
work fax (386) 845-0208
mobile (386) 503-1334

George Opelka
Senior Vice President of Sales and Marketing for ACI



Executive Summary

George Opelka is Senior Vice President of ACI located in Palm Coast, Florida. ACI has been a leading innovator in providing software solutions for the valuation industry for more than 30 years. George joined ACI in 1993 and oversees all sales and marketing activities for the company. He plays an integral role in business development and establishing strategic partnerships that connects thousands of real estate appraisers to their clients using ACI technology.

George was exposed to the appraisal profession at birth. His father, F. Gregory Opelka, is a national past president of the Society of Real Estate Appraisers and a 2012 recipient of The Lifetime Achievement Award from the Appraisal Institute. Prior to joining ACI, George was active in the real estate information industry where he worked for California-based Damar Corporation (2 years) and the SREA Market Data Center (6 years), two national real estate information providers.

Mr. Opelka has lectured around the country for 25 years on topics covering appraisal automation, real estate information, and data standards. Away from the office, George is an avid tennis fan and a self-proclaimed gastronomist. He earned a Bachelor[1]s Degree from the University of Alabama. Roll Tide!

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Michael Bradley

   Mailing Address: 1551 Park Run Drive, McLean, VA 22102

   Business Phone: 571-382-3774

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
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   See attached outline

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(Attach additional pages as necessary)

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Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

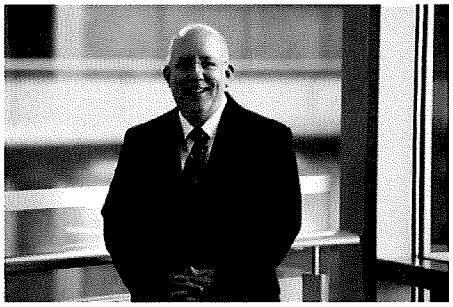
(Date)

Michael Bradley
SVP, Single-Family Modeling and Analytics

work michael_bradley@freddiemac.com
work 1551 Park Run Dr.
McLean VA 22102
note updated 8/30/2015

DOB

work (571) 382-3774



Michael Bradley
SVP — Modeling, Econometrics, Data Science and Analytics
Single-Family Business

Michael is responsible for setting the modeling and analytics strategy, positioning Freddie Mac to become the best credit guarantor. This is a critical role, as Freddie Mac relies on data-driven modeling and analytics to guide functions such as buying loans, valuation and hedging, predicting defaults/severity, and conducting risk management, to name a few.

Michael returns to Freddie Mac after serving as SVP of Consumer Analytics and Modeling Unit at Citigroup and most recently as SVP of Decision Analytics and Research Team at CoreLogic. He previously was with Freddie Mac from 1991 to 2003. Among his roles, he served as VP and general manager of Strategic Information Services, where he helped innovate and bring Home Value Explorer to market.

Michael holds a Bachelor of Science in economics from the University of Delaware, and a Master of Science and a doctorate, both in economics, from the University of Illinois.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Michael Floyd

   Mailing Address: 444 East Washington Street, Indianapolis, IN 46204

   Business Phone: 866-794-6371

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Keynote/Industry Update/Big Data

5. Which portion(s) to be taught by the instructor?
   See attached outline

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   Pre License Hours: N/A Continuing Education Hours: 7

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8. Education:

School	From		To		Degree Earned	Subject Matter
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	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
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See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Cundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Michael Floyd
Chief Appraiser

other michael.floyd@assurant.com
work 444 East Washington Street Indianapolis IN 46204 United States of America
note updated 8/31/2016

DOB

work (866) 794-6371,,,5216304
mobile (317) 614-6304
iphone

Mike Floyd
Chief Appraiser, SVP of Compliance
StreetLinks Lender Solutions®

A practicing appraiser for nearly 20 years, Mike currently holds a Certified Residential Appraiser credential from the State of Indiana. As a founding member of StreetLinks' predecessor, Superior Appraisal Services, Mike assisted in the training, education and internal quality assurance of a team of over 30 appraisers. His insight and expertise helped grow Superior from a local appraisal firm into one of the largest direct appraisal providers in the Midwest – and eventually, one of the largest and fastest growing non-captive AMCs in the country. As StreetLinks' Chief Appraiser, Mike created and implemented the company's extensive quality control and appraisal risk analysis procedures, which proved to be instrumental in enabling StreetLinks to become an industry leader. Today, as StreetLinks' Chief Appraiser and SVP of Compliance, Mike focuses on product quality, continuing vendor and internal education, consistent client communication, compliance with industry standards and AMC-specific legislation, and new product development.

National Registry Appraiser Report

How do I update credentials?

Print appraiser report

First Name :	Michael
Middle Initial :	Jason
Last Name :	Floyd
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	Michael J Floyd 6595 Reserve Drive
City :	Indianapolis
State :	IN
Zip Code :	46220
County:	MADISON
Telephone Number :	
Status:	Active
Licensing State:	**IN**
State License Number :	CR60500471
License Certificate Type :	Certified Residential
Effective Date of License :	6/29/2016
Expiration Date of License :	6/30/2018
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	Michael Jason
Middle Initial :	
Last Name :	Floyd
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	4890 Brentridge Place
City :	Greenwood
State :	IN

State Contact Information

The National Registry reports as public information active disciplinary actions that limit an appraiser's ability to appraise (current revocations, suspensions, and voluntary surrenders in lieu of discipline). If you require further information regarding other types of disciplinary actions, completed disciplinary actions, or license specific information, please contact the state agency directly.

IN Contact Information

http://www.in.gov/pla/appraiser.htm
dealexander@pla.in.gov

Course Description for
Keynote/Industry Update/Big Data

Keynote

Rob Chrisman publishes a free daily commentary which covers a wide range of topics, from production, including valuations, through the compliance maze and into secondary marketing. By the time we arrive in Las Vegas, it will have been decided who will be leading the new administration in Washington D.C. It will be a perfect time for Rob to lead us through a frank discussion about what went wrong during the housing finance crisis and identify what are the key areas we need to address that will shape the future of housing finance and appraisal reform. Rob's extensive background and connections throughout the industry will benefit appraisers by sharing how important their role is in housing finance and why it is critical that they continue to produce reports that is relied on by the other industry stakeholders.

Industry Update

We have a panel of experts from HUD, and VA for a closer look at what is happening with the policy makers. It speaks volumes that these folks commit to addressing the valuation community every year since our inception.

Big Data

Big data is that scary term that data analysts talk about to imply and infer that the "boots on the ground" appraiser are going the way of the dinosaur. The threat of AVMs has loomed on the horizon for decades. If there is a lesson learned from the mortgage crisis it is that appraisers' independence needs to be respected and valued. Analysts do need data from appraisal reports to assess collateral risk. Appraisers know that public record data and MLS data often just isn't reliable. And after all, MLS data is a sales brochure. The appraiser is that independent trusted local market expert. Join us to learn how appraisers can leverage access to data and analytics tools. What will clients expect going forward? What do the capital markets need from an appraisal that they just aren't getting today? How might the role of the appraiser change in the future?

Friday, November 11th - Vegas

Timed Course Outline – 2016 Keynote/Industry Update/Big Data

Minutes	Scheduled Time	Topics	Student learning objectives. Student will be able to:	Teaching Method	References
15	8:30 – 8:45	Introductions of Keynote– **Rob Chrisman,** Chrisman LLC	Understanding course policies, description and learning objectives. Understanding that there will always be a need for appraisers detail and interpretation of data.	1q	A`
15	8:45 – 9:00	**Rob Chrisman,** Chrisman LLC	See that the prospect of an appraiser shortage has been noticed and will affect the consumer if not addressed. The economic impact of this on the appraiser. How might this change appraisal reports	Lecture	Outline
15	9:00 – 9:15	**Rob Chrisman,** Chrisman LLC	Understanding the barriers for trainees and barriers upheld by lenders. Learning how this will shape the collateral risk in the future.	Lecture	Outline
15	9:15 – 9:30	**Rob Chrisman,** Chrisman LLC	What does this mean to the appraiser? Changes on the horizon for the industry and what appraisers can do in the interim.	Lecture	Outline
15	9:45 – 10:00	**Break**			
15	10:00 – 10:15	**Gerry Kifer,** VA	Understanding VA's expansion of their fee panel	Lecture	Outline
15	10:15 – 10:30	**Gerry Kifer,** VA	How VA requirements differ from other government loan programs. How this translates to the Appraisal.	Lecture	Outline
15	10:30 – 10:45	**Gerry Kifer,** VA	How VA policies are intended to protect veterans and how the appraiser fulfills this aspect of the loan program.	Lecture	Outline
10	10:45 – 11:00	**Gerry Kifer,** VA	Learn how to join the VA panel and understanding the appraisers role.	Lecture	Outline
15	11:00 – 11:15	**Cheryl Walker,** HUD-FHA	Appraiser and Property requirements – Key Policies for appraisers to understand.	Lecture	Outline
15	11:15 – 11:30	**Cheryl Walker,** HUD-FHA	Understanding Contributory Value of Components and common appraisal data delivery errors.	Lecture	Outline
15	11:30 – 11:45	**Cheryl Walker,** HUD-FHA	Understanding Contributory Value of Components and common appraisal data delivery errors.	Lecture	Outline
15	11:45 – 12:00	**Cheryl Walker,** HUD-FHA	Appraisers will walk away with the most recent FHA Updates and Key Policies.	Lecture	Outline
90	12:00 – 1:30	**Lunch**			
15	1:30 – 1:45	Introductions **Susan Allen**, CoreLogicS	Understanding course policies, description and learning objectives.	Lecture	None
15	1:45 – 2:00	**Susan Allen**, CoreLogicS	Understanding how Fannie Mae's CU is the ultimate in big data. What is AQM ? How will lenders be able to prescreen data before submission.	Lecture	Outline
15	2:00 – 2:15	**Susan Allen**, CoreLogicS	Appraisers will see how data is used to provide historical data per property ensuring reliability and accuracy of the valuation product.	Lecture	Outline
15	2:15 – 2:30	**George Opelka,** ACI	Understanding how harnessing the power of big data is appraisers most powerful tool. Seeing data in the large picture. How appraisal quality is enhanced.	Lecture	Outline

15	2:30 – 3:00	**George Opelka,** ACI	The art of appraising versus the science of appraising. Availing appraisers of ways to become more efficient . Understanding the role of alternative valuation products.	Lecture	Outline
15	3:00 – 3:15	**George Opelka,** ACI	How efficiencies through the use of larger data sets enhances the appraisal and both appraisal quality and quality of life for the appraiser.	Lecture	Outline
15	3:15 – 3:30	**Michael Bradley** Freddie Mac	How big data will change collateral risk assessments. Understanding how unique assets purchased with emotion can be defined.	Lecture	Outline
15	3:30 – 3:45	**Break**			
15	3:45 – 4:00	**Michael Bradley** Freddie Mac	How does USPAP factor into anchoring the value as well as the affect of regulatory guidance.	Lecture	Outline
15	3:55 – 4:10	**Michael Bradley** Freddie Mac	Examples to illustrate these valuation techniques. Understanding what works and what things could be reengineered	Lecture	Outline
15	4:10 – 4:25	**Michael Floyd** Assurant Valuations	Understanding how computer aided appraisals utilizes technology . Why is this necessary	Lecture/ Discussion	Outline
15	4:25 – 4:45	**Michael Floyd** Assurant Valuations	Understanding that change can be challenging but has historically been hugely beneficial to the appraisal industry.	Lecture/ Discussion	Outline
15	4:45 – 5:00 pm	**Michael Floyd** Assurant Valuations	How technology will save appraisers as the pool of appraisers diminishes. How regression shows the valuation in broader strokes. Showing how appraisers will win with big data and the resulting technology born of the data age.		
	5:00	Adjourn			
Total 7 Hours					

Segment Instructor	
Keynote Rob Chrisman, Chrisman LLC	The Human Factor With the advent of more and more advanced technology, is there still room for the human factor. Are appraisers an endangered species? Talking Points ➢ Current Regulatory Requirements and Impact ➢ Current Lender Requirements and Impact ➢ Trainee Survey of State Appraiser Regulatory Agencies ➢ Examination of AQB Alternative Experience Criterion 4 Year College Degree Requirement 2,500 Hours of Experience 24 Month Minimum Time Period ➢ Lender Barriers The survey results received from the state regulatory agencies confirm the concerns the ▶ Collateral Risk Network, ▶ National Association of Appraisers have been expressing relating to the potential appraiser shortage that will be facing the industry unless significant and immediate changes occur within the regulatory requirements governing entry into the profession and lender acceptance. **Appraiser Shortage – Fact or Myth?** ▶ How Many Boots on the Ground Appraisers? ▶ ASC National Registry Provides Visibility Into Number of Credentials No Visibility into "Practicing" Credentials Exceptions: Executives, Management, Staff Reviewers Many Credentialed in Multiple States **AQB Real Property Appraiser Criteria** ▶ Concept Paper July 2015 ▶ Public Meeting in D.C. October 2015 ▶ Public Meeting in Phoenix April 2016 Alternative Paths for Experience Credit Question whether 2,500 Hours is excessive Survey of state regulators - AARO 2013 Range was Six weeks to Six Months Training. **Economic Plight of Licensed Appraisers** **FHA Certification Requirement** ▶ Lenders excluding Licensed Appraisers – Not just for FHA but also for Conventional Loans ▶ Licensed Appraisers no longer capable of sustaining a living doing mortgage lending work. ▶ State data indicating Licensure Renewals declining at accelerating rate **Disincentive By-Product of Requirements** ▶ No Economic Incentive to Attain Licensure

	▶ Trainees Path Now By-Passing Licensure From 12 Month Minimum to 24 Month Minimum From 2,000 Hours to 2,500 Hours Disincentive to Trainee as well as Supervisory Appraiser having to directly supervise a Trainee for a minimum of 2 Years. **Appraiser Surveys** ▶ Working Real Estate Magazine 4/13/16 3,500 Appraisers Responded 22% Believe There is a Shortage in Their Market 82% Support Alternative Path to Certification for Appraisers in Good Standing 76% Believe Trainee Can Inspect Properties Independently if properly Trained 60% Plan to Retire within 10 Years 34% Plan to Retire within 5 Years . **Lender Barriers** ▶ Misconceptions Regarding Use of Trainees Dodd-Frank Act Interagency Appraisal and Evaluation Guidelines AMC Final Rule – allows the use of Trainees ▶ Lenders/AMCs Requiring 3-5 Years Experience ▶ Lenders Not Using Licensed Appraisers ▶ AQB Exposure Draft Responses Written Comments Public Meetings CRN Outreach to Lenders Supervisor/Trainee Score Card Data Reveals: Faster Turn Times from Request to Completion Fewer Revision Requests Higher Quality Scores ▶ Collaboration with Other Advocacy Groups National Association of Appraisers State Appraiser Coalitions National Association of Realtors - Appraisal Resolve Dispute Between AI and TAF Conclusions – What does this mean to appraisers? ➢ Supply and Demand and its affect on fees ➢ Anticipate technology products to fill the gaps ➢ Potential Revision in Experience Criterion 4 Year College Degree Requirement - reconsidered 2,500 Hours of Experience - reconsidered 24 Month Minimum Time Period - reconsidered ➢ Lender Barriers – what changes you'll see coming ➢ TAF – already reassessing barriers to entry ➢ Call To Action for Appraisers

Industry Update **Cheryl Walker, FHA**	• **Appraiser & Property Requirements: Key Policy Changes** • **Appraiser and Property Requirements Section** • When a word is capitalized in the Handbook: It means exactly what it says in the Glossary. **Structure:** Structure refers to a building that has a roof and walls, stands permanently in one place, and contains single or multiple housing units that are used for human habitation. • **Appraiser & Property Requirements: Key Policy Changes** • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • If subject includes additional parcels or a larger than typical site, the Highest and Best Use (HABU) analysis determines whether this is excess or surplus land. Reminder: All FOUR tests of HABU must be applied. A separate legal description for the surplus land is not required. • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • Attic and Crawl Space Inspection Requirements: clarifying that FHA requires an inspection. Head and Shoulders is the **alternate** to a full inspection. • If unable to observe the entire attic or crawl space area, the appraiser must report the scope of the observation, what was observed, and based on this, whether the appraiser recommends further inspection. • **Appraiser & Property Requirements: Key Policy Changes (cont.)** • Contributory Value of Components • Electronic Appraisal Delivery • Mandatory for all mortgagees June 27, 2016 • Common Appraisal Data Delivery Errors On hud.gov/appraisers (on lower right) • Contact your software company to make sure you have the latest update. • EAD Registration and On-boarding • There are two steps to complete the sign-up process for EAD: Lender Registration The process of selecting one of the 60-day periods for on-boarding. Lender On-boarding The process for obtaining credentials from FHAC and obtaining access to the EAD Portal. • FHA's email information vehicle
Industry Update **Gerald Kifer, VA**	*VA Appraisal Program* *Required by Statute: 38 U.S.C. Sec. 3731* * Basically, This Creates a Closed Panel * Rotational Assignment of Work * Becoming A VA Appraiser * Appraisers May Prepare and Submit Applications Online * No Examination is Required

	* Sample Appraisal Report Used to Gauge Quality of Entry Level Performance * Credit & References Checked * Qualifications/Application Online: www.homeloans.va.gov/cav.htm * VA is Different! Maybe /Maybe Not?? * **Well, Actually *NOT* That Much Different!** * VA is the Client * VA's Primary Requirement is a USPAP Compliant Report * VA Does Have MPRs [Minimum Property Requirements] * The Appraisal May Be Seen by People All Over the World – We Care! * VA C&V Online – www.homeloans.va.gov/cav.htm VA's C&V Web Page: * FAQs * Online Appraiser & Builder Forms * Lists of Approved Condos & Registered Builders * Local Requirements * Contact Info for Regional Loan Centers (RLCs)
Big Data	
Susan Allen, CoreLogic	Let's examine Fannie's new Collateral Underwriter to check appraisals Using Fannie's Big Data. • Susan Allen • CoreLogic • CU and who benefits • 10-14 FNMA Collateral Underwriter Flyer showing info about the FNMA Collateral Underwriter process they will make available to lenders (NOT APPRAISERS) in January 2015. You should review it. It has to do with their Enhancement of Risk Controls • This is what we know as Appraisal Quality Monitoring (AQM) .... which was announced almost 2 years ago. FNMA has already been using the 'scope' on your reports, but will soon allow the lenders to have access to the software so that they can do pre-submittal exams prior to uploading the loan file, and your appraisal, to FNMA. • Virtually everything is digital now in our real estate appraisal world. That makes it incredibly easy for 'big data' to be analyzed very quickly and efficiently. Hiding relevant property info under a rock, your clipboard [tablet?], or just ignoring it, is no longer possible. Discrepancies will be found fast, and you will be asked for explanations or corrections. • Note the examples from the flyer: – Chain of property ownership – Inconsistency in reported property data from your info compared to your peers (subject & comps) – Checking adjustments made (or not made) – primarily the math – Testing for comps in terms of location, characteristics, sales prices, etc. • FNMA's news release about their Collateral Underwriter: • Introducing Collateral Underwriter

	• Collateral Underwriter™ (CU™) is a proprietary appraisal risk assessment application developed by Fannie Mae to support proactive management of appraisal quality. CU will: – Provide additional transparency and certainty by giving lenders access to the same appraisal analytics used in Fannie Mae's quality control process. • Perform an automated risk assessment of appraisals submitted to the Uniform – Collateral Data Portal® (UCDP®) and return a CU risk score, flags, and messages to the submitting lender. – Be available at no charge so lenders can take full advantage of the application for quality control and risk management purposes. • The CU risk scores, flags, and messages will be available to all UCDP users in real-time beginning on Jan. 26, 2015 through UCDP. Find more information on the CU web page at https://www.fanniemae.com/singlefamily/collateral-underwriter?cmpid=sln102114 . • The other pages were not available. Real estate is location, location, location. What about the 4th approach to value: Curbside Approach. That is where you sit on the curb across the street from the subject and ask yourself: "Does this value make any sense?" • There are many appraisal review programs in use and being developed. I knew that Fannie would be using their Big Data to automate underwriting reviews of appraisals as well as monitoring appraisers. • Does this mean appraisers focus even more on making sure their appraisals pass these automated reviews rather than focusing on what counts – the value? • Is this another path along the way to not focusing on what appraisers provide – reliable and accurate values? • Plus, disclosure of any problems with the property? **Thank you.**
George Opelka, ACI	How New Technology's use of Big Data Will Change the Appraisal Industry George Opelka ACI **Harnessing the power of data.** It is the concept of harnessing the power of computers and technology to assist and empower the appraiser with capabilities that allow them to produce highly credible valuations. Today… Appraisers have Powerful Form Fillers And a lot of manual work! **Time to Complete an Appraisal** I typically spend **4 to 5 hours** on a report not including field work with research and analysis taking up most of the time **4-6 hours** once I get started The clerical, research and analysis phases, plus the actual time spent writing the report usually totals up to **about 4 hours** **Typical Appraisal Process** **Appraisal Quality Suffers** **Office of the Comptroller of the Currency**

	17.6 % of appraisals contained contradictory information 35% of repurchased loans are due to faulty appraisals **Appraisal Compliance Issues** USPAP UCDP, UAD CFPB Dodd Frank Interagency Guidelines Federal & State Independence Laws Result: Credibility Suffers **Appraising is considered an "Art"** **Appraising is considered an "Art"** You would never expect a computer to value the Mona Lisa **Appraising is considered an "Art"** We also don't expect computers to accurately value our home **But Ever Since 1981...** **But Ever Since 1981...** **But Ever Since 1981...** **Today Valuation is BIG Business** **Property Valuation has become a Science** Team of more than 50 PhDs, economists, and modelers Combined with nation's largest property and ownership database covering 98 percent of the U.S. population Equals "Good Enough" property valuations **Appraising has to be more than "art"** Big Data-AVM Review Systems Appraisers are being reviewed & scored by systems that utilize massive amounts of data Data from AVM indicates the appraised value may be in excess of the neighborhood Requests to reconsider comp selection Requests for additional influence explanation Requests for comp adjustment support etc. Big Data-AVM Review Systems **These review systems have access to more property data and can process it much, much faster than the appraiser.** Appraiser is at unfair disadvantage Fill Out the URAR on a Tablet See More, Do More - Quicker Partner with an AVM? **AVMs: Hop on board the train or get left behind**? Computer-Aided Appraising **Computer-Aided Appraising** Reduces This Closed Black Box AVMs Analytics are open to Appraiser Computer-Aided Appraising **Like having Mr. Data help you value a property** Work with Entire Market Data

	Market Analysis Market Trends & Forecasting Analysis Dashboards Statistically Accurate Valuations Computer-Aided Appraising **Why do we need it?** Computer-Aided Appraising *transforms the appraisal process* by letting computers do the tedious, manual processes **and** by empowering appraisers with analysis capabilities that were never previously available. **Appraiser are <u>now</u> able to provide valuation services to the entire valuation market.** **Opportunities** Frees Appraisers from the 1004 Box HELOCs are Big Business New Evaluation Guidelines ✓ **1. Must provide** reliable estimate of market value ✓ **2. Must address** property's actual physical condition ✓ **3. Must address** market factors that affect value BPO's are not sufficient because it does not provide a market value CMA - Competitive market analysis is not sufficient because it does not provide a market value AVM alone is not sufficient because it does not include an inspection of the property Valuation Market Share Take Back Some Market Share Take Back Some Market Share 50% of BPO's is 7.5 million valuations - these include drive-by inspections If 62,000 appraisers divided these jobs evenly, <u>each must do 120 more valuations/year</u> These jobs pay $125 - $150; Each appraiser could add up to $18,000 to their bottom line. Appraiser Evaluation Process Appraiser Evaluation Process Appraiser Evaluation Process Appraiser Evaluation Process Appraiser Evaluation Process Are Appraisers Ready for the Future?
Michael Bradley, Freddie Mac	▪ What's collateral risk and why is it difficult to determine? How is Bid Data going to change it. ▪ The current appraisal process: Some things are done well. Others need to be reengineered. Appraisals – A Deeper Dive. ▪ Why is Collateral Risk Difficult to Determine? ▪ Properties are illiquid, unique assets and both buyers and sellers often make emotional decisions. ▪ Property values may depend on assumptions – "as is" vs. "as repaired"; "quick sale" vs. "standard sale."

- Property values exist in a range, not as a spot value. Many factors impact the breadth of the value range:

Uniqueness of Property
Condition of Property
Homogeneity of Neighborhood Properties
Price Range

Property values also change over time, with some properties more sensitive to regional price changes than others

- Anchoring
- Regulatory Guidance
- OCC Guidance – (OCC-2010-0012)

Intended to "provide for the independence of the persons ordering, performing, and reviewing appraisals or evaluations."

"An institution's policies and procedures should ensure that it avoids inappropriate actions that would compromise the independence of the collateral valuation function…"

"An institution may exchange information with appraisers and persons who perform evaluations, which may include providing a copy of the sales contract."

- Regulatory Guidance
- USPAP Rules*:

When the value opinion to be developed is market value, an appraiser must, if such information is available to the appraiser in the normal course of business:

(a) analyze all agreements of sale, options, and listings of the subject property current as of the effective date of the appraisal; and

(b) analyze all sales of the subject property that occurred within three (3) years prior to the effective date of the appraisal.

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Source: Uniform Standards of Professional Appraisal Practices , 2010-2011 Edition.

- Deep Blue versus Garry Kasparov
- Thinking Like a Freak
- Relo Appraisals – Example #1
- Relo Appraisals – Example #2
- Feature Usage – By Appraisal
- Feature Usage – By Comparable
- Overall Observations - Findings
- Inconsistent feature value adjustments observed in both:

Subjective features – Forecasting, Condition, Quality
Tangible features – GLA, Baths, Age, etc.
Tangible features should be derived and attained from consistent data source

- Value baseline factors for tangible features should be standardized and consistent across appraisals
- The culmination of using consistent data and standardizing adjustment factors should lead to more consistent final valuations

Here's What We've Learned:

- Collateral risk is difficult to determine.
- The current appraisal process:

Does some things well.

	Other things need to be reengineered. Appraisers: Are subject to anchoring bias. Need help making adjustments to comparables.
Mike Floyd, Assurant Valuations	**Computer-Aided Appraising: How New Technology Will Spur Growth in the Appraisal Industry** Michael Floyd Chief Appraiser Technology, Friend or Foe? The way in which technology impacts the residential appraisal industry is up to us. Embrace it, and make it work for the appraiser. Reject it, and its use will usurp the residential appraiser's position within the mortgage lending process. **<u>Adaptability</u>** is critical! **Why is change necessary?** Our current methodology isn't cutting it! Service level expectations from the lending community have made EFFICENCY and CREDIBILTY a top priority. The users of appraisal services don't trust the appraiser. Relying on three sales and two listings to derive a value opinion isn't statistically meaningful. **Historical Perspective** "Those who fail to learn from history are doomed to repeat it." - **George Santayana** Think we missed the boat on this one… <u>Looking back in time</u> **Appraisal Production Software** After Before **Digital Sketching Software** Then Now **Color Printers** **Digital Cameras** **Laser Measuring Devices** *<u>The World Wide Web Changed Our Environment</u>* **Handheld Devices** **Tablet Computers** ❑ Remember the Fujitsu Tablet Computer? (circa 1999) **We've gone mobile!** **Looking Forward** Technological advancements in the residential appraisal space have streamlined the appraisal process, but the real magic is still to come… Mobility Standardization Integration Analytics **<u>Our "Methods & Techniques" aren't working in todays mortgage lending</u>**

	environment. Residential Appraisers will be replaced if we don't reevaluate the way in which we support the mortgage lending process. Lenders struggle with disparate value conclusions on the same property, with the same or similar effective dates when two appraisers are engaged. **Why is it happening?** **An Updated Value Proposition** ▪ More objective appraisals, derived via regression of larger pools of data, supplemented and driven by the local subject matter expert, leads to an increased level of credibility. **Appraiser's Are Attritting...** • The industry is aging and few are entering the profession. • Will lenders accept a **turn-time of two months** for a residential appraisal in a major metropolitan area, or will they find an alternative solution? • Technologically Assisted Appraisals **WILL** help us in reaching the appraisers of tomorrow, today! **Technology's role in furthering our profession.** Real-time connectivity between supervisory appraiser and trainee during the course of the inspection and write-up. Working off an iPad (instead of a clipboard) is natural for the youth of today. Singular UI reduces training times. **Say it isn't so!!!** Line item adjustments aren't regressed from the market using spreadsheets or HP12C's, they're being SWAG'd. **Ensuring the Public's Trust** Technology – including Big Data, Analytics and Algorithms – is no substitute for an appraiser professionals expertise, but its use will help us rebuild confidence in our profession. Change Takes Consensus It's not only about the use of technological enhancements in the appraisal production process by appraisers....it's about the drive towards adoption when it comes to the users of appraisal services. Remember convincing lenders an electronically signed report, delivered via PDF, was acceptable? **We Must...** **Mobile Appraising?** As it was... As it will be... ***Technology Drives Our Future***

Allterra

Attendance Certificate For Continuing Education in Appraisal

Karen Connolly

Attendee Appraiser Cert. Number (s) NY **12345667**

Live Valuation
P.O. Box 85
Morrow NY 21202
Attendee's Business Address

Has successfully completed (7) clock hours of continuing education in: ***Real Estate Appraisal***

2016 Keynote/Industry Update/Big Data

This Traditional Classroom offering was 100% attended on the date of: 11/11/2016

Located at: Flamingo Hotel, 3555 Las Vegas Blvd, S., Las Vegas, NV 89109

We certify that these hours meet the requirements for Continuing Education.

Date of Issuance: 11/14/2016

Verifier:

Joan Trice
Allterra Group
9927 Stephen Decatur Hwy, Suite G-16
Ocean Citv. MD 21842

AL, AZ ABA#0316-1467, AR, CT School # APL.000040, DE, GA 66985, ID, IN, KS, KY, LA, MA 57, ME 106C103, MD, MS MAB#48960, MO, NE, NH, NJ 2016-135024, NY 4475-07-2016, ND CE-216012R, OK APP166-721, OR ALCG-C-0416-1832, PA, RI REA.0000831-CE, SD 1147 CE, TN 1924, TX, VA, WA AP3600, WI REA 4095, WY. Old Numbers

State Course Approval Number or Certification Number (s)

Continuing Education Provider Policies

Cancellation/Refund Policy

A $50 fee will be assessed to process any changes or refunds to the registrations. Refunds must be requested by email 30 days prior to the event to jtrice@appraisalbuzz.com. No refunds will be processed after 30 days prior to the event for any reason. NO EXCEPTIONS. A pass to the next event will be given to anyone that cancels within 30 days of an event.

Make Up Policy

There will be no make up for this class. Allterra Group, LLC does offer a pass to the next continuing education event in the event the student is unavailable.

Prerequisites

There are no prerequisites for attending this course. The course is open to all real estate appraisers.

Attendance Policy

Allterra Group, LLC has implemented a strict attendance policy. Attendees are required to sign in at the beginning of the day and out for each break, lunch and sign out at the end of the day. Attendees must complete 100% of the class to receive a Continuing Education certificate of completion. Attendance will be strictly enforced. No credits will be given for partial attendance. Allterra Group, LLC provides a staff person at the door to monitor attendance.

Certificate Policy

Certificates will be produced and emailed or mailed to attendees within thirty (30) days after the conference. A copy of the certificates are kept on file for six (6) years. In some cases, certificates are provided on site when possible.

Record Retention

All records will be kept for no less the Six (6) years at our home office location which is:

Allterra Group, LLC
508 Marcia Avenue
Hamilton, OH 45013

Course Scheduling Policy

Allterra Group, LLC has established a policy of course scheduling that provides for a maximum of eight (8) classroom hours of instruction in any given day and for appropriate breaks during each class session.

School Owners/Directors

Joan N. Trice, President 513-659-1656
Allterra Group, LLC
9927 Stephen Decatur Hwy, Suite G-16
Ocean City, MD 21842

Entrance Qualifications for Students

This is an open class, marketed to real estate appraisers but open to anyone seeking education.

Subcontracting Policy

All subcontractors will provide Allterra Group, LLC with a signed document stating their compliance with all established Allterra policies, including, but not limited to these Continuing Education Policies.

Final Examination Policy or Grading Policy

There will be no exam for continuing education courses provided by Allterra Group, LLC.

Board required material

Allterra Group, LLC will make available to its students materials that the Board may require for use in a particular course or courses and it have video or audio equipment available to present Board required material.

Course Facilities

Allterra Group, LLC will conduct residence courses in classroom style facilities.

ADA – American Disabilities Act

Allterra Group, LLC will comply with all related provisions of the Americans with Disabilities Act (ADA) and that the school will not discriminate in its fees, enrollment, or completion policies on the basis of race, color, sex, religion, national origin, familial status, or disability.

Measures and Standards employed to evaluate student performance

Allterra Group, LLC required the "standard of completion" involves the student being present for each hour of instruction. The Georgia Appraisal Board requires that a student be on time and present for each credit hour in order for a school to certify that the student has completed the course.

Audit Policy

Allterra Group, LLC will permit the Administrator or Administrators representative to audit the course and course materials at no cost to the Administrator or the Administrators representative in order to evaluate the instruction. Allterra Group, LLC will permit the Administrator or the Administrators representative to review our records appropriate to selected course of

Allterra

000019 SEP 27 16

September 16, 2016

Real Estate Appraisers Commission
3605 Missouri Boulevard
P.O. Box 1335
Jefferson City, MO 65102-1335

RE: Continuing Education Classroom Course Approval
2016 Keynote/Industry Update/Big Data – 7 hours
2016 Fannie Mae Update/Appraiser Best Practices – 7 hours

Dear Appraiser Board:

Enclosed is an application for the above-mentioned classes. We have enclosed all of the pertinent information. Please let us know if you require any additional information.

November 11th, 2016
2016 Keynote/Industry Update/Big Data
Flamingo Hotel and Casino
3555 S Las Vegas Boulevard
Las Vegas, NV 89109

November 12th, 2016
2016 Fannie Mae Update/Appraiser Best Practices
Flamingo Hotel and Casino
3555 S Las Vegas Boulevard
Las Vegas, NV 89109

Sincerely,

Ashley C Hammond

Ashley Hammond
Director of Education
443-944-0897

:ach

Enclosures

Recd $25 – 9-26-16

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL.* All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): Allterra Group, LLC
2. Mailing Address: 9927 Stephen Decatur Highway, Suite G16, Ocean City, MD 21842
3. Contact Person: Karen Connolly
4. Phone: 513-490-0226 Fax: 513-785-0900
5. Website: www.valuationexpo.com Email: info@allterragroup.com
6. Course Title and Number: 2016 Fannie Mae Update/Appraiser Best Practices
7. Number of Classroom Hours: 7 Number of Exam Hours: N/A
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:

   X All _____ State License _____ Certified Residential _____ Certified General
10. Indicate the pre license requirement for this course would meet:

    _____ Principles _____ USPAP _____ Income X Elective
11. Instructor(s): Zach Dawson, Andrew Bough, Kenneth DeFeo, Jeff Rauland
12. Method of Presentation: X Traditional Classroom _____ Correspondence _____ Internet

    _____ Video Tape _____ Remote TV _____ Computer
13. Owner of Course Materials: Allterra Group, LLC
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Zach Dawson

   Mailing Address: 3900 Wisconsin Avenue, NW, Washington DC 20016

   Business Phone: 202-752-7844

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Fannie Mae Update/Appraiser Best Practices

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ○ **No** ● (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ○ **No** ● (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Gundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Zach Dawson
Director - Collateral Strategy

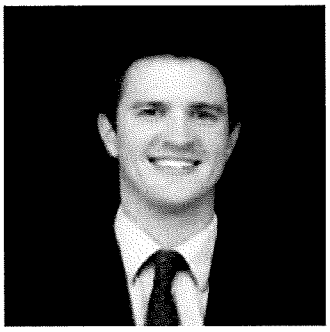
work zachary_d_dawson@fanniemae.com
work 3900 Wisconsin Avenue, NW
Washington DC 20016
United States of America
note Updated 8/16/2016

612.554.6826 - cell and best number

DOB: 01/07/1978

SS: Not necessary, UT does not require on Out of State offerings.

work (202) 752-7844
mobile (202) 907-1564
iphone (612) 554-6826



Zachary Dawson
Director – Collateral Strategy & Policy
Fannie Mae

Zach Dawson is Fannie Mae's Director – Collateral Strategy & Policy. He is responsible for Fannie Mae's Single Family collateral strategy as a whole, covering both Selling Gide policy and use of collateral technology tools including Collateral Underwriter®. He also oversees the Appraiser Quality Monitoring initiative, collateral analytics & reporting, and other strategic appraisal initiatives.

Previously, Dawson was Director - Collateral Management where he was instrumental in the development of the Collateral Underwriter application and execution of the go-to-market strategy.

Prior to joining Fannie Mae in March 2012, Dawson was a Valuation Manager at GMAC Mortgage where he managed appraisal fulfillment, vendor oversight, and collateral underwriting of valuation products for retail, wholesale, correspondent, and portfolio lending. He started his career as a licensed appraiser and real estate agent in the state of Minnesota.

Dawson holds a Bachelor's degree in Management Information Systems from Iowa State University.

Home

Resources For

About the ASC

Resources and Records

National Registry

Legal Framework

State Appraiser Regulatory Programs

Frequently Asked Questions

About this Site

Appraisal Complaint National Hotline

Advisory Committee

Board Members

National Registry Appraiser Report

How do I update credentials?

Print appraiser report

First Name :	ZACHARY
Middle Initial :	D
Last Name :	DAWSON
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	1255 25TH ST NW #819
City :	WASHINGTON
State :	DC
Zip Code :	20037
County:	WASHINGTON
Telephone Number :	
Status:	InActive
Licensing State:	**MN**
State License Number :	20376478
License Certificate Type :	Licensed
Effective Date of License :	3/10/2003
Expiration Date of License :	8/31/2010
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

State Contact Information

The National Registry reports as public information active disciplinary actions that limit an appraiser's ability to appraise (current revocations, suspensions, and voluntary surrenders in lieu of discipline). If you require further information regarding other types of disciplinary actions, completed disciplinary actions, or license specific information, please contact the state agency directly.

MN Contact Information

http://mn.gov/commerce/licensees/ap

Peter.Bratsch@state.mn.us

1401 H Street N.W. • Suite 760 • Washington, D.C. 20005

You are entering an official United States government system that may be used only for authorized purposes. Unauthorized modification of any information stored on this system may result in criminal prosecution. The government may monitor and audit use of this system, and all persons using this system consent to such monitoring and auditing.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Andrew Bough

   Mailing Address: 820 E. Sky Harbor Circle, Floor 02, Phoenix, AZ 85034

   Business Phone: 602-627-8975

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Fannie Mae Update/Appraiser Best Practices

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ○ **No** ● (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ○ **No** ● (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Grundy

(Signature of Appraiser Education Administrator)

9/16/16

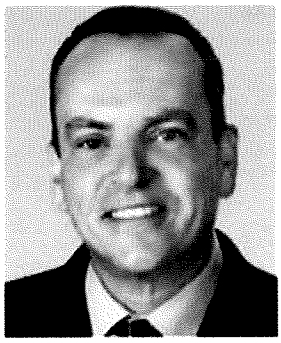
(Date)

Andrew Bough
SVP, Valuations Executive

other andrew.k.bough@chase.com
work 820 E Sky Harbor Circle Floor 02 Phoenix AZ 85034 United States of America
note Updated 8/30/2016

work (602) 627-8975
mobile (805) 660-9392

DOB:



Andrew Bough
SVP, Valuations Executive
JP Morgan Chase

Andrew Bough is a veteran mortgage lending executive with more than 25 years' experience in the valuations and credit risk industry in the U.S. Andrew is currently the Senior Vice President in charge of the Valuations Department at JP Morgan Chase where he is Responsible for the development and execution of valuations strategies across multiple business lines that enhance report quality, the customer experience and ensure regulatory compliance.

Previously, Andrew was the Chief Valuation Officer of Solidifi. His responsibilities will focus on customer service and product quality as well as driving revenue and company growth. Prior to Solidifi, Andrew was head of credit and valuations at ING Direct USA, where he helped to effectively mitigate risk across multiple business channels.

Andrew is a Certified residential appraiser with firsthand knowledge of the appraisal industry and what it takes to be effective.

National Registry Appraiser Report

How do I update credentials?

Print appraiser report

First Name :	Andrew
Middle Initial :	K
Last Name :	Bough
Name Suffix (Jr, Sr, etc.) :	
Company Name :	JP Morgan Chase
Street Address :	5645 Roundtree Place
City :	Westlake Village
State :	CA
Zip Code :	91362
County:	LOS ANGELES
Telephone Number :	805-660-9392
Status:	Active
Licensing State:	**CA**
State License Number :	AR023266
License Certificate Type :	Certified Residential
Effective Date of License :	2/12/2013
Expiration Date of License :	2/11/2017
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	Andrew
Middle Initial :	K
Last Name :	Bough
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	5749 Babbitt Avenue
City :	Encino
State :	CA

State Contact Information

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CA Contact Information

http://www.orea.ca.gov
Jim.Martin@orea.ca.gov

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Kenneth DeFeo

   Mailing Address: 6 Pointe Drive, Suite 500, Brea, CA 92821

   Business Phone: 714-255-2156

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Fannie Mae Update/Appraiser Best Practices

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ● (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ● (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Grundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Kenneth DeFeo
Residential Appraisal Manager

work Kenneth.DeFeo@unionbank.com
work 6 Pointe Drive, Suite 500
Brea CA 92821
United States of America
note Updated 8/30/2016

DOB:

work (714) 255-2156
mobile (949) 279-2460

Ken DeFeo
Vice President – Residential Appraisal Services
Union Bank

Ken has been in the Mortgage and Real Estate industry for the past 23 years with extensive experience in Loan originations, Servicing and Default. At Union Bank, Ken has been tasked with improving visibility around appraiser quality. Prior to joining Union Bank Ken managed vendor relations and quality control for Chase servicing and default. As part of the Executive Management Team at BNC Mortgage, a Lehman Brothers Company, Ken was the SVP of Appraisal Operations. During his years as a senior level manager, Ken helped to drive expansion through technology while keeping a focus on quality. During the same period, according to statistics provided by the Lehman Brothers trading desk BNC's loan loss severity was better than the industry average by 10%. Ken is a graduate of New Hampshire Technical College.

National Registry Appraiser Report

How do I update credentials?

Print appraiser report

First Name :	Kenneth
Middle Initial :	J
Last Name :	Defeo
Name Suffix (Jr, Sr, etc.) :	
Company Name :	Union Bank
Street Address :	6 Pointe Drive, Suite 500
City :	Brea
State :	CA
Zip Code :	92821
County:	ORANGE
Telephone Number :	714-255-2156
Status:	Active
Licensing State:	**CA**
State License Number :	AR017215
License Certificate Type :	Certified Residential
Effective Date of License :	5/17/2013
Expiration Date of License :	5/16/2017
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	KENNETH
Middle Initial :	J
Last Name :	DEFEO
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	1901 MAIN ST.
City :	IRVINE
State :	CA

State Contact Information

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AZ Contact Information

http://www.azdfi.gov
drudd@azdfi.gov

CA Contact Information

http://www.orea.ca.gov
Jim.Martin@orea.ca.gov

CO Contact Information

http://dora.colorado.gov/dre
dora_realestate_website@state.co.us

GA Contact Information

http://www.greab.state.ga.us/
fhubbard@grec.state.ga.us

MA Contact Information

http://www.mass.gov/ocabr/licensee/dboards/ra/
Cynthia.E.Bernadeau@state.ma.us

MI Contact Information

http://www.michigan.gov/lara/0,4601,7-154-72600_72602_72731_72859---,00.html
BPLHELP@michigan.gov

Zip Code :	92614
County:	ORANGE
Telephone Number :	
Status:	InActive
Licensing State:	**TN**
State License Number :	3893
License Certificate Type :	Licensed
Effective Date of License :	12/15/2008
Expiration Date of License :	10/31/2008
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	Kenneth
Middle Initial :	J
Last Name :	Defeo
Name Suffix (Jr, Sr, etc.) :	
Company Name :	BNC Mortgage
Street Address :	315 Colleen Place
City :	Costa Mesa
State :	CA
Zip Code :	92627
County:	ORANGE
Telephone Number :	949-279-2460
Status:	InActive
Licensing State:	**CA**
State License Number :	AL017215
License Certificate Type :	Licensed
Effective Date of License :	11/13/2008
Expiration Date of License :	11/12/2010
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	KENNETH
Middle Initial :	J
Last Name :	DEFEO
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	315 COLLEEN PL.

MO Contact Information

http://pr.mo.gov/appraisers.asp
reacom@pr.mo.gov

MT Contact Information

http://bsd.dli.mt.gov/license/bsd_boar
SPeterson@mt.gov

NC Contact Information

http://www.ncappraisalboard.org/
ncab@ncab.org

NH Contact Information

http://www.nh.gov/nhreab/
bobbie.carter@nh.gov

OH Contact Information

http://www.com.ohio.gov/real/
danitra.butler@com.ohio.gov

TN Contact Information

http://www.tn.gov/commerce/section/r
estate-appraisers
RealEstate.Appraisers@TN.Gov

TX Contact Information

http://www.talcb.texas.gov
information@talcb.texas.gov

UT Contact Information

http://www.realestate.utah.gov/
realestate@utah.gov

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Jeff Rauland

   Mailing Address: 812 Wood Duck Way, Flower Mount, TX 75028

   Business Phone: 972-310-2750

   Business Fax: _____

3. Name and address of school/organization for whom you will instruct:
   Allterra Group, LLC
   9927 Stephen Decatur Highway, Ste G16
   Ocean City, MD 21842

   School/Organization: Allterra Group, LLC

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016 Fannie Mae Update/Appraiser Best Practices

5. Which portion(s) to be taught by the instructor?
   See attached outline

   Total Hours: 7

   Pre License Hours: N/A Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
See attached resume						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
See attached resume					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
See attached resume					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Karen Grundy

(Signature of Appraiser Education Administrator)

9/16/16

(Date)

Jeff Rauland
Owner

other jrauland@gmail.com
work 812 Wood Duck Way
Flowre Mound TX
75028
USA
note Updated 8/16/2016

home (262) 820-2168
mobile (972) 310-2750

DOB: 8/181969

TX 1338396
IL 553.001557
WI 505-10

The Rauland Family has a long history in real estate - for four generations from Norwegian immigrants, they have been involved in construction, brokerage, and appraisal. Jeffrey began his career in Taiwan, at the height of the first real estate crisis. He brought local knowledge to investment banking in Taipei for corporate investors purchasing RTC assets.

After returning the United States, Jeffrey established a reputation in real estate appraisal and consulting as an expert witness and appraiser of complex properties, as the leader of a small firm. He then moved to the corporate world, working for Land America, and Washington Mutual.

In 2006, Jeffrey accepted the position of Chief Appraiser for the Fixed Income Currency and Commodities (FICC) division of Goldman Sachs, and moved to St. Petersburg, Florida. In this role, he analyzed mortgage trades, oversaw the residential real estate portfolio, and developed the appraisal guidelines for GS Bank, as well as a servicer and subprime lender.

In 2010, Jeffrey returned to Wisconsin to develop a Collateral Risk Management division for Opus Capital Markets Consultants LLC. At its height, this team of nearly 100 appraisers and researchers performed projects for FNMA, the FDIC, and other major financial institutions. After three years, he left the firm to return to Goldman Sachs.

After a hiatus of several years, Goldman Sachs' Realty Management Division (RMD) was reviving mortgage trading and building new teams to manage the process. Over three years, Jeffrey built a team to perform due diligence, manage the valuation of the loan portfolio, established guidelines for a jumbo loan program, worked on securitizations, and built systems to manage the valuation process.

In 2016, Jeffrey recognized a growing shortage of highly-experienced appraisers in the market. He formed Rauland Advisors to serve the needs of the lending, legal, and investing communities.

National Registry Appraiser Report

How do I update credentials?

Print appraiser report

First Name :	JEFFREY
Middle Initial :	T
Last Name :	RAULAND
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	6011 Connection Drive 5th Floor
City :	IRVING
State :	TX
Zip Code :	75039
County:	DALLAS
Telephone Number :	972-310-2754
Status:	Active
Licensing State:	**TX**
State License Number :	1338396
License Certificate Type :	Certified General
Effective Date of License :	10/9/2015
Expiration Date of License :	8/31/2017
Conforms to AQB Criteria :	Yes
Current Disciplinary Actions Limiting Ability to Appraise :	None

First Name :	JEFFREY
Middle Initial :	T
Last Name :	RAULAND
Name Suffix (Jr, Sr, etc.) :	
Company Name :	
Street Address :	812 Wood Duck Way
City :	Flower Mound
State :	TX

State Contact Information

The National Registry reports as public information active disciplinary actions that limit an appraiser's ability to appraise (current revocations, suspensions, and voluntary surrenders in lieu of discipline). If you require further information regarding other types of disciplinary actions, completed disciplinary actions, or license specific information, please contact the state agency directly.

GA Contact Information

http://www.greab.state.ga.us/
fhubbard@grec.state.ga.us

IL Contact Information

https://www.idfpr.com/DRE.asp
Brian.Weaver@illinois.gov

MN Contact Information

http://mn.gov/commerce/licensees/ap
Peter.Bratsch@state.mn.us

TX Contact Information

http://www.talcb.texas.gov
information@talcb.texas.gov

WI Contact Information

http://dsps.wi.gov/Default.aspx?Page=56b0c8df-796a-41cf-b8af-cd1419a55b3e
Eleanor.Shea@wi.gov

Zip Code : 75028

County: DENTON

Telephone Number :

Status: Active

Licensing State: **IL**

State License Number : 553.001557

License Certificate Type : Certified General

Effective Date of License : 10/5/2015

Expiration Date of License : 9/30/2017

Conforms to AQB Criteria : Yes

Current Disciplinary Actions Limiting Ability to Appraise : None

First Name : JEFFREY

Middle Initial : T

Last Name : RAULAND

Name Suffix (Jr, Sr, etc.) :

Company Name :

Street Address : 812 WOOD DUCK WAY

City : FLOWER MOUND

State : TX

Zip Code : 75028

County: DENTON

Telephone Number :

Status: Active

Licensing State: **WI**

State License Number : 505-10

License Certificate Type : Certified General

Effective Date of License : 12/15/1993

Expiration Date of License : 12/14/2017

Conforms to AQB Criteria : Yes

Current Disciplinary Actions Limiting Ability to Appraise : None

First Name : JEFFREY

Middle Initial : T

Last Name : RAULAND

Name Suffix (Jr, Sr, etc.) :

Company Name :

Street Address : N56 W24879 N CORPORATE CIRCLE

Course Description for
Fannie Mae Update/Appraisal Best Practices

Fannie Mae update

Fannie Mae's Chief Appraiser will provide an interactive session that will grow the appraisers knowledge and understanding of Fannie Mae's end-to-end collateral risk management cycle. Fannie Mae's lending partners rely on appraisers to provide them with thorough, accurate, and objective appraisal reports that result in reliable opinions of market value so they can make prudent underwriting decisions. Key topics the Fannie Mae will discuss are breaking down observations from UAD data analysis including value bias and condition & quality ratings which often vary for the same property. The session will also address many of the common Fannie Mae policy myths while providing factual guidance from Fannie Mae's Selling Guide. Fannie Mae will discuss demystifying Collateral Underwriter (CU) including understanding CU scores, flags and messages, how CU looks at resubmissions and some insight on how CU analyzes adjustments by performing regression analysis using millions of property transactions to produce statistically-derived and market-specific adjustments for time, physical attributes, and location. Of particular interest to appraisers will be the overview around Appraiser Quality Monitoring and how to access Fannie Mae resources after the session including updates, release notes, lender letters and more. Appraisers will leave this interactive session with a robust understanding that reliance of arbitrary guidelines have unintended consequences, why it is important to ensure accurate and consistent data for the subject and comparable, how to not let your MLS search obscure your view of the market, how to make market based adjustments for time, location, and property attributes while providing your clients with thoughtful commentary and responses.

Best practices

The "successful outcome" with an appraisal is to produce a credible appraisal report. Post mortgage crisis, a lot of focus was placed upon the appraisal and the appraisal process. Appraisals and the appraisers who perform them have never been held more accountable or more highly scrutinized than today. Appraisers will learn from their clients about what is expected in a report and the best practices to achieve optimal results. We have both a national and regional lender who can chime in on what they require and why. We also have an appraiser to support the best practices philosophy as an "in the field" expert. Appraiser will see best practices from all sides.

Saturday, November 12th - Vegas

Timed Course Outline – 2016 Fannie Mae Update/Appraisal Best Practices

Minutes	Scheduled Time	Topics	Student learning objectives. Student will be able to:	Teaching Method	References
15	8:30 – 8:45	Introductions of **Zach Dawson, Fannie Mae**	Understanding course policies, description and learning objectives.		None
15	8:45 – 9:00	**Zach Dawson, Fannie Mae**	Understanding the UAD Data Analysis. This understanding will allow the appraiser to see how CU data is being analyzed and the facts being learned. Understanding data integrity and discrepancies and how inaccurate data leads to value bias.	Lecture	Outline
15	9:00 – 9:15	**Zach Dawson, Fannie Mae**	Appraisers will see an example of data discrepancy and how it is handled. How adjustments (SFR and condo) trend on single family properties. Appraiser will see examples of unhelpful commentary.	Lecture	Outline
15	9:15 – 9:30	**Zach Dawson, Fannie Mae**	Understand the myths that arise from Fannie Mae policies and the realty of what is reality.	Lecture	Outline
15	9:45 – 10:00	**Break**			
15	10:00 – 10:15	**Zach Dawson, Fannie Mae**	Understanding the appraisers role and responsibilities. What is expected in the way of accuracy in the report and primary indicators of market condition .	Lecture	Outline
15	10:15 – 10:30	**Zach Dawson, Fannie Mae**	Fannie will demystify CU for appraisers. Understanding the powerful analytics providing unparalleled depth of data and nationwide coverage.	Lecture	Outline
15	10:30 – 10:45	**Zach Dawson, Fannie Mae**	Understanding the dynamic and interactive functionality of sales data, mapping, market trends, public records, dynamic local market conditions and more.	Lecture	Outline
10	10:45 – 11:00	**Zach Dawson, Fannie Mae**	Understanding the AQM process with an overview of the Fannie Mae FAQ's.	Lecture	Outline
15	11:00 – 11:15	**Zach Dawson, Fannie Mae**	The most commonly asked questions related to Fannie Mae and their direct contact with appraisers in an effort to effectively improve data quality.	Lecture	Outline
15	11:15 – 11:30	**Zach Dawson, Fannie Mae**	Understanding the rebuttal process, review process and the lenders' obligation related to appraisers and appraisal quality	Lecture	Outline
15	11:30 – 11:45	**Zach Dawson, Fannie Mae**	What is Fannie Mae monitoring in reference to quality and how will this effect appraisers. What is the trickle down from this monitoring.	Lecture	Outline
15	11:45 – 12:00	**Zach Dawson, Fannie Mae**	Fannie Mae reviews the FAQ's of UCDP. Appraisers will have a more thorough understanding of how this affects the valuation community. From lenders to appraisers	Lecture	Outline
90	12:00 – 1:30	**Lunch**			
15	1:30 – 1:45	Introductions	Understand Appraisal Best Practices from the	Lecture	None

		Andrew Bough, JP Morgan Chase	viewpoint of a national lender. What is involved in credit underwriting and how the appraisal plays a pivotal role.		
15	1:45 – 2:00	**Andrew Bough, JP Morgan Chase**	Understanding how the new CU policies are affecting the reporting process which ultimately affects the appraiser and their product.	Lecture	Outline
15	2:00 – 2:15	**Andrew Bough, JP Morgan Chase**	What AMC's are doing to cope with the CU Requests and why appraisers are feeling the brunt of this.	Lecture	Outline
15	2:15 – 2:30	**Andrew Bough, JP Morgan Chase**	How the appraiser and AMC might benefit from the Cost Plus Model to ensure transparency.	Lecture	Outline
15	2:30 – 3:00	**Ken DeFeo**, Union Bank	Understanding Best Practices by seeing the worst practices through the eyes of a Chief Appraiser from a regional bank. Understanding what the bank wants and why.	Lecture	Outline
15	3:00 – 3:15	**Ken DeFeo**, Union Bank	Understanding what are unacceptable appraisal practices can help the appraiser see more clearly why lenders and AMC's require certain revisions.	Lecture	Outline
15	3:15 – 3:30	**Ken DeFeo**, Union Bank	How the failure to provide a comprehensive analysis can taint the valuation conclusion. How the impact of minor corrections affects the reliability of the valuation.	Lecture	Outline
15	3:30 – 3:45	**Break**			
15	3:45 – 4:00	**Ken DeFeo**, Union Bank	How the use of adjustments to comparables that do no reflect the markets reaction to the differences between the subject property and comparable sales can call an appraisal into question.	Lecture	Outline
15	4:00 – 4:15	**Jeff Rauland**, Rauland Advisors	What does appraisal independence really mean to the appraiser. What are the most common errors that result in Enforcement Actions and how to avoid them.	Lecture	Outline
15	4:15 – 4:30	**Jeff Rauland**, Rauland Advisors	Understanding the essential components of appraisal independence and how to ensure these are included in your best practices. Having established policies and procedures.	Lecture/ Discussion	Outline
15	4:30 – 4:45	**Jeff Rauland**, Rauland Advisors	What is an acceptable communication to and from and appraiser. Avoiding coercion, misrepresentation or predetermined estimates of value.	Lecture/ Discussion	Outline
15	4:45 – 5:00 pm	**Jeff Rauland**, Rauland Advisors	Who to resolve deficiencies in your work product. Understanding how reviewing your findings can establish your competency.		
	5:00	Adjourn			
Total 7 Hours					

Segment Instructor	
Zach Dawson, Fannie Mae	**Fannie Mae Update**
	Observations from UAD Data Analysis Contract Price confirmation – 93% of purchase appraisals support contract price. Nearly 30% are exactly the contract price. Refinance Value Confirmation – Appraisal is more likely to support borrower estimate at key pricing/eligibility thresholds. Data integrity – Data integrity has improved due to CU and AQM, but we have more work to do. Condition & Quality ratings often vary for the same property when appraised as a subject vs. when used as a comp. Inaccurate ratings are not just technicalities and can lead to value bias. Data Discrepancy Example Comparable Selection – Comp selection largely varies between REO listing and subsequent purchase of same property. Adjustments (SFR) – Despite improvement in the last year, GLA adjustments are still consistently near $40 per square foot regardless of market location, property size and price tier. Adjustments (Condo) – With few exceptions, the same trend on single family properties is observed with condominium properties despite even more variation in price per square foot. Commentary and Exhibits Examples of unhelpful commentary: The appraiser selected the best comparables available. Adjustments based on paired sales analysis and conversations with local Realtors. The appraiser searched for comparables within 1 mile and 6 months to bracket the subject's sales price. Adjustments wee limited to remain within Fannie Mae 15% net and 25% gross guidelines. There is no apparent evidence of functional or external obsolescence.. Late in the report... The subject needs some work. This includes installing stairs on the interior of the dwelling to reach the upper floor. **Common Fannie Mae Policy Myths** MYTH *Fannie Mae will not purchase loans in areas experiencing a decline in home prices, declining market.* REALITY Fannie Mae purchases mortgage loans in all markets across the country, including those in a declining market. Dispelling Some Myths MYTH *Fannie Mae does not accept appraisal reports in which declining property values, an over-supply of properties, and/or marketing times in excess of six months are indicated in the Neighborhood section of the appraisal report form.*

	REALITY We do accept such appraisal reports with the expectation the appraiser has researched, analyzed, and reported accurate and factual property value trends and market conditions. Appraiser Responsibilities The appraiser's role is to provide the lender with an accurate and adequately supported opinion of value and an accurate description of the property. We expect the appraiser to accurately report on the primary indicators of market conditions in a given neighborhood whether increasing, stable, or declining. Appraiser Responsibilities Use the most recent and similar comparable sales available as part of the sales comparison approach. Because excessive sales concessions can artificially inflate the sales price of a property, particular attention should be given to unusual sales or financing concessions in markets experiencing: Declining property values, An over-supply of properties, or Marketing times in excess of six months. Appraiser Responsibilities Research and/or review available information regarding the home price trends of the market in question. Describe the reasons for these trends and indicate what, if any, impacts these trends have on the opinion of the market value for the subject property. It is unacceptable for the appraiser to ignore these issues and not report factual property value trends and market conditions. Relevant Announcements on www.efanniemae.com **Demystifying Collateral Underwriter** CU segments appraisals by risk profile, facilitating effective workflow management and resource allocation. CU helps lenders reduce time spent on appraisal review, leading to fewer, but better informed, requests to appraisers. 50% of appraisals submitted have only one message or none. Use the CU web application to research the risk score, flags, and messages. Powerful analytics – leveraging unparalleled depth of data and nationwide coverage, CU results are model-derived based on market specifics, unlike less-effective rules-based tools. Dynamic and interactive functionality – including comparable sales data, mapping with aerial imagery, market trends, public records, dynamic local market conditions and more, all in one application. Lenders see what we see – accessing the same patented tool used in Fannie Mae's post-delivery QC, CU gives lenders the opportunity to proactively identify

and address appraisal defects prior to loan delivery.

Advanced aggregate reporting – provides risk officers a view into recurring issues and trends.

Appraisal sharing (May 2016) – gives aggregators greater certainty in their correspondent loan pipeline and automates a manual process.

Appraiser Quality Monitoring Overview

Fannie Mae began collecting appraisal data in 2011 through the Uniform Collateral Data Portal® (UCDP®). Millions of appraisals have been submitted by lenders and their authorized agents, enabling Fannie Mae to monitor and evaluate appraisals for data accuracy and consistency. Leveraging the availability of standardized appraisal data, Fannie Mae issued Lender Letter LL-2013-10, *Appraisal Quality* to remind lenders of Fannie Mae's appraiser selection requirements, highlight several data quality issues, and describe new processes that Fannie Mae has implemented to identify and monitor individual appraisers.

Q1. What actions will Fannie Mae take with respect to specific appraisers?

Fannie Mae will provide information directly to appraisers whose appraisal reports exhibit a pattern of minor inconsistencies, inaccuracies, or data anomalies. The intent and expectation of communicating these issues to appraisers is for training and educational purposes, and to provide them with an opportunity to improve their work. Future appraisal reports from those appraisers will be monitored to assess improvement.

Fannie Mae also has developed a process to identify appraisers whose appraisal reports exhibit egregious issues. In those cases, Fannie Mae will contact the appraiser and the lender that delivered the loan(s) informing them that either 100% of the loans submitted with appraisals from the identified appraiser will be reviewed by Fannie Mae in the post-purchase file review process or Fannie Mae will no longer accept loans with appraisals completed by the specific appraiser.

Q2. Why will Fannie Mae correspond directly with appraisers without notifying lenders?

One of our objectives is to improve the quality of appraisal data submissions. Training and educating the appraiser through targeted correspondence is expected to be an effective way to improve data quality in many instances.

Q3. What are the implications of 100% Fannie Mae review for

egregious issues?

All loans delivered to Fannie Mae that include an appraisal completed by an appraiser whose work product is subject to 100% review by Fannie Mae will be selected for a post-acquisition quality control review. Affected lenders will be notified so they can perform appropriate due diligence. If a loan is found in the post-acquisition review to be ineligible for delivery to Fannie Mae for any reason, it will be subject to the standard remedies per the *Selling Guide*, including repurchase.

This is not a refusal by Fannie Mae to accept the appraisal. We will judge each appraisal on its own merits.

As a reminder, effective for all 2013–forward acquisitions, Fannie Mae performs an initial loan eligibility assessment (approximately 150 days after delivery) using loan-level assessment tools, including technology and proprietary analytical models, to identify loan files that may merit further review. Based on the assessment, Fannie Mae may choose to conduct a more in-depth review of any aspects of loan eligibility, including the appraisal (regardless of whether the appraiser's work has been previously identified by Fannie Mae as requiring 100% review).

Q4. Will appraisers have the opportunity to appeal or offer a rebuttal?

Yes. Fannie Mae will offer a formal rebuttal process for appraisers whose work has been identified as requiring 100% review or whose work product is no longer acceptable to Fannie Mae. Appraisers who are sent letters initially for reports that exhibit a pattern of minor inconsistencies, inaccuracies, or data anomalies will not have a formal rebuttal process because the letter is intended for educational purposes to provide them with an opportunity to improve their work; however, the appraiser may choose to respond to the letter.

Q5. What should an appraiser do if he or she believes that the rebuttal would violate the Confidentiality section of the Ethics Rule as set forth in the Uniform Standards of Professional Appraisal Practice (USPAP)?

Fannie Mae expects that appraisers will be able to respond to most, if not all, Fannie Mae inquiries using publicly available information. Moreover, USPAP specifically authorizes an appraiser to disclose confidential information to "persons specifically authorized by the client [the lender]," and Fannie Mae's *Selling Guide*, which forms part of a lender's contract with Fannie Mae, specifically states that "All records pertaining to mortgage loans sold to Fannie Mae – including but not limited to [the property appraisal] ... are at all times the

property of Fannie Mae." (*Selling Guide* A2–5.2–01.)

If the appraiser is still concerned about divulging information to Fannie Mae, he/she should contact the lender to obtain the lender's approval to speak to Fannie Mae about the appraisal. If the lender refuses to grant the appraiser such permission, the appraiser may request that Fannie Mae contact the lender on the appraiser's behalf to resolve the matter. Fannie Mae will extend the timeline for the appraiser's rebuttal as reasonably necessary to resolve this issue.

Q6. Could the 100% review apply to appraisals submitted before the effective date of the 100% review list?

Yes. Because Fannie Mae conducts post-purchase reviews at different times after loan acquisition, the selection of a specific appraiser for 100% review will trigger reviews of appraisals on loans that were delivered several months earlier.

For example: An appraisal is submitted to UCDP in mid September, and the loan is delivered to Fannie Mae a week later. The appraiser is selected for 100% review in early October. The loan goes through discretionary post-purchase review with other September acquisitions in January; because the appraiser is on the 100% quality control list, it is selected for appraisal review regardless of any other factors.

It should be noted that if there are patterns of egregious issues with an appraiser's work, there is a high probability that loans delivered to Fannie Mae with appraisals by that appraiser will be selected for additional review even if the appraiser has not been placed on the 100% review list. Lenders should not consider placement of an appraiser on the 100% review list as the only trigger for further review of loans with appraisal concerns. Lenders should also be reminded of their responsibilities under the provisions of the *Selling Guide*, B4-1.1-03, Appraiser Selection.

Q7. What will happen if a lender submits an appraisal from an appraiser for whom Fannie Mae has invoked its right to refuse to accept appraisals?

If a lender submits an appraisal report prepared by an appraiser from whom Fannie Mae will not accept appraisals, the lender will receive a message in UCDP stating "Fannie Mae will not accept appraisals from this appraiser." (Refer to the Fannie Mae Appraisal Messaging Change Notification dated December 10, 2013 for details.)

As provided in the *Selling Guide* (Section B4-1.1), "Fannie Mae may refuse to accept appraisals prepared by specific appraisers, or Fannie Mae may notify a lender that appraisals prepared by a given appraiser are no longer accepted. When a lender is notified that

appraisals from specific appraisers are no longer accepted, the lender is prohibited from delivering mortgages to Fannie Mae secured by properties appraised by that individual immediately following its receipt of Fannie Mae's notice."

Fannie Mae retains its ability to seek appropriate remedies, including repurchase, in the event Fannie Mae does acquire the loan.

Q8. When appraisers are subject to 100% review, will Fannie Mae inform lenders of the reason?

Lenders that have delivered loans to Fannie Mae supported by appraisals from that appraiser may be informed upon request to their Fannie Mae Customer Account Risk Manager of the general nature of the reason for the action. Fannie Mae encourages lenders to also conduct their own due diligence with regard to reviewing appraisers' work.

Lenders that have not delivered loans to us with appraisals by the individual appraiser will not have access to the reasons for the 100% review action.

Q9. Does Fannie Mae's appraiser monitoring alter lenders' obligations related to appraisers and appraisal quality?

No. Lenders remain directly responsible for the selection and management of appraisers and appraisal quality, as described in the *Selling Guide*. Appraiser monitoring augments lenders' controls but does not replace or alter lenders' obligations. (See also Q13.)

NOTE: *The AQM process may not identify all issues that could lead to an appraisal-related repurchase request. The presence or absence of communications between Fannie Mae and an appraiser, or Fannie Mae and a lender, concerning the quality of appraisals submitted through UCDP does not imply that a lender has met its responsibilities under the Selling Guide regarding appraisals, or that a lender will not be required to repurchase a loan for reasons related to the appraisal or the performance of the appraiser.*

Q10. How will a lender know if an appraiser is selected for 100% post-acquisition quality control reviews or refusal to accept?

There are two ways that lenders may become aware of appraisers whose appraisals require 100% review or whose appraisals are no longer accepted by Fannie Mae:

1. 1) Messaging in UCDP notifies lenders when they submit an appraisal from an affected appraiser (see UCDP December 2013 Notification for details).

2. 2) Approved sellers/servicers have access to the AQM list identifying appraisers whose appraisals require 100% review or whose appraisals are no longer accepted by Fannie Mae. The AQM list is protected content on our business portal, and lenders may set up access through Technology Manager. For details, refer to the AQM web page.

Q11. When is the AQM list posted?

The AQM list is posted monthly.

Q12. If only approved seller/servicers have access to the AQM list, may the lender share that information with a service provider, such as an appraisal management company (AMC)?

Yes. Lenders may inform service providers with which they have a business relationship, including AMCs, of the presence or absence of a specific appraiser on the list. The actual AQM list may not be distributed.

Q13. Would it conflict with Appraiser Independence Requirements (AIR) for the lender to notify an AMC that Fannie Mae has invoked our right to refuse to accept appraisals from a specific appraiser?

No. The implementation of our appraiser monitoring process has no impact on the AIR. Section I.B.(8) of the AIR prohibits lenders from removing an appraiser from a list of qualified appraisers in connection with influencing or attempting to influence the outcome of an appraisal; however, it does not preclude lenders from managing appraiser lists for bona fide administrative reasons based on written, management-approved policies. Notifying an AMC that Fannie Mae has invoked its right to refuse to accept appraisals from an appraiser would be an instance of managing an appraisal list for bona fide administrative reasons.

Q14. Will Fannie Mae notify AMCs of actions taken with respect to appraisers?

No. Fannie Mae will not notify AMCs. It is the lender's responsibility to notify any impacted third parties. (See also Q12 and Q13.)

Q15. Will Fannie Mae report to state regulatory boards and/or law enforcement?

Matters involving suspected fraud will be reported to Fannie Mae's Mortgage Fraud group, consistent with company policy. That group will notify state appraiser licensing boards in appropriate circumstances, and provide information to law enforcement agencies consistent with applicable rules and guidelines for reporting

	suspected fraud. **Q16. Who can lenders contact with questions about appraiser quality monitoring?** Lenders should contact their Fannie Mae Customer Account Risk Managers (CARMs) with questions about appraiser monitoring.
Segment instructor	**Appraiser Best Practices**
Andrew Bough, JP Morgan Chase	Collateral Due Diligence Audit What is involved in the audit process and how this trickles down to appraisers Credit Underwriting Not related to appraisal process but critical to the overall process Collateral Underwriting How the new CU policies are affecting the report process. Appraisal Quality Control & Review How CU is changing the QC and Review Process Appraisal Management Services What AMC's are doing to cope with the additional CU requests What are the unintended consequences of CU to the valuation process Who is most affected Is CU working Are appraisers catching on Independent Valuation Appraisal Independence Customary and Reasonable Transparency Cost Plus Model Full Transparency Every fee fully understood Audit Trail
Ken DeFeo, Union Bank	Best Way to Understand Best Practices is to take a look at Worst Practices **Information Provided to the Appraiser** • **The Lender is responsible for providing the following to the appraiser:** **1. Copy of the sales contract.** **<u>Requirement to Provide the Sales Contract to the Appraiser</u>** ***Selling Guide, Part XI, Chapter 2: Appraisal (or Property Inspection) Documentation .*** **2. Any additional pertinent information that the lender is aware of that is not included in the sales contract.** **Do you ask for information, if it is not provided?**

	(Contract, T.D.S, Permits, etc.) **Information Provided to the Appraiser** • **The Lender is responsible for providing the following to the appraiser: Selling Guide, Part XI, Chapter 2 - Documentation** **Fannie Mae requires the lender to ensure that it provides the appraiser with all appropriate financing data and sales concessions for the subject property that will be, or have been, granted by anyone associated with the transaction. Typically this information is contained in the sales contract; however, Fannie Mae currently does not require that the lender provide the appraiser with the sales contract. Fannie Mae is adding the requirement that lenders must provide the appraiser with the sales contract and all addenda, therefore ensuring that the appraiser has been given the opportunity to consider the financing and sales concessions in the transaction and their effect on value. If the sales contract is amended during the process, the lender must provide the updated contract to the appraiser** ***The Appraiser's Role in the Appraisal Process*** **Fannie Mae requires the appraiser to provide complete and accurate reports; to report neighborhood and property conditions in factual and specific terms; to be impartial and specific in describing favorable or unfavorable factors; and to avoid the use of subjective, racial, or stereotypical terms, phrases, or comments in the appraisal report. The opinion of market value must represent the appraiser's professional conclusion, based on market data, logical analysis, and judgment.** **The Appraiser's Role in the Appraisal Process** • **Objective and Unbiased Appraisals** • **Discriminatory valuation and appraisal reporting practices are not only illegal, but also unethical.** **2. Redlining—the intentional or unintentional designation of a specific area as unacceptable for mortgage lending. Racial redlining is illegal under federal law. Other factors that serve as a proxy for race are equally impermissible.** ***The Appraiser's Role in the Appraisal Process*** • **Unacceptable Appraisal Practices** • Development of and/or reporting an opinion of market value that is not supportable by market data or that is misleading. • Development of a valuation conclusion that is based—either partially or completely—on the sex, race, color, religion, handicap, national origin, or familial status of either the prospective owners or occupants of the subject property or the present owners or occupants of the properties in the vicinity of the subject property; or that is based on any other factor that local, state, or federal law designates as being discriminatory, and thus, prohibited. **The Appraiser's Role in the Appraisal Process** • **Unacceptable Appraisal Practices** • Misrepresentation of the physical characteristics of the subject property, improvements, or comparable sales • Failure to comment on negative factors with respect to the subject neighborhood, subject property, or proximity of the subject property to adverse influences. **The Appraiser's Role in the Appraisal Process** • **Unacceptable Appraisal Practices** • Failure to adequately analyze and report any current contract of sale, option, offering, or listing of the subject property and the prior sales of the subject property and the comparable sales;

- Selection and use of inappropriate comparable sales or the failure to use comparable sales that are locationally and physically the most similar to the subject property
- **Unacceptable Appraisal Practices**
- Use of comparable sales in the valuation process even though the appraiser **has not personally inspected the exterior of the comparable properties by, at least, driving by them.**
- Creation of comparable sales by combining vacant land sales with the contract purchase price of a home that has been built or will be built on the land.
- **Unacceptable Appraisal Practices**
- Use of adjustments to the comparable sales that do not reflect the market's reaction to the differences between the subject property and the comparable sales, not supporting the adjustments in the sales comparison approach, or the failure to make adjustments when they are clearly indicated.
- Development of and/or reporting an appraisal in a manner that is inconsistent with the requirements of the Uniform Standards of Professional Appraisal Practice that were in place as of the effective date of the appraisal.
- **Unacceptable Appraisal Practices**
- **Use of data**—particularly comparable sales data—that was **provided by parties who have a financial interest in the sale or financing of the subject property** without the appraiser's verification of the information from a disinterested source (for example, it would be inappropriate for an appraiser to use comparable sales provided by the real estate broker who is handling the sale of the subject property, unless the appraiser verifies the accuracy of the data provided with another source and makes an independent investigation to determine that the comparable sales provided were the best ones available).
- **Unacceptable Appraisal Practices**
- Development of and/or reporting an appraisal in a manner or direction that favors either the cause of the client or any related party, the amount of the opinion of value, the attainment of a specific result, or the occurrence of a subsequent event in order to receive compensation and/or employment for performing the appraisal and/or in anticipation of receiving future assignments.
- **Appraisal Fraud Awareness**

Fannie Mae believes the likelihood of fraud or misrepresentation increases when lenders are not able to confirm the owner of the subject property based on publicly available information. Confirming and documenting the current owner of the property based on publicly available information as part of the loan origination process helps to ensure a meaningful analysis of the sale or transfer history of the subject property.

- **Appraisal Fraud Awareness**

Examples of acceptable documentation confirming the current owner include, but are not limited to, the following:

- a copy of a recorded deed or mortgage,
- a recent property tax bill or tax assessment notice,
- a title report,
- a title commitment or binder, or
- a property sale history report.

- **MOST COMMON ERRORS RESULTING IN ENFORCEMENT ACTIONS (Disciplinary Action)**
  - Failure to cooperate or respond to the state agency during the course of the investigation.

	• Allowing an appraiser to use signature. • Acting as the appraiser and signing an appraisal report. for another appraiser without inspecting the property, verifying information, etc. • Supervising an appraiser and not reviewing reports or personally inspecting the property when signing that they did inspect the property. • Continuing to appraise after expiration or revocation of license. • **MOST COMMON ERRORS RESULTING IN ENFORCEMENT ACTIONS** Examples of "REAL" enforcement actions obtained from public records – **Some actually resulting in jail time** due to investigation by FBI…….. • Reporting a predetermined value. • Failing to analyze purchase agreements and current listings of subject properties. • Failing to disclose personal interest or bias with respect to the participants in the transaction. • **MOST COMMON ERRORS RESULTING IN ENFORCEMENT ACTIONS** • Not analyzing relevant information discovered during research. • Inappropriate selection of comparable sales. • Multitude of errors and omissions. • Conflicting information regarding neighborhood characteristics, market information. • Failure to disclose extraordinary assumption or hypothetical condition. • **MOST COMMON ERRORS RESULTING IN ENFORCEMENT ACTIONS** • Failure to provide property characteristics. • Failure to provide property income and rental information. • Lack of geographic competency. • Inability to perform the assignment due to complexity – **Its ok to say no to the assignment**. Good Practice – Sample Report – show reports with examples.
Jeff Rauland, Rauland Advisors	• Appraisal Independence • Organizational Independence An institution should maintain standards of independence as part of an effective collateral valuation program for all of its real estate lending activity. Policies and procedures An institution should establish reporting lines independent of loan production for staff who administer the institution's collateral valuation program, including the ordering, reviewing, and acceptance of appraisals and evaluations. Reporting to the compliance, risk management or credit divisions of the institution • Appraisal Independence • Unacceptable Communications Should not coerce, influence, or otherwise encourage an appraiser to misstate or misrepresent the value of the property Should not communicate a predetermined estimate of value, loan amount to the appraiser or person performing an evaluation • Acceptable Communications Consider additional information about the subject property or about comparable properties Provide additional supporting information about the basis for a valuation Correct factual errors in an appraisal • Appropriate Communication after Appraisal • Penalties for violations

	Up to $10,000/day for first violation Up to $20,000/day for subsequent violations In addition to penalties already in place under TILA • Expands on pre-existing appraisal independence requirements in TILA (Reg Z) • Retains provisions of appraisal independence from the HVCC • Resolution of Deficiencies **Resolution of Deficiencies** • Communicate the noted deficiencies and requested corrections to the appraiser or person performing the evaluation. • Should have policies and procedures for resolving any inaccuracies or weaknesses in an appraisal or evaluation identified through the review process. • Obtain a second appraisal or rely upon a USPAP Standard 3 review when unable to resolve significant deficiencies with the original appraiser. • Replace valuations (obtain a new appraisal) prior to credit decision if they do not provide credible support for the final credit decision. • **Resolution of Deficiencies** **Review Findings** – "The review findings are a good indicator of an appraiser's competency and qualifications and should be used to evaluate the ongoing performance of appraisers." – "Use the results of the institution's review process and other relevant information as a basis for considering a person for a future appraisal or evaluation assignment." • **Resolution of Deficiencies – Best Practices** • **Be nice**. Communicate with the appraiser professionally. • Thoroughly review the evaluation product before returning it to the appraiser or evaluation provider. **Try not to return the same report several times** for corrections • If the issues become contentious **escalate** the conversation to your **Chief Appraiser** or a highly qualified review appraiser. • If you have to order an **additional appraisal** because the original appraiser was intransigent, **document your file well**. • Establish a **policy** regarding **nonpayment** of appraisers for not fulfilling their contractual obligations. • Remember your obligations regarding **mandatory reporting.**

Allterra

Attendance Certificate For Continuing Education in Appraisal

Karen Connolly

Attendee Appraiser Cert. Number (s) NY **12345667**

Live Valuation
P.O. Box 85
Morrow NY 21202
Attendee's Business Address

Has successfully completed (7) clock hours of continuing education in: ***Real Estate Appraisal***

2016 Fannie Mae Update/Appraisal Best Practices

This Traditional Classroom offering was 100% attended on the date of: 11/12/2016

Located at: Flamingo Hotel, 3555 Las Vegas Blvd, S., Las Vegas, NV 89109

We certify that these hours meet the requirements for Continuing Education.

Date of Issuance: 11/14/2016

Verifier:

Joan Trice
Allterra Group
9927 Stephen Decatur Hwy, Suite G-16
Ocean Citv. MD 21842

AL, AZ ABA#0316-1467, AR, CT School # APL.000040, DE, GA 66985, ID, IN, KS, KY, LA, MA 57, ME 106C103, MD, MS MAB#48960, MO, NE, NH, NJ 2016-135024, NY 4475-07-2016, ND CE-216012R, OK APP166-721, OR ALCG-C-0416-1832, PA, RI REA.0000831-CE, SD 1147 CE, TN 1924, TX, VA, WA AP3600, WI REA 4095, WY. Old numbers

State Course Approval Number or Certification Number (s)

Continuing Education Provider Policies

Cancellation/Refund Policy

A $50 fee will be assessed to process any changes or refunds to the registrations. Refunds must be requested by email 30 days prior to the event to jtrice@appraisalbuzz.com. No refunds will be processed after 30 days prior to the event for any reason. NO EXCEPTIONS. A pass to the next event will be given to anyone that cancels within 30 days of an event.

Make Up Policy

There will be no make up for this class. Allterra Group, LLC does offer a pass to the next continuing education event in the event the student is unavailable.

Prerequisites

There are no prerequisites for attending this course. The course is open to all real estate appraisers.

Attendance Policy

Allterra Group, LLC has implemented a strict attendance policy. Attendees are required to sign in at the beginning of the day and out for each break, lunch and sign out at the end of the day. Attendees must complete 100% of the class to receive a Continuing Education certificate of completion. Attendance will be strictly enforced. No credits will be given for partial attendance. Allterra Group, LLC provides a staff person at the door to monitor attendance.

Certificate Policy

Certificates will be produced and emailed or mailed to attendees within thirty (30) days after the conference. A copy of the certificates are kept on file for six (6) years. In some cases, certificates are provided on site when possible.

Record Retention

All records will be kept for no less the Six (6) years at our home office location which is:

Allterra Group, LLC
508 Marcia Avenue
Hamilton, OH 45013

Course Scheduling Policy

Allterra Group, LLC has established a policy of course scheduling that provides for a maximum of eight (8) classroom hours of instruction in any given day and for appropriate breaks during each class session.

School Owners/Directors

Joan N. Trice, President 513-659-1656
Allterra Group, LLC
9927 Stephen Decatur Hwy, Suite G-16
Ocean City, MD 21842

Entrance Qualifications for Students

This is an open class, marketed to real estate appraisers but open to anyone seeking education.

Subcontracting Policy

All subcontractors will provide Allterra Group, LLC with a signed document stating their compliance with all established Allterra policies, including, but not limited to these Continuing Education Policies.

Final Examination Policy or Grading Policy

There will be no exam for continuing education courses provided by Allterra Group, LLC.

Board required material

Allterra Group, LLC will make available to its students materials that the Board may require for use in a particular course or courses and it have video or audio equipment available to present Board required material.

Course Facilities

Allterra Group, LLC will conduct residence courses in classroom style facilities.

ADA – American Disabilities Act

Allterra Group, LLC will comply with all related provisions of the Americans with Disabilities Act (ADA) and that the school will not discriminate in its fees, enrollment, or completion policies on the basis of race, color, sex, religion, national origin, familial status, or disability.

Measures and Standards employed to evaluate student performance

Allterra Group, LLC required the "standard of completion" involves the student being present for each hour of instruction. The Georgia Appraisal Board requires that a student be on time and present for each credit hour in order for a school to certify that the student has completed the course.

Audit Policy

Allterra Group, LLC will permit the Administrator or Administrators representative to audit the course and course materials at no cost to the Administrator or the Administrators representative in order to evaluate the instruction. Allterra Group, LLC will permit the Administrator or the Administrators representative to review our records appropriate to selected course of

Policy for instructors:

Instructors will have a minimum of one of the following qualifications:

- Baccalaureate degree in any field and three years of experience directly related to the subject matter to be taught.
- Masters degree in any field and one year experience directly related to the subject matter to be taught.
- Masters or higher degree in a field that is directly related to the subject matter to be taught
- Five years of real estate appraisal teaching experience directly related to the subject matter to be taught
- Seven years of real estate appraisal experience directly related to the subject matter to be taught
- For purposed of the 7 hour and 15 hours National USPAP courses, the instructor must be an AQB certified Instructor and a state certified appraiser in good standing.

I have verified the information provided by each instructor and that they do qualify to teach in accordance with our policy for instructors.

Course Title: 2016 Fannie Mae/Appraiser Best Practices
Course Date: November 12th, 2016
Location: Flamingo Hotel, 3555 S. Las Vegas Boulevard, Las Vegas, NV 89109
List of Instructors:

Zach Dawson, Fannie Mae
Andrew Bough, JP Morgan Chase
Ken DeFeo, Union Bank
Jeff Rauland, Rauland Advisors, LLC

_____	Karen Connolly
Name	Print Name
Director of Events	_____
Title	Date

Allterra

000019 SEP 27 '16

September 16, 2016

Real Estate Appraisers Commission
3605 Missouri Boulevard
P.O. Box 1335
Jefferson City, MO 65102-1335

RE: Continuing Education Classroom Course Approval
2016 Keynote/Industry Update/Big Data – 7 hours
2016 Fannie Mae Update/Appraiser Best Practices – 7 hours

Dear Appraiser Board:

Enclosed is an application for the above-mentioned classes. We have enclosed all of the pertinent information. Please let us know if you require any additional information.

November 11th, 2016
2016 Keynote/Industry Update/Big Data
Flamingo Hotel and Casino
3555 S Las Vegas Boulevard
Las Vegas, NV 89109

November 12th, 2016
2016 Fannie Mae Update/Appraiser Best Practices
Flamingo Hotel and Casino
3555 S Las Vegas Boulevard
Las Vegas, NV 89109

Sincerely,

Ashley C Hammond

Ashley Hammond
Director of Education
443-944-0897

:ach

Enclosures

COURSE APPROVAL PROGRAM – MISSOURI REAL ESTATE APPRAISERS COMMISSION

APPLICATION FOR: X **INITIAL COURSE APPROVAL** _____ **RENEWAL**

There is a $25 fee per course for Continuing Education Course Approval. In addition, there is a $10 fee per course for Continuing Education Course Renewal.

INSTRUCTIONS: The course owner must use this application form when applying for course approval through the **State of Missouri**. *A SEPARATE APPLICATION FORM MUST BE FILED FOR EACH COURSE SUBMITTED FOR APPROVAL.* All items on the form must be completed (enter "N/A" for any item that is not applicable) and all required attachments must be submitted with the application.

1. Name of Applicant (School): American Continuing Education Institute dba: Calypso Continuing Education
2. Mailing Address: PO Box 176, 28 N. Main St. Randolph, VT 05060
3. Contact Person: Connie Covey
4. Phone: 802-565-8238 Fax: 802-728-3181
5. Website: www.calypsoedu.com Email: Connie@calypsoedu.com
6. Course Title and Number: 2016-2017 7 Hour Equivalent USPAP Update Course
7. Number of Classroom Hours: 7 Number of Exam Hours: _____
8. Course Category: _____ Qualifying Education X Continuing Education _____ Both
9. Indicate the level of the licensure/certification this course would meet:
   X All _____ State License _____ Certified Residential _____ Certified General
10. Indicate the pre license requirement for this course would meet:
    _____ Principles X USPAP _____ Income _____ Elective
11. Instructor(s): Steven L Maher
12. Method of Presentation: _____ Traditional Classroom _____ Correspondence X Internet
    _____ Video Tape _____ Remote TV X Computer
13. Owner of Course Materials: American Continuing Education Institute DBA: Calypso Continuing Education
14. Required Attachments:

    For Qualifying Education Only: Please submit a copy of the contract between the course owner and course provider.

    Fee: As Indicated Above

    Course Materials:
    - Course Description
    - Detailed Course Outline
    - Learning Objectives
    - Final Exam and Answer Key (This is not required for the Continuing Education Application)

    Policies Covering:
    - Instructor Qualifications
    - Attendance

    Miscellaneous:
    - Course Schedule
    - Copy of Completion Certificate
    - Instructor's Resume/Bio

AQB Approved Course

THE APPRAISAL FOUNDATION
Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

Sent Via Email to: FXF@AIAQAS.com

QE	CE/E	CE
		7

Friday, September 16, 2016

Ms. Connie Covey
American Continuing Education Institute; dba: Calypso Continuing Education
PO Box 176
Randolph, VT 05060

Dear Ms. Covey:

We are pleased to inform you that your course has been approved under the Course Approval Program of the Appraiser Qualifications Board (AQB) of The Appraisal Foundation.

Course Provider:	American Continuing Education Institute; dba: Calypso Continuing Education
Course Title:	2016-2017 7-Hour National USPAP Update Equivalent Course
Instructional Hours:	7.00
Exam Hours:	0.00
Total Hours:	7.00
Delivery Method:	Asynchronous Internet (Distance)
Approval Start Date:	9/16/2016
Approval End Date:	12/31/2017

The overall content of this course has been determined to be in compliance with the education criteria established by the AQB. Approval does not mean that every statement or item within the course has been checked for accuracy. Opinions set forth in the course material or by instructors do not necessarily reflect the viewpoint of the AQB or The Appraisal Foundation. Neither the AQB nor The Appraisal Foundation is responsible for any errors, omissions, or misstatements in the course material or by instructors.

Prior to renewal of this course please review the AQB Course Approval Program Policies and Procedures Manual.

Please feel free to contact us if you have any questions or if we can be of further assistance.

Sincerely,

Appraiser Qualifications Board

Appraiser Qualifications Board

OFFICIAL CERTIFIED COURSE SUMMARY CERTIFICATE

The number one credential for quality instructional design and delivery of distance education courses offered for professional education.

Administrative Information

Course Title: 2016-2017 7 Hour Equivalent USPAP Update Course

Course Number: 6472

Certified: 01/29/2016

Expires: 12/31/2017

Status: Approved

Industry(ies): Appraisal

Provider: American Continuing Education Institute dba Calyps

Address: PO Box 176
Randolph, Vermont 05060

Phone: 802-728-4015

Contact: Francis X. Finigan <fxf@aiaqas.com>

Course Information

Provider Type: Primary Provider

Delivery Method: Internet

***Clock Hours:** 7

Final Exam: No

†Clock Hour Enforcement Mechanism: No

Proctored Exam: No

Difficulty Rating:

Description: The course is a seven hour USPAP Update course. This course meets or exceeds the AQB requirements for a seven hour equivalency USPAP update course.

Course Notes: This course has undergone a supplemental review in addition to IDECC Certification and is in compliance with The Appraisal Foundation's Online Course Functional Specifications – Requirements for Gaining an Equivalency Rating For Online Course Delivery Systems for the 2016-2017 7 and 15-Hour USPAP courses.

Instructors: Francis X Finigan (CDEI)
Steven Maher (CDEI)

**Course Approval Information

This course may not be approved in any jurisdiction or the provider has chosen not to include which jurisdictions the course is approved in.

Disclaimers

* Professional reviewers have determined that the amount of content to be presented in this course, as specified in the provider's timed outline, should take the stated time to complete. This certification does not suggest the course will take the hours listed if implemented into a distance education learning system that uses an inferior instructional design. In addition, IDECC does not guarantee or audit the performance of classroom instructors to ensure the appropriate clock hours of instruction are presented to students.

** Regarding course approval information, the course provider may list here the jurisdictions that have approved this course for professional credit. Information in regard to jurisdictional course approval is not maintained by IDECC but by course providers. If no jurisdictions appear in the course approval area, the provider may not yet be approved by a regulatory agency to offer the course. Please contact the provider if you have a question in regard to course approval information.

† A "Clock Hour Enforcement Mechanism" is course feature that mandates students spend X amount of time in the course. This mechanism is not required for certification but is required in certain jurisdictions. The absence of a clock hour enforcement mechanism does not compromise certification and the typical student taking the course can still be expected to take the appropriate amount of time to complete the course.

INSTRUCTOR APPLICATION

Instructor Approval Requested for: _____ Pre-License X Continuing Education
_____ Renewal _____ Initial Submission

1. **PROOF OF QUALIFICATION *MUST* BE ATTACHED.**
   (All applications must be accompanied by a full resume/bio)

2. Name of instructor: Steven L Maher

   Mailing Address: 10612 Parlor Rd, Charlotte NC 28277

   Business Phone: 802-565-8238

   Business Fax: 802-728-3181

3. Name and address of school/organization for whom you will instruct:
   American Continuing Education Institute DBA: Calypso Continuing Education
   PO Box 176, 28 N. Main St
   Randolph, VT 05060

   School/Organization: _____

4. Title of program/course or portion of program/course to be taught by the instructor:
   2016-2017 7 Hour Equivalent USPAP Update Course

5. Which portion(s) to be taught by the instructor?
   100%

   Total Hours: 7

   Pre License Hours: _____ Continuing Education Hours: 7

6. Has the instructor ever been refused approval or a denied a license to teach, or has such approval or license been suspended, revoked or subject to discipline?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

7. Has the instructor ever been subject to disciplinary action by the Real Estate Commission or the Real Estate Appraisers Commission?
   Yes ◯ **No** ◉ (If "Yes", attach explanation)

8. Education:

School	From		To		Degree Earned	Subject Matter
	Month	Year	Month	Year		
Please see attached						

NOTE: If the Course of Instruction is USPAP, the Instructor must provide verification of completion of the USPAP Instructor Training Course from the Appraisal Foundation.

9. Teaching Experience:

School	From		To		Subjects Taught
	Month	Year	Month	Year	
Please see attached					

10. Real Estate Appraisal Experience:

Employing Company	Job Description	From		To	
		Month	Year	Month	Year
Please see attached					

(Attach additional pages as necessary)

11. I hereby affirm and swear that the information submitted with this application is true and accurate and that no willful omissions have been made.

Steven L. Mueller CDA
Signature

(Signature of Appraiser Education Administrator)

September 21, 2016

(Date)

Steven L. Maher

10612 Parlor Road, Charlotte NC 28277
Home: 704-542-3012 - Cell: 704-607-1859 - Steve@SLMappraisals.com

Summary

Expert Real Estate and Real Estate Appraisal Instructor, Appraiser and Consultant dedicated to giving clients "First Class" professional service and honest advice, enabling the client to make sound financial decisions in the sale

As an Instructor to keep the enthusiasm, dedication and ethics in the classroom.

Highlights

- Highly professional
- Independent
- Objective
- Impartial

Accomplishments

Continuing Educational Instructor
Many 3.5 Hour, 7 Hour, and 15 hour seminars along the east coast from Maine to Florida from the East Coast to Louisiana and all the major cities: Chicago, New York, Boston, Atlanta, Miami and all the smaller cities between.

Instructing is approximately 40% of my time spent with 60% working in the field.

Following Courses were taught over the last few years:
2008-2014 ~ 7 hour USPAP (Ethics)
Analyze This! Application of Appraiser Analysis
Deriving and Supporting Adjustments
Disciplinary Cases ~ What Not To Do
Expert Witness Testimony
FHA for Today's Appraiser
Florida Laws and Regulations Update
Introduction to Expert Witness Testimony
Land and Site Value
Relocation Appraising New ERC Summary Report
Reviewer's Checklist
Secondary Market Appraisal Guidelines
The Green Guide to Appraising
UAD Up Close and Personal
Appraisal Review Crammer Course (15 hour)
Appraisal Principles (30 Hours)
Appraisal Practices (30 Hours)
UPAP - (15 Hours)
Highest and Best Use (15 Hours)

Experience

Real Estate Consultant
Market Value Professionals - Charlotte, North Carolina
Our company has over 50 combined years of experience between our three Certified Residential Appraisers in all levels of residential values: residential, land, 1-4 multi-family, manufactured home and employee relocation.

Education

Bachelor of Science : **Marketing & Business Administration**, 1973
Ball State University - Muncie, Indiana, United States

STEVEN L. MAHER,
BIC, GRI, ABR, CRREA, NC Appraiser Instructor
Appraiser Qualification Board USPAP Instructor

10612 PARLOR ROAD CHARLOTTE, NORTH CAROLINA 28277-1900
OFFICE : 704-542-3012 FAX: 704-541-5051 CELL: 704-607-1859 EMAIL: *Steve@SLMappraisals.com*
Web Page: www.SLMappraisals.com

North Carolina: Certified Residential Appraiser #A3525
North Carolina: Real Estate Broker #112694
South Carolina Certified Residential Appraiser #CR2814
Commonwealth of Virginia Certified Residential Appraiser #006561
Certified Distance Education Instructor #67522
North Carolina Real Estate Commission Instructor #1487
Appraisal Foundation USPAP Certified Instructor (Ethic Instructor) #10658

"Over 20 years in the Real Estate business with a primary emphasis on the appraisal of residential properties."

REAL ESTATE APPRAISAL / BROKER EDUCATION COURSES:

2009 ~2013	CDEI ~ Certified Distance Education Instructor (Online Ed. Instructor)
2007 ~ Cur.	North Carolina Real Estate Certified Instructor ~ Pre-license & Post License
2007	Graduate of NOVA a 44 hours of Realtor Renewal Course
2005	Homeowners' Association Agency Liabilities ~ Mingle RE
2005	Professional Guide to URAR Report 2005 Forms ~ AI
2005	US Dept. of Housing & Urban Development Fraud ~ HUD
2004	FHA appraiser/Underwriter Training
2004 ~ Cur.	AQB Certified USPAP Instructor ~ #10658 ~ The Appraisal Foundation
1998 ~ Pres.	North Carolina Appraisal Instructor-Instructor for R1, R2, & R3 Appraisal Courses at Mingle Institute (Board of Realtors) Charlotte, NC
2003 -	William H. Sharp & Assoc. ~ Home Inspection Techniques
2001- 2002	Real Estate Fraud & The Appraiser's Role
2001 – 2002	Appraising the Oddball: Non-conforming & Difficult Properties
2000 – 2001	Uniform Standards of Professional Appraisal Practice~14hrs
1999 -	Completion of ABR & ABRM Courses Accredited Buyer Representative & Manager. Member of REBAC Real Estate Buyer's Agent Council, Inc.
1999 -	U.S. Department of Housing and Urban Development admitted to Roster and Completed Test. HUD/FHA Roster
1999 -	New FHA Requirements, Fannie Mae and VA for 1999 -14Hrs Erick Little, FHA Official Instructor, Statesville, NC
1998 -	Principles of Business Appraisals -Lincoln Graduate Center, Indianapolis, IN
1998 -	*Graduate Real Estate Institute - 300 series*: Pricing Residential Properties; Residential Real Estate As An Investment; Property Management; Marketing and Business Planning. Designation GRI awarded.
1998 -	*Mingle School of Real Estate:* Income Valuation Fundamentals
1997 -	*Graduate Real Estate Institute - 200 series*: Residential Construction; Tax Planning for Real Estate; Legal issues in Real Estate.
1997 -	*Mingle School of Real Estate:* Analyzing/Marketing Investments Property
1997 -	*Graduate Real Estate Institute - 100 series*: Residential Financing; Creative Listing Strategies; Contract to Closing: Real Estate Selling Skills

1996 - *Appraisal Institute:* Uniform Standards of Professional Appraisal Practice.
1995 - *Mingle School of Real Estate:* Analyzing & Marketing Investment Properties.
1993 - *William H. Sharp & Associates:* House Inspection Techniques.
1993 - *NC Department of Transportation:* Principles of Highway and Right of Way Acquisitions.
1992 - *Appraisal Institute:* Standards of Professional Practice & Procedures
1990 - *Mingle Institute:* R1 Introduction to Real Estate Appraisal
R2 Valuation Principles & Procedures
R3 Applied Residential Property Valuation
G1 Introduction to Income Property Appraisal

STEVEN L. MAHER, CREA *(cont.)*

1988 - *Century 21 Regional Office:*
Real Estate Law; Real Estate Brokerage Operations; Real Estate Finance

1987 - *Century 21 Regional Office:*
Fundamentals of Real Estate

Formal Education:

1973 - Ball State University Muncie, Indiana
Bachelor of Science, Marketing & Advertising

Professional Affiliations:

1988-Present National Association of Realtors

1988-Present Charlotte Regional Realtor Association

1998-Present Piedmont Multiple Listing Service

1994-Present National Federal Registry of Appraisers

Association Memberships:

2009-2012 NCPAC~ North Carolina Professional State Board Director
2009-2010 Charter President, NCPAC Metrolina Chapter, Charlotte
2008-Cur North Carolina Real Estate Educators Association ~ NCREEA
1997-1998 President, Kiwanis Cub of South Mecklenburg Club
1990-2000 Charter Member of Kiwanis Club of South Mecklenburg County.
1992 Kiwanian of the Year Award.
1993-94 Vice President of Parent-Teacher Organization :
South Charlotte Middle School.

THE APPRAISAL FOUNDATION
Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

APPRAISER QUALIFICATIONS BOARD

AQB Certified USPAP Instructor Certificate

Your AQB Certified USPAP Instructor Recertification has been successfully processed by The Appraisal Foundation. Please print this email and maintain this document as your official recertification notification. Document your Instructor ID number below. This receipt also includes your recertification effective and expiration dates as an AQB Certified USPAP Instructor.

Steven Maher, CDA
10612 Parlor Road Charlotte, NC 28277 UNITED STATES
Steve@SLMappraisals.com
(704) 542-3012

Instructor ID #: 44860

Certification Effective Date[1]: 10/09/15

Expiration Date: 03/31/2018

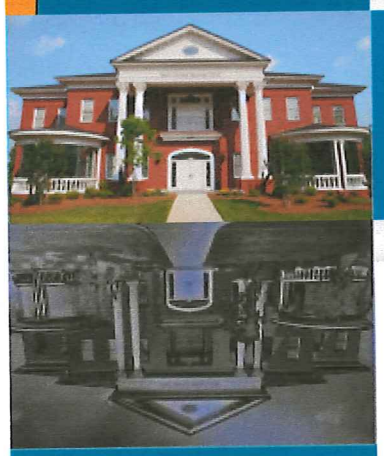
[1] Represents the official date the AQB Certified USPAP Instructor is authorized to teach the 2016-2017 National USPAP Courses.

As a reminder, by completing the Instructor Recertification Course (IRC), the USPAP Instructor agrees to adhere to the terms and conditions contained within the Performance Agreement along with the Policies and Procedures.

Please visit www.appraisalfoundation.org and sign in to your Foundation Account to update your personal and professional information when necessary.

Wayne R. Miller

Wayne R. Miller, Chair
Appraiser Qualifications Board



Home

North Carolina Appraisal Board

Database Search Results

STEVEN L MAHER
City : CHARLOTTE
State : NC
Phone : (704) 542-3012

License # : A3525
Type : Certified Residential
Status : CURRENT
Expires: 6/30/2017
Nat. Registry: Y

New Search

Certified Distance Education Instructor

The International Distance Education Certification Center®

Recognizes

Steven Maher

as a Certified Distance Education Instructor
for successfully completing the CDEI™ second renewal.

Verification ID: 67522
Valid on: November 28, 2009
Expires: November 27, 2018

idecc International Distance Education Certification Center

cdei Certified Distance Education Instructor

Susan L. Gilpin, JD
Chief Executive Officer
Association of Real Estate License Law Officials®

AQB Approved Course

QE	CE/E	CE
		7

Sent Via Email to: mavis@appraisalfoundation.org

Thursday, July 16, 2015

Ms. Mavis E. Kleso
The Appraisal Foundation
1155 15th Street NW
Suite 1111
Washington, DC 20005

Dear Ms. Kleso:

We are pleased to inform you that your course has been approved under the Course Approval Program of the Appraiser Qualifications Board (AQB) of The Appraisal Foundation.

Course Provider:	The Appraisal Foundation
Course Title:	Residential Appraisal Review and USPAP Compliance Course
Instructional Hours:	7.00
Exam Hours:	0.00
Total Hours:	7.00
Delivery Method:	Classroom
Approval Start Date:	7/16/2015
Approval End Date:	7/15/2018

The overall content of this course has been determined to be in compliance with the education criteria established by the AQB. Approval does not mean that every statement or item within the course has been checked for accuracy. Opinions set forth in the course material or by instructors do not necessarily reflect the viewpoint of the AQB or The Appraisal Foundation. Neither the AQB nor The Appraisal Foundation is responsible for any errors, omissions, or misstatements in the course material or by instructors.

Prior to renewal of this course please review the AQB Course Approval Program Policies and Procedures Manual.

Please feel free to contact us if you have any questions or if we can be of further assistance.

Sincerely,

Appraiser Qualifications Board

Appraiser Qualifications Board

THE APPRAISAL FOUNDATION
Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

APPRAISER QUALIFICATIONS BOARD

AQB Certified USPAP Instructor Certificate

Your AQB Certified USPAP Instructor Recertification has been successfully processed by The Appraisal Foundation. Please print this email and maintain this document as your official recertification notification. Document your Instructor ID number below. This receipt also includes your recertification effective and expiration dates as an AQB Certified USPAP Instructor.

Steven Maher, CDA
10612 Parlor Road Charlotte, NC 28277 UNITED STATES
Steve@SLMappraisals.com
(704) 542-3012

Instructor ID #: 44860

Certification Effective Date[1]: 10/09/15

Expiration Date: 03/31/2018

[1] Represents the official date the AQB Certified USPAP Instructor is authorized to teach the 2016-2017 National USPAP Courses.

As a reminder, by completing the Instructor Recertification Course (IRC), the USPAP Instructor agrees to adhere to the terms and conditions contained within the Performance Agreement along with the Policies and Procedures.

Please visit www.appraisalfoundation.org and sign in to your Foundation Account to update your personal and professional information when necessary.

Wayne R. Miller, Chair
Appraiser Qualifications Board

2016-2017 USPAP Timed Outline (7 Hours)

Chapter/Module	Minutes	Date Reviewed
Overview	21	12/28/2015
Pre Exam	13	12/28/2015
Section 1, Chapter 1	7.5	12/28/2015
Section 1, Chapter 2	11	12/28/2015
Section 1, Chapter 3	19	12/28/2015
Section 1, Chapter 4	14	12/29/2015
Section 1, Chapter 5	15	12/29/2015
Section 1, Chapter 6	16.5	12/29/2015
Section 1, Chapter 7	9	12/30/2015
Section 1, Chapter 8	8	12/30/2015
Section 1, Chapter 9	17	12/30/2015
Section 1, Chapter 10	14	12/30/2015
Section 1, Chapter 11	15.5	12/30/2015
Section 1, Chapter 12	18	12/30/2015
Section One totals	198.5	
Section 2, Chapter 0	6	12/30/2015
Section 2, Chapter 1	7.5	12/30/2015
Section 2, Chapter 2	8	12/30/2015
Section 2, Chapter 3	8.5	1/5/2016
Section 2, Chapter 4	7	1/5/2016
Section 2, Chapter 5	9	1/5/2016
Section 2, Chapter 6	8.5	1/5/2016
Section 2, Chapter 7	8	1/5/2016
Section 2, Chapter 8	7	1/6/2016
Section 2, Chapter 9	8	1/6/2016
Section 2, Chapter 10	7.5	1/6/2016
Section 2, Chapter 11	6.5	1/6/2016
Section 2, Chapter 12	6	1/6/2016
Section 2, Chapter 13	8	1/6/2016
Section 2, Chapter 14	8.5	1/6/2016
Section 2, Chapter 15	7	1/6/2016
Section 2, Chapter 16	6.5	1/6/2016
Section 2, Chapter 17	7	1/6/2016
Section 2, Chapter 18	6	1/6/2016
Section 2, Chapter 19	5.5	1/6/2016
Section 2, Chapter 20	6	1/6/2016
Section 2, Chapter 21	6	1/6/2016
Section 2, Chapter 22	5.5	1/6/2016
Section 2, Chapter 23	4.5	1/6/2016
Section 2, Chapter 24	5.5	1/6/2016

Section 2, Chapter 25	5	1/6/2016
Section 2, Chapter 26	5	1/6/2016
Post Exam	12	1/6/2016
Section Two totals	195.5	
Total Time (Min)	394	
Total Time (Hours)	6.566666667	

2016-2017 7 Hour Equivalent USPAP Update Course

Description

This course discusses the changes to USPAP for 2016-2017 and the rationale behind them. This course emphasizes creating an understanding of the changes and examines how USPAP applies to everyday appraisal practice. An important course aspect is to familiarize participants with researching and applying information from the USPAP publication. This course will demonstrate how to use USPAP as an important reference tool.

Organization

The course is presented by the instructor via an asynchronous online multimedia presentation.

Some course examples are presented as whole questions showing participants how their opinions compare with colleagues across America.

Quizzes and exams are designed to demonstrate the participant's mastery and understanding of the USPAP changes. Calypso's state-of-the-art remediation takes a failed question and turns it into a powerful learning experience.

Illustrations and case study reviews are presented with questions designed to prompt participants to research, interpret, and apply RULES and Standards.

The course's use of professional produced videos, thoughtful narratives, easy to comprehend text, and state-of-the-art remediation in quizzes, will help establish a firm understanding of USPAP.

Objectives

- Students will be able to explain the changes to USPAP for 2016-2017 and describe how the changes apply to appraisers.
- Gain an understanding of when why and how changes are made to USPAP.
- Relate the USPAP manual to their professional appraisals.
- Display reasoning when evaluating illustrations and actual case studies
- Explain the process of editing and revising USPAP
- Demonstrate an understanding of how USPAP achieves relevance and enforceability
- Identify the revisions to the definition of Assignment Results and Confidential Information of the Confidentiality section of the ETHICS RULE
- Discuss the rationale for revisions and the RECORDKEEPING RULE
- Demonstrate an understanding of the revisions to STANDARD 3
- Explain revisions to Reporting Standards
- Understand the rationale for the retirement of STATMENTS ON APPRAISAL STANDARDS
- Discuss and understand the addition of new Advisory Opinions:
  - AO 7 - Marketing Time Opinions
  - AO 33 - Discounted Cash Flow Analysis
  - AO 34 - Retrospective and Prospective Value Opinions
  - AO 35 - Reasonable Exposure Time in Real and Personal Property Opinions of Value

AO 36 - Identification and Disclosure of Client, Intended Use, and Intended Users

- Demonstrate an understanding of how real life USPAP violations can occur
- Apply USPAP to real life disciplinary situations

Exams

Calypso Continuing Education courses provide questions designed to test the student's mastery of the learning objectives and reinforce the student/learners retention. To ensure students understand the important information supplied during the seminars, quizzes are administered at the end of each chapter and an exam at the end of the course.* All of the quizzes and exam are designed to meet the following criteria:

- The conditional quizzes at the end of most chapters prevent the student from moving forward to the next chapter until they have demonstrated sufficient mastery of the subject;
- The quizzes and exam contain a sufficient number of questions with a revolving pool of questions that are designed to test the student's mastery of the subject matter and reinforce the learning process;
- All questions both individually and collectively, test at a difficulty level appropriate to measure student achievement of the stated course learning objectives;
- Successful completion of the examination(s) requires the student to answer a minimum of 100% of the questions correctly;
- Examination questions are written in a clear and unambiguous manner;
- Remediation for incorrect answers is accomplished by identifying the correct answer, followed by a brief statement of why the participants choice was incorrect, the LMS then reaches into the chapter and pulls the slide, video, or graphic, from which the question was taken, onto the screen of the incorrect question for the participant's review, turning a simple incorrect answer into a powerful learning tool; and,
- The examinations are not proctored, but appraisers are required to complete an affidavit attesting they are the individuals accessing the course and completing all quizzes and exams.
- Upon successful course completion the participant is awarded a certificate identifying the name, the state for which the course has been approved, and their appraisal license number.

* In those states where an exam is not required for accreditation, the exams have been disabled.

Course Materials:

Calypso USPAP Student Manual (available at the course completion)

Appraisal Foundation Publications:

USPAP (digital version)

Advisory Opinions (digital version)

Frequently Asked Questions (digital version)

Summary of Actions (digital version)

Instructional Support:

Our instructors are available to answer questions regarding course content.

Participants may call 877-640-5140 or email: support@calypsoedu.com Please allow

up to one business day to receive a reply

Customer satisfaction is our #1 priority! Let us know how we can improve your experience with our website, online course, or payment services.

After hours, please feel free to leave us a voice mail or email, and we will respond within one business day.

Email: support@calypsoedu.com Phone:
(877) 640-5140
Fax: (802) 728-3181

Our mailing address is:

Calypso Continuing Education P.O. Box 176
Randolph, Vermont 05060

Site Registration & Course Purchases

All purchases with American Continuing Education Institute, Ltd dba Calypso Continuing Education are protected by Comodo SSL. We use Authorize.net to process payments. Once payment is approved our system automatically generates an email with log in information that you will use to access and begin your course.

Refunds Policy

There are no refunds once the participant has enrolled in a course. All purchases are final.

Terms & Conditions

We accept VISA, MasterCard and American Express. All orders will require you to provide your email address and telephone number in the event that we need to contact you regarding your order.

Privacy Policy

We know how important your privacy is to you. We do not store your information on our website. We never sell or share customer information. The information we collect from you allows us to: process and track your order, contact you if necessary, send related information and sale notices to you, and improve our customer service.

If products are required to augment your online educational experience, we may use other companies to provide these products. Certain services, including credit card processing and shipping are provided by other companies. In these instances, we will only provide these companies with information necessary for them to perform their services.

On rare occasions, we may be required to disclose specific information upon request of certain government or law enforcement agencies, in response to a court order, or when required to do so by law, or while assisting in fraud protection/investigations. We will not provide information to these agencies or companies for marketing or commercial purposes.

Nondiscrimination Policy

In compliance with federal civil rights laws and ADA, Calypso Continuing Education is committed to a policy of nondiscrimination for all employees and participants regardless of race, sex, age, religion, color, national origin, ancestry, disability, marital status, arrest and court record, sexual orientation, or veteran status.

System requirements

Calypso Continuing Education courses work with most modern web browsers and operation systems.

To get the best experience with our website and courses, we strongly recommend using Mozilla Firefox or Google Chrome. You can download either browser for free using the preceding links. Apple's Safari browser and Internet Explorer are also supported

Calypso Continuing Education courses use Adobe Flash technology. Adobe Flash Player is free to download and install. If you are having problems viewing our courses, check to see that Flash is installed and updated.

Some of the additional educational materials available with our courses are supplied in PDF format. You will need a PDF reader, such as Adobe Acrobat, to view those resources. Acrobat Reader is free to download and install.

An internet connection of 1Mbps (one megabit per second) or higher is recommended in order to view the Calypso Continuing Education Appraiser and Environmental courses. Slower connections may work, but our courses contain a fair bit of video content and you may be disappointed with the performance. In order to assist those with lower bandwidth connections the participant may toggle seamlessly between video slides and exclusively audio slides. Such slides contain the same audio content.

2016-2017 7 Hour Equivalent USPAP Update

Instructor Qualifications Policy:

Instructors for American Continuing Education Institute, dba: Calypso Continuing Education are required to possess the following qualifications:

a. A baccalaureate degree in any field and three (3) years of experience directly related to the subject matter to be taught; or

b. A masters degree in any field and one (1) year of experience directly related to the subject matter to be taught; or

c. A masters or higher degree in a field that is directly related to the subject matter to be taught; or

d. Five (5) years of real estate appraisal teaching experience directly related to the subject matter to be taught; or

e. Seven (7) years of real estate appraisal experience directly related to the subject matter to be taught.

Our instructor, Steven Maher has nearly 30 years in the real estate industry. Steven has been conducting appraisals for 23 years and teaching live real estate appraisal courses in a number states for 16 years.

Our Educational Director, Francis X. Finigan has over 21 years of real estate

appraisal teaching experience and over 30 years of experience with real estate appraisal and environmental consulting. He has conducted Real Estate Appraisals since 1981.

Course instructors are chosen for their particular expertise in course content. Calypso instructors are trained to use our learning management system and must successfully complete the course(s) they teach.

Instructors are available to answer student questions via telephone or email and will respond within 24 hours after receiving a participant request.

Course Scheduling Policy

American Continuing Education Institute; dba: Calypso Continuing Education

American Continuing Education Institute, dba: Calypso Continuing Eductation has established a policy on course schedule that provides seven (7) classroom hours of instruction in any given day and provides appropriate breaks during each class session. This course is asynchronous, which allows a student/appraiser to take breaks whenever necessary. If they have not interacted with the course within 15 minutes, the course will logout. The student at any time after that can log back in and begin where they left off. The slides do not automatically advance; they are only advanced by engagement of the user attending.

Refunds and Cancellation Policy

Calypso Continuing Education™ American Continuing Education Institute

Participants may request a full refund by contacting Calypso either via email: info@Calypsoedu.com or via telephone: 802-565-8238. Refunds will not be made on completed courses.

Record Retention Policy:

American Continuing Education Institute; dba: Calypso Continuing Education

American Continuing Education Institute, dba: Calypso Continuing Education (henceforth referred to as Calypso) maintains, for a period of at least 5 years, accurate records of students, including but not limited to the following: student's name, student's appraisal license number, the title of the course attended, the number of credit hours awarded upon course completion.

Certificates are provided at the completion of the course. Calypso provides additional documentation in jurisdictions that require same.

For the asynchronous E-learning/online courses, certificates are generated as a PDF after successful completion of the course and passing the final exam.

Calypso student records are maintained on the LMS servers for at least five years. The servers feature 3/100 megabit internet connections with dedicated redundancy. The LMS system has received ANSI (American National Standards Institute) accreditation in accordance with the ASTM e2659 standard. As an additional safeguard, bi annually the databases for students are downloaded to digital storage medium maintained at the Calypso corporate headquarters for a period of at least five years from the download.

American Continuing Education Institute; dba: Calypso Continuing Education

Attendance Policy:

American Continuing Education Institute, dba: Calypso Continuing Education requires the participant to supply the appraisal license or certificate number on an affidavit, attesting that the participant is the only individual attending the seminar and completing any associated exams.

Participants may log into and out of the seminar as necessary, allowing the individual the ability to control breaks.

Courses are metered. In the event that a participant fails to interact with the learning platform, the seminar closes while automatically saving participant progress. Participant time spent navigating the seminar is metered and permanently recorded in the Calypso database.

American Continuing Education Institute; dba:

Calypso Continuing Education

2016-2017-7 Hour USPAP Equivalent Update Course

Certificate of Successful Completion for:

JoEllen Appriaser

Student Address: 12 Buckle My Shoe Lane, East Overshoe, VT

Student License Number: 123456

SAMPLE ONLY - NOT FOR CREDIT

This distance course has been approved for 7 hours of Real Estate Appraisal Continuing Education

September 20, 2016

Course Completion Date

Francis X. Finigan

Accredited Instructor

Course Number: 10000000000