Property Appraiser Training Program

Coach's Manual

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Property Appraiser Training Program

To become a registered appraiser who appraises for an Oregon county or the Oregon Department of Revenue under ORS 308.010, the trainee must meet certain training and education qualifications. The Department of Revenue will assist in this process by providing oversight to the program. The county assessor must establish and maintain a training file.

The *County Property Appraiser Trainee Manual* is attached. The manual is designed to follow a sequence intended to help the trainee in the learning process. Also attached is the Program Guide with an explanation of how to manage the materials in the manual.

This manual contains standardized examinations that should be given during the course of the training. Please ensure this material is maintained in a confidential manner because it is not included in the trainee's version of this manual. Therefore, once the assessor or coach has given an examination and reviewed the results with the trainee, the assessor or coach should retain the material and not give a copy to the trainee.

Upon completion of the program, the trainee becomes eligible to apply for the County Property Appraiser 1 Examination, which the Department of Revenue Human Resources administers. To apply for the exam, the trainee must complete a state job application form (PD 100H) and attach a Certification of Completion Affidavit signed by the assessor or an official from the Department of Revenue. You can access the PD100H at www.oregon.gov/das/stjobs/docs/jobs/PD100H.pdf.

We look forward to assisting you and the trainee. If you have any questions, please contact the Department of Revenue.

Department of Revenue Human Resource: 503-945-8272
Training Development Team: 503-945-8276

Program Guide

County Property Appraiser Trainee Program

The *County Property Appraiser Trainee Manual,* hereafter referred to as the *Trainee Manual,* may be used in its entirety or in part to prepare the trainee to qualify to take the Oregon County Property Appraiser 1 Examination.

Prerequisites of Appraiser Training Program

- OAR 150-308.015 states you must be an employee in a county assessor's office or a person for whom the assessor has agreed to provide on the job training; i.e., a person referred to the assessor through a licensed vocational rehabilitation organization.
- Before entering the County Property Appraiser Trainee Program, Oregon Statutes (ORS 308.015) require that a trainee first pass a general knowledge examination that tests the applicant's competence and aptitude. It is at the assessor's discretion as to the type and scope of the examination.

Appraiser trainee profile

The trainee should complete a profile of relevant education and job experiences. The coach uses this information to develop an individualized training plan that should qualify the trainee to take the County Property Appraiser 1 Examination. Information supplied by the trainee regarding courses already completed should be entered in the Training and Education Completion Record and maintained in the assessor's trainee training file.

Training and education contract

It is recommended the assessor enter into a formal contract with the trainee. This will minimize misunderstandings. The contract should outline the assessor's requirements to complete the trainee program. Both the assessor and trainee should sign the contract. The signed original should be maintained in the assessor's trainee training file. A copy should be given to the trainee.

The assessor should notify the Department of Revenue, ATS–Training Development Team that they have a trainee.

Training and education completion record

The coach must track all education and training requirements as they are completed by the trainee. To finish the program, the assessor must certify all requirements in the contract are complete by signing the Certificate of Completion Affidavit.

Required areas of study

The trainee should retain the study material for future reference.

Introduction

The trainee will be assigned to read study material covering a brief history of Oregon's property tax system provided in the *Trainee Manual,* in the "Foreward" and first three chapters of the *Appraisal Methods for Real Property Manual*: "Introduction to the Property Tax System," "Organization and Administration," and "Records."

Mapping and legal descriptions

The trainee will read Chapter 4, "Oregon Cadastral Map System," of the *Appraisal Methods for Real Property Manual* and the supplemental study material provided in the *Trainee Manual.* This information is designed to give the trainee a more thorough knowledge of the cadastral mapping system and prepare them for the accompanying exam, the Completion Examination, and the Registration Examination. Results will be reviewed with the trainee by their coach. The exam will be provided only in the coach's supplement to the manual.

Fundamental appraisal concepts (appraisal principles)

The trainee will read Chapter 5, "Fundamental Appraisal Concepts," of the *Appraisal Methods for Real Property Manual* and the supplemental study material provided in the *Trainee Manual.* Fundamental appraisal concepts and methods enable the appraiser to arrive at a supportable estimate of value and understand the importance of factors affecting buyers and sellers. This information is designed to prepare the trainee for the accompanying exam, the Completion Examination, and the Registration Examination. Results will be reviewed with the trainee by their coach. The exam will be provided only in the coach's supplement to the manual.

Three Approaches to Value

The trainee will read Chapter 6, "The Three Approaches to Value," of the *Appraisal Methods for Real Property Manual*.

The self-study courses are:

1. *The Cost Approach to Value*
2. *The Sales Comparison Approach to Value*
3. *The Income Approach to Value*

These three study courses are a separate resource to the Appraiser Trainee Manual and should be provided to the trainee. These self-study courses are available on the Department of Revenue's webpage at:

www.oregon.gov/dor/ptd/ptd_pubs.shtml

An examination for each approach will test the trainee's knowledge of the material. Results will be reviewed with the trainee by their coach. The examinations and answers are only provided in the Coach's Supplement to the manual.

Supplemental areas of study

Tax system overview

The trainee will read Chapter 13, "Maximum Assessed and Assessed Value," of the *Appraisal Methods for Real Property Manual.* Understanding Oregon property tax law is a fundamental part of appraisal valuation. Supplemental study material in the *Trainee Manual* will provide additional information.

Additional information concerning the history of the property tax system is available on the Department of Revenue's website (www.oregon.gov/DOR) under Publications, Research and Statistical Reports, Oregon Property Tax Statistics (150-303-405), *Appendix B: A Brief History of Oregon Property Taxation.*

Construction and cost factor books

This study material in the *Trainee Manual* is designed to help the trainee understand the overall structure of a single-family dwelling (one to four units) and become familiar with cost factor books for residential, manufactured structures, farm buildings, and a commercial cost service manual, such as the *Marshall Valuation Service.* The trainee will know descriptive elements and quality measurement standards, roof and architectural styles, and gain experience in reading house plans. The trainee will do a homework assignment.

Mass appraisal set-up and appraisal fieldwork

The trainee will read:

- Chapter 8, "Mass Appraisal of Land,"
- Chapter 9, "Mass Appraisal of Residential Properties,"
- Chapter 10, "Mass Appraisal of Income-Producing Properties,"
- Chapter 11, "Mass Appraisal of Farm and Ranch Properties," of the *Appraisal Methods for Real Property Manual,* and
- The supplemental study material in the *Trainee Manual.*

The trainee:

- **May** participate in a mass appraisal set-up by completing various types of sales reviews and participate in the reappraisal of a neighborhood.
- **May** accompany an experienced appraiser in the field to learn procedures for interacting with the public, learning field appraisal techniques for inspections, and measuring structures.
- **May** inspect and complete new construction and land maintenance accounts, working closely with their coach and/or assessor. The number of accounts is flexible due to individual county characteristics and market activity.

The trainee's coach or designee must evaluate, finalize, and sign all appraisal work performed by the trainee.

Appraisal fieldwork **may** include many of the following:

- Land sales confirmation and analysis;
- Developing base land values and benchmarks with adjustments for a defined market area;

- Improved sales confirmation and analysis, including developing a local cost modifier;
- Developing market depreciation analysis, including depreciation table and benchmarks;
- Developing classification benchmarks;
- New single-family dwelling;
- New manufactured structure placement;
- New farm building construction;
- Addition or remodel to existing structure;
- Demolition of existing structure;
- Land division, combination, lot line adjustment;
- New minor improvements.

General field inspection notes

This brief overview and an outline of procedures will assist you in your new endeavor as a field appraiser. This is a practical guide for field inspection practices for the county appraiser.

Statistics and appraisal standards (ratio)

The trainee will read Chapter 7, "Statistics and Appraisal Standards," of the *Appraisal Methods for Real Property Manual* and the supplemental study material provided in the *Trainee Manual.* The coach or assessor will discuss this material with the trainee to ensure they have a good understanding of the ratio and adjustment process.

Property tax appeals

The trainee will read Chapter 15, "Property Tax Appeals," of the *Appraisal Methods for Real Property Manual* and observe a board of property tax appeals session. The coach will discuss the valuation issues and the appeals process and with the trainee.

Common ownership properties

The trainee will read Chapter 12, "Common Ownership Properties," of the *Appraisal Methods for Real Property Manual* and the supplemental study material provided in the *Trainee Manual*. This material discusses recommended valuation methodology for common ownership properties such as condominiums, timeshares, and planned communities. The coach will discuss this material with the trainee.

Other assessment programs

The trainee will read Chapter 14, "Other Assessment Programs," of the *Appraisal Methods for Real Property Manual*. This material is about special assessment programs and non-assessable properties such as specially assessed farm, forest accounts and exemptions. The coach will discuss this material with the trainee.

Acronyms, mathematical formulas, glossary

A list of acronyms, some common mathematical formulas and tables, and a comprehensive glossary are provided for study and reference purposes in the *Trainee Manual.* A narrative report guide, sample narrative appraisal, and OAR overview are also included.

Trainee Completion Examination (taken prior to the County Property Appraiser 1 examination)

The final step of the trainee program is passing the trainee course completion exam with a score of at least 70 percent. The test is administered by their coach or assessor. This examination confirms that the trainee has met the requirements of the County Property Appraiser Trainee Program and is now qualified to apply to take the state's County Property Appraiser 1 examination. Results will be reviewed with the trainee by their coach.

If the coach feels that there are any areas that need additional review, this should be done prior to administering this Completion Examination. With the trainee successfully passing the trainee course completion exam, the assessor signs a Certificate of Completion Affidavit.

Certificate of Completion Affidavit

This signed document certifies that the trainee has completed the County Property Appraiser Trainee Program and must accompany the completed PD 100H application.

Correspondence to the Department of Revenue:

Department of Revenue
Property Tax Division
Attn: ATS–Training Development Team
955 Center Street NE
Salem OR 97301-2555

Overview

The County Property Appraiser Trainee Program (ORS 308.015 and OAR 150-308.015) is an on-the-job training program for employees in a county assessor's office that allows participants to work as an appraiser trainee and participate in formal educational courses in preparation for becoming a registered appraiser. The Oregon Department of Revenue provides a training manual and oversight of the program under the direction of the county assessor or a designee.

The *County Property Appraiser Trainee Manual,* hereafter referred to as the *Trainee Manual,* is a resource document developed and maintained by Oregon Department of Revenue, Property Tax Division, as part of its statewide supervisory oversight of the property tax program. None of the materials or suggested resources outlined within this manual are mandated for use by a county assessor in developing an individualized training program for a newly enrolled trainee. Instead, the intent of the manual is to provide resources and guidance to the trainee's coach to assist in developing an individualized training program. The manual may be used in its entirety or in part to prepare the trainee to take the Oregon County Property Appraiser 1 Registration Examination.

To begin, a trainee must obtain approval from the county assessor to be accepted into the training program. The assessor will provide an individualized training program, agree to be responsible for monitoring and reviewing the trainee's day-to-day work, and administer the required exams. The cost for attending some appraisal courses is substantial so the trainee and assessor should have a clear understanding as to who will be responsible for these costs. The program may not exceed two years' duration from the date of enrollment to comply with ORS 308.015(2).

The recommended minimum requirements for completion of the Appraiser Trainee Program include satisfactory completion of the individualized training program, which may include participation in the following:

- Complete a minimum of 90 continuing education hours of appraisal courses offered by professional associations, the Department of Revenue, or a community college.
- Participate in a mass appraisal set-up and the reappraisal of a neighborhood.
- Inspect and complete new construction and land maintenance accounts.
- Observe Board of Property Tax Appeals hearings.
- Successfully complete all tests and exams as required by the study materials provided in the training manual.

Upon satisfactory completion of the program, the assessor will sign a Certificate of Completion Affidavit.

The trainee must complete a state job application form (PD100H) to qualify for the County Property Appraiser 1 Registration Examination. The PD100H form is available on the internet at:

www.oregonjobs.org/das/stjobs/docs/jobs/PD100H.doc.

Submit the completed PD100H form and the signed Certification of Completion Affidavit to:

Oregon Department of Revenue
Attention: Human Resources
955 Center Street NE
Salem OR 97301-2555

You may also fax your application materials to 503-947-2047.

For questions about completing the application, call 503-945-8272 or 503-945-8547. You can also e-mail DORapplications@state.or.us.

Training Profile

To assist your coach in developing an individualized training program, please provide the following information:

Name: _____

Date: _____

Degrees earned: _____

Education/training history (relevant coursework)

Course	College, university, professional institutions	Dates

Oregon Department of Revenue courses

Course	Dates

Relevant job experience

Tasks or job experience	Duration

License/registration/certificate

Description	Expiration

Specialized skills and knowledge

Description	Expiration

Note: If more space is needed, attach an additional page.

Sample contract

The following is a sample contract that can be modified to reflect an individualized appraiser trainee program

Training and education contract

County property appraiser trainee program

I understand that the following must be completed in order to meet the requirements of the County Property Appraiser Trainee Program:

Formal education requirements:

Complete at least three (minimum 90 continuing education hours) of the following courses offered by the Department of Revenue (DOR), an accredited appraisal organization, or an educational institution. Suggestions include:

Department of Revenue

- Principles of Oregon Assessment and Taxation (30 hours);
- Procedures of Mass Appraisal (30 hours);
- Construction Technology (10.5 hours);
- Exceptions (6 hours);
- Basic Land Valuation (12 hours);
- DOR Residential Cost Factor Book Training (10.5 hours).

Check with the DOR Continuing Education Unit for a current list of courses.

International Association of Assessing Officers (IAAO)

- Course 101—Fundamentals of Real Property Appraisal;
- Course 102—Income Approach to Valuation;
- Course 300—Fundamentals of Mass Appraisal.

Check the IAAO website for a current list of courses: www.iaao.org.

Appraisal Institute

- Basic Appraisal Principles;
- Basic Appraisal Procedures.

Check the Appraisal Institute website for a current list of courses: www.appraisalinstitute.org.

Community college

- Real Estate Law, *or*
- Real Estate Appraisal or equivalent.

These courses must include basic principles and the methods and techniques used to determine the value of real estate.

Take the examination, if required, for any course selected and receive a passing score. Submit a copy of satisfactory completion of each course to the county assessor and the Training

Development Team at the Department of Revenue. The Request for Training Credit form, 150-338.008, can be found at:

www.oregon.gov/dor/ptd/appr-regis.shtml#Forms_and_Publications.

On-the-job training (suggested order):

1. Read the introductory material in the *Trainee Manual* and
    a. Foreword,
    b. Chapter 1, "Introduction to the Property Tax System,"
    c. Chapter 2, "Organization and Administration," and
    d Chapter 3, "Records," in the *Appraisal Methods for Real Property Manual*.
2. Study the material on acronyms, glossary and mathematical formulas. Become familiar with appraisal language and common appraisal mathematical calculations.
3. Read Chapter 4, "Oregon Cadastral Map System," of the *Appraisal Methods for Real Property Manual*. Study supplemental mapping and legal descriptions material provided in the *Trainee Manual*. Take exam and receive a score of no less than 70 percent.
4. Read Chapter 5, "Fundamental Appraisal Concepts," of the *Appraisal Methods for Real Property Manual* concerning fundamental appraisal principles. Study the supplemental material in the *Trainee Manual*. Take exam and receive a score of no less than 70 percent.
5. Read Chapter 6, "The Three Approaches to Value," of the *Appraisal Methods for Real Property Manual*. Successfully complete the self-study courses. Take exam and receive a score of no less than 70 percent:
    a. The Cost Approach to Value
    b. The Sales Comparison Approach to Value
    c. The Income Approach to Value
6. Read Chapter 13, "Maximum Assessed and Assessed Value," of the *Appraisal Methods for Real Property Manual*. Study Measure 5 and Measure 50 material provided in the *Trainee Manual*.
7. Study the material provided in the *Trainee Manual* on basic construction and the introductory materials in the cost factor books for single-family dwellings (one to four units), manufactured structures, farm buildings, and a commercial cost service manual, such as the *Marshall Valuation Service*.
8. Read the following chapters of the *Appraisal Methods for Real Property Manual* and the study material provided in the *Trainee Manual*:
    a. Chapter 8, "Mass Appraisal of Land,"
    b. Chapter 9, "Mass Appraisal of Residential Properties,"
    c. Chapter 10, "Mass Appraisal of Income-Producing Properties," and
    d. Chapter 11, "Mass Appraisal of Farm and Ranch Properties."

Participate in a mass appraisal set-up and the reappraisal of a neighborhood by completing various types of sales reviews and performing appraisal fieldwork. The trainee will:

- Participate in a mass appraisal set-up by completing various types of sales reviews and participate in the reappraisal of a neighborhood.
- Accompany an experienced appraiser in the field to learn procedures for interacting with the public, learning field appraisal techniques for inspections, and measuring structures.
- Inspect and complete new construction and land maintenance accounts, working closely with their coach and/or assessor. The number of accounts is flexible due to individual county characteristics and market activity.

9. Inspect and complete new construction and land maintenance accounts. The supervising appraiser must evaluate and finalize all appraisal work performed by the trainee. Document and retain a reference to the file location of all studies, graphs, grids, schedules, and conclusions of value analysis.

Appraisal fieldwork may include many of the following:

- Land sales confirmation and analysis;
- Developing base land values and benchmarks with adjustments for a defined market area;
- Improved sales confirmation and analysis, including developing a local cost modifier;
- Developing classification benchmarks.
- Field inspect if possible:
  —New single-family dwelling;
  —New manufactured structure placement;
  —New farm building construction;
  —Addition or remodel to existing structure;
  —Demolition of existing structure;
  —Land division, combination, lot line adjustment.
- Developing market depreciation analysis, including depreciation table and benchmarks.
- New minor improvements.

10. Read Chapter 7, "Statistics and Appraisal Standards," of the *Appraisal Methods for Real Property Manual* and the study material provided in the *Trainee Manual*. Discuss with coach and/or assessor.

11. Read Chapter 15, "Property Tax Appeals," of the *Appraisal Methods for Real Property Manual* and attend a Board of Property Tax Appeals session. Discuss the valuation issues and the appeals process with the coach.

12. Read Chapter 12, "Common Ownership Properties," of the *Appraisal Methods for Real Property Manual* covering condominiums, timeshare estates, and planned communities. Discuss with coach and/or assessor.

13. Read Chapter 14, "Other Assessment Programs," of the *Appraisal Methods for Real Property Manual* covering farm, forest, and exemptions. Discuss with coach and/or assessor.

Final evaluation

Take the Appraiser Trainee Completion Examination and receive a score of no less than 70 percent.

Upon completion of these requirements, the assessor will certify that I finished the requirements of my trainee program and I am ready to apply for the County Property Appraiser 1 Registration Examination as provided in ORS 308.015. The State of Oregon, Department of Administrative Services Human Resources Services Division and the Department of Revenue administer this examination.

I understand that I will not become a registered appraiser until I have taken the Registration Examination and received a passing score from the Department of Administrative Services.

_____	_____
Appraiser trainee	Date
_____	_____
Assessor	Training term starting date

Notification to the Department of Revenue

The Assessor will notify the department if they have placed a trainee in a formal appraiser trainee position. Please notify the Department of Revenue's Property Tax Division, Training Development Team at the following address:

Department of Revenue
Property Tax Division
Attn: Training Development Team
955 Center Street NE
Salem OR 97301-2555

Sample Completion Record

County Property Appraiser Trainee Program

Study materials	Date assigned	Date completed
Introduction Materials		
Mapping and Legal Documents		
Fundamental Appraisal Concepts (Principles)		
The Three Approaches to Value		

Other areas the assessor/coach may consider are:		
Measure 5 and Measure 50–Introduction		
Construction and Cost Factor Books		
Mass Appraisal of Land		
Statistics and Appraisal Standards (Ratio)		
Property Tax Appeals		
Condos, Timeshares, Planned Communities		
Farm, Forest, and Exemptions		
Mass Appraisal of Income-Producing Properties		
Mass Appraisal of Farm and Ranch Properties		
Other:		

Department of Revenue sponsored training:

Available courses	Date attended
Principles of Oregon Assessment & Taxation	
Procedures of Mass Appraisal	
Construction Technology	
Residential Cost Factor Book	
Land Valuation	

Appraisal/educational courses:

Name of course	Course offered by	Date taken	Credit hours	Grade/ score

If assigned:

Field appraisals or sales reviews

Date assigned	Date completed

New construction or maintenance accts

Date assigned	Date completed

Board of property tax appeals

Date(s) hearing attended

Appraiser Trainee Completion Examination Date: _____ Score: _____

Certification of Completion Affidavit Date Signed: _____

Assessor or designee _____

CERTIFICATE OF COMPLETION
AFFIDAVIT

I certify that _____ has successfully completed the county property appraiser trainee program and is prepared to take the County Property Appraiser 1 Registration Examination.

_____ _____

Assessor or designee Date

INTRODUCTION TO THE OREGON PROPERTY TAX SYSTEM

ASSIGNMENT

- Read the study material provided in this unit of the *Trainee Manual.*
- Study the Foreword and the chapters titled "Introduction to the Property Tax System," "Organization and Administration," and "Records," of the *Appraisal Methods for Real Property.*

Introduction to the Trainee Program

Welcome to the County Property Appraiser Trainee Program. Appraiser trainees come from a wide range of backgrounds in educational and career experiences. If you are new to the Oregon Property Tax System, you may be interested to know some history on the origin of property taxes and the office of county assessor in Oregon.

The assessor is the elected or appointed official who performs the assessor's duties as defined by state statutes (ORS 308.210). Their responsibilities include the discovery, identification and assessment of all property within the county. As a county appraiser, it will be your duty to establish property values and collect other information as required.

History

It has taken a long time for property taxes to evolve into the system that is in place today. Taxes on ownership of property were used in ancient times, but the modern system has roots in the feudal obligations owed to British and European kings or landlords. The settlers brought with them the county form of government from England. However, because people tended to live closer to one another, villages, towns, and cities emerged as the most important governing bodies. Counties functioned as arms of the city and state government and had no specific role or power.

In **1859,** when Oregon became a state, a general property tax clause was included in the constitution that required all property be taxed equally by value. The tax applied to all wealth, real and personal, as well as tangible and intangible including: stocks, bonds, land mortgages, notes, and intellectual property. However, around **1910,** state income taxes were enacted and intangible property, such as intellectual property and some types of tangible property like stocks and bonds were eliminated from the property tax base.

The system worked well in rural areas where land and mortgages were the primary property, but determining the basis of wealth in the more populated areas with more complicated financial investments was quite difficult. An elected official administered the general property tax by determining the market value of the property, calculating tax rates, collecting the taxes, and remitting the proceeds to the proper government—very similar to the offices of assessor and tax collector in Oregon today.

The automobile industry created a new life style—in **1930** there were 23 million cars, which created a demand for better roads. People moved outside the city, which resulted in demands for services such as sewer, disposal, etc. Counties became the government to meet these new challenges and deliver the needed services.

From **1948-1958,** 85 percent of all new homes built in settled areas were outside cities. These citizens still expected the services they experienced in the cities: schools, parks, hospitals, libraries, and fire and police services. Because many of these areas were unincorporated, the counties picked up the tab and encountered dramatic new financial obligations.

The **1950s** gave rise to the counties gaining political power based on their growing populations as they developed a regional approach to their new pressures that ranged from transportation issues to environmental protection. During this time, the Councils of Government (COG) developed. These are regional councils that work together to address their shared

needs and challenges. Many of these regional governments get substantial dollars for transportation and housing developments.

Property assessment

The process of identifying and assigning a value to taxable property is called assessment. The county assessor administers most local property assessment, and the Oregon Department of Revenue assesses some property, including large industrial properties and public utilities. The department appraises large industrial plants and submits valuation information to the individual county to be included on the county's real property assessment roll. Public utility property valuation information is transferred from the department to the county and placed on a separate assessment roll, called the Utility Roll, prior to preparation of tax bills.

Property subject to taxation includes all privately owned real property (land, buildings, and improvements) and business personal property (machinery, office furniture, and equipment). There is no property tax on household furnishings (exempted in 1913), personal belongings, or automobiles (exempted in 1920).

There are some very special valuation challenges in the west. Much of the land in the western states is federally (parks and forestland) or tribally owned, and therefore, not subject to taxation. In many cases, however, local government is still expected to supply service in terms of law enforcement, search and rescue, and fire support. To balance this inequity, the federal government developed a system of payment in lieu of taxes. This system began in **1976,** and Congress has authorized it each year since.

Other land assessment challenges in Oregon involve the market's perception of value regarding amenities such as river or ocean frontage; excellent mountain, territorial or water views; topography issues; irrigation feasibility; and agricultural, commercial, and industrial uses.

The purpose of this trainee program is to guide you through the process of recognizing market influences and developing standards to classify properties, using a variety of methods to arrive at a conclusion of value in a mass appraisal situation.

Tax limitation measures

The structure of determining property taxes changed very little until the 1990s when two statewide ballot measures dramatically altered the system.

Measure 5, which introduced tax rate limits, was passed in 1990 and became effective starting in the 1991-92 tax year. The limits of $5 per $1,000 real market value for school taxes and $10 per $1,000 real market value for general government taxes apply only to operating taxes, not bonds. If either the school or general government taxes exceeded its limit, then each corresponding taxing district generally had its tax rate reduced proportionally until the tax limit was reached. This reduction in taxes to the limits is called "compression."

Before Measure 5 passed, each county assessor annually prepared an assessment roll listing all taxable property as of January 1. The legislation to implement Measure 5 made two primary changes in the assessment process. First, it changed the assessment date from

January 1 to July 1, effective beginning of the 1991-92 fiscal year. Second, the new legislation set assessed value equal to real market value, where real market value was defined as the minimum value the property would sell for during the year.

1844	Property tax adopted (territorial government)
1859	Congress admits Oregon as the thirty-third state on February 14
1942	Property and Income taxes are split: Income Tax revenue supports state government services and Property Tax revenue supports local government and local school districts
1961	Legislature creates Oregon Tax Court (first state to create a tax court)
1990	Voters pass Measure 5 (property tax rate limitation)
1997	Legislature revises Measure 47 into Measure 50. Voters pass Measure 50

The 1997 Legislature drafted **Measure 50** to correct a number of technical problems with the citizens' initiative **Measure 47.** The objective of Measure 50 was to reduce property taxes in 1997-98 and to control their future growth. It achieved these goals by cutting the 1997-98 district tax levies, and by making three changes: switching to permanent rates, reducing assessed values, and limiting annual growth of assessed value.

With Measure 50, property assessment changed dramatically. For 1997-98, the assessed value of a property was set at 90 percent of the property's 1995-96 assessed value. From 1998-99 onward, assessed value growth is generally limited to 3 percent per year with certain exceptions. Measure 50 also redefined real market value (RMV). Real market value is defined now as the value the property would sell for in the market on the assessment date (January 1), thus abandoning the concept of minimum value during the year that was adopted under Measure 5.

Tax relief

During the past 20 years, the legislature created six property tax relief programs. Currently, only two of these programs remain: the **Elderly Rental Assistance** (ERA) and the **Homestead Deferral** programs. The Homestead Deferral programs include property tax deferral programs for seniors (62 years and older) and disabled homeowners, and a special assessment deferral program for seniors.

Homeowners 62 years or older who meet certain income requirements are able to defer all property taxes. Under the **Senior Citizen's Deferral Program,** the state pays the property taxes of participants and charges the homeowner 6 percent interest on the deferred amount. In most cases, homeowners are not required to pay the taxes or interest to the state until the applicant dies or there is a change in ownership.

Another part of the Homestead Deferral program is the **Disabled Citizen's Property Tax Deferral Program.** It started in 2001 and is similar to the Senior Citizen's Deferral program, however this program is for disabled homeowners who are eligible for, or receive Social Security disability benefits, and are younger than 62 years old.

The trainee program

The program combines on-the-job training, formal education, and other work-related experiences to qualify the trainee to apply to take the County Property Appraiser 1 Examination. Now, continue your studies by reading the assigned chapters of the *Appraisal Methods for Real Property Manual*.

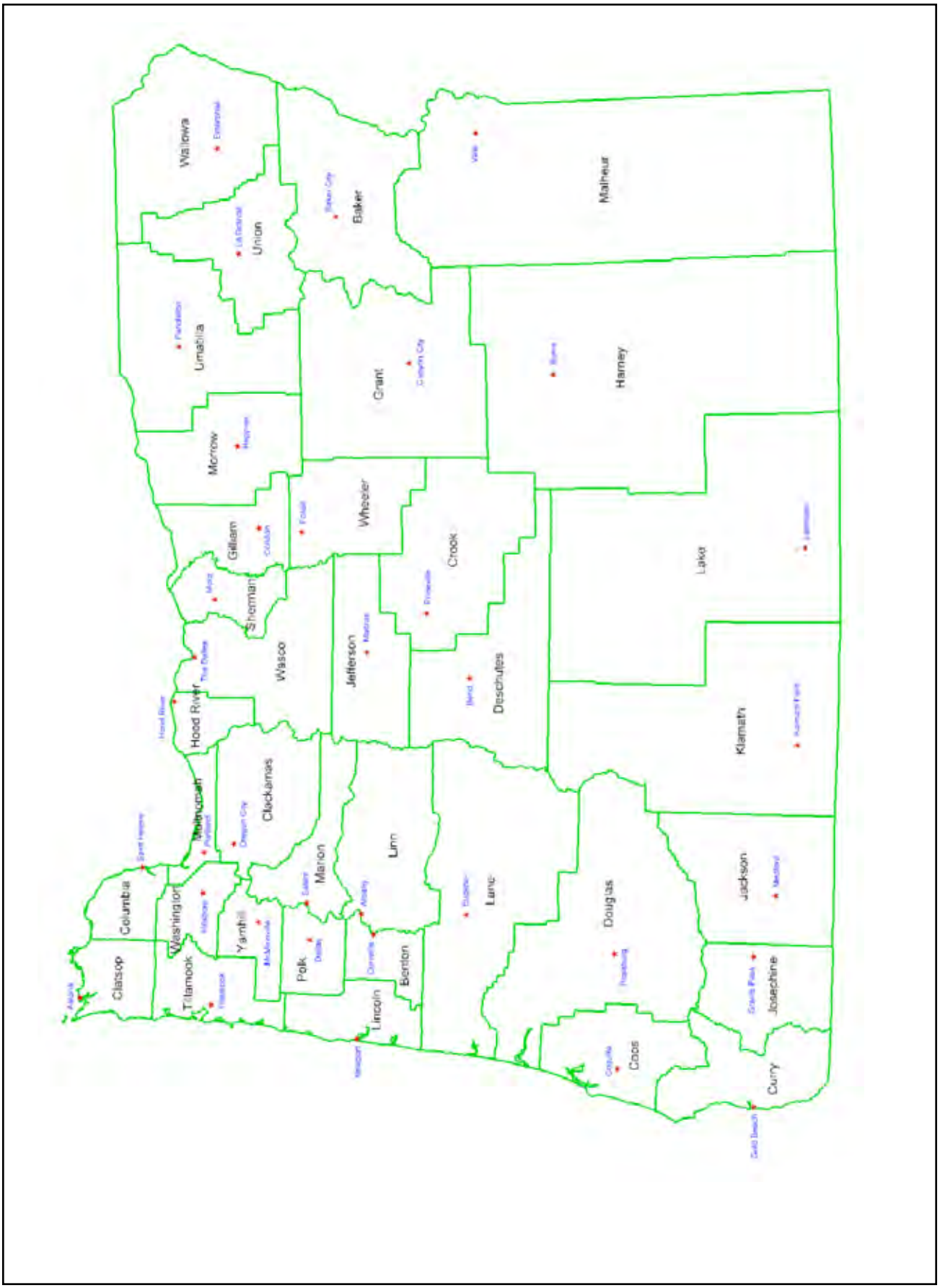
With excerpts from the Oregon Property Tax System publication *Grapevine, Winter 2006,* "Property Taxes Through the Years," by Karen Gregory, Property Tax Division Administrator, Oregon Department of Revenue, and *Appendix B, A Brief History of Oregon Property Taxation,* from the Department of Revenue's Oregon Property Tax Statistics publication 150-303-405.

MAPPING AND LEGAL DESCRIPTIONS

STUDY MATERIAL

ASSIGNMENT

- Read Chapter 4, "Oregon Cadastral Map System," in the *Appraisal Methods for Real Property Manual*.
- Read the study material provided in the *Appraiser Trainee Manual*.
- Take the Mapping and Legal Descriptions Exam.


Wallowa
Union
Baker
Malheur
Umatilla
Grant
Harney
Morrow
Gilliam
Wheeler
Crook
Lake
Sherman
Wasco
Jefferson
Deschutes
Hood River
Klamath
Clackamas
Multnomah
Marion
Linn
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Benton
Lane
Douglas
Jackson
Clatsop
Tillamook
Lincoln
Coos
Curry
Josephine

Cadastral Maps

When everything was vast open land and the land had little value, it did not matter if the boundaries were vaguely determined. Old records refer to such landmarks as "the dead oak tree with the skull of a steer set in its fork" or "the clump of Sycamores springing from one root." Stones, houses, walls, streams, and reference points of many kinds were used without the realization that time might erase them as markers or that their location might be changed.

Today, land is measured more accurately. Maps and data in the public records are based on surveys. Surveyors establish exact directions of boundary lines by Global Positioning Systems (GPS), transits, and other sophisticated electronic equipment. With these devices, precise distances are fixed from officially registered starting points. Aerial photography is also used in modern mapping. Much property changes hands without further survey work being considered necessary.

Oregon uses the cadastral (ca·das·tral) map system. *Webster's* defines cadastral as an official register of the quantity, value, and ownership of real estate used in apportioning taxes. The primary purpose of the cadastral map is to locate, identify, and inventory real property parcels. It shows the size, shape, property lines, tax lot numbers, codes, streets, roads, bodies of water, and other characteristics of specific properties.

> *"The only way to sort out the confusion in the land records is to proceed with the surveying and evaluation of each land parcel in the Empire.*
>
> *A good cadastre will constitute a complement of my code as far as land possession is concerned.*
>
> *The cadastral maps must be sufficiently accurate and complete so that they can determine the boundaries between properties to prevent litigation."*
>
> *Napoleon Bonaparte 1807*

The cadastral map has many other functions. It provides a base for the parcel identifier (tax lot number) and provides graphic support to the other elements of the assessment record used to determine the area of land parcels. These maps are also used in the property appraisal process and as a base for soil-type maps.

Legal descriptions

In Oregon, there are four types of legal descriptions used in mapping:

Metes and bounds

Used in England for many centuries, this method was applied in the original 13 colonies that became the United States. This method uses the boundary lines of land with their terminal points and angles.

Typically, the system uses physical features of the local geography, or where there are no suitable natural monuments, permanent monuments may be placed. The boundaries are described in a running prose style with directions and distances to define and describe the boundaries of a parcel of land, working around the parcel in sequence, from a point of beginning and returning back to the same point.

The term **"metes"** refers to a boundary defined by the measurement of each straight run, specified by a distance between the terminal points, and an orientation or direction. A direction may be a simple compass bearing, or a precise orientation determined by accurate survey methods. The term **"bounds"** refers to a more general boundary description, such as along a certain watercourse, a stone wall, an adjoining public roadway, or an existing building.

The system is often used to define larger pieces of property (e.g., farms), and political subdivisions (e.g., town boundaries) where precise definition is not required or would be far too expensive.

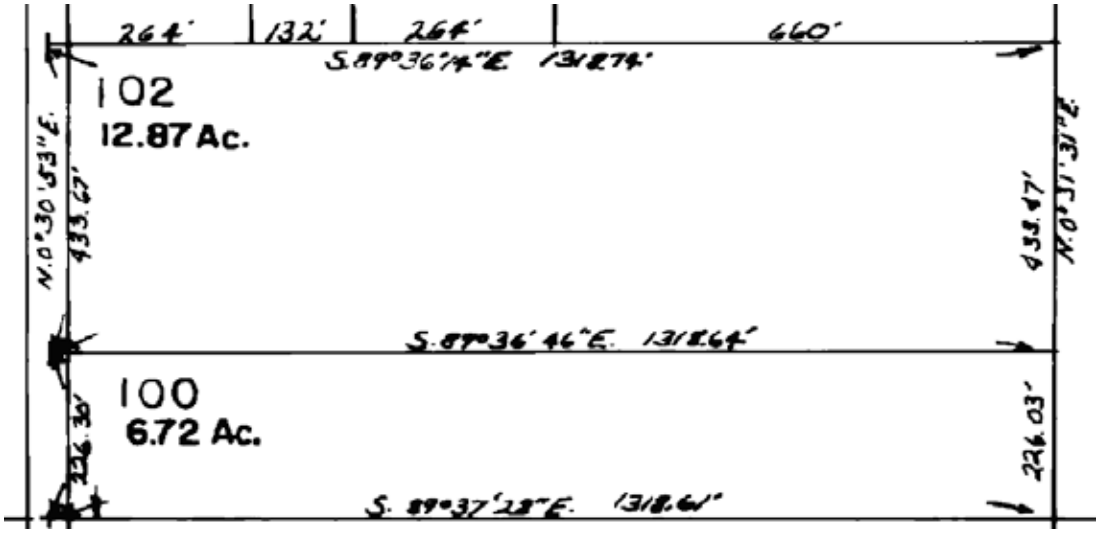
Once such a survey is in place, tradition and long use establish the boundaries. The description might refer to landmarks such as the large oak tree that could die, rot, and disappear. Streams might dry up or change course. Manmade features such as roads, walls, markers, or stakes may also have been used to determine the real boundaries. But these features move, change, and disappear over time. When it comes time to re-establish these boundaries (for sale, subdivision, or building construction), it can become difficult, even impossible, to determine the original location of the boundary. Court cases are sometimes required to settle the matter.

These kinds of problems caused the United States to largely replace this system. Beginning with the Land Ordinance of 1785, it began a transition to the Public Land Survey System (PLSS) used in the central and western states. The eastern, or original states, continue to use the metes and bounds surveys of their founders.

Examples:

1. *"Beginning at Point A, then north 01 degrees, 0 minutes east, 582.24 feet; then north 41 degrees, 0 minutes west, 165 feet, and so on."*
2. *"From the point on the north bank of Muddy Creek one mile above the junction of Muddy and Indian Creeks, north for 150 yards, then northwest to the large standing rock, west to the large oak tree, south to Muddy Creek, then down the center of the creek to the starting point."*

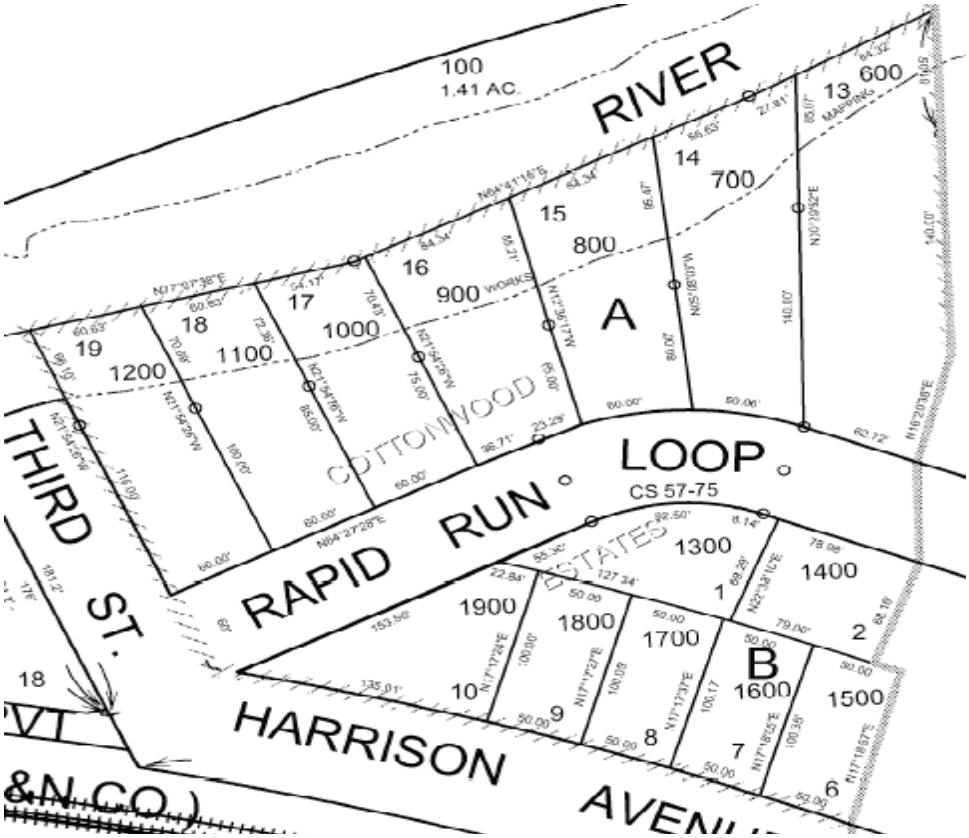
3. Map example:



Lot and block method

This is the principal method for subdivided urban land in which a subdivision plat is recorded with the county recorder and the property is described thereafter by reference to the map designation.

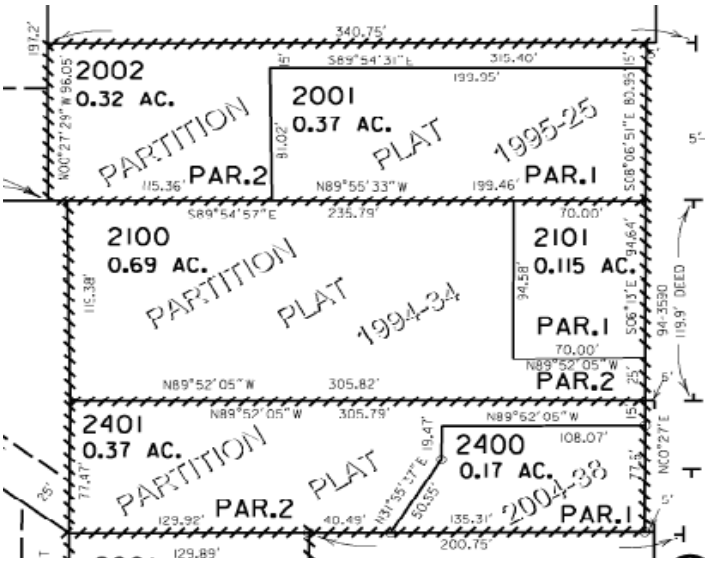
Example: Lot 1 of Block B, Cottonwood Estates, according to map thereof filed in the County Recorder's Office of Union County, March 25, 1998.



Partition plat

Oregon partition law, ORS 92.010(1), states that to partition land is to divide an area or tract of land into two or three parcels within a calendar year when such area or tract of land exists as a unit or contiguous units of land under single ownership at the beginning of such year. It does not include divisions of land resulting from lien foreclosures, foreclosures of recorded contracts for the sale of real property, or the creation of cemetery lots, and does not include any adjustment of a lot line by relocation of a common boundary where an additional parcel is not created and where a parcel reduced in size by relocation is not reduced below minimum lot size established via zoning ordinance. Divisions involving more than three parcels would fall under subdivision laws.

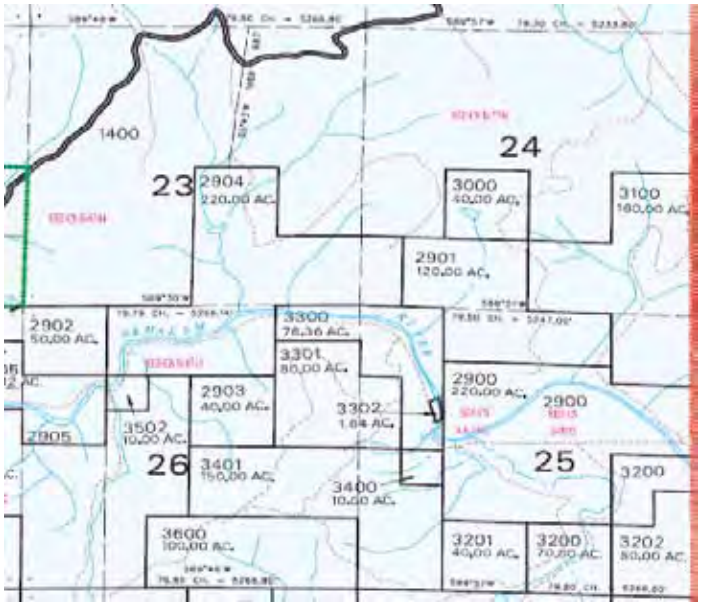
Example: Parcel 2 of Partition Plat 1995-25.



The U.S. Rectangular Survey System

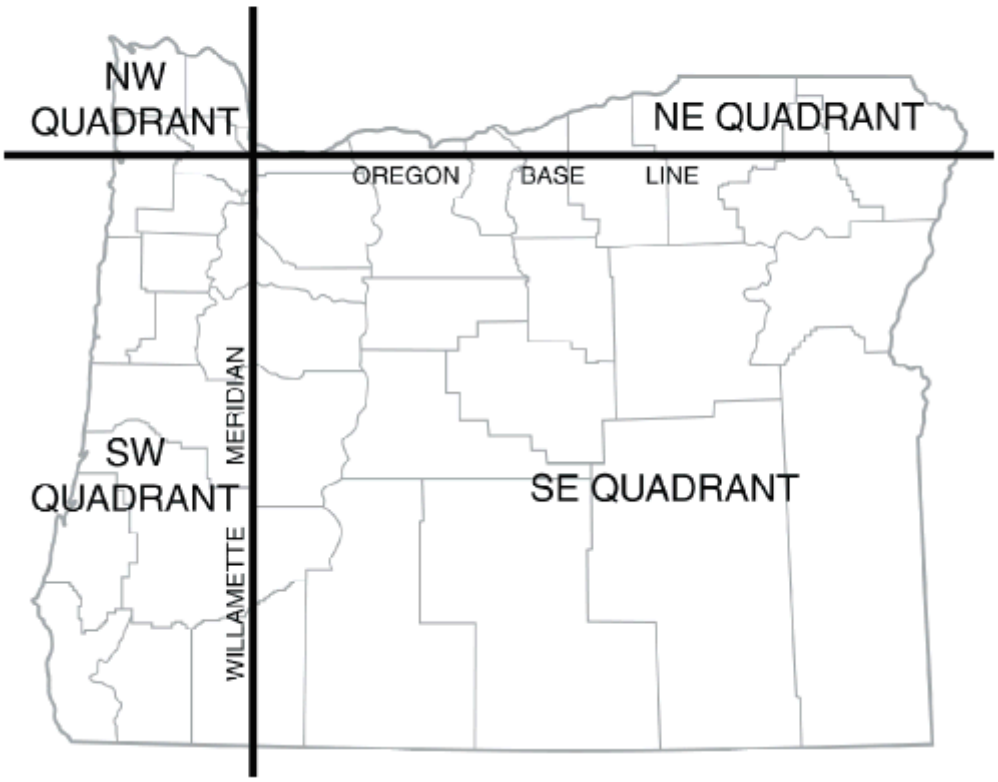
This system covers large portions of the western United States in survey by the federal government for disposal of public lands. In this system, land is described by its designation in the public land survey of township, range, and section.

Example: the NE¼ of the SW¼ of Section 24, Township 4 North, Range 9 West, Willamette Base and Meridian. (Tax lot 3000 in the map shown on the next page.)

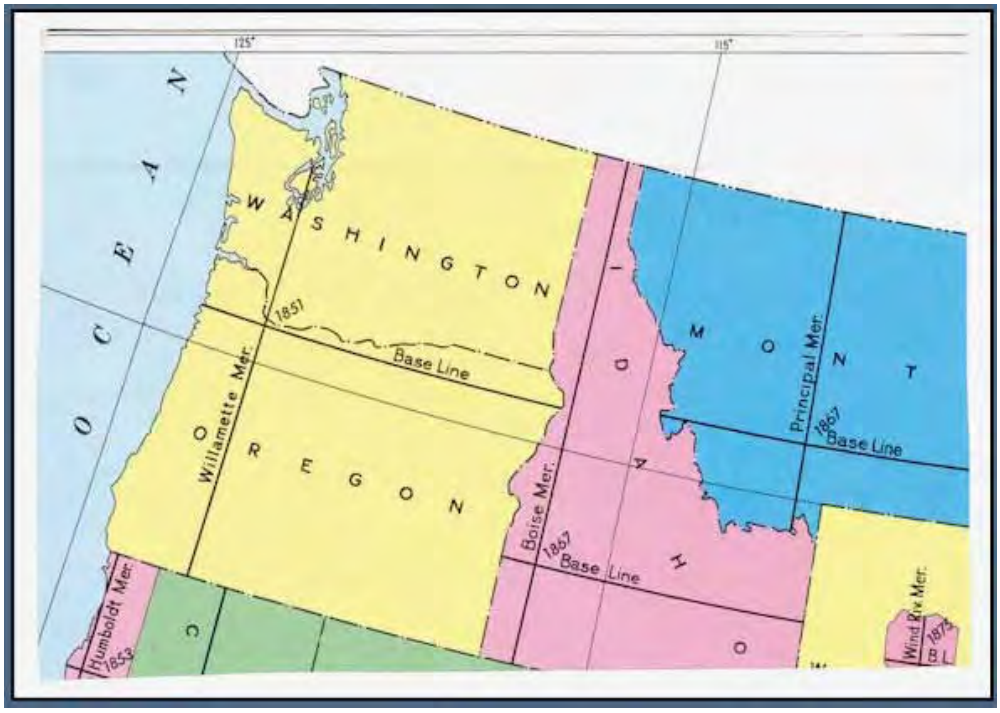


The Oregon Cadastral Map System is based on the U.S. Rectangular Survey System consisting of townships, ranges, and sections. Oregon is divided into four quadrants of this system.

Map of Base Line and Meridian



The line that divides the network into east and west ranges is called the Willamette Meridian. The line that divides the network into north and south townships is called the Oregon Base Line. All townships lying north of the Oregon Base Line are North Townships; all lying south of the base line are South Townships. The West Ranges lie west of the Willamette Meridian and the East Ranges lie east of the meridian.



Western United States Principal Meridians and Base Lines Map
http://www.blm.gov/cadastral/meridians/woshore.htm

The **Willamette Stone** marks the point where the Willamette Meridian and the Oregon Base Line cross each other in the west hills of Portland.

On June 4, 1851, the first Surveyor General of Oregon, John B. Preston, drove a cedar stake into the ground three miles west of Portland. This stake defined the "starting point" for all land surveys in the Pacific Northwest. Through this stake, north and south, runs the Willamette Meridian and east and west, the Oregon Base Line. On July 25, 1885, the cedar stake was replaced by a stone marker known as the Willamette Stone. The Willamette Stone Park is near Skyline Boulevard.

In Oregon, seven counties are divided by the Willamette Meridian, and 11 counties are divided by the Oregon Base Line. In these counties, it is essential to identify the east and west ranges from the Meridian and the north and south townships from the Base Line. Distinguish the map number by adding the letter "N" or "S" to the township number to

designate the North or South townships, “E” or “W” to the range number to designate East or West ranges.

Example:

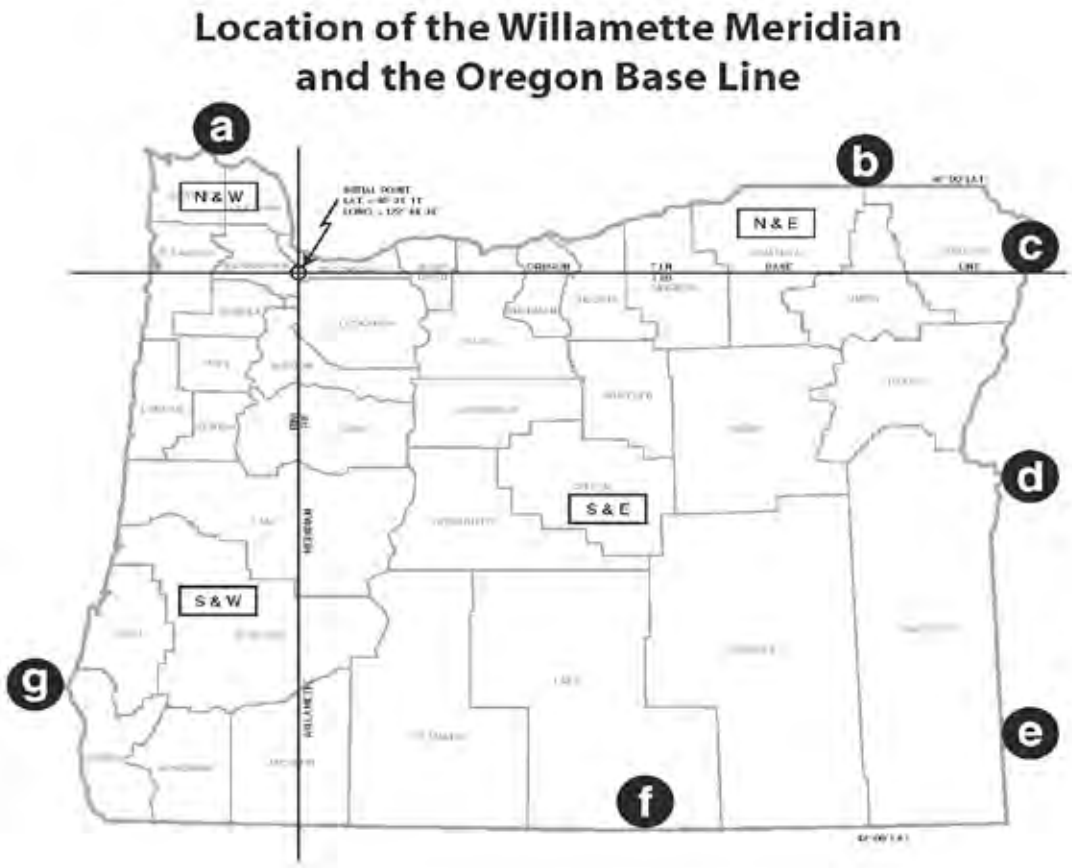
North Township		T2N R9W
South Township		T2S R9W
East Township		T23S R6E
West Township		T23S R6W

The quadrant of a township can be determined from the township/range number, i.e.:

T.2N. R.19E. W.M.		NE Quadrant
T.3N. R.6W. W.M.		NW Quadrant
T.15S. R.1W. W.M.		SW Quadrant
T.37S. R.37E. W.M.		SE Quadrant

For example: the “S” (for South) and “E” (for East) of **T.37S. R.37E. W.M.** is read as: **township thirty-seven south, range thirty-seven east of the Willamette Meridian.**

The “thirty-seven south” means **south of the Oregon Base Line.** However, the base line is never noted in the township number (as the Willamette Meridian is noted by the abbreviation “W.M.”), nor is it read into the number. It is always understood that “north” means north of the base line and “south” means south of the base line.



The Rectangular Survey in Oregon

N & W, N & E, S & W, and S & E identify the four quadrants of the U.S. Rectangular Survey; the location of the north and south townships and the east and west ranges.

a. The most northerly township in Oregon is T.9N.
b. 46 latitude runs through T.6N.
c. The most easterly range is R.51E.
d. The east point on the state line is the east line of R.47E.
e. The east line of R.46E.
f. State line at 42 latitude runs through T.41S.
g. The westerly range is R.16W.

Townships are approximately six miles square and divided into 36 sections. Each section is approximately one mile square and contains approximately 640 acres.

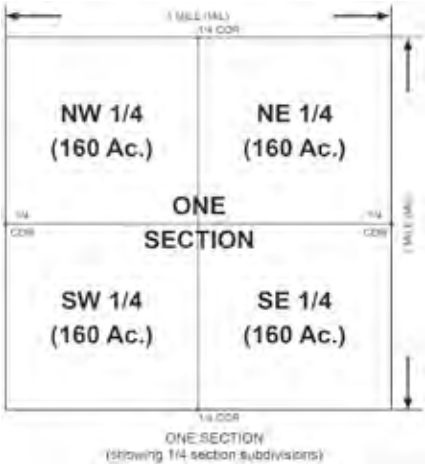
36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6

A township showing adjacent sections.

Section numbering begins in the northeast corner, following a back and forth serpentine course down through the township to the last section in the southeast corner of the township.

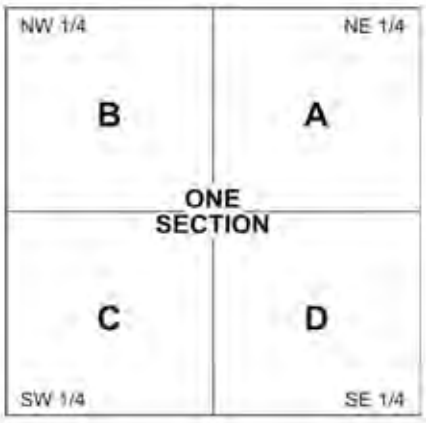
Each section can be divided into four ¼ (quarter) sections. Each ¼ section is approximately ½ mile square containing approximately 160 acres. The ¼ sections are labeled according to their location within the section, NE¼, NW¼, SW¼, and SE¼.

Notice that each ¼ corner is identified. These corners can serve as points of call in a metes and bounds description.

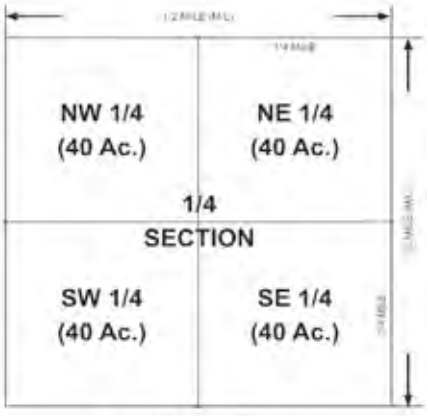


ONE SECTION
(showing 1/4 section subdivisions)

Each ¼ section is given an alpha designation. The letter "A" designates the NE¼ of the section; the letter "B" designates the NW¼ of the section; the letter "C" designates the SW¼ of the section, and the letter "D" designates the SE¼ of the section.



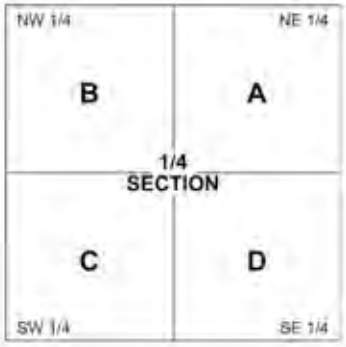
Each ¼ section can be divided into four ¼ ¼ (quarter quarter) sections. Each ¼ ¼ section is approximately ¼-mile square and contains approximately 40 acres.



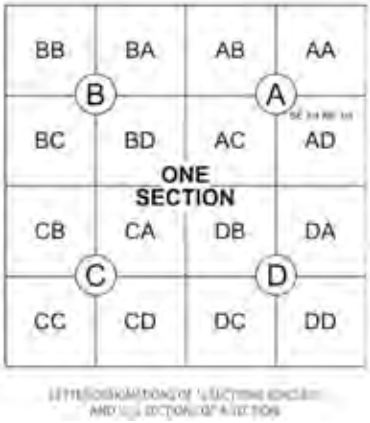
ONE-QUARTER (1/4) SECTION
(showing 1/4 1/4 section subdivisions)

SUBDIVISIONS OF A SECTION
(showing 1/4 and 1/4 1/4 section subdivisions)

The ¼ ¼ sections are labeled according to their location within the ¼ section.

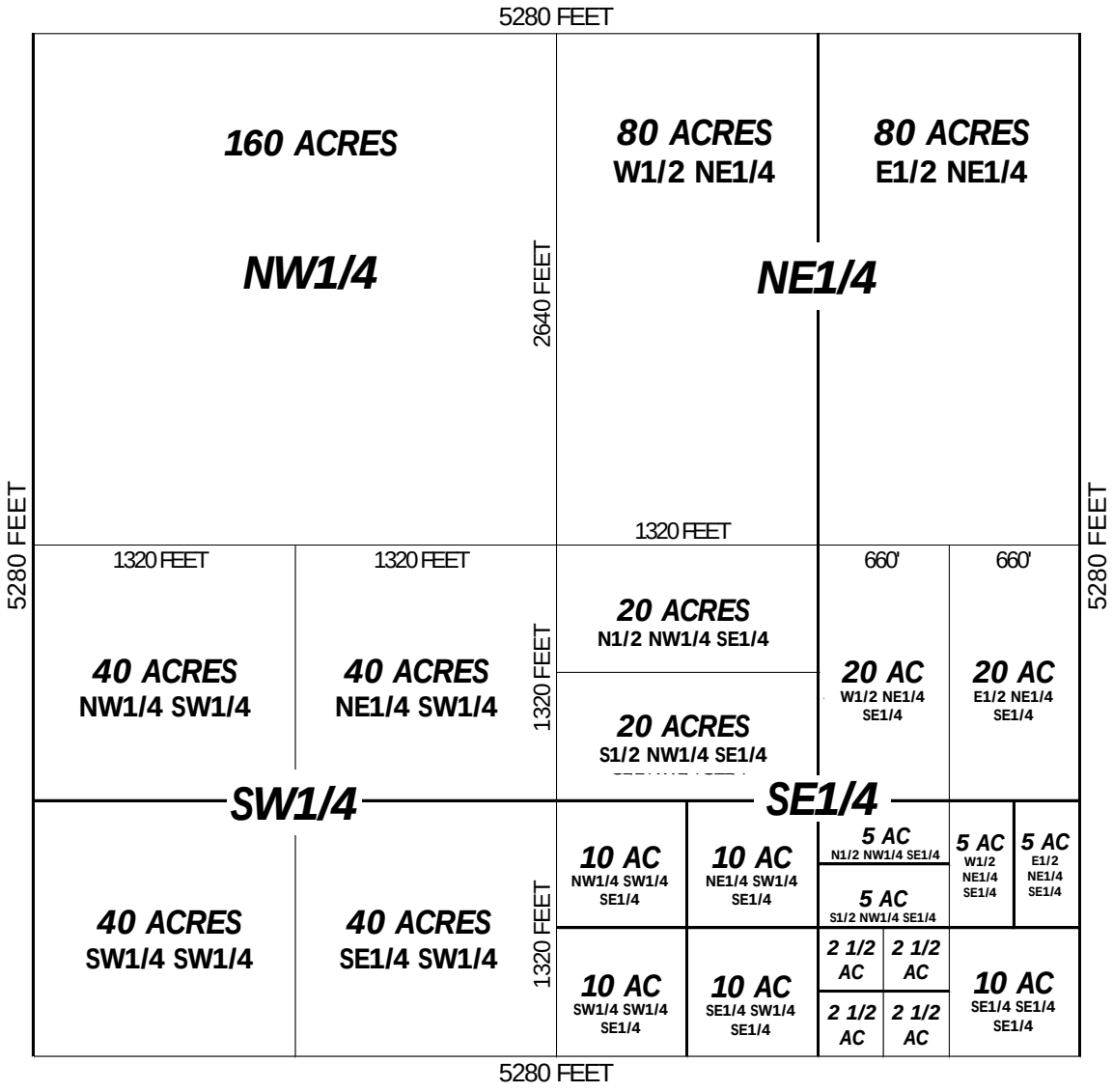


Again using the same A, B, C, or D designation for the respective ¼;
the NE¼ NE¼ is "AA,"
the NW¼ NE¼ is "AB,"
the SW¼ NE¼ is "AC,"
the SE¼ NE¼ is "AD," etc.



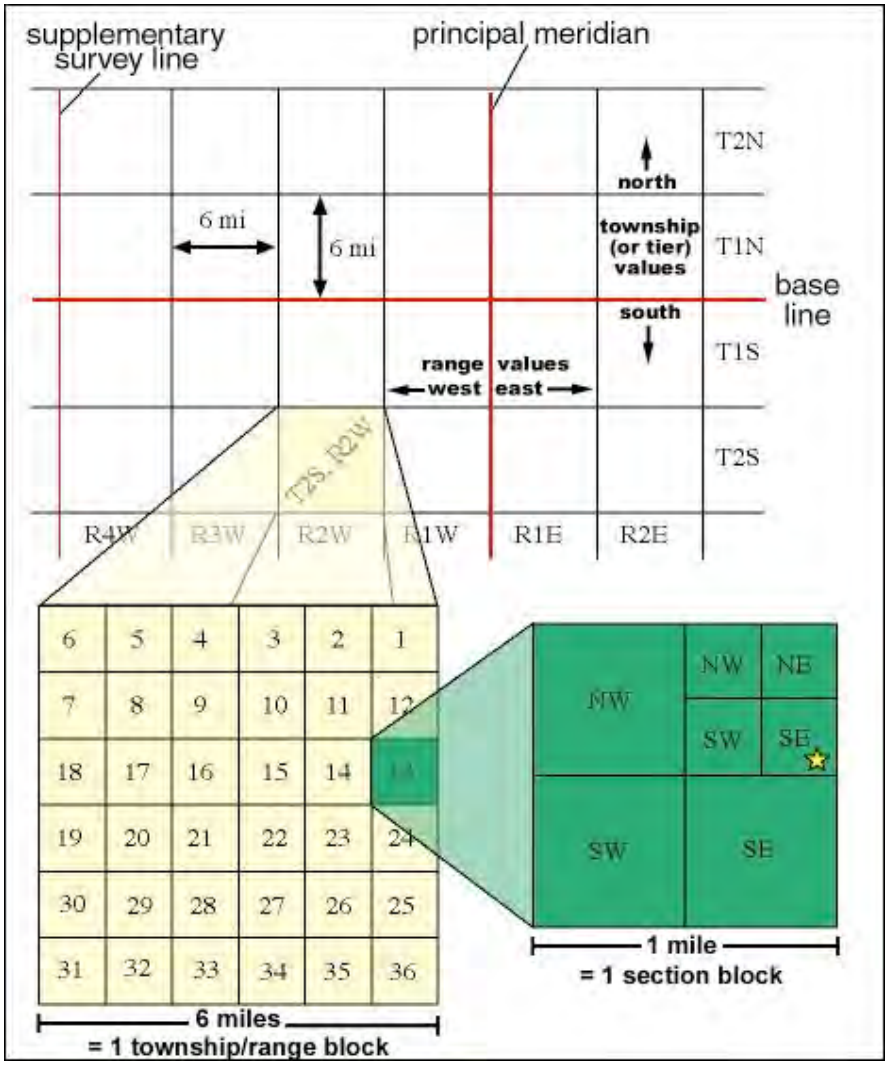
Note the numbering or lettering of each always begins in the NE corner, and as the area becomes smaller, the identification becomes more detailed.

Measurements



This illustration provides a variety of measurements within a section. As you familiarize yourself with maps, you will begin to see the importance of these measurements.

To put it all together, it looks like this:



Relationship of the map scale to the standard map number

Map scales

Four standard map scales are used in the cadastral map system. The map scale to be used is determined by:

a) The area of the U.S. Rectangular Survey.
b) Quantity of detail to be included on the map.
c) Land use.
d) Number of real property parcels being mapped.
e) The probability of future urban or suburban growth.

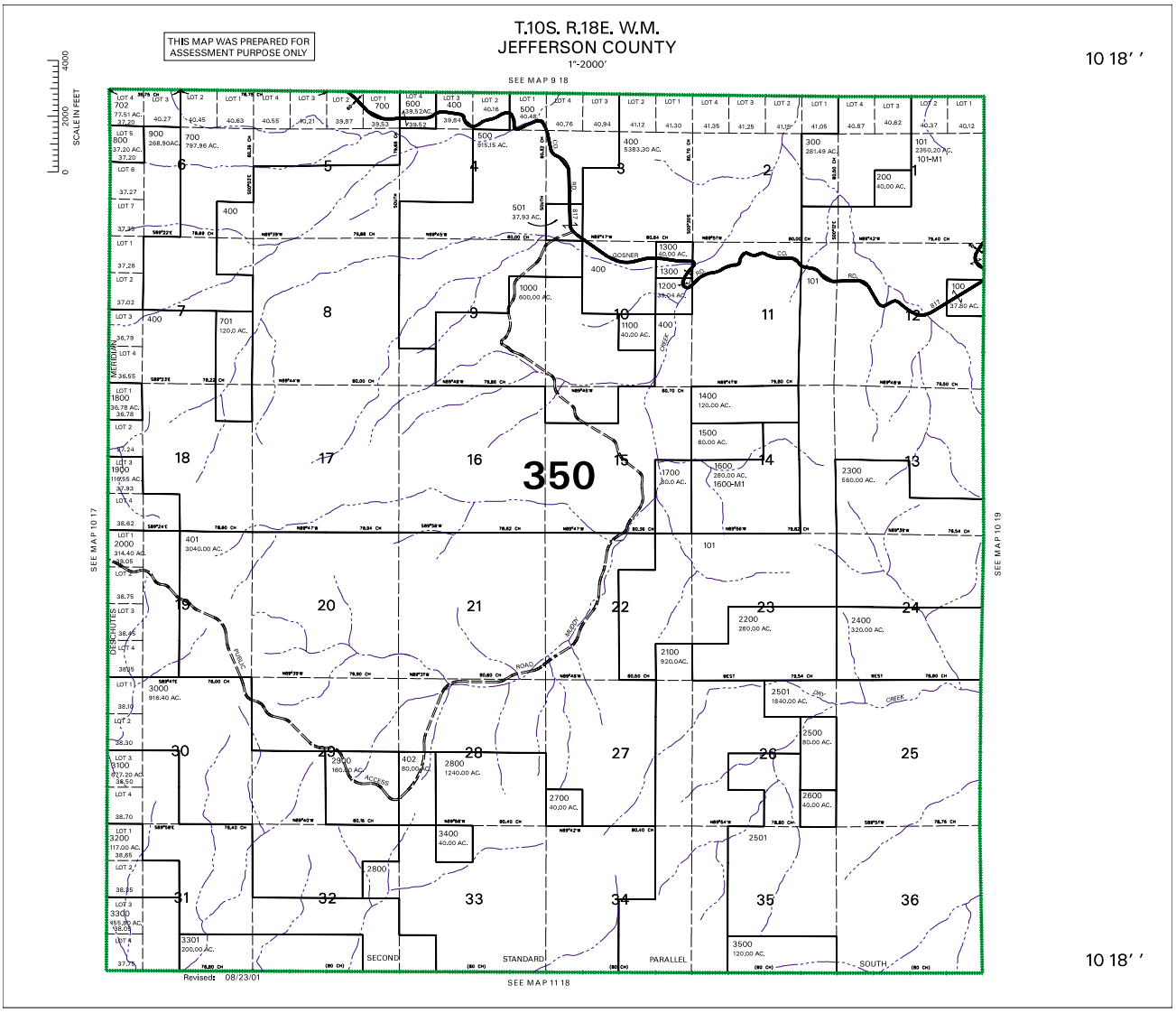
Their relationship to the rectangular survey is as follows:

Map Scale	Rectangular Survey Area	Typical Land Use	Map Number Example				
			Township	Range	Sec	¼	¼
1″ = 2000′	One Township	Timber or Forest Ranch lands Desert	13S	16E			
1″ = 400′	One Section	Rural Small timber tracts	13S	16E	34		
1″ = 200′	One ¼ Section	Suburban Farm lots or tracts Industrial	13S	16E	34	B	
1″ = 100′	One ¼ ¼ Section	Urban Suburban Recreational lands	13S	16E	34	B	A

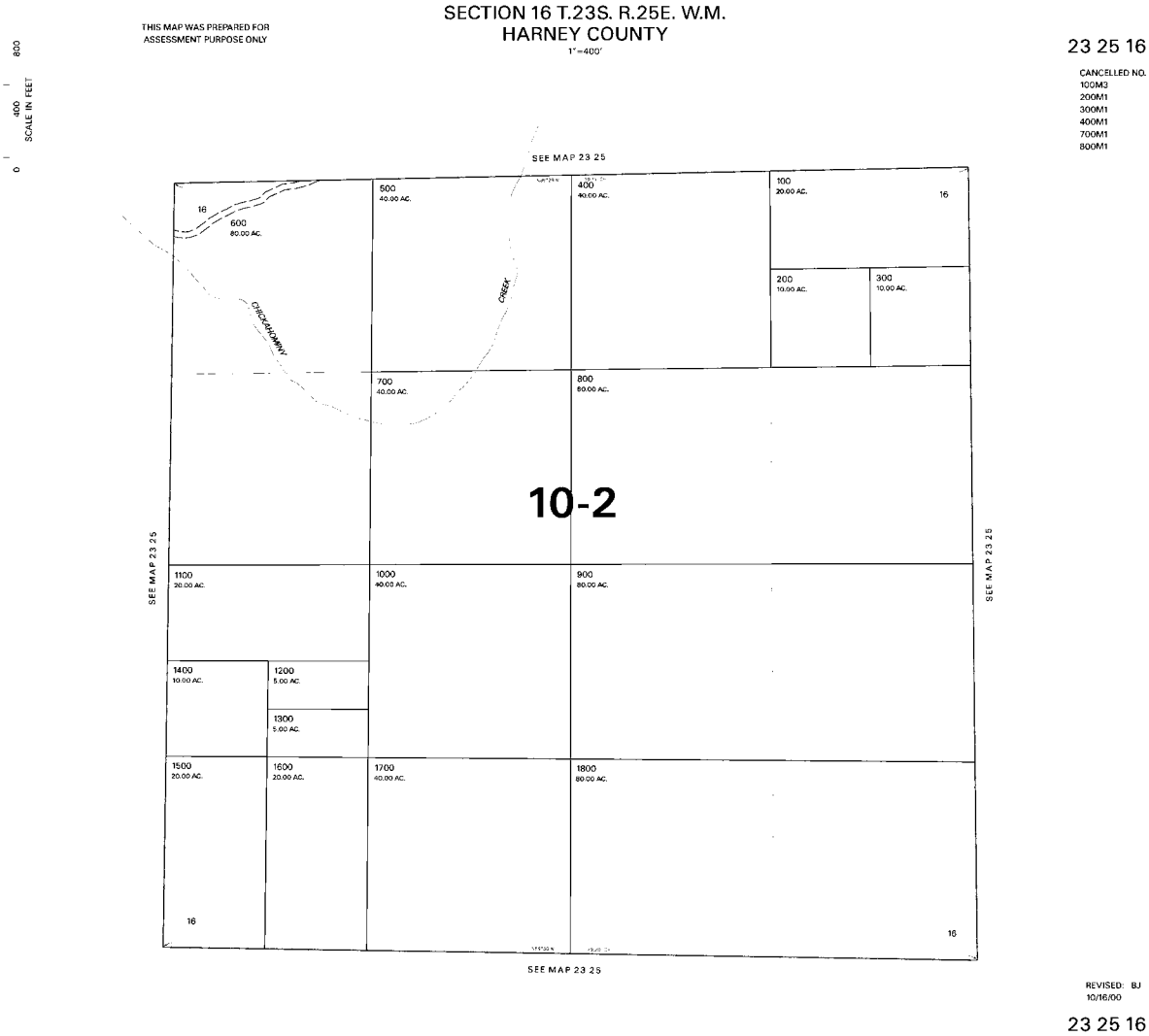
Each cadastral map number is dependent on the scale of the map. For example:

- If the map has a scale of 1″=2000′, the map will cover the entire township (36 sections) and will only contain the township and range numbers in the tax lot number.
- If the map has a scale of 1″=400′, the map will cover one section (approximately 640 acres) and will contain both the township and range numbers along with the section number in the tax lot number.
- If the map has a scale of 1″=200′, the map will cover ¼ of a section (approximately 160 acres) and contain the township and range numbers, the section number, and also a letter designation of A, B, C, or D for that particular ¼.
- If the map has a scale of l″=100′, the map will cover ¼ of a ¼ section (approximately 40 acres) and contain the township and range numbers, the section number, and a two-letter designation for that particular ¼ ¼.

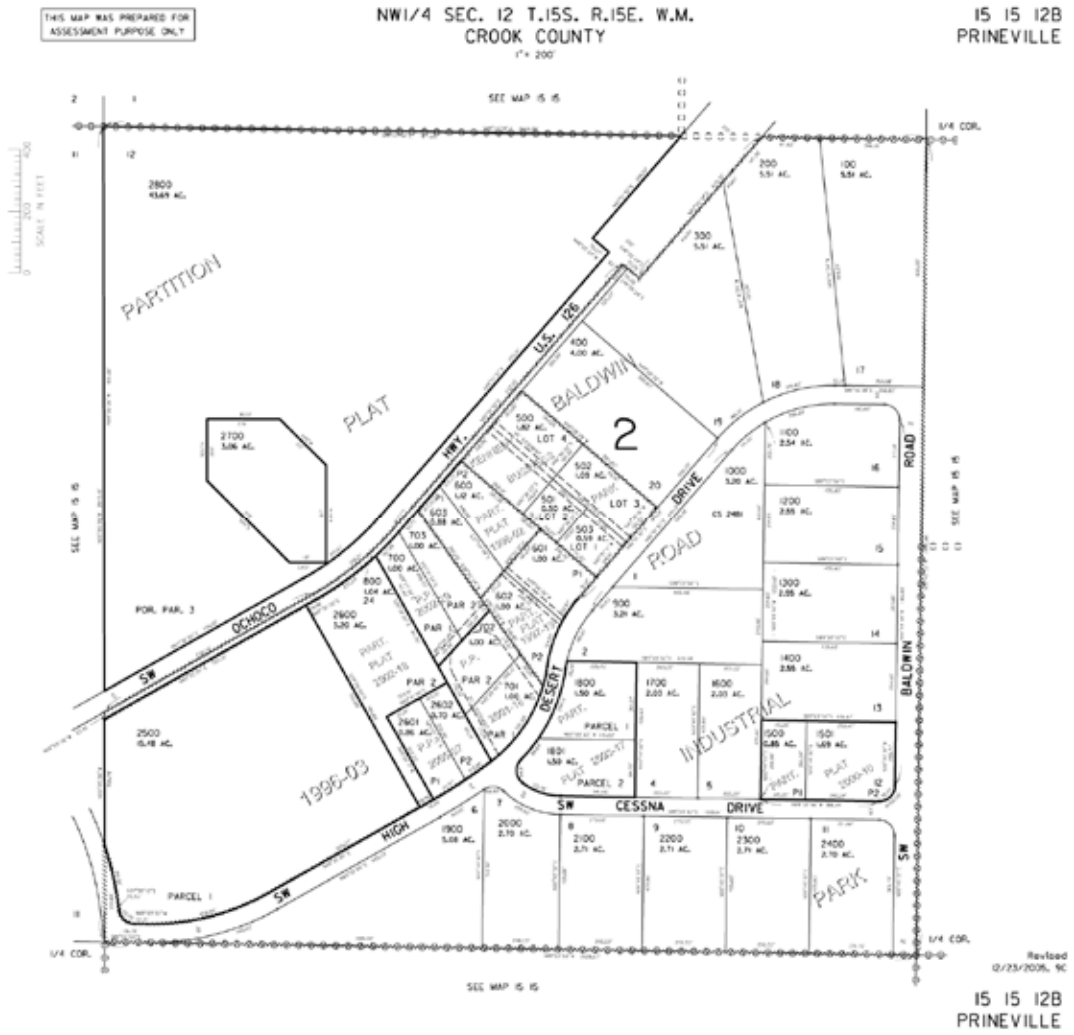
Example of a 1″=2000′ map (one township)



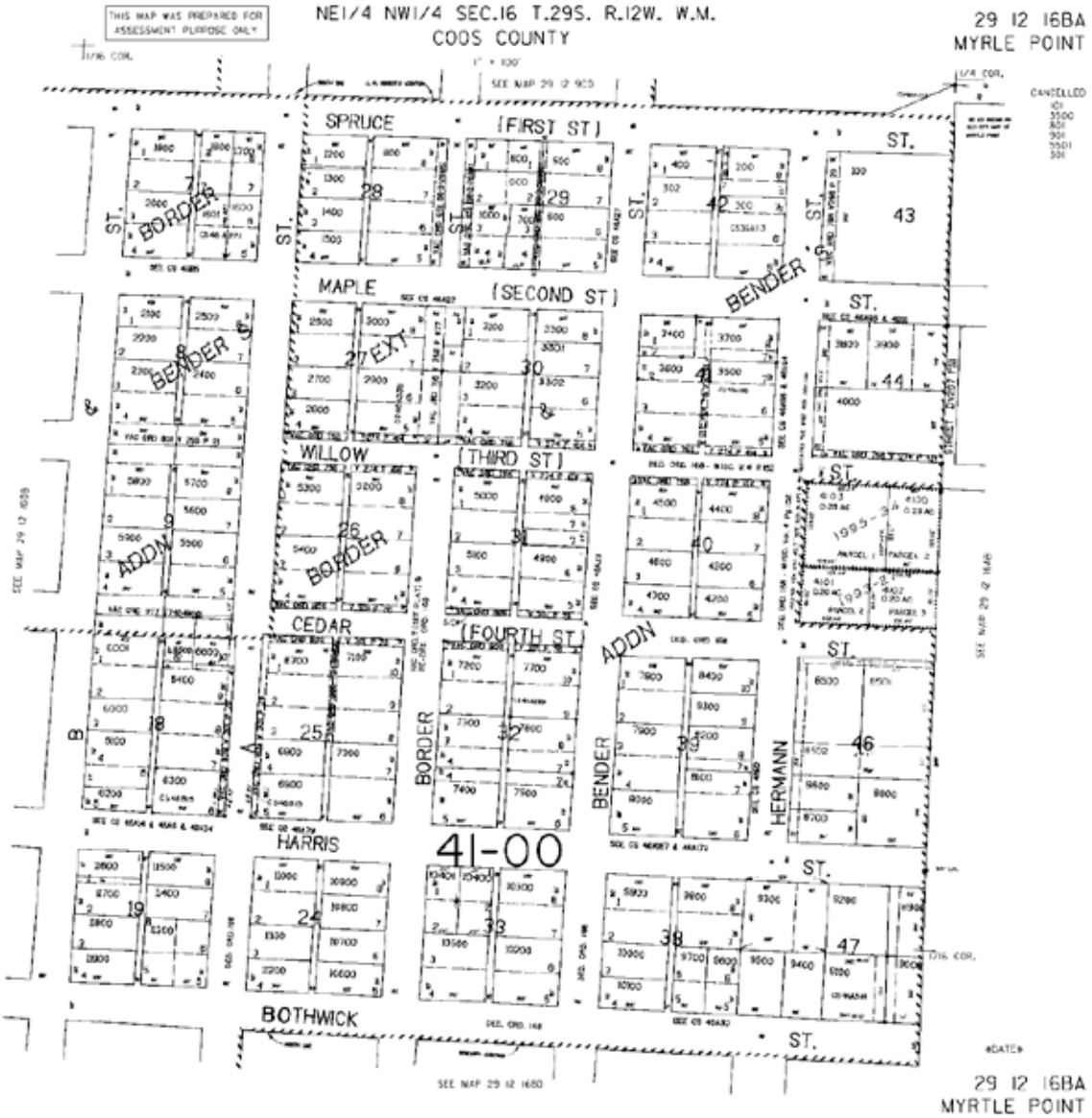
Example of a 1″=400′ map (one section)



Example of a 1″=200′ map (¼ section)



Example of a 1″=100′ map (¼¼ section)



The standard tax lot number

The cadastral map provides the base for the parcel identifier. Therefore, the cadastral map number, along with the parcel identifier number, make up the standard tax lot number.

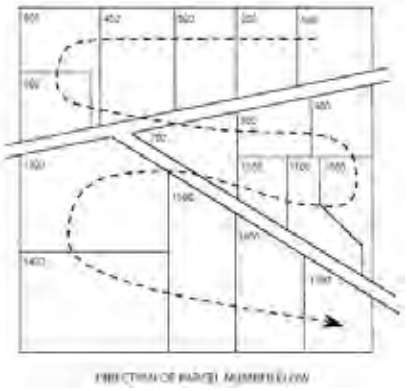
The tax lot number must be used on the maps, appraisal records, the assessment roll, tax lot card, and all other assessment records that require a parcel identifier. County computerized assessment operations may also assign a computer-generated account number for each tax lot number.

The standard parcel number is called a **two-zero number.** Numbering begins in the upper right-hand corner of the map and moves left, then down and back to the right in a serpentine pattern throughout the map. Tax lot 100 is always located in the upper right-hand corner and the largest tax lot number is generally located in the lower right-hand corner. The numbers are in order of hundreds, always beginning with the number 100 and proceeding in the following order: 200, 300, 400, and so on. The two zeros in the parcel number provide the digits for future parcel segregations and omitted parcels. The segregated parcels are assigned sub-numbers based on the parent two-zero parcel number. For example, if a tax lot with the number 400 is segregated or partitioned into two tax lots, the parent lot would retain the number 400 and the new tax lot would be numbered 401. Deleted tax lots for that map are listed along the border on the upper right-hand side of the map.

An example of a standard tax lot number in Coos County would be:

23 7 12 CB	700
Map Number	Parent Parcel No.

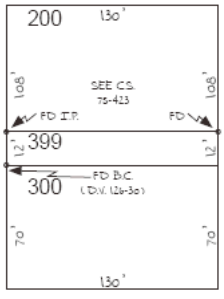
Because all of Coos County is south of the base line and west of the Willamette Meridian, the direction designations (E, W, N, or S) are not included. We can also tell that the parcel is mapped on the 1"=100' scale map since the ¼ ¼ (CB) is indicated in the number.



A **parcel** is a contiguous area of land that can be described in a single description that is separately owned and that can be separately conveyed. Parcel numbers should be assigned on a map in an easily followed pattern. A general rule the cartographer follows is to start in the northeast corner of the map and progress in a general back-and-forth-horizontal pattern.

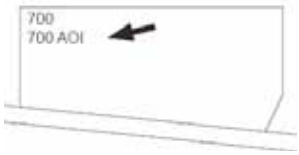
Ninety-nine parcel numbers

New surveys often reveal small strips of land that were not accounted for in the original assigning of parcel numbers. "Ninety-Nine parcel numbers" are reserved for these omitted parcels of land (2N 27E 12CB 399).



Special interest numbers

If an element of real property is owned separately from the land and other elements, it is common for the owner of a special interest to request a special billing for the ad valorem taxes on his interest. Oregon law accommodates this request by including a special interest number in the standard tax lot number.



- An improvement-only is identified in the tax lot number by the "A" followed by a number. For example: 23 7 12 CB 700AO1. An example would be a service station building owned by a party other than the fee owner of the land.
- Mineral rights are identified in the tax lot number by the letter "M" followed by a number (23 7 12 CB 700 M01). On regular land parcels, the mineral right number is shown under the parcel number, like the improvement only in the figure shown above.
- Undivided interests are identified in the tax lot number by the letter "U" followed by a number. There will always be at least two undivided interest numbers (i.e., 600 U01, 600 U02) where these interests require separate billing. It is important to note that an undivided interest is just that—undivided. Each owner of an undivided interest cannot identify his own severalty. If J.P. Cannon owns an undivided half interest in 20 acres of land and R.W. Moser owns the other undivided half interest, it does not mean that each owns 10 acres. It means that each owns one-half interest in all of the real property. Separate billings on undivided interest are created only at the request of the taxpayer.
  - ORS 308.125 states in part that any person desiring to pay the tax on an undivided interest in any real property down to a 1/48th of an interest may do so by paying the tax collector a sum equal to such proportion of the entire taxes charged on the entire tract as the interest paid on bears to the whole.

Condominiums

When there is inadequate space on the map to show the detail of the unit ownership for condominiums, they can be shown on a 1"=50' scale or 1"=20' scale supplemental map. The condominium outline and some detail may be shown on the cadastral map. The unit ownership number is a five-digit number, beginning with the 90000 series (27 13 35 AA 90004) for the first condominium on the map. The second condominium on the map will start with the number 80000; the third with 70000, and so on—down to 40000. The number should not be mistaken for a parcel number because parcel numbers never run above 30000. The common areas are assigned the four-zero base number of the condominium (27 13 35 AA 90000) and the units are carried on within that series, e.g., Unit 1 would be 90001, Unit 2 would be 90002, etc.

Easements

Easements are never assessed separately from the land so may be indicated on a map with dashed lines. All parcels of real property are to be taxlotted except:

a. Public highway rights of way.
b. Public streets and alleys.
c. Common-Carrier railroad rights of way.
d. Navigable bodies of water.

Commonly used land description abbreviations

Acre (or acres)	ac	More or less	M/L
Block	blk	North	N
Boundary	bndry	Place (point) of beginning	POB
Bearing tree	BT	Point	pt
Chain(s)	Ch(s)	Range	R
Containing	cont	Right-of-way	R/W
Corner	cor	Road	Rd
County Road	Co Rd	Section	sec
Dedicated	ded	South	S
Donation Land Claim	DLC	Street	St
East	E	Thence	th
East of Willamette Meridian	EWM	Township	T
Foot (feet)	ft	West	W
Intersection	inter	West of Willamette Meridian	WWM

Scales and measurements

Linear

1 mile	5,280 feet or 80 chains
1 chain	66 feet or 4 rods
1 chain	100 links of 7.92 inches each
1 rod	16.5 feet
1 yard	3 feet

Area

1 acre	10 square chains (rectangle 66’ x 660’)
1 acre	160 square rods
1 acre	4,840 square yards
1 acre	43,560 square feet

The ORMAP project

The Oregon Map (ORMAP) project is an ongoing project that will develop a statewide property tax parcel base map that is digital, publicly accessible, and continually maintained. The 1999 Oregon Legislature provided funding for ORMAP through a document-recording fee collected by the counties. This money is put into the ORMAP fund, separate from the state general fund, to be used only for the development of the Oregon Map.

Previously, most counties had a paper-based mapping system comprised of individual maps. This left open the possibility of areas of land that had tax parcels overlapping or with gaps of unknown ownership if the maps were edge-matched. The move from paper to computer-based mapping will help improve the accuracy, utility, quality, and administration of the property tax system. When complete, the Oregon Map will be a complete seamless map of the entire state, accessible to everyone via the internet. This is an important feature of the statewide geographic information system (GIS) vision because it provides the foundation, or first layer, for so many of the other statewide GIS applications.

In addition, it will allow public and private organizations to support a wide variety of GIS applications, particularly in the areas of land use issues, economic development, environmental matters, and emergency management. This can be accomplished by combining different types of data, displaying them visually, and analyzing the relationship between them. For example, a power company can combine GIS data that identifies the location of transmission power lines, wetlands, and the property base map. By viewing the report, they can determine where their transmission lines cross wetlands and what property lots will be affected. With the aerial photograph layer included, they can actually view the power lines over the land.

The ORMAP website continues to be developed, but is already successful. Open the ORMAP home page (www.ormap.org). Try some map searches, learn how each tool in the **toolbar** at the top of the screen allows you to adjust the view of the map, and practice selecting various maps for viewing and printing.

Mapping exercise: Metes and bounds practice

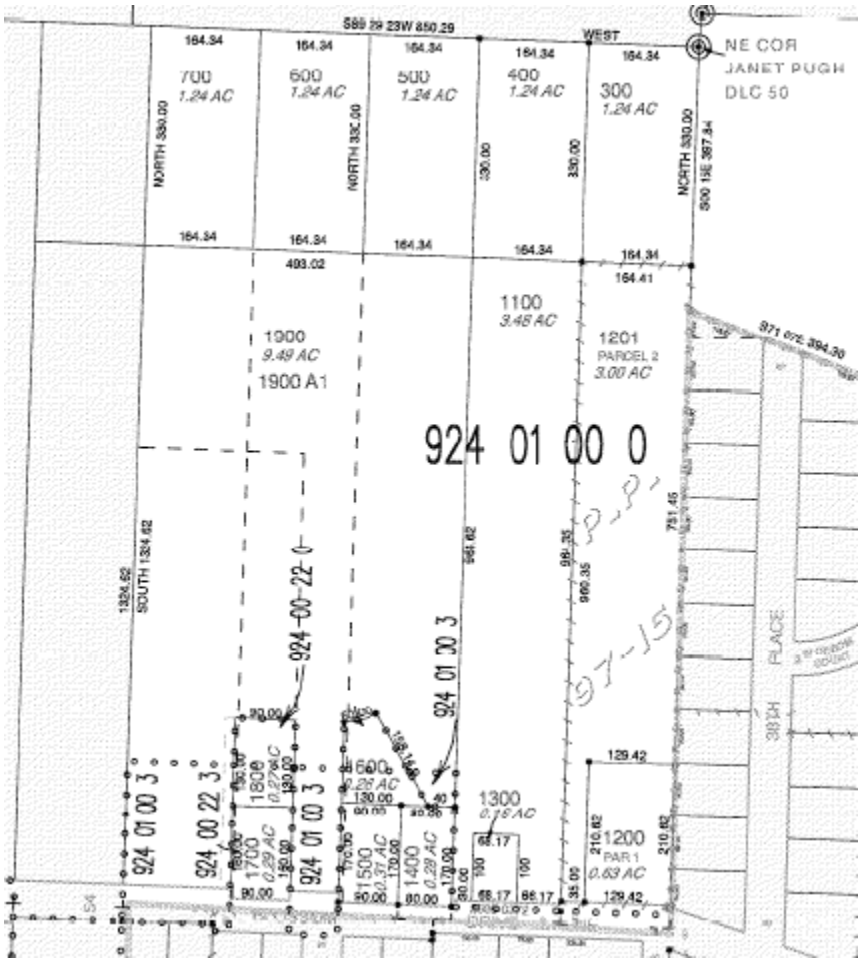
1.

Find the following tax lot as described in this legal description:

A parcel of land situated in the northwest quarter of Section 6, Township 7 South, Range 2 West of the Willamette Meridian, described as follows: Beg at the NE cor of the Janet Pugh DLC; thence S89°29′ 23″ W 328.68 feet to the true POB; thence South 330.00 ft; thence N89°29′ 23″ E 164.34 ft; thence North 330.00 ft; thence S89°29′ 23″ W to the POB.

Tax Lot ID: _____

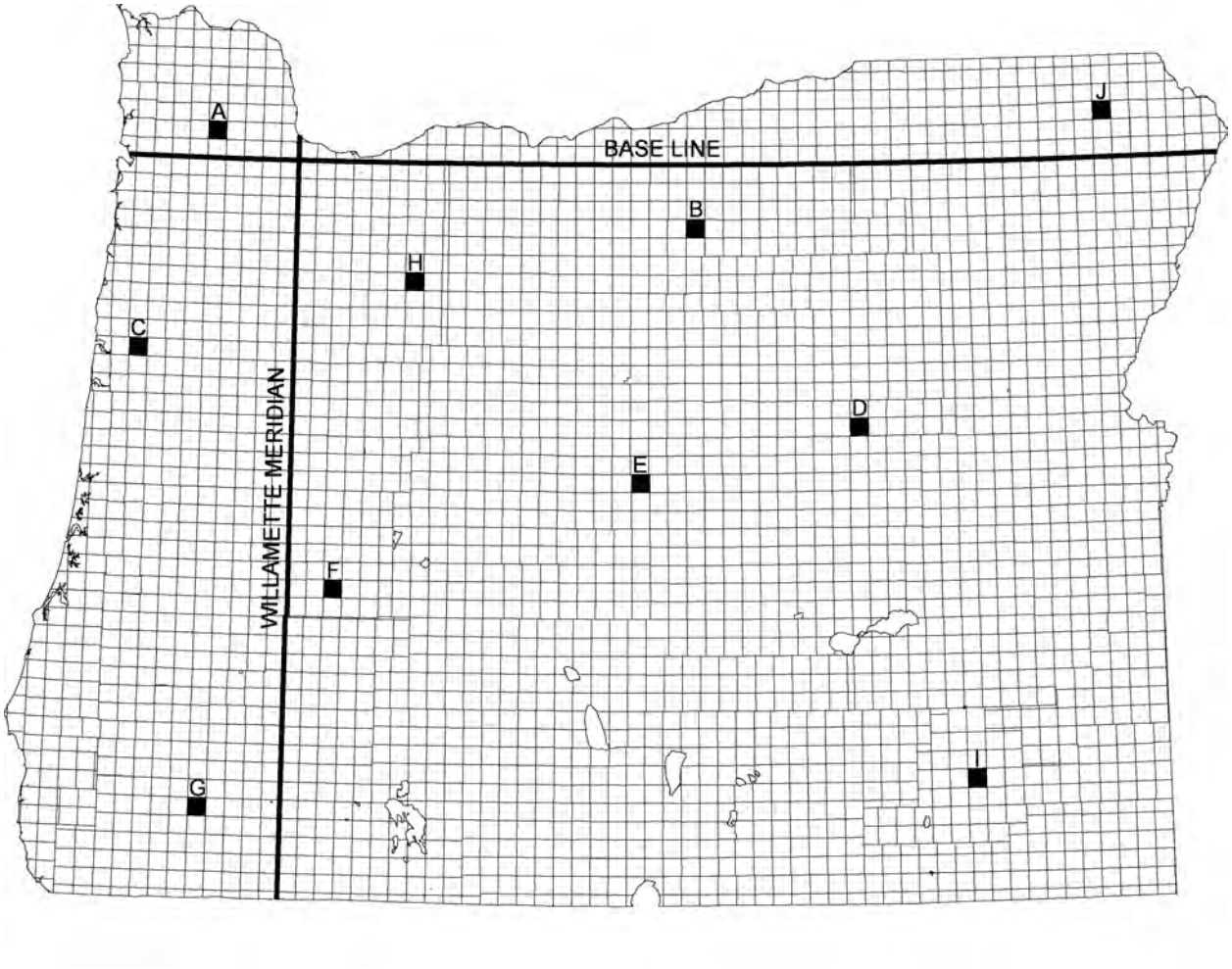
T07S R02W 06B



Mapping exercise: Identifying townships

2.

Identify the highlighted townships.



A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

G. _____

H. _____

I. _____

J. _____

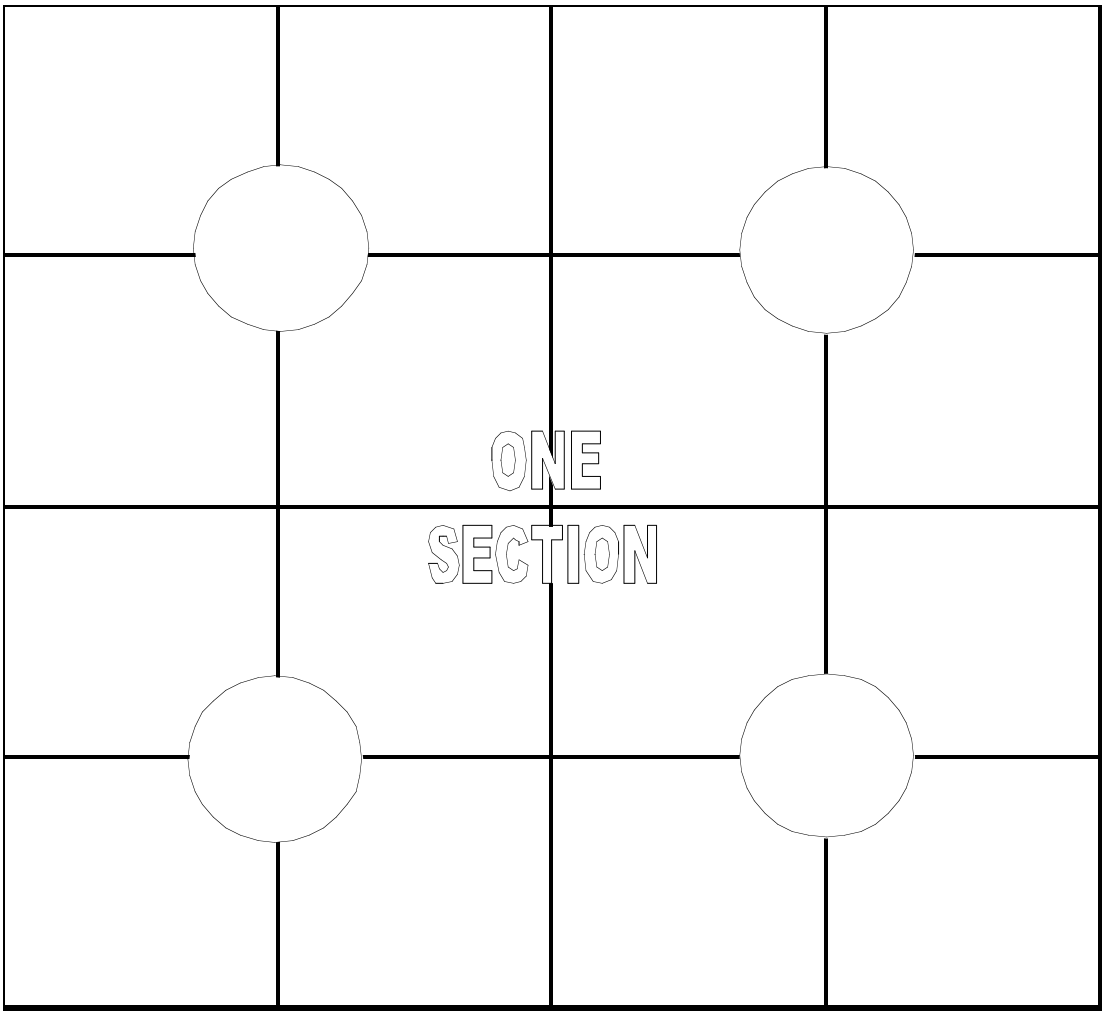
Mapping exercise: Quarter section identification

3.

Label each ¼ section and ¼ ¼ section with the appropriate letter designation and description.

Example: CA

NE¼ SW¼



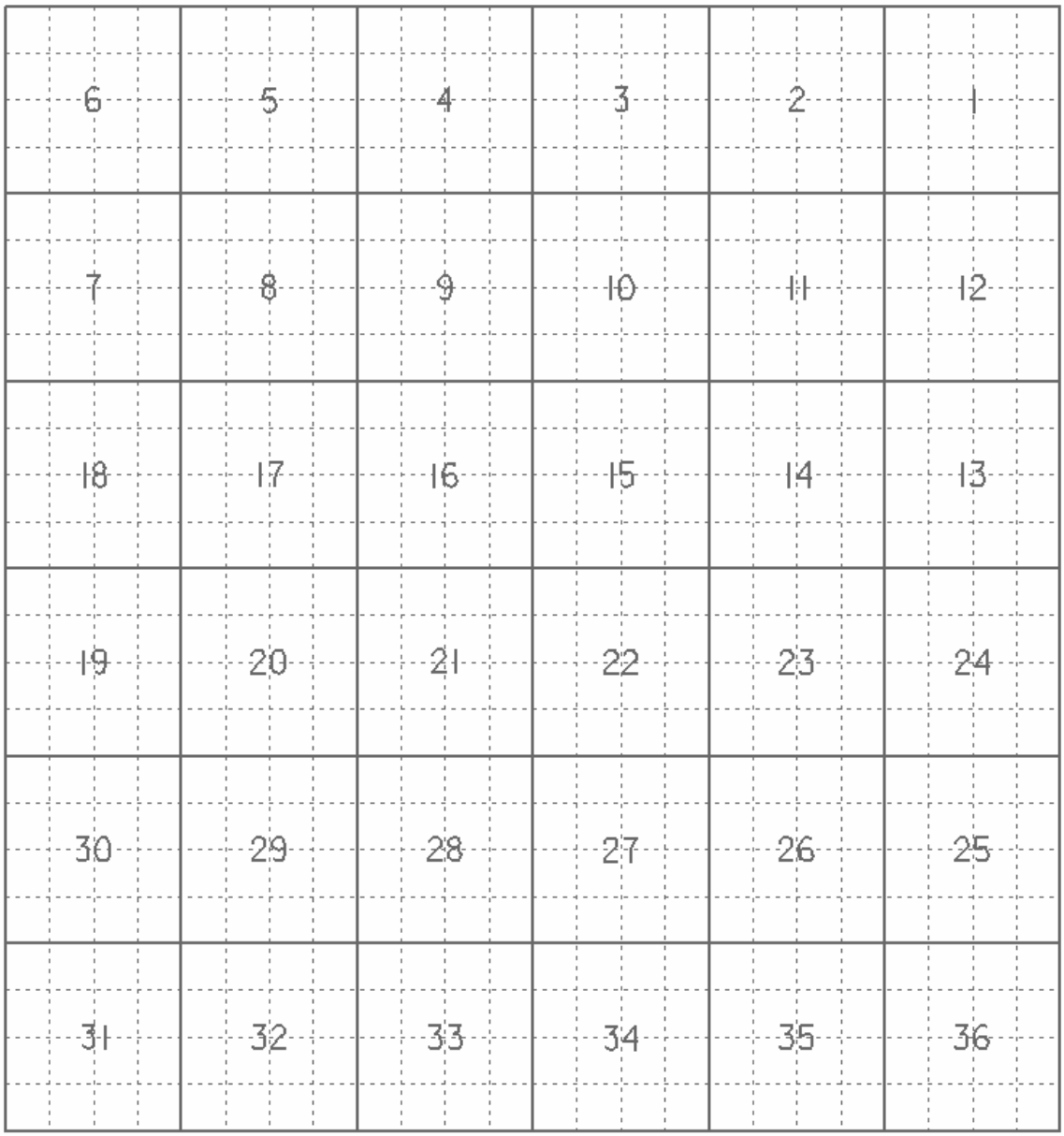
LETTER DESIGNATIONS OF 1/4 SECTIONS (CIRCLED) AND 1/4 1/4 SECTIONS OF A SECTION.

Mapping exercise: Land area identification and corner locations

4.

The example below reflects a typical township. Determine and locate each of the items listed below by shading with diagonal lines. If a corner is called for, show by an "X" at the precise intersection. Place the number of each description next to the area or corner.

1. NW¼ SE¼ Sec. 2
2. NW Corner Sec. 33
3. SE¼ NW¼ Sec. 20
4. NW¼ Sec. 23
5. NW Cor. SE¼ SW¼ Sec. 29
6. SE¼ NE¼ Sec. 10
7. W½ SE¼ Sec. 25
8. N½ and N½ S½ Sec. 35
9. SW¼ Sec. 5
10. SW¼ SE¼ Sec. 7



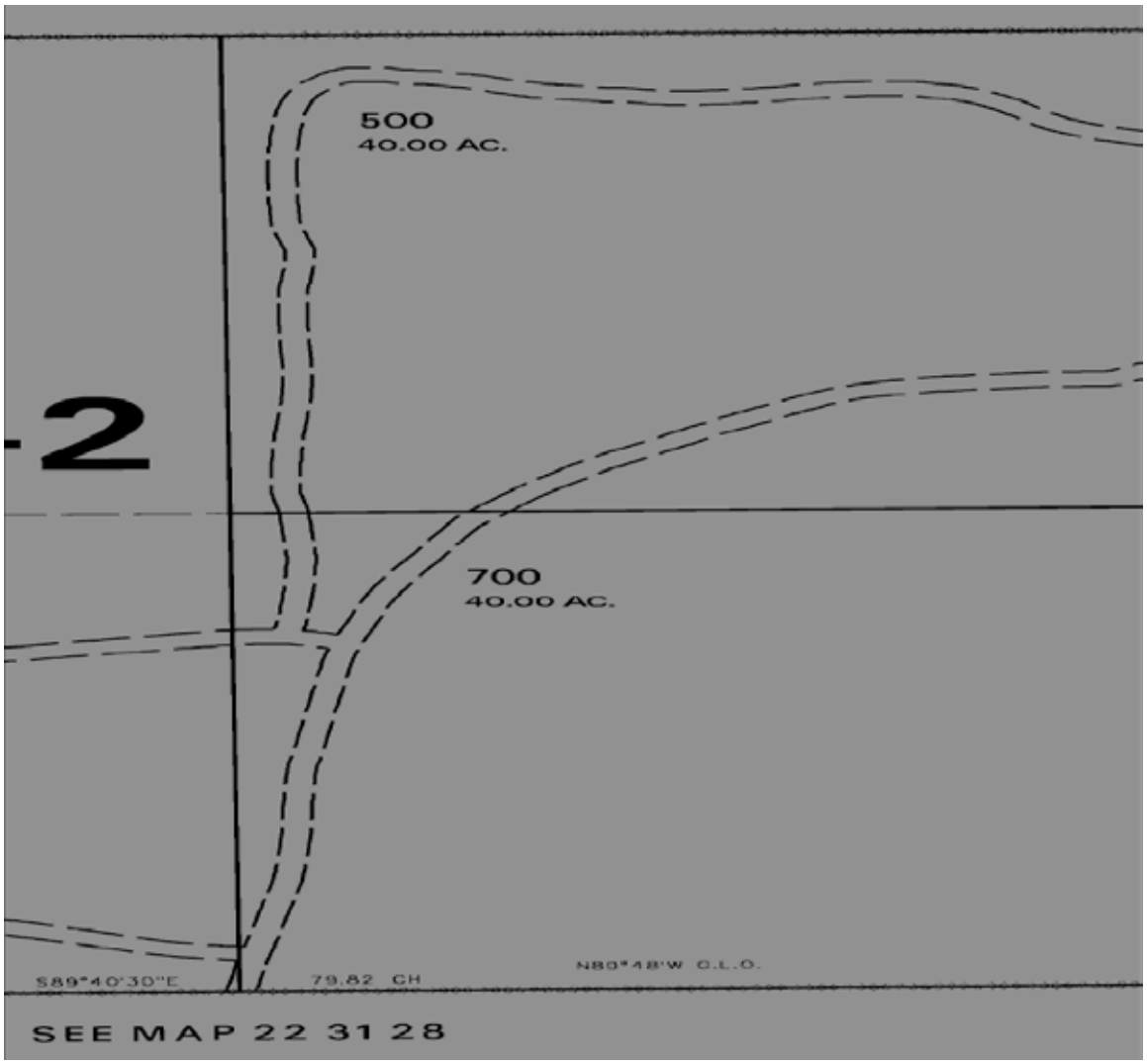
Mapping exercise: Identifying specific parcels of land

The next few pages include legal descriptions and corresponding maps. Identify each parcel as described.

5.

Beginning at the inter of the S line of the Northeast quarter of the Southeast quarter (NE¼ SE¼) of sec 21 and the W line of US Hwy 395; th W along said S line to the SE cor said Northeast quarter of the Southeast quarter of the Southeast quarter (NE¼ SE¼); th N 886′ along the W line said Northeast quarter of the Southeast quarter (NE¼ SE¼); th leaving said W line S 870 44′ E 974.0′ m/l to the W line said US Hwy 395; th S along said W line to the POB.

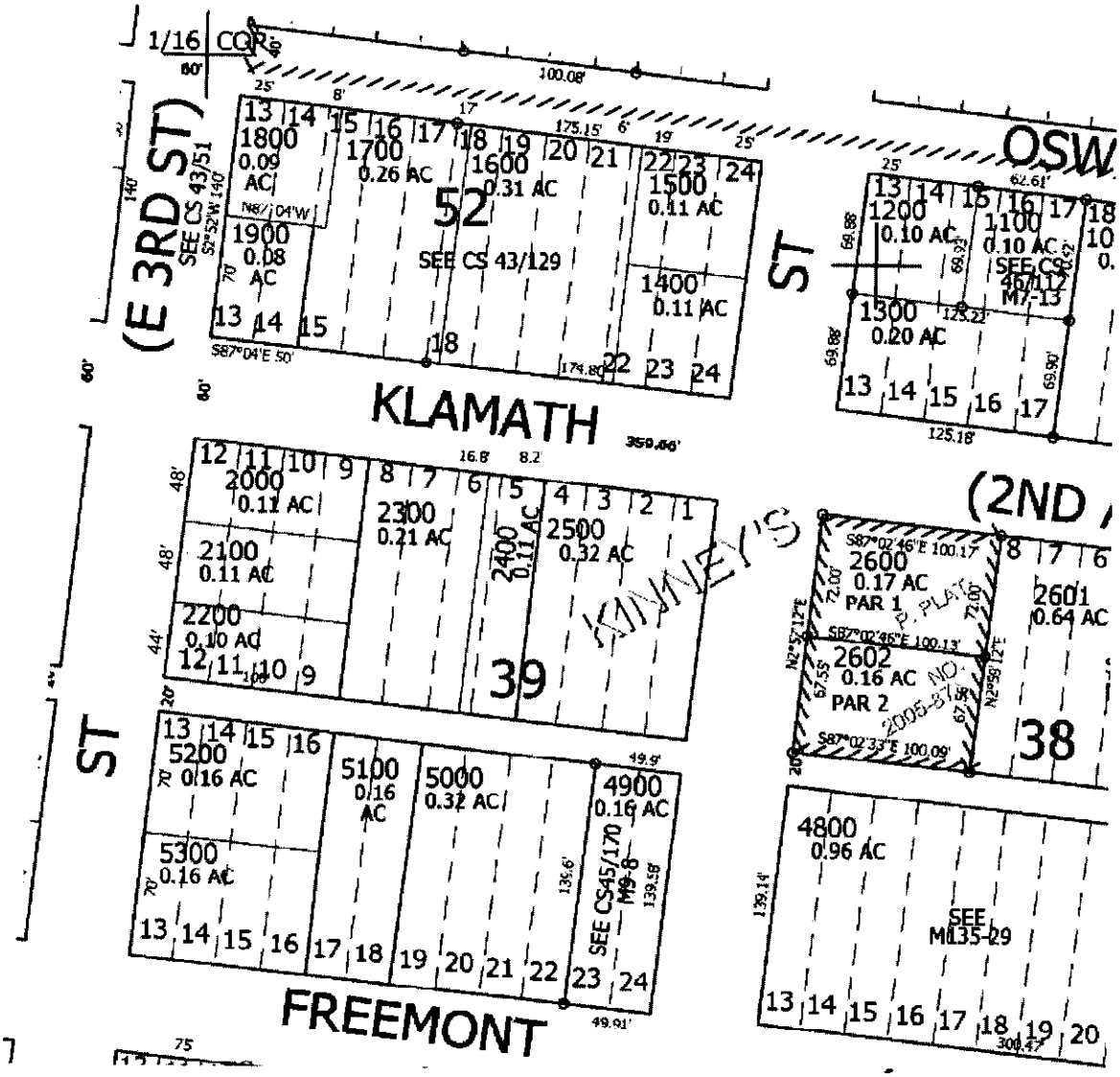
Determine which parcel is described and shade with diagonal lines.



6.

Determine which tax lots are described in the legal descriptions below and shade with diagonal lines.

A. Lots 19, 20, 21, and 22 of Blk 39, Kinney's Improved Addition.
B. The N½ of Lots 23 and 24 and the E 19' of the N½ Lot 22 Blk 52, Kinney's Improved Addition.
C. Parcel 2 of Partition Plat 2005-87.



7.

Write a description that will describe tax lot 5200 in the map on the previous page:

_____

_____

_____

_____

_____

_____

Challenge:

Write a description that will describe tax lot 2100 in the map on the previous page:

_____

_____

_____

_____

_____

_____

Deeds

What is a deed?

Real property is sold, conveyed, or transferred by some kind of deed. Personal property is transferred or sold by means of a bill of sale. A deed is a written, legal instrument that, when properly executed and delivered, conveys title to or ownership of an interest in realty from a grantor to a grantee. Oregon state law has certain requirements for deeds. Briefly, these include:

- A deed must be in writing. (ORS 41.580 Statute of Frauds)
- A deed must be signed by the grantors. (ORS 93.010 and ORS 93.410)
- A deed must be acknowledged, usually by a notary public or other qualified officer. (ORS 93.010 and ORS 93.410)
- A deed shall state the true and actual consideration, in terms of dollars or other property or other value given or promised. (ORS 93.030).
- A deed shall have a description of real property, described in such manner to be capable of being made certain. However, description by tax lot number shall not be adequate. (ORS 93.600)

The party conveying (or giving title) as a seller is the **grantor.**

The party receiving title as a buyer is the **grantee.**

Covenant is a pledge to perform or not to perform specified acts on property.

Warranty is a promise by the seller that certain stated facts are true of the title and physical condition of the property.

Components of a deed

According to the International Association of Assessing Officers, there are nine components that are the most important parts of the deed.

1. Names of parties. A deed may contain multiple grantors and grantees.
2. Consideration (value exchange). Other than money, other considerations mentioned may be "love and affection" or "one dollar and other good and valuable consideration."
3. Granting clause. A clause containing words of conveyance such as "grant, transfer, or convey."
4. Habendum clause. A clause such as "to have and to hold to said grantee, his heirs, successors, and assigns."
5. Legal description.
6. Testimony clause. The concluding clause, usually beginning "in witness whereof."
7. Signature. The signature of the grantor is required. The grantee's is usually not required.
8. Witness. The signature of those witnessing the signing. In some states this must be notarized.
9. Date. The date of execution of the signatures.

Types of deeds

There are many and various types of deeds used to convey interests in real property. The types of deeds used can be differentiated by noting how many promises (covenants and warrants) are made by the grantor. It is incumbent on each grantor to determine (or obtain competent legal advice) which type of deed is appropriate. Following are the most commonly used deed types in Oregon:

- A warranty deed offers the greatest protection of any deed as it transfers all of the title or interest in the property and guarantees the title except for any conditions specifically listed in the deed. It is referred to as a warranty deed (or general warranty deed) because the grantor is legally bound by certain covenants or warranties. The grantor warrants against all basic covenants extending back to property's origins. If the title is defective, the seller may be held liable for damages.
- A special warranty deed does not contain the same warranties. In this type of deed, the grantor warrants the title only against defects arising during the period of his ownership of the property.
- The bargain and sale deed conveys any interest grantor may have without any warranty against encumbrances; implies grantor holds title and possession of the property. It transfers whatever title or interest the grantor may have at the time of the transfer or gain later. Grantee has little or no recourse if any defects appear in the title.
- Quitclaim deeds release the grantor from whatever interest they may have in the property. There are no warranties as to title or possession. In fact, there is no assurance that the grantor ever had any interest in the property. It is good to remember, though, that in many states, quitclaim deeds are used as a rule to transfer property.

Oregon State Statutes—Deed forms

93.850 Warranty deed form; effect. (1) Warranty deeds may be in the following form:

> _____, Grantor, conveys and warrants to_____, Grantee, the following described real property free of encumbrances except as specifically set forth herein: (Describe the property conveyed.)
>
> [If there are to be exceptions to the covenants described in ORS 93.850 (2)(c), here insert such exceptions.]
>
> [Following statement of exceptions, here insert statement required under ORS 93.040 (1).]
>
> The true consideration for this conveyance is $_____. (Here comply with the requirements of ORS 93.030.)
>
> Dated this _____ day of_____, 2___.

(2) A deed in the form of subsection (1) of this section shall have the following effect:

(a) It shall convey the entire interest in the described property at the date of the deed which the deed purports to convey.

(b) The grantor, the heirs, successors and assigns of the grantor, shall be forever estopped from asserting that the grantor had, at the date of the deed, an estate or interest in the land less than that estate or interest which the deed purported to convey and the deed shall pass any and all after acquired title.

(c) It shall include the following covenants, each of which shall run in favor of the grantee and the successors in title of the grantee as if written in the deed:

(A) That at the time of the delivery of the deed the grantor is seized of the estate in the property which the grantor purports to convey and that the grantor has good right to convey the same.

(B) That at the time of the delivery of the deed the property is free from encumbrances except as specifically set forth on the deed.

(C) That the grantor warrants and will defend the title to the property against all persons who may lawfully claim the same.

(3) If the grantor desires to exclude any encumbrances or other interests from the scope of the covenants of the grantor, such exclusions must be expressly set forth on the deed. [1973 c.194 §1; 1999 c.214 §1]

93.855 Special warranty deed form; effect. (1) Special warranty deeds may be in the following form:

> _____, Grantor, conveys and specially warrants to_____, Grantee, the following described real property free of encumbrances created or suffered by the grantor except as specifically set forth herein: (Describe the property conveyed.)
>
> [If there are to be exceptions to the covenants described in ORS 93.855 (2), here insert such exceptions.]
>
> [Following statement of exceptions, here insert statement required under ORS 93.040 (1).]
>
> The true consideration for this conveyance is $_____. (Here comply with the requirements of ORS 93.030.)
>
> Dated this _____ day of_____, 2___.

(2) A deed in the form of subsection (1) of this section shall have the same effect as a warranty deed as described in ORS 93.850, except that the covenant of freedom from encumbrances shall be limited to those encumbrances created or suffered by the grantor and the covenant of warranty shall be limited to read: "That the grantor warrants and will defend the title to the property against all persons who may lawfully claim the same by, through or under the grantor."

(3) If the grantor desires to exclude any encumbrances or other interests from the scope of the covenants of the grantor, such exclusions must be expressly set forth on the deed. [1973 c.194 §2; 1999 c.214 §2]

93.860 Bargain and sale deed form; effect. (1) Bargain and sale deeds may be in the following form:

> _____, Grantor, conveys to_____, Grantee, the following described real property: (Describe the property conveyed.)
>
> [Following description of property, here insert statement required under ORS 93.040 (1).]
>
> The true consideration for this conveyance is $_____. (Here comply with the requirements of ORS 93.030.)
>
> Dated this _____ day of_____, 2___.

(2) A deed in the form of subsection (1) of this section shall have the following effect:

(a) It shall convey the entire interest in the described property at the date of the deed which the deed purports to convey.

(b) The grantor, the heirs, successors and assigns of the grantor, shall be forever estopped from asserting that the grantor had, at the date of the deed, an estate or interest in the land less than that estate or interest which the deed purported to convey and the deed shall pass any and all after acquired title.

(3) A bargain and sale deed shall not operate to provide any covenants of title in the grantee and the successors of the grantee. [1973 c.194 §3; 1999 c.214 §3]

93.865 Quitclaim deed form; effect. (1) Quitclaim deeds may be in the following form:

> _____, Grantor, releases and quitclaims to_____, Grantee, all right, title and interest in and to the following described real property: (Describe the property conveyed.)
>
> [Following description of property, here insert statement required under ORS 93.040 (1).]
>
> The true consideration for this conveyance is $_____. (Here comply with the requirements of ORS 93.030.)
>
> Dated this _____ day of_____, 2___.

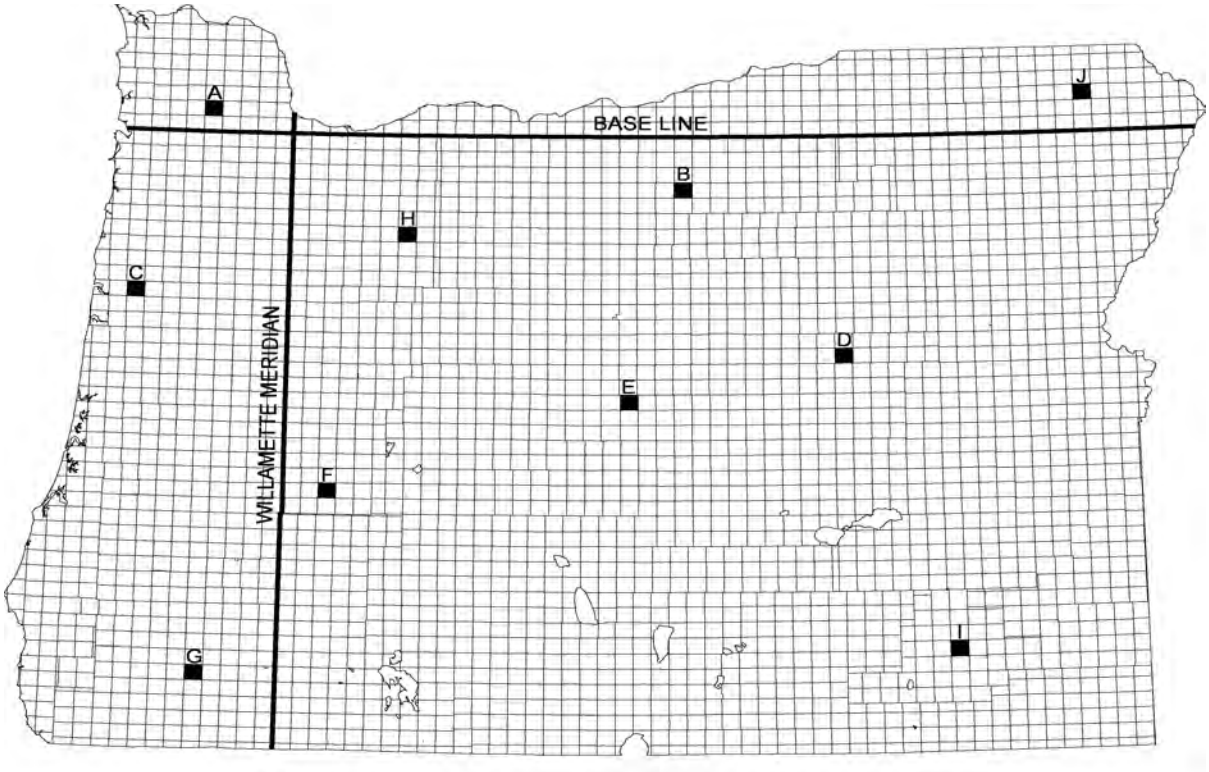
(2) A deed in the form of subsection (1) of this section shall have the effect of conveying whatever title or interest, legal or equitable, the grantor may have in the described property at the date of the deed but shall not transfer any title or interest which the grantor may thereafter obtain nor shall it operate as an estoppel.

(3) A grantee taking title by way of a quitclaim deed shall not, merely because of receipt of title by or through such a deed, be denied the status of a good faith purchaser for value. [1973 c.194 §4; 1999 c.214 §4]

Mapping exercise answers

1. T07S R02W 06B 400 (or T07S R02W 06B 00400)

2.



A. T 2N R 5W

B. T 4S R 23E

C. T 11S R 9W

D. T 15S R 32E

E. T 18S R 20E

F. T 24S R 3E

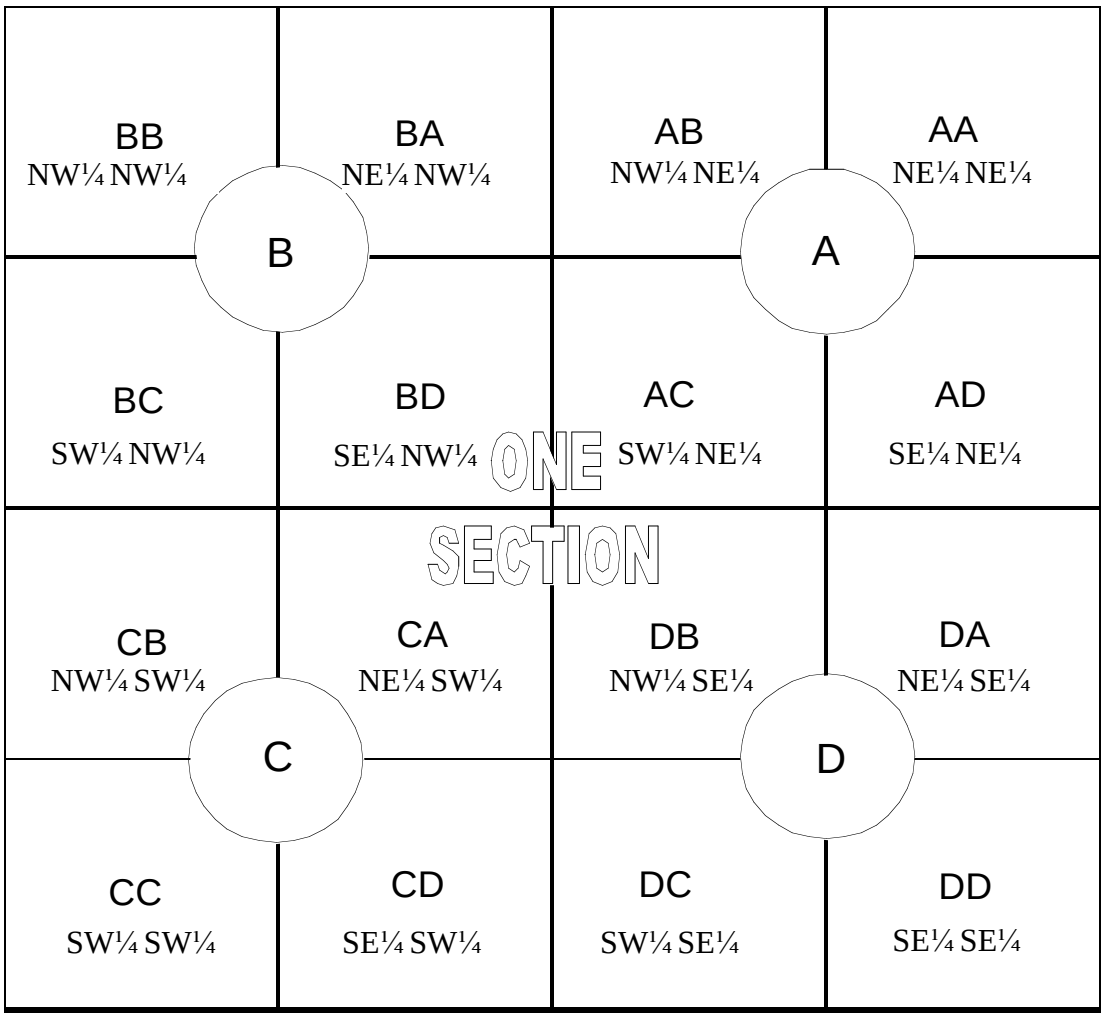
G. T 36S R 5W

H. T 7S R 7E

I. T 34S R 39E

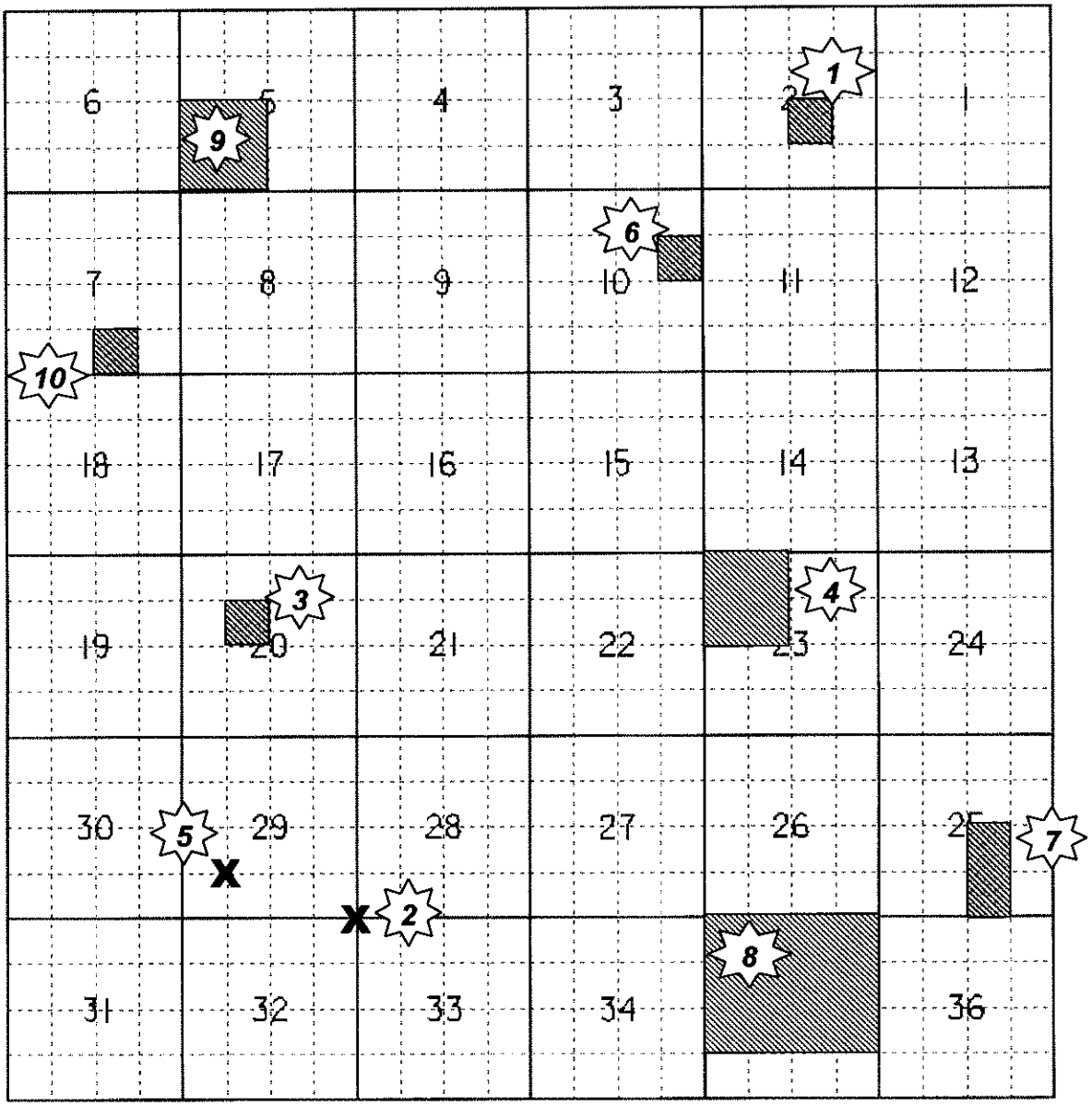
J. T 3N R 44E

3.



**LETTER DESIGNATIONS OF 1/4 SECTIONS (CIRCLED)
AND 1/4 1/4 SECTIONS OF A SECTION.**

4.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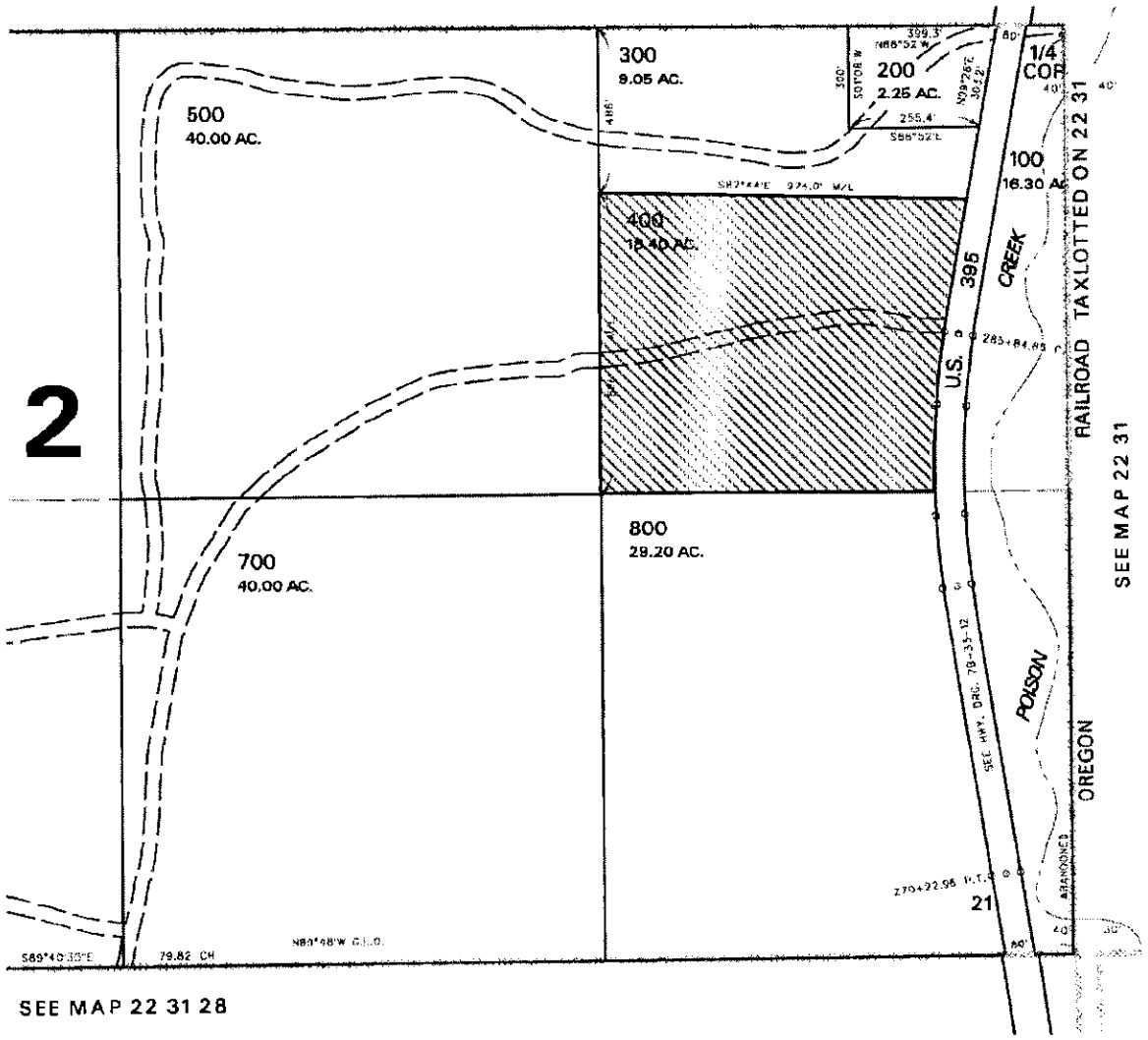
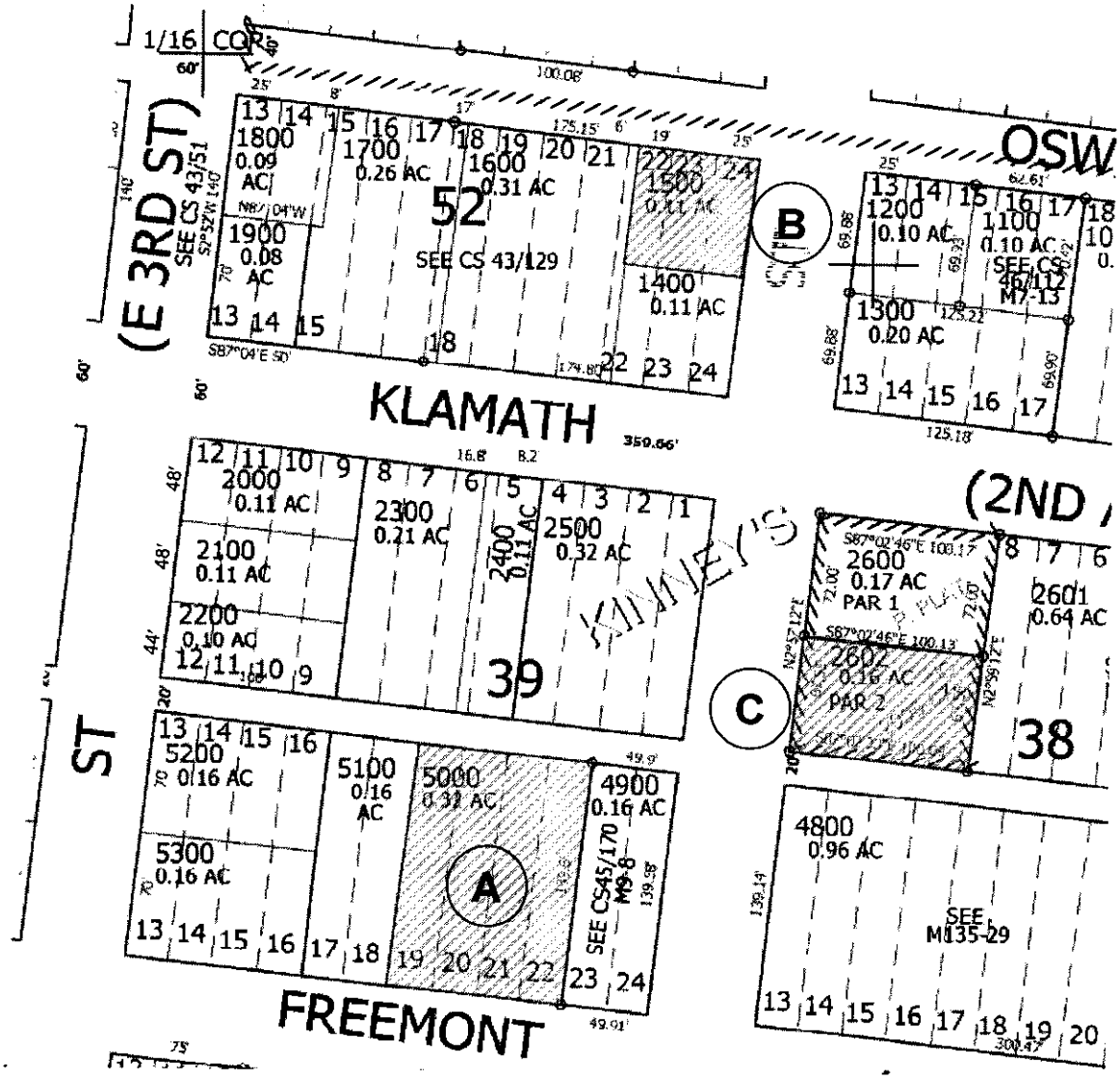


Beginning at the inter of the S line of the Northeast quarter of the Southeast quarter (NE¼ SE¼) of sec 21 and the W line of US Hwy 395; th W along said S line to the SE cor said Northeast quarter of the Southeast quarter of the Southeast quarter (NE¼ SE¼); th N 886′ along the W line said Northeast quarter of the Southeast quarter (NE¼ SE¼); th leaving said W line S 87° 44′ E 974.0′ m/l to the W line said US Hwy 395; th S along said W line to the POB.

6.


1/16 CORs
(E 3RD ST)
SEE CS 43/51
KLAMATH
FREEMONT
ST
52
SEE CS 43/129
39
38
A
B
C
1800
0.09 AC
1700
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1600
0.31 AC
1500
0.11 AC
1400
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PAR 1
2601
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2602
0.16 AC
PAR 2
5200
0.16 AC
5300
0.16 AC
5100
0.16 AC
5000
0.32 AC
4900
0.16 AC
SEE CS45/170 M9-8
4800
0.96 AC
SEE M135-29
(2ND

7.

Tax Lot 5200:

The N1/2 of Lots 13, 14, 15, and 16 of Blk 39, Kinney's Improved Addition.

Challenge:

Tax Lot 2100:

The Nly 48 feet of the Sly 92 feet of Lots 9, 10, 11, and 12 of Blk 39, Kinney's Improved Addition.

or

The Sly 48 feet of the Nly 96 feet of Lots 9, 10, 11, and 12 of Blk 39, Kinney's Improved Addition.

FUNDAMENTAL APPRAISAL CONCEPTS

STUDY MATERIAL

ASSIGNMENT

- Read the "Fundamental Appraisal Concepts" chapter of the *Appraisal Methods for Real Property Manual*
- Read the study material provided in the *Appraiser Trainee Manual*
- Take the Appraisal Principles Exam

Fundamental Appraisal Concepts

Fundamental appraisal methods enable the appraiser to arrive at an estimate of value that is logical and supportable. Familiarity with fundamental appraisal theory helps the appraiser understand the importance of factors affecting buyers and sellers. The ever-changing relationship between human desires and a commodity must be considered by an appraiser when an opinion of value is formulated. Methods and concepts that have been developed from the work of economists are used by appraisers to define and explain value. An appraiser should be aware of basic economic principles; models developed by economists are used by assessment offices to analyze and interpret data collected for valuation.

An economic system is the infrastructure that determines what commodities are produced and services provided, how these are distributed, and what resources are used to produce them. Economic systems can be studied as either the overall operation of the economy (macroeconomics) or the actions of people, groups, and organizations in a specific market (microeconomics). Appraisers are looking at the interaction between buyers and sellers in a single market (microeconomics) to estimate the value of real estate. However, appraisers must also understand macroeconomics, which shows how collective demand for goods and services is determined and influenced by government fiscal, monetary policies and ultimately translated into demand for resources, particularly land. Modern economic theory began to form with the increase in commerce and manufacturing during the Industrial Revolution. The nature of capitalism and the prevailing economic system raised some of the following questions for economists:

1. What is value?
2. What are the components of value?
3. To what extent does each component affect total value?

Assessment officials must be familiar with the legal framework in which the assessment function is performed. They must also understand the nature of value, property, and the basic economic principles that serve as the basis for valuation theory. The final product of any appraisal is an estimate of value. There are many definitions of value. Oregon Revised Statutes provide a definition for market value for assessment in Oregon. The remainder of this section will discuss basic appraisal principles and definitions specific to Oregon assessment practices.

Property and property rights

Property is a broad term that describes anything over which a person or business has legal title. Property may be tangible or intangible, but it is owned by an entity and is therefore considered an asset or a liability attributable to that entity. All property may be divided into two major groups, **real** and **personal**. Real property is the sum of the tangible and intangible rights in land and improvements; it refers to the interest, benefits, and rights inherent in the ownership of physical real estate. **Real property** is the physical land and everything permanently attached to it and is defined in Oregon Statutes for assessment purposes as:

307.010 Definition of "real property" and "land"; timber and mineral interests in real property. (1) As used in the property tax laws of this state:

(a) "Land" means land in its natural state. For purposes of assessment of property subject to assessment at assessed value under ORS 308.146, land includes any site development made to the land. As used in this paragraph, "site development" includes fill, grading, leveling, underground utilities, underground utility connections and any other elements identified by rule of the Department of Revenue.

(b) "Real property" includes:

(A) The land itself, above or under water;

(B) All buildings, structures, improvements, machinery, equipment or fixtures erected upon, above or affixed to the land;

(C) All mines, minerals, quarries and trees in, under or upon the land;

(D) All water rights and water powers and all other rights and privileges in any way appertaining to the land; or

(E) Any estate, right, title or interest whatever in the land or real property, less than the fee simple.

Personal property, commonly known as "chattels," is the movable items not permanently affixed to the real estate. Personal property is defined in Oregon Statutes for assessment purposes as:

307.020 Definition of "personal property"; inapplicability to certain utilities.

(1) As used in the property tax laws of this state, unless otherwise specifically provided:

(a) "Intangible personal property" or "intangibles" includes but is not limited to:

(A) Money at interest, bonds, notes, claims, demands and all other evidences of indebtedness, secured or unsecured, including notes, bonds or certificates secured by mortgages.

(B) All shares of stock in corporations, joint stock companies or associations.

(C) Media constituting business records, computer software, files, records of accounts, title records, surveys, designs, credit references, and data contained therein. "Media" includes, but is not limited to, paper, film, punch cards, magnetic tape and disk storage.

(D) Goodwill.

(E) Customer lists.

(F) Contracts and contract rights.

(G) Patents, trademarks and copyrights.

(H) Assembled labor force.

(I) Trade secrets.

(b) "Personal property" means "tangible personal property."

(c) "Tangible personal property" includes but is not limited to all chattels and movables, such as boats and vessels, merchandise and stock in trade, furniture and personal effects, goods, livestock, vehicles, farming implements, movable machinery, movable tools and movable equipment.

(2) Subsection (1) of this section does not apply to any person, company, corporation or association covered by ORS 308.505 to 308.665.

Real property may be divided into two components: land and improvements. Land may be described as the surface of the earth with everything underneath its border and everything over it, reaching endlessly into the heavens. The shape of a piece of land can be described as an inverted pyramid, with its top at the center of the earth, reaching upward through the surface into space. Over the years the courts have imposed certain legal limitations, i.e., the right of aircraft flight over the land. Improvements are permanently affixed items (structures, landscaping, fencing, paving, etc.); these become part of the real estate as long as they have economic value.

Property can further be divided between tangible and intangible. **Tangible property** is the actual physical property—e.g., land, buildings, office equipment, construction equipment, etc. **Intangible property** is evidence of ownership of property rights—e.g., copyrights, trademarks, deeds of trust, franchises, goodwill, etc.

Basic rights of ownership

There are **six basic rights** associated with the ownership of real property frequently referred to as the **"bundle of rights."** These are:

1. The right to use;
2. The right to sell;
3. The right to lease or rent;
4. The right to enter or leave real property;
5. The right to give away; and
6. The right to refuse to do any of these.

The bundle of rights theory may be compared to a bundle of sticks with each stick representing the ownership of one property right. The ownership of property rights can be divided. Occasionally property ownership is transferred without all of the rights included. When all property rights are included in the transfer, the title in property is referred to as "in fee simple." When all rights in real property are not transferred, title is owned in "less than fee simple."

The four rights of government

The United States and other nations impose certain public or legal restrictions for the **common good**, placing limitations on the ownership of real property. The following four rights or "sticks" have been removed from the complete **bundle** and reserved for government control. These four rights are also known as the **four powers of government.**

1. **Taxation**—the right to tax property for support of the government.
2. **Eminent domain**—the right to take property for public use provided that just compensation is paid.
3. **Police power**—the right to regulate the use of property for the public welfare in the areas of safety, health, morals, zoning, building codes, traffic and sanitary regulations.

4. **Escheat**—the right to have property revert to the state for nonpayment of taxes or when there are no legal heirs of a decedent who dies intestate.

Governmental restrictions that limit the use of property may affect its value, e.g., zoning and environmental protection laws.

Private encumbrances may also affect fee simple ownership of property. These encumbrances include:

1. Rights of co-owners of the property;
2. Condominium and subdivision restrictions;
3. Covenants, conditions, and restrictions (CC&Rs);
4. Mortgages;
5. Easements and right-of-way;
6. Liens and judgments; and
7. Leases.

An estate is an interest or right in real property. Estates can vary in the duration, degree, or quantity of interests held. Interests or estates that assessors and appraisers should be aware of include fee simple interest, leasehold interest, leased fee interests, possessory interests, and life estates. The appraiser must know the level of ownership in the property to be appraised when arriving at an estimate of value.

Property value

For the purpose of real estate appraisal, **value** may be defined as the present worth of future benefits arising from the ownership of real property. The relationships that create value are complex and values change when the factors that influence value change. The economic concept of value is not inherent in the commodity, good, or service to which it is ascribed. *The Appraisal of Real Estate, Twelfth Edition,* Appraisal Institute states that value is created in the minds of the individuals who constitute the market. Values change when the factors that influence value change.

The four factors of value

There are **four basic factors** of economic value that must be considered in the appraisal process. These four factors must be present for the property to have value. These factors are **utility, scarcity, desire, and effective purchasing power.**

1. **Utility**—the ability of a product to satisfy a human want, need, or desire. All properties must have **utility** to tenants, owner-investors, or owner-occupants. Residential properties satisfy the need for shelter, and commercial properties generate income. Both may have design features that enhance the attractiveness; amenities, a tangible or intangible benefit of real property that enhances its attractiveness or increases the satisfaction of the user, but is not essential to its use.
2. **Scarcity**—the present or anticipated supply of an item relative to the demand for it. In general, if demand is constant, the **scarcity** of a commodity makes it more valuable. No object can have value unless scarcity is coupled with utility. As available property becomes limited or scarce, values rise as users compete for possession.

3. **Desire**—a purchaser's wish for an item to satisfy human needs (e.g., shelter, clothing, food, companionship) or individual wants beyond the essentials required to support life.
4. **Effective purchasing power**—the ability of an individual or group to participate in a market; that is, to acquire good and services with cash or its equivalent.

The four basic forces affecting value

The **value** of real property reflects and is affected by the interaction of **four basic forces** that influence human activity:

1. Social trends;
2. Economic circumstances;
3. Governmental controls and regulations; and
4. Environmental conditions.

The interaction of these forces influences the value of every parcel of real estate. When estimating value, an appraiser analyses these market forces to determine their influences on the subject property.

Value in use and value in exchange

A property may have one **value in use** and a significantly different **value in exchange.** The concept of **value in use** is based on the premise that use value is the value of a property for a specific purpose. When a property is utilized at its "highest and best use," its value in use and value in exchange are the same. The concept of **value in exchange** emphasizes the subjective aspect that value is in the mind of man. The assessors' values are based on **value in exchange** because they reflect the actions and reactions of buyers, sellers and investors in the market place.

Market value

There are more than a century of court cases that have addressed some aspects of **market value.** The actions and reactions of buyers, sellers, and investors in the market are considered when an appraiser estimates the value of a property. The analysis of comparable sales data will also address these important points relative to **market value.**

- The most probable price, not highest, lowest, or average;
- Expressed in terms of money;
- A reasonable time for exposure to the market;
- Both buyer and seller are informed of the uses to which the property may be put;
- An arm's-length transaction in the open market;
- Willing buyer and willing seller, with no advantage taken by either;
- Recognizes the present use as well as the potential use of the property.

For the Oregon property tax system, The Oregon Revised Statutes definition of **market value** refers to **real market value** (RMV):

ORS 308.205 Real market value defined; rules.

(1) Real market value of all property, real and personal, means the amount in cash that could reasonably be expected to be paid by an informed buyer to an informed seller, each

acting without compulsion in an arm's-length transaction occurring as of the assessment date for the tax year.

(2) Real market value in all cases shall be determined by methods and procedures in accordance with rules adopted by the Department of Revenue and in accordance with the following:

(a) The amount a typical seller would accept or the amount a typical buyer would offer that could reasonably be expected by a seller of property.

(b) An amount in cash shall be considered the equivalent of a financing method that is typical for a property.

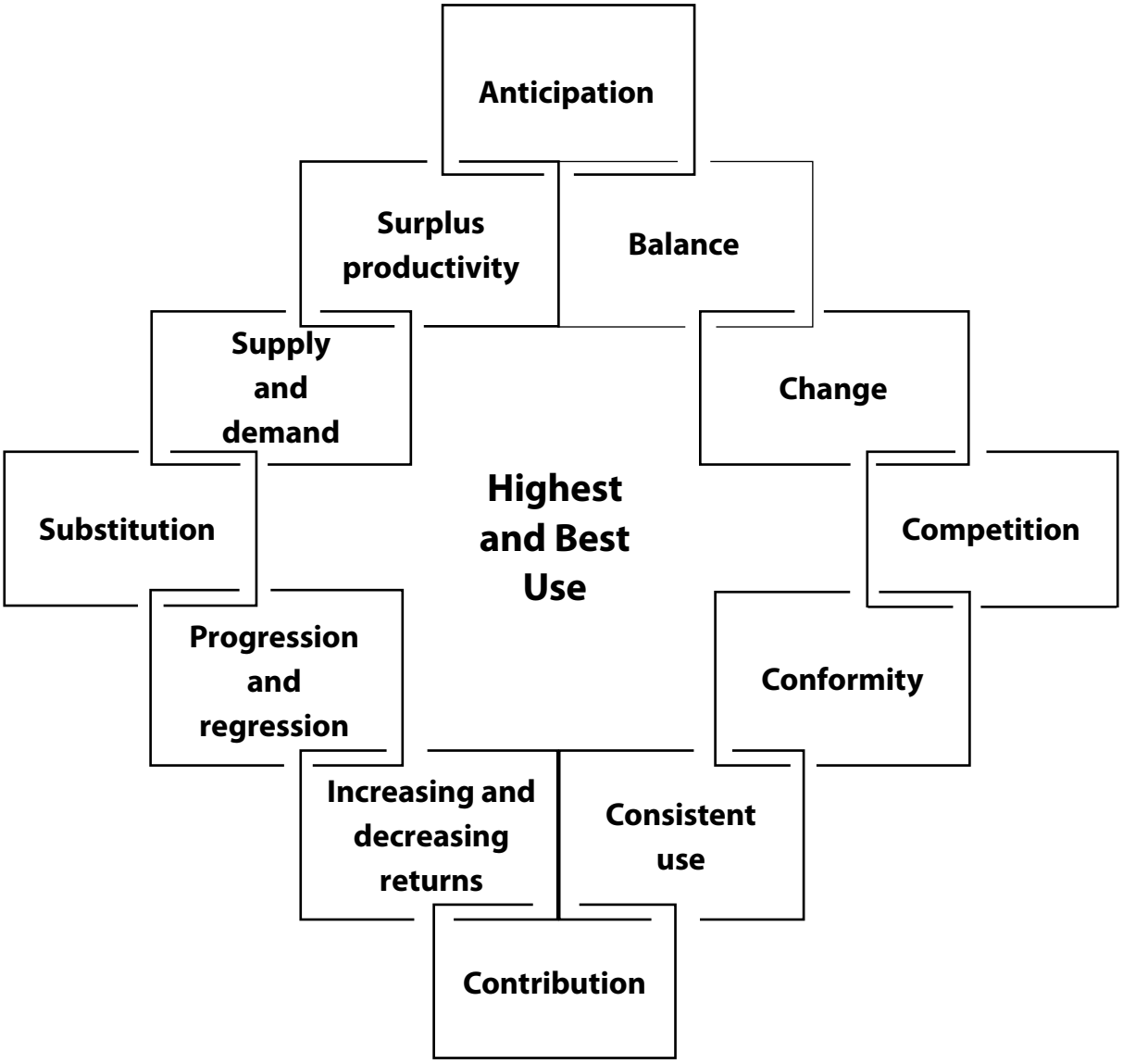
(c) If the property has no immediate market value, its real market value is the amount of money that would justly compensate the owner for loss of the property.

(d) If the property is subject to governmental restriction as to use on the assessment date under applicable law or regulation, real market value shall not be based upon sales that reflect for the property a value that the property would have if the use of the property were not subject to the restriction unless adjustments in value are made reflecting the effect of the restrictions.

Appraisal principles

The following principles evolved from economic doctrine and form the foundation for the concepts of value and highest and best use. These principles should not be considered in isolation; they are interrelated:

Anticipation	Assemblage	Balance
Change	Competition	Conformity
Consistent use	Contribution	Externalities
Plottage	Progression	Regression
Substitution	Supply and Demand	Surplus Productivity
Increasing and Decreasing Returns		


Anticipation
Surplus productivity
Balance
Supply and demand
Change
Substitution
Highest and Best Use
Competition
Progression and regression
Conformity
Increasing and decreasing returns
Consistent use
Contribution

Anticipation

Value is the present worth of all the anticipated future benefits to be derived from a property. The principle of anticipation is related to the principle of change.

Balance

When applied to an individual property, the principle states the maximum market value is reached when the four agents of production attain a state of equilibrium. The **"four agents of production"** are:

- Land;
- Labor;
- Capital; and
- Entrepreneurial coordination.

Balance means that the highest market value will result when the size and type of improvements are proportional to each other as well as the land, e.g., a small two-bedroom house is out of balance with a three-car garage. When applied to a neighborhood, maximum market value is reached when the uses of land are perfectly complimentary, e.g., a single-family neighborhood requires facilities such as grocery stores, gasoline stations, drugstores, churches, schools, and recreational facilities. Balance can also relate to the principle of increasing and decreasing returns. Investing more or withdrawing any of the agents of production will result in decreasing returns.

Change

The result of the cause and effect relationship among the forces that influence real property value is change. Market value is never constant; environmental, economic, social, and governmental forces are at work to change the property and its environment. When these forces are in balance, the market is in a temporary state of **rest** called equilibrium. **Rest** does not last long; aging and natural events such as flooding or drought change property over time. An estimate of market value is valid only on the day it was made. The principle of change is related to the principle of anticipation and can affect the prediction of future benefits. Change is often incorrectly referred to as a **time adjustment.**

Competition

Potential profits attract new buyers and sellers to a market. Competition among sellers may lead to an over supply, reducing prices and profits. Competition among buyers may lead to shortages increasing prices and profits to sellers. Relative to property, an excess of one type of facility will decrease the value of all like facilities. A neighborhood can support only so many movie theaters, gas stations and shopping centers. Excess competition destroys balance.

Conformity

The appraisal principle that real property value is created, strengthened, and sustained when there is reasonable similarity among the improvements in a neighborhood, along with

the social and economic forces that create a complementary mix, e.g., similar ages, incomes, education, attitudes, etc. Conformity works with the principle of progression and regression.

Consistent use

The principle of consistent use states that the entire property must be valued with a single use. It is improper to value a property on the basis of one use for the land and another use for the improvements. This principle is especially important to remember when valuing a property in transition from one use to another.

Contribution

The principle of contribution states that the value of a component of property depends upon its contribution to the whole. In other words, the cost of the component does not necessarily equal the value that the component adds to the property. For example, a residential owner spends $20,000 to erect a large shop/garage. However, the market value is only increased by $15,000. In this situation, $15,000 is the value contribution of the shop/garage. In another case of income producing properties, the value of a component can be measured by the amount it contributes to the net operating income, because net operating income can be capitalized into value. In this example, the owner of a small retail store spends $6,000 for an air-conditioning unit; annual gross income for rents can be increased by $1,800. Additional operating expense for the unit will be only $1,200, including amortizing the investment. Installing the air-conditioner will add value in excess of cost. Contribution is related to the principles of balance, increasing and decreasing returns, and surplus productivity.

Increasing and decreasing returns

Land is a fixed component of value in this principle, and improvement value varies. As one adds improvements to the land, the total value increases to a point, after which, they add less and less until they finally add nothing to value. In an example of construction for a proposed commercial building, the investor's analysis provides the following returns on different amounts of investment:

- A $450,000 building will earn a 1.5 percent return;
- A $550,000 building will earn a 5.5 percent return;
- A $650,000 building will earn a 7.0 percent return;
- A $750,000 building will earn a 5.7 percent return;
- A $850,000 building will earn a 1.3 percent return.

This principle is related to the principles of balance, contribution, and surplus productivity.

Progression and regression

Progression is the concept that the value of an inferior property is enhanced by proximity to a superior property. Regression is the concept that the value of a superior property is adversely affected by its association with an inferior property. The principles of progression and regression are related to the principle of conformity.

Substitution

This is the foundation to valuation, which states that the informed purchaser will pay no more for a property than the cost of producing an equally desirable substitute property of like utility with no unusual delay.

Supply and demand (Equilibrium Principle)

This economic principle describes the flow of the supply of an item to satisfy demand. The supply and demand for commodities always tends toward equilibrium. The key in the control of supply and demand is price. When supply is high for the price of a commodity, the price is pushed downward as demand is easily met. When the supply of a commodity is low, the price tends to be pushed up as demand exceeds supply. Price defines the point where supply and demand will balance. Home prices that are high produce an over supply of homes, which in return lowers the prices through competition. Low home prices attract a market that increases the demand and lowers the supply. When demand outpaces supply, prices increase, attracting new building construction. This is a simple illustration, but in the principle of supply and demand the price function and the frequent imbalances are real estate facts of constant importance to appraisers.

Surplus productivity

This is the income remaining after payment of the agents in production of labor, capital, and management (coordination). The net income is imputable to the land. Land value is set by the income it will generate. A study of various uses and the potential income generated by each will lead to a conclusion of the highest and best use of the site. This is a basis of the land residual technique used in the income capitalization approach.

Highest and best use

Highest and best use is the basic premise of real market value (RMV). Highest and best use analysis is an integral part of the appraisal process. It is based on the accepted economic theory that people involved in the real estate market desire to receive the maximum benefit of investing either in land or improved property, whichever produces the greatest overall investment return. It is a market driven concept.

Highest and best use defined and mandated by Oregon Administrative Rule (OAR) 150-308.205(A)(1)(e) and (D)(1)(c):

> "Highest and best use" means the reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible, and that results in the highest value. See *The Appraisal of Real Estate, 12th edition* (2001).

To reconcile a property's highest and best use, the appraiser must answer the following four questions:

Is the use

- P**hysically possible**—suited to the size, shape, and terrain of the parcel?
- **Legally permissible**—conforming to zoning, building codes, private restrictions, environmental regulations, and other governmental controls?
- **Financially feasible**—resulting in a positive net return to the property?
- **Maximally productive**—producing the highest rate of return or highest value for the property?

An appraiser typically considers the four previously stated questions sequentially. If the property met the physically possible test, but the use was not legal, it would not matter if the property met the financially feasible test.

The highest and best use of a property must be determined before appraisers can estimate market value. Highest and best use is that use that will generate the highest net return to the property over a reasonable period of time after considering all physical, legal, and financial limitations. The potential use that fulfills all of these requirements is the highest and best use of the property.

Land value is always based on the land's highest and best use **as though vacant,** even if the site is improved. This concept assumes that the land can always be made vacant by the razing of any existing structures. This is a well accepted basic real estate economic theory based on the principle of surplus productivity and related to the principles of balance, contribution, and increasing and decreasing returns.

The **purpose** of determining the highest and best use of the land as though vacant is to **evaluate** the land's potential uses **and select** the one use that is the most competitive and profitable. This use is the **foundation** upon which the real market value opinion will rest. The highest and best use of land as though vacant must be established when a separate land value is required, such as is the case when valuing real property for assessment purposes in Oregon. It also becomes the basis for selecting comparable land sales.

The principle of **consistent use** states that a property—both land and improvements—must be valued under the same highest and best use basis. It is improper to value a property on the basis of one use for the land and another use for the improvements. This principle is of special importance when valuing properties in transition. **Remember** that land is always valued as if it were vacant or could be made vacant in order to be put to its highest and best use.

It is said that land has value, while **improvements contribute to value.** The contributory value of existing improvements to the whole of the property is determined by subtracting the value of the land as though vacant from the value of the total property. If the existing improvements do not contribute economically to the total property, they should be renovated, expanded, or demolished.

These basic concepts of the economic principle of highest and best use are the **basis for the cost approach to value.**

When remodeling existing improvements, the **economic feasibility** of incurred costs must be evaluated. This is done by deducting the net costs associated with the change from the

anticipated real market value of the "renovated" property. When demolition is considered, the site's value is the real market value of the land as though vacant, less the cost of razing any existing structures in order to create the vacant site.

There are other situations where the appraiser must analyze **special considerations.** Special considerations occur when there is surplus or excess land or when there are interim uses, multiple uses (mixed uses), special purpose uses, or speculative uses. For a complete discussion of these special situations, refer to a generally accepted authoritative source such as the current edition of Appraisal Institute's *The Appraisal of Real Estate*.

In summary, the economic principle of highest and best use is the real estate market participant's basis for anticipating the benefits of real property ownership and thus becomes the appraiser's basis for estimating the value of that ownership right.

- Highest and best use is the reasonably probable and legal use of vacant land or an improved property that is physically possible, legally permitted, economically feasible and results in the highest value. A potential use that fulfills these requirements is the highest and best use.
- Land is always valued as though vacant and available to be put to its highest and best use.
- If property improvements do not contribute value to the property, then they should be renovated, expanded or demolished; or some combination of these alternatives.
- It is improper to value a property on the basis of one use for the land and another use for the improvements.

For further discussion and examples of highest and best use analysis and appraisal principles, see the most current edition of Oregon Department of Revenue's *Appraisal Methods for Real Property*, Chapter 5–"Fundamental Appraisal Concepts"; *Property Assessment Valuation,* International Association of Assessing Officers; and *The Appraisal of Real Estate,* Appraisal Institute.

The information provided in this chapter of the trainee manual is summarized from the following reference materials: Chapter 5–"Fundamental Appraisal Concepts" in the *Real Property Methods Manual* (2003); *Mass Appraisal Principles* (2005); Highest and Best Use Workshop 2002, from the Oregon Department of Revenue, Property Tax Division; *Property Assessment Valuation, Second Edition,* and *Property Appraisal and Assessment Administration*, from the International Association of Assessing Officers; *The Dictionary of Real Estate Appraisal, Third Edition,* and *The Appraisal of Real Estate, Twelfth Edition*, from the Appraisal Institute.

Tax System Overview

Measure 5 overview

Measure 5 was passed by the voters of Oregon in May of 1990. It created several limitations to the districts and residents of the State of Oregon as to how they would fund local services and education districts. Prior to the passage of Measure 5 (M5), districts levied a fixed dollar amount on the property within their boundaries with voter approval. It was levied equally on all property within the taxing district's boundary. To determine the district tax rate, the levy amount was divided by the district's value converted to a millage rate by dividing by 1,000, and expressed as $.85/$1,000 of value.

Individual taxing district levies were then aggregated into tax codes based upon groups of property owners within the same tax code rate boundaries. Within a county tax code, rates could vary from $8/$1000 of market value to $45/$1000. It was based on what the voters elected to tax themselves for local services and education (kindergarten though community college).

With the passage of Measure 5 taxing district levies were divided into two categories and two limitations were created:

- Education tax levies would be limited to no more than $5/$1000 of RMV.
- Local government tax levies would be limited to no more than $10/$1000 of RMV.

If local levies exceeded either category limit, the local government or education category levies would be "compressed" (reduced by the same percentage) so the tax for the category would not exceed the constitutional limit of $10 and $5/$1000. It was not unusual to see compression of education and local government rates in some areas of the state by as much as 50 percent. Even if local voters desired to tax themselves to raise more money, they could not.

For education losses, the state was required to make up the lost revenues. The state had to find about $6 billion in cuts to state programs to fund local education districts. The state's general fund growth now dictated how much is available for local education as well as state programs. There is no local override to spend more.

Local government districts were on their own for financing their tax losses by either cutting services or increasing service fees. Since service fees for water, sewer and such were outside the limitation, these increased substantially to pay for the cost of delivering the service. They had to become self supporting.

Measure 5 initially did what the writers wanted—it cut taxes. But with Oregon coming out of the recession of the 80s, market values, which had no limitation, began rising. Higher values resulted in increasing taxes when multiplied by a rate limit.

$100,000 x $15/$1,000 = $1,500 in taxes

$125,000 x $15/$1,000 = $1,875 or an increase of +$375

The writers of Measure 5 submitted, and the voters passed, Measure 49, which limited taxes and only allowed a 3 percent growth in taxes. It was determined that this limitation was unworkable and the state legislature created Measure 50. In Measure 50, the legislature tried

to create a workable property tax measure that retained the intent of Measure 49, which was to limit taxes. It was referred to the voters in the spring of 1997 and passed.

Measure 50 overview

Measure 50 was passed by the voters in May 1997. Measure 50 added another limit to the Measure 5 limits to further limit property taxes. Under Measure 50, now each property has a real market value **(RMV)**, a maximum assessed value **(MAV)**, and an assessed value **(AV)**. For properties with special assessed values, there is also a special assessed value **(SAV)** and a maximum special assessed value **(MSAV)**.

- Each of the 1,334 taxing districts at that time was converted to a fixed, **permanent tax rate** for operations. Districts may not increase this permanent rate. Voters can approve local option levies for up to five years for operations and up to 10 years or the useful life of capital projects, whichever is less. Local option levies require a "double majority" for approval.
- A **MAV** was created for all tax lots in Oregon. This was based on the 1995-1996 **RMV**. Specially assessed properties also have a **SAV** and **MSAV**.
- The **AV** for any year is the lowest of the **RMV, SAV, MAV or SMAV**. Generally, the **MAV** and **MSAV** can grow at 3 percent. Each account now carries at least three values unless they are specially assessed, which now carry five separate values.
- For districts, the only source of new tax money is new property or exceptions. This new property is added at full value to the account's RMV but is adjusted by an average county ratio of assessed to real market value of existing property of the same class for unchanged property or changed property ratio **(CPR)**. This adjusted amount is added to the MAV of the account.

How the tax system now works

The existing Oregon property tax system is controlled by state law and includes two Constitutional limits on property taxes: Measure 50 and Measure 5.

Measure 50 was approved by Oregonians in May 1997 and converted Oregon's property tax from a tax levy system to a largely tax rate system. It limits both property tax rates and assessed values.

Under Measure 50, each taxing district has its own permanent tax rate, which cannot be increased. Each property has an assessed value that cannot increase more than 3 percent, unless some new activity occurs on the property.

Measure 5, which was passed by Oregonians in November 1990 and became effective for the 1991-92 tax year, limited the total amount of educational and local government taxes districts can impose on property. On each property, educational operating taxes must not exceed $5 per $1,000 of real market value of the property and local government (non-educational) operating taxes must not exceed $10 per $1,000 real market value.

District Levy Process

Step 1—District adopts budget

Every year the governing board of each taxing district approves a local budget of its expenditures and an estimate of its tax revenues. The budget adds expenditures, an unappropriated ending balance, and operating contingencies. It then subtracts the nonproperty tax revenues. The result is the total property tax revenue needed to balance its budget. The total tax needed to balance the budget is then compared to the district's total property tax authority.

The district determines its total authority to tax. A district's taxing authority is the amount raised by its permanent tax rate plus any other authority, usually voter approved, it might have. If the total tax authority for the district is greater than the amount needed to balance the budget, then the district can only impose taxes to pay for the expenses approved in its budget. If the total authority falls short of the total taxes needed, the local district must reduce expenditures or ask voters to approve a local option levy.

Types of property tax authority

Most of a district's tax authority comes from its permanent tax rate. In addition, a district may get authority from:

- A "gap" levy;
- A local option levy;
- Urban renewal;
- An exempt bond.

A district may impose their permanent tax rate, established by Measure 50, without additional voter approval. "Gap" levies, local option levies, and urban renewal taxes can be imposed above the permanent tax rate limit, but these levies are still subject to Measure 5 limits. Exempt bond levies can be imposed outside both the Measure 5 and permanent rate limits.

Permanent rate limit

In 1998-99, 1,334 districts in the state imposed property taxes under Measure 50. In the first year of Measure 50 (1997-98), a permanent rate for each taxing district was established. These permanent rates cannot be increased without voter approval statewide. Given the district's assessed value, the permanent rate limits the amount each local district can tax. If a district chooses to impose a tax rate less than their permanent rate, they can still impose the permanent rate in future years. These rates are applied to each property's assessed value. Measure 50 also decreased 1997-98 assessed property values to 90 percent of the 1995-96 real market values for every property.

If there are new taxing districts, voters must establish a permanent rate for them. Districts that merge must set the new permanent rate so it will raise the same amount of revenue. If property is annexed, the district's permanent rate will be applied to the annexed property in addition to other taxing districts' permanent and other tax rates already applied on the property.

"Gap" bonds

Local districts can impose a local option levy outside their permanent rate limit if the voters in their district approve it. Prior to Measure 50, some taxing districts had debt obligations that had been funded with operating taxes of the district. These districts have special authority to impose "gap" levy taxes that are outside the permanent rate limit. This authority was established to help these districts transition to the permanent rate limits. Gap bonds will be phased out and no new "gap" levies can be created. Once the current gap bond obligations are paid, this tax authority will be incorporated into each district's permanent rate. The City of Portland police and fire pension levy is similar to gap bonds but this pension levy does not have a date when it must be paid off. This is the only pension levy throughout the state.

Local option levies

If a district's permanent tax rate is not sufficient to fund the approved budget, the district may ask voters to approve a local option levy. In 1998-99, 32 taxing districts imposed local option taxes, totaling $48.6 million. This type of tax had the biggest increase. The permanent tax rate consists of both a constitutional and statutorily mandated rate. Local option levies are temporary. Operating levies can not exceed five years. Capitol levies cannot exceed the lesser of 10 years or the useful life of the project. The 1999 legislature approved HB 2753, which allows K-12 schools the ability to also levy local option taxes.

Since 1997, community colleges also had the authority to levy local option taxes but only enough to replace losses caused by Measure 50.

Local option levies must be approved at either:

- A general election (November of an even-numbered year); or
- A "50 percent turnout" election, where ballots are cast by at least half of the registered voters eligible to vote.

Urban renewal taxes

Urban renewal (UR) taxes are different and far more complex from the other property taxes. Urban renewal agencies receive property taxes to fund projects but they do not have permanent tax rates. When they are created, the property value in the designated urban renewal plan area is identified and "frozen." The difference between the total and frozen assessed values is the increment value. If a taxing district is within a UR plan area, the taxes for that local taxing district are divided. This revenue source for urban renewal agencies is the division of tax and is based on the amount of increment value within the taxing district's area. The Oregon Supreme Court has ruled that urban renewal taxes are a local government tax subject to compression.

Exempt bonds

Local option taxes can be used for operations or capital improvements. Exempt bond levies are used to repay general obligation bonds. To impose an exempt bond levy, the district must get voter approval to issue the bonds. The bonds must be approved at a general election or "50

percent turnout" election. Once the bonds are approved and issued, the taxing district can impose the taxes needed to repay the principal and interest on the debt.

A district seeking to fund a capital project could choose either a local option levy or exempt bonds. Both require voter approval under the same conditions. The local district might prefer an exempt bond levy because the taxes can be imposed outside Measure 5 tax limits, and there is no limit on the length of the levy. However, only the following items are considered part of the definition of capital construction:

- Public safety or law enforcement vehicles with a projected life of five years or more;
- Supplies and equipment that are intrinsic to the permanent structure;
- Maintenance and repairs if the need could not be reasonably anticipated.

Exempt bonded levies can be used for certain equipment or furnishings that are not intrinsic to the permanent structure, like computers and textbooks depending on their life expectancy.

Step 2—District certifies levy to assessor

After the budget is adopted, the district certifies its tax levies to the assessor. This certificate gives the assessor the authority to impose taxes for the district on property owners.

Imposing taxes on each property

Step 3—Assessor calculates permanent rates and taxes

Based on certification, the assessor determines the actual permanent tax rates for each taxing district. This rate might be lower than the district's permanent rate limits because:

- The district voluntarily certified a rate below its permanent rate limit.
- State law required some other revenue to be offset against the certified rate.

Current law offsets timber severance taxes against non-school generating levies. The rate might be higher than the permanent rate if:

- The district has a "Gap" levy.
- Voters have approved a local option levy or exempt bonds.

Property owners' tax bill

Each property owner's tax bill is not just one tax rate; it is a sum of all the rates of taxing districts that levy tax on the property subject to all the tax limitations. Generally, property inside a city has a higher total tax rate than equivalent property outside the city because property owners outside the city limits do not pay the city tax.

Tax is the rate times assessed value

Using the district's permanent tax rate, the assessor calculates the tax generated from the permanent tax rate by multiplying the permanent tax rate for each district imposing a tax on the property by the property's assessed value. This yields a tax for each district on the property before Measure 5 compression.

Assessed value

In the first year of Measure 50 (1997-98), each property's assessed value was rolled back to its 1995-96 real market value, less 10 percent. This value cannot grow faster than 3 percent per year unless activity, like new construction, occurs on the property. The activities that would permit value to grow more than 3 percent are shown below.

If new construction occurs, the new property is added to the tax roll at the average property change ratio of assessed to real market value of other property in the same area and class. Finally, a property's assessed value cannot exceed its market value.

Measure 5 limits imposed

Measure 5 limits the total taxes that may be imposed on a property, except taxes used to pay exempt bonds. After calculating the taxes from permanent, local option, Gap bonds and urban renewal tax rates, the assessor adds the taxes together by education or government category, and compares them to the Measure 5 limits. If total taxes exceed the Measure 5 limits, the taxes are reduced.

Additions to property

Conditions that permit assessed value to grow by more than 3 percent a year:

- New construction;
- Major improvement projects with real market values greater than:
  - — $10,000+ in one year, or
  - — $25,000+ over 5 years;
- Property is rezoned and used consistently with the rezoning;
- Property is partitioned or subdivided;
- Property loses its exemption;
- Property is first assessed as omitted property;
- A lot line adjustment is made with respect to the property but the overall assessed value of the affected properties does not change.

Once values are known for the RMV, MAV, SAV, MSAV and AV, the tax computations can begin. Generally, the county creates the M50 tax first for the two categories limited by Measure 5. In other words, what the permanent rates multiplied against the MAV are for education and local government.

Measure 50 education permanent rate x AV = tax for education
Measure 50 local government permanent rate x AV = tax for local government

Then Measure 50 taxes must be tested against the Measure 5 limitation.

The Measure 5 limits are:

- Total education operating taxes cannot exceed $5 per $1,000 of a property's real market value. Educational taxes include those imposed by K-12 school districts, education service districts (ESD's) and community colleges.
- Total non-education operating taxes cannot exceed $10 per $1,000 of a property's real market value.

If the education or local government category rates exceed $5 or $10/ $1,000 they must be compressed. If the local government category rate was $15 then the category would be compressed to $10 with each district receiving the same percentage reduction. Then, since M5 uses RMV to calculate taxes, the category taxes for education and local government are created.

M5 education limit of $5/$1,000 x RMV = tax for education
M50 local government limit of $10/$1,000 x RMV = tax for local government

Final comparison

Remember, it is the lower of the two constitutional limits that creates the imposed taxes. It is possible to have a portion of an account's tax using the M5 limit for one category and the M50 limit for the other category. Or, have the tax computed entirely on the M5 limit or the M50 limit. It is the lower amount to which the tax for bonds are added (bonds are calculated against an account's AV).

It is this total amount that is imposed and is shown on the taxpayer's tax statement.

Final stage of the taxing process

Tax bills are sent from district collectors to taxpayers. If taxpayers pay their entire tax bill by November 15, they will receive a 3 percent discount. All payments are deposited in the segregated tax account. Then this account is distributed to districts in proportion to their tax imposed.

COST FACTORS FOR CONSTRUCTION

STUDY MATERIAL

ASSIGNMENT

- Read the introductory chapter for *Cost Factors for Construction.*
- Read and review *Cost Factors for Residential Buildings Manual* (*required).
  - Cost Estimating Process—General Instructions
  - Base Cost—Instructions
  - Single Family Conventional Special Instructions
  - Read the chapters for each Class of Construction for both Single Family Residential and Multifamily Residential
- Review *Accessory Improvements, Illustrations & Component Costs, Glossary.*
- Read and review *Cost Factors for Residential Buildings Manufactured Structures Manual* (*required).
  - Read the Special Instructions and Typical Options List.
  - Read the Class Features and Base Specifications for each Class of Construction.
- Read and review *Cost Factors for Farm Buildings.*
  - Read the Cost Estimating Process General Instructions and Base Cost Instructions.
  - Review the various structures and "classes" represented in the illustrations.
- Read and review *Marshall Valuation Service Manual* or web page:
  - Read the Introduction
  - The Class of Construction
  - The Qualities of Construction
  - The Qualities of Construction Indicators
  - Review the Occupancy Flow Chart
  - Briefly review or scan remainder of Text and Illustrations
- Work assignment: Field trips
  - Residential Classing & Benchmark Training with experienced appraiser or with Department of Revenue senior appraisal field unit staff (*required)
- The *Exploration of Material Costs & Quality Variations*:
  - Visit any available new model homes—discuss option packages with builder.
  - Visit retail building supply store; flooring, kitchen and lighting design centers.

Cost factors for construction

This chapter provides a brief introduction to the cost factor manuals that have been developed and implemented statewide for use by county appraisers for mass appraisal application.

The cost estimating process

Appraisers use the three traditional approaches to estimate the value of property.

The three approaches to value

- The cost approach—based on construction cost minus depreciation;
- The sales comparison approach—based on sales of similar properties;
- The income approach—based on the income the property can produce.

In theory, all three approaches are based on the principle of substitution. However, there is usually one approach to value that is best or most appropriate for each property. In your study of the *Appraisal Methods Manual,* you have found that county valuation systems use a combination of the cost and sales comparison approaches to arrive at real market value (RMV). This combined process called the market-related cost approach is primarily used when valuing residential type properties.

Different types of property will require different methods or approaches. And more than one method or approach being used increases the confidence in your final value estimate.

Typically structures are usually first classified by "use" for which they were designed: residential, commercial, industrial, and rural. For instance some typical subcategories of classing listed here further delineate and define construction types.

Residential	**Commercial**
Single-family	Office Building
Condominium	Medical Office Buildings, Hospitals
Duplex	Bank, Credit Unions, Savings and Loan
Triplex, Fourplex	Retail Stores and Convenience Marts
Apartments	Restaurant, Fast Food, Taverns, Theaters
	Hotels, Motels
	Vehicle/Auto Service/Garages

Farm/Rural	**Industrial**
Barns of all types	Warehouses
Multi-Purpose Buildings	Manufacturing Light and Heavy
Sheds, Utility Buildings	Storage Facilities, Self and Mini
Arenas and Stables	
Grain, Seed, Potato Storage	

Based on the reasoning that a buyer will not pay more than what it would **cost to reproduce or replace the subject property,** the cost approach enables the appraiser to develop an

opinion of market value based on the current costs of labor, materials, related fees, and any entrepreneurial profit or incentive.

The theoretical basis in the cost approach to market value is unique compared to the other two approaches. The approach uses the sales of comparable sites to develop a market value estimate of the site as if unimproved, to which is added a market value estimate of the improvements based on "cost new" less any and all depreciation (loss in value). The procedure for the development of market value of the improvements is the conversion of "cost to construct" figures to market value figures. Cost is not necessarily or automatically the equivalent of market value. The process of making this type of conversion requires educated skill and careful thought.

Five basic steps of the cost approach

1. Estimate value of the site (land) in its highest and best use as if vacant.
2. **Estimate reproduction or replacement cost new of all the improvements** (excluding any that were included as part of the site value).
3. Add estimated indirect or direct costs of improvements and any entrepreneurial profit; to arrive at the total cost of the improvements.
4. Estimate accrued depreciation from all causes.
    - Three types: physical, functional & economic/external obsolescence)
5. Process these estimates into an indication of value:
    - Subtract the total amount of depreciation from the total cost new of the improvements to arrive at the depreciated cost of improvements.
    - Estimate the total cost new of accessory improvements and site improvements. Then, estimate and deduct all depreciation from the total cost new of these improvements.
    - Add land and site value to the depreciated cost of the total improvements (primary & accessory) to arrive at a value indication by the cost approach.

It is important that the county appraiser has a clear understanding and distinction between the terms, replacement cost, and reproduction cost as mentioned above.

Replacement cost refers to the cost to construct, at current prices, a substitute property that provides utility equivalent to that of the property being appraised, using modern materials and current standards, design and layout. **Replacement cost is used for mass appraisal purposes.** For mass appraisal, uniformity, and equity in your replacement cost estimates are very important.

Reproduction cost is the estimated cost to construct, an exact duplicate or replica of the building being appraised, if possible using the same materials, construction standards, design layout, and quality of workmanship and exemplifies all the deficiencies and obsolescence of the subject property.

Residential and farm resource publications

In order to build reliable replacement or reproduction costs for county appraisers, the Oregon Department of Revenue publishes several cost factor book manuals. These manuals are created and designed to help achieve uniform assessment and equalization according to Oregon's ad valorem tax law [ORS 306.120(1)].

A cost manual represents a "cost building model" in a form that is easy to use in order to estimate **replacement cost** for various types of buildings and structures. Cost data is derived from newly constructed comparable properties and these actual costs provide a reliable starting point for application of the cost approach.

Revenue's cost manuals contain sets of cost factors organized in schedules or tables, complete with special instructions to tailor application for any county in Oregon. These manuals contain "benchmark examples." These benchmarks are complete with photo samples and detailed descriptions of quality, materials, workmanship, and complexity of construction for manufactured and stick-built homes and farm buildings.

Department of Revenue's cost manual publications:

- ***Cost Factors for Residential Buildings***
- ***Cost Factors for Residential Buildings—Manufactured Structures***
- ***Cost Factors for Farm Buildings***

Copies of the current manuals are available and provided to all county assessor's offices. The cost factor book manuals are an essential working tool for county appraisers. The website for the Department of Revenue also offers resource material for quick and easy access. There you will find the main menu page with "Publications" and many other informative topics such as statutes/rules for your convenience and reference. The department encourages county appraisers to become familiar with this available and important resource of information by checking:

www.oregon.gov/DOR/PTD/ptd_pubs.shtml.

Select Publications; then select Property Taxes; view the selection of documents in the Property Tax Information section and select the number associated with the desired resource.

Cost factors

The cost factors for the residential manuals are based on market data from the Portland metropolitan area, whereas the cost factors for the farm book are developed from rural properties all around the state. Cost data is obtained from a wide variety of sources; such as contractors, developers, manufacturers and property owners. Construction costs must be based on current labor and material prices. And since construction costs seem to change from year to year, you need to adjust or modify them so that they reflect the current market. In each county, "local cost modifier studies" are developed and applied to these base cost factors to ensure an accurate reflection of local market indicators.

Both the **general** and **special instructions** for each manual should be read carefully to understand how to properly class buildings or structures and to make adjustments to the base costs for superior and inferior building features and design. You will find certain

components are included in the base cost factor tables while other components are considered **"additional costs" that modify the base factors** according to the features. Examples of the adjustment factors that must be considered as additional costs in a single family residence are items such as heating and cooling, plumbing fixtures, built-in kitchen appliances, fireplaces, etc. Additional costs for these and other features are listed either in the Adjustment Factors section for each classification or in the Component Costs sections of the manual.

It is essential as a trainee to work through and review the examples found in the general instructions to understand the concept of how to build a cost model and value indicator.

Classes of construction

The residential cost factor book contains "classing standards" for eight various quality levels of housing. An appraiser should carefully read and learn the unique class features and base specifications found for each respective class. You will find the quality in workmanship and materials are synonymous. There is distinctive language provided in each quality classification to help you recognize and distinguish the particular variations and promote uniformity for county appraisers throughout the state.

Class 1 **Basic shelter.** Does not meet sound minimum building codes; minimal quality features and pier footings.

Class 2 **Modest low-cost housing.** Plain shelter that falls below building codes with poorly adapted additions, and inexpensive-low grade fixtures.

Class 3 **Functional utility.** Just meet current minimum building codes; no exterior ornamentation; interior features are plain and built with **economy grade quality** features and construction.

Class 4 **Functional utility.** Material and workmanship quality is **fair and basic.** Front exterior has some designed curb appeal.

Class 5 **Average quality.** Built for speculation or by volume builder. Styled and designed with exterior ornamentation. Windows large and numerous; may also include accent designed windows. Fixtures and features typically are of **average quality.**

Class 6 **Good quality.** Emphasis is on detail with architectural style and design. All features of workmanship, materials, and appliances are **good quality.**

Class 7 **Custom built.** Designed by **professional home planner and built by specialty contractors,** maybe under architectural supervision. **High quality** workmanship, materials, features, and attention to detail throughout.

Class 8 **Highest quality and custom. Professionally designed and built by specialty contractors** with grandeur in mind. **Superior** workmanship and the **highest of quality** for detail, features, and materials throughout.

The information provided in the cost factor book will allow you to determine the class of a residence easily and quickly. It is advantageous to remember that while some homes fall well within the typical or sample models as shown in the book, a home that seems on the borderline may be difficult to classify. Then, your training and good judgment will prevail in the decision for classing.

Benchmarks and training

It may be necessary to create and establish a supplemental benchmark book for those in-between classes. This helps establish and promote uniformity in quality classification within your county office. It is both advised and encouraged that county appraisers within the assessor's office periodically conduct a classing and benchmark field trip together. The focus begins with uniformity in mind for all structure types; discussions and observations should include classing, quality feature recognition, and structural integrity. **The field representatives from the Department of Revenue offer to assist or facilitate for any county office, individual appraiser trainee or their group of appraisers in providing "field training classes."**

Continuing education

Each year the Department of Revenue's Continuing Education section offers two courses: *Residential Cost Factor Book* and Construction Technology. The Construction Technology course will familiarize students with the building process, construction phases, terminology, fixtures, plumbing, electrical, heating systems, building styles and quality levels, building techniques and materials, and blueprints reading.

Commercial and industrial

For the appraisal assignment of income producing, commercial, and industrial and other various type properties, a tax appraiser must consider all factors that affect value by utilizing the three approaches to value. The sales approach is good when sales information is reliable, available, and confirmed. The income approach will produce a significant indication of value when:

1. Gross income and operating costs have been property projected.
2. The capitalization rate reflects the market.
3. Appropriate methods and techniques have been used.

The cost approach presents an effective way to verify project construction costs and adjust estimates to account for the unique physical features found. An appraiser will have confidence in the cost estimating procedures by using accurate and current data covering the whole spectrum of building costs.

The appraisal industry including many of our county assessing offices use a professionally recognized and authoritative resource called *The Marshall Valuation Service*. This appraisal guide is used to estimate new and or replacement value for commercial, industrial, and a wide variety of other improvements.

Website: www.marshallswift.com

The Marshall Valuation Service gives you access to current building and improvement costs for structures of every size and shape. This comprehensive database of cost information provides costs for a wide range of construction classes and type occupancies from apartment buildings, hotels, stores, offices, theaters; sheds, farm buildings, industrial warehouses, and many more.

In essence, this valuation product offers breakdowns of component costs. Buildings are classified by occupancy and grouped into sections by occupancies having certain similar cost characteristics. Comparative cost indexes and local multipliers are provided for a quick computation of present replacement costs including dependable historical costs for the various cities, regions, and states.

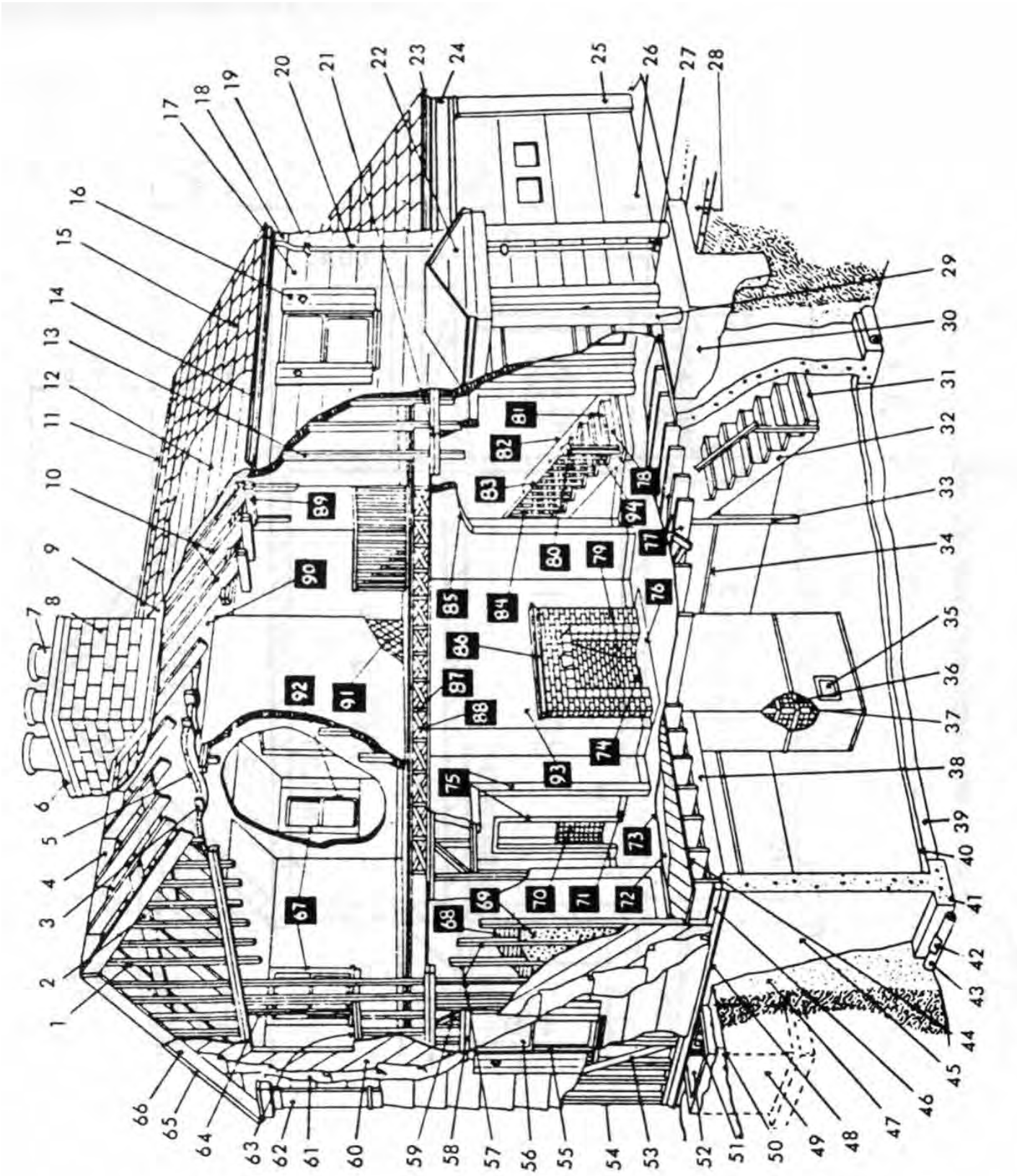
The Marshall Valuation Service utilizes a classing of construction method, which is divided into five basic cost groups by type of framing (support columns and beams), walls, floors, and roof structures and fireproofing. Construction class indicators are A, B, C, D, and S. The primary classes are further defined with detailed features, variations, and subclasses in the elements of construction. You will find pictures and descriptions that exemplify buildings for comparison.

An appraiser should **carefully** read and study the "Introduction" section of *The Marshall Valuation Service* resource. There you will both learn and understand how to recognize and correctly class the construction and types of buildings and determine what the costs contain and what they do not contain. This is essential so that you, as an appraiser, will not undervalue or underestimate other contributory elements of cost or value.

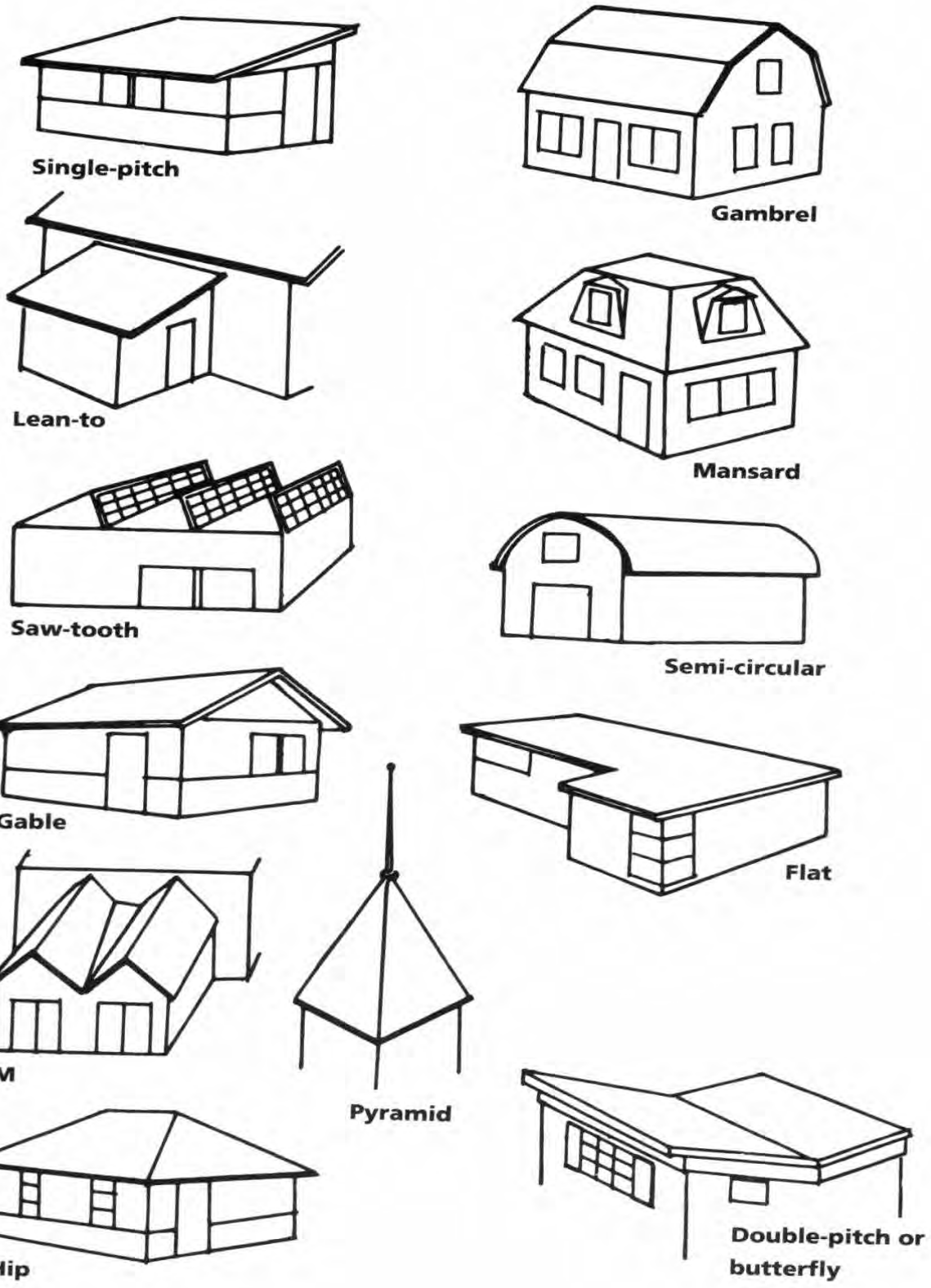
Just a few and real significant elements of costs **not included** are items such as entrepreneurial incentives, developer's overhead and profit, off-site costs, land improvement costs, yard improvements, some SDCs (site development costs and special fees), discounts of financing, real estate or brokers fees and commissions, advertising expenses, etc., and of course our favorite…*taxes!*

Both assessors and appraisers are responsible for values put on the tax roll. County appraisers should be sure that cost data obtained from commercial services like *The Marshall Valuation Service* accurately reflect the local market. This can be done by comparing the cost estimated from the manual or software against new structures of known cost in your area; as well as **utilizing the sales comparison study approach.**

Note: If a *Marshall Valuation Service* book is not readily available for study or review; a brief excerpt (from *The Marshall Valuation Service*) is presented covering class of construction in the department's *Building Construction Technology* course textbook.



1. Gable stud
2. Collar beam
3. Ceiling joist
4. Ridge board
5. Insulation
6. Chimney cap
7. Chimney pots
8. Chimney
9. Chimney flashing
10. Rafters
11. Ridge
12. Roof boards
13. Stud
14. Eave gutter
15. Roofing
16. Blind or shutter
17. Bevel siding
18. Downspout gooseneck
19. Downspout strap
20. Downspout leader
21. Double plate
22. Entrance canopy
23. Garage cornice
24. Frieze
25. Door jamb
26. Garage door
27. Downspout shoe
28. Sidewalk
29. Entrance post
30. Entrance platform
31. Stair riser
32. Stair stringer
33. Girder post
34. Chair rail
35. Cleanout door
36. Furring strips
37. Corner stud
38. Girder
39. Gravel fill
40. Concrete floor
41. Foundation footing
42. Paper strip
43. Drain tile
44. Diagonal subfloor
45. Foundation wall
46. Sill
47. Backfill
48. Termite shield
49. Areaway wall
50. Grade line
51. Basement sash
52. Areaway
53. Corner brace
54. Corner stud
55. Window frame
56. Window light
57. Wall studs
58. Header
59. Window cripple
60. Wall sheathing
61. Building paper
62. Pilaster
63. Rough header
64. Window stud
65. Cornice moulding
66. Frieze board
67. Window casing
68. Lath
69. Insulation
70. Wainscoting
71. Baseboard
72. Building paper
73. Finish floor
74. Ash dump
75. Door trim
76. Fireplace hearth
77. Floor joists
78. Stair riser
79. Fire brick
80. Newel cap
81. Stair tread
82. Finish stringer
83. Stair rail
84. Balusters
85. Plaster arch
86. Mantel
87. Floor joists
88. Bridging
89. Lookout
90. Attic space
91. Metal lath
92. Window sash
93. Chimney breast
94. Newel


Single-pitch
Gambrel
Lean-to
Mansard
Saw-tooth
Semi-circular
Gable
Flat
M
Pyramid
Hip
Double-pitch or
butterfly

APPRAISAL OVERVIEW AND MASS APPRAISAL

STUDY MATERIAL

ASSIGNMENT

- Read the introductory Appraisal Overview and Mass Appraisal in *Trainee Manual*
- Read and review *Methods Manual:*
  - Chapter 8: Mass Appraisal of Land
  - Chapter 9: Mass Appraisal of Residential Properties
  - Chapter 10: Mass Appraisal of Income-producing Properties
  - Chapter 11: Mass Appraisal of Farm and Ranch Properties

*The topic of mass appraisal is **not** covered in the County Appraisal Registration Examination. However, these chapters of study are important and will provide you the necessary foundation of learning for the job you will perform as a county property tax appraiser.

Appraisal overview: Theory and fundamentals

The material and outline in this training manual and the following chapters presents a point of beginning for you and your role as a county tax appraiser. In this chapter we will give a brief overview, cover the appraisal process, and then bring focus primarily to mass appraisal.

An appraisal is the act or process of developing an opinion of value. We find that learning about property, highest and best use, economic principles, and the three approaches to value are all fundamental to the appraisal process.

What is the role of the county appraiser? A county appraiser's role is to provide objective, impartial, and unbiased opinions about the value of real and personal property. It is our intended purpose as property tax appraisers to render an opinion of value; real market value for tax assessment purposes. The accuracy of an appraisal will depend upon the appraiser's knowledge, experience, and judgment.

ORS 308.231 Only registered appraisers to appraise real property. Appraisals of real property shall be performed by an appraiser registered under ORS 308.010.

County appraisers should strive to have a solid foundation of understanding regarding the following:

- Appraisal theory, appraisal principles, highest and best use;
- Concepts of value: The three approaches;
- Mass appraisal procedures;
- Measure 50 and exceptions;
- Basic understanding regarding statutes and rules:

www.oregon.gov/DOR/adminrules.shtml.

The assessor's staff must have confidence in the appraisals and be able to explain and defend them. An appraiser should be able to produce a property record and explain the method for valuation through mass appraisal that was used to estimate and determine the value of the subject property. A property owner should never merely be told that the computer or the system produced the appraisal.

County appraisers will need the expertise to perform both single property valuations and mass appraisal valuations. There will be the occasional opportunity and necessity in which a single property appraisal will need to be prepared. Single property valuation determinations may be required for unique and special use type properties and for tax appeals to BOPTA or Magistrate Court. An example of a narrative model appraisal is provided in the addendum.

The function of an appraisal is the use for which the client requires the estimate of value. Our clients are the taxpayers. The purpose of the appraisal establishes the foundation for the final value conclusion, which does not change to accommodate the use of the appraisal.

The purpose and intended use of an appraisal is an essential stated component in the final determination of a value conclusion. The value conclusion for a county appraisal is ultimately found on the property tax bill.

A county appraiser should be familiar with the many uses for an appraisal. The following is just a small sampling of typical or possible uses for appraisals:

- Market value;
- Insurable value;
- Investment value: Sales price, purchase price;
- Transfer of ownership: Property divisions, exchanges;
- Financing and credit;
- Special purpose: Litigation, eminent domain/right of way, environmental issues, etc.;
- Investment counseling.
- *For tax matters—county tax appraisal establishing:
  —Real market value (RMV);
  —Assessment value (AV);
  —Maximum assessed value (MAV);
  —Specially assessed values (SAV);
  —Maximum specially assessed value (MSAV).

The components of an appraisal

An appraisal is not a personal opinion; it is an "orderly procedure" for estimating the value of real and personal property. The appraiser renders an opinion of value for a specific property as of a specified date in time that reflects all pertinent market evidence. Appraisal involves selective research into appropriate market areas and the assemblage of relevant data, the use of appropriate analytical tools, and the combination of knowledge, experience, and professional judgment to develop a solution to an appraisal problem.

There are many components to an appraisal. The model presented here provides a pattern that can be used in most any appraisal assignment to perform market research and data analysis, to apply appraisal techniques, and to integrate the results of these activities into an opinion of defined value.

The basic appraisal process

Definition of the problem

- Identify property to be appraised: Legal descriptions, street address, assessors parcel #;
- Objective and purpose of appraisal—definition of value;
- Specified date of appraisal;
- Identify and determine property rights.

Preliminary survey and appraisal planning

- Scope of the work: The amount and type of information researched and the analysis applied in an appraisal assignment.
- Identify inventory of required data and sources to be collected.
- Consideration/evaluation related to the most relevant or probable approach.

Data collection and market analysis

- General data/market data: Recognition of trends and economic forces that affect value; locational factors: neighborhoods, city, state, and regional factors.
- Specific data—subject property: Specific characteristics of land and improvements, personal property, business assets, etc.
- Comparative data: Costs, sales, income and expenses, rentals/vacancies, capitalization rates.
- Market analysis: Supply and demand studies, marketability studies.
- Highest and best use analysis: Site as though vacant, ideal improvement, property as improved.

Land value opinion

Application of the approaches to value

- Cost approach;
- Sales (market) approach;
- Income approach.

Reconciliation of value indications

- Analyze and interpret data

Final estimate of defined value

- The last step in the valuation process, summarizes the data analyzed, the methods applied, and the reasoning that led to the value conclusion.

*Reference: *The Appraisal of Real Estate 12th Edition* and *Property Assessment Valuation 2nd Edition,* IAAO.

Overview of mass appraisal

For decades, assessing officials have sought to refine and blend professional appraisal methods of practice and taxation of property to create and implement what we refer to as "mass appraisal procedures."

CAMA

Many assessors throughout the state use a form of computer-assisted mass appraisal systems, otherwise known as CAMA. When properly administered, the development and use of a computer-assisted mass appraisal system results in a valuation system that exemplifies accuracy, uniformity, equity and reliability.

The impact of changes approved by the Legislature and changes from evolving technology will always be a principal focus with property tax administration both on the county and state level. Computer-assisted valuations must meet the results-based performance standards as provided by OAR 150-308.234.

The department will continue to work in partnership with counties to facilitate or assist with new ideas and will carry out its supervisory role based on monitoring actual results.

What is mass appraisal?

Mass appraisal is the equitable and efficient appraisal of all property in a jurisdiction for ad valorem tax purposes.

A quote borrowed from the International Association of Assessing Officers states: **"Mass appraisal is the systematic appraisal of groups of properties as of a given date using standardized procedures and statistical testing. In contrast, single-property appraisal is the valuation of a particular property as of a given date."**

Valuation

The techniques and process for both types of appraisal (single-family and mass appraisal) are parallel. Mass appraisal has the same core premise of using concepts of value integrated with the basic economic principles and the philosophy of highest and best use.

The three approaches to value are very much a part of mass appraisal process. The suitability of each valuation approach varies with the type of property under consideration. A judgment is made as to the validity and reliability of each of the value indications derived from the three approaches to value. The appraiser reconciles the value indications, analyzing the alternatives and selecting from among them the indication of value that will be most defensible and truly representative of the property being appraised. We do know that certain approaches tend to produce better results for a given type of property and the use of two or more approaches should produce greater accuracy.

1. **The cost approach**—the current cost of reproducing the improvements (primary buildings, outbuildings, site improvements) on a property less depreciation from all causes (physical, functional, and economic) plus the value of the land.
2. **The sales comparison approach**—the value of a property based on recent selling prices of comparable property.
3. **The income approach**—the value of the property based on the income it produces or is capable of producing.

The mass appraisal program uses a methodology and valuation model combining the cost approach and sales approach along with various supplemental studies for other needed adjustments that influence value within a particular neighborhood and specific property class. We refer to this blended process as the **market related cost approach of mass appraisal.**

Mass appraisal answers the valuation question with a process and overall focus of analysis for groups of properties rather than to single properties. Mass appraisal requires the basic research of sales data, the accurate analysis of data components and the effective building of valuation models. These valuation models are created by developing and building land tables, depreciation studies, and property class studies.

Assessing offices must establish effective procedures for collecting and maintaining property data (that is, property ownership, location, size, use, physical characteristics, sales prices, rents, costs, and operating expenses).

Counties use the market related cost approach in the mass valuation of improved single family and multi-family (one to four units) residential type properties. The sales comparison and income approaches are preferred in valuing multi-family residential property (five or more units) when sufficient data is available.

The income approach is the most appropriate method to apply when valuing commercial and industrial property if sufficient income data is available. In the absence of adequate sales data and the income data is not available; the cost approach is then applied.

The function and goals of mass appraisal

The primary function of a mass appraisal system is developing and maintaining accurate values. The object of mass appraisal is to produce equitable valuations at low costs. Mass appraisal is conducted by your local assessors' office in order to establish real market and assessed values for both real and personal property for assessment and taxation purposes.

Quality control of data is imperative for a well functioning appraisal system. The maintenance and or the routine review for accuracy of values depend on the reliability of what is collected and programmed in your system. Values generated should be periodically checked against available sales data. All valuation models and studies, such as cost factors and modifiers, land values and depreciation schedules must be kept current through periodic review to ensure value balance is maintained at optimum levels (value balance between land and improvements).

There are three functions that need to be in place for a mass appraisal system to perform effectively and efficiently. Performance leads to statutory compliance, which comes under the interest, jurisdiction, and supervisory authority of Department of Revenue.

Three functions:

1. Physical reappraisal: Which can be cyclical or hot spot.
2. Data maintenance: Red Tags/Exception Value: Permits New Construction, New Subdivisions, Remodels, and routine field inspections for unpermitted construction.
3. Value updates: Computer application of annual updates using ratio studies or revaluation methods.

It is the Department of Revenue's goal and objective to work with counties to improve our systems and processes, always looking for ways to make the tax systems work better and make complying and implementing complex tax laws effective. If the property tax is to be "just and fair" and provide a reliable revenue source, the mass appraisal system must produce accurate and equitable value estimates.

Uniformity

The mass appraisal process has evolved over the years with various legislation enactments to and including the need for uniformity and consistency statewide for assessment purposes.

The goal of mass appraisal is to achieve **equality and uniformity** in assessed values between properties that are physically appraised and those that are not physically appraised, but subject to trending or indexing for the particular assessment year. Assessing offices must establish effective procedures for collecting and maintaining property data.

Appraisal uniformity relates to the fair and equitable treatment of individual properties. This uniformity requires that properties be appraised equitably with consistency and reliability within groups or categories, such as property classes, neighborhoods, study areas, quality classes, and so forth.

The following rule and statutes reflect requirements of equality and uniformity:

OAR 150-294.175 (ptn) Department of Revenue Review of the County Assessment, Appeal, Collection, and Distribution of Property Taxes

(1) As used in ORS 294.175, the following definitions will apply:

(a) "Adequacy to provide the resources needed to achieve compliance" means: Appropriate and sufficient resources to maintain compliance with all laws and rules pertaining to the assessment, levying, and collection of property taxes.

(b) "Laws requiring equality and uniformity in the system of property taxation" includes administrative rules implementing those statutes.

(c) "Equality" means equity of assessments as required by the Oregon Constitution and laws to achieve fairness in property taxation.

(d) "Other laws" include but are not limited to Chapters 305 to and including 312.

ORS 308.232 Property to be valued at 100 percent real market value and assessed at assessed value. All real or personal property within each county not exempt from ad valorem property taxation or subject to special assessment shall be valued at 100 percent of its real market value. Unless the property is subject to maximum assessed value adjustment under ORS 308.149 to 308.166, the property shall be assessed at the property's assessed value determined under ORS 308.146.

ORS 306.120 Uniform methods of assessment; continuing study of equalization. The Department of Revenue shall:

(1) Issue regulations, bulletins, manuals, instructions and directions to county assessors, county boards of property tax appeals and tax collectors as to the methods best calculated to secure uniformity according to law, in the system of assessment and collection of taxes.

(2) Carry on a continuing study with the object of equalizing for the purposes of assessment and taxation property values within the counties and between the counties.

Reading assignment: *Appraisal Methods for Real Property Manual*

Chapter 8: "Mass Appraisal of Land"

This chapter deals primarily with the analysis and valuation of land. The sales comparison approach is the most reliable and preferred method used in mass appraisal of land. Sometimes, sales data is limited or nonexistent and alternative methods are needed for determining value. Chapter 8 will explain the alternative methods for land valuation, which are allocation, abstraction (extraction), capitalization of ground rent, and land residual capitalization.

Land valuation is directly related to highest and best use analysis. Land retains its value indefinitely, except in unusual cases and does not depreciate. In today's economy land value can be a major component of the total property value. Land and its attributes should be recognized and studied carefully.

This chapter will illustrate the step-by-step process that appraisers follow in the sales comparison process to establish and set base lot values.

1. Research and select sales of comparable properties.
2. Document and confirm sales data.
3. Select relevant units of comparison.
4. Compare sale properties to the subject; learn to make appropriate adjustments.
5. Reconcile value indicators and estimate the value of the subject property.

Chapter 9: "Mass Appraisal of Residential Properties"

The chapter brings the focus to some of the most important procedures and methodology in which most every county appraiser will perform in his job. Appraisers are introduced to the sequential order and fundamental steps of mass appraisal of residential properties. We know the preferred approaches for valuing single-family property is typically using the cost and sales approach. County appraisers use the blended market-related cost approach, which will be defined and discussed as well as property classification, pre-appraisal setup procedures, establishing benchmarks, LCMs, and depreciation.

You will learn to develop, support, and explain standardized adjustments in a valuation model among the various property classes, construction types or quality classes, study areas, and neighborhoods.

Chapter 10: "Mass Appraisal of Income Producing Properties"

In Chapter 6, you were introduced to the income approach. The instructional material in this chapter will provide the appraiser with the preliminary concepts or mechanics outlined for the mass appraisal and valuation of income producing properties.

With income-producing property, the return on the investment depends on the difference between the property's income and all the expenses for the same period, and the return of the investment depends on the resale value of the property. This chapter provides a broad overview of the income capitalization approach and discusses the rationale and methods, techniques and procedures used to project and capitalize future benefits.

The procedures are outlined for initial contact with the property owners for information gathering of income and operating expenses, to setting up benchmarks, establishing land values, depreciation studies, to samples of economic rent study spreadsheets, and much more.

Chapter 11: "Mass Appraisal of Farm and Ranch Properties"

The purpose of this chapter is to focus on mass appraisal procedures unique to farm and ranch type properties. The valuation of farm and ranch type properties can be complex in nature and have a variety of special elements to consider such as:

- Land classification: Soil capabilities, soil type, terrain, topography, value zones;
- Water rights: Dry land, irrigated;
- Physical considerations: Climates, rainfall, vegetation issues or problems;
- Economic considerations: Productivity, crop yields, commodity prices, income-producing capabilities, speculation;
- Highest and best use;
- Oregon Revised Statutes.

This chapter will provide the introduction, and basic procedures to a **land classification system** that is utilized and fundamental of these special and unique types of properties. This system has eight major land classes referred to as crop land (or soil capabilities); and with an additional nine sub-symbols or subcategories that further delineate land characteristics.

The study material covers and explains reappraisal set up instructions to estimate base values, home-site values, the application of the income approach, and benchmarks. You will learn how to develop the replacement cost values for accessory buildings that are found on farm and ranch type properties utilizing costs obtained from the *Cost Factors for Farm Buildings Manual.*

The Farm Use Manual

The Farm Use Manual, another resource published by the Department of Revenue provides for comprehensive study and advanced preparation of farm appraising. This manual is designed for the more experienced appraiser, and not typically for an appraiser trainee, but is mentioned for your future benefit and advanced training. The purpose of *The Farm Use Manual* is to cover the uniform approach and basic procedure followed in mass appraisal of properties that qualify for farm use special assessment. The manual serves as a guide to assist counties with interpretation of farm-use laws and administrative rules.

Department of Revenue courses and workshops offered for new appraisers

As you have been introduced to mass appraisal in these chapters of study, the following series of courses are created and designed to take you through the step-by-step or practicum application for mass appraisal in a classroom setting. The department provides both instructional and informational training videos, materials and manuals in a relaxed learning environment.

- ***Principles of Oregon Assessment & Taxation***: Provides for an overview of Oregon's taxation and assessment programs including the foundation of appraisal.
- ***Basic Land Valuation***: A course designed to provide specialized fundamental teaching in land valuation methods and procedures.

  **Principles of Oregon Assessment & Taxation* is a prerequisite to the Procedures of Residential Mass Appraisal course.
- ***Procedures of Residential Mass Appraisal***: A "how to do" course for the accepted appraisal method standard for a state wide application of assessment and taxation.
- ***Set-up In Excel***: A hands-on computer workshop or course designed to create a model study for a market area; utilizing fundamental appraisal skills.

Other resources for study

The Department of Revenue recommends the following editions as authoritative and informative sources for supplemental reading and study:

- **Mass Appraisal of Real Property** textbook published by the International Association of Assessing Officers.
- **Property Assessment Valuation** textbook published by the International Association of Assessing Officers.
- **The Appraisal of Real Estate** current edition/textbook published by the Appraisal Institute.

Basic procedures for mass appraisal

1. **Identify the appraisal area**
   - Identify boundaries and factors that affect land value;
   - Sub-markets, neighborhoods, study areas or value areas;
   - Survey: Drive entire subject area.
2. **Establish a base appraisal date** or use the assessment date of January 1 at 1:00 a.m.
3. **Data collection and sales analysis:**
   - Vacant land sales;
   - Improved property sales;
   - Analysis of sales: *Confirmation and organization and coding may be done by appraisers and or data analyst.
     *If sales are sparse, collect sales listing information—generally used as supportive documentation.
4. **Develop a time (market change) analysis**
   - Time adjust sales to base appraisal date
5. **Develop a land base—land tables**
   - Analysis: Establish land benchmarks and land adjustments

6. **Conduct and develop OSD valuation study**
   - Benchmark values established:
     - Research county and city system development charges, including permits and inspections.
     - Research and establish costs for site preparation:
       —Excavation and grading, wells, septic, utilities, gravel driveways.
     - Establish and develop landscape enhancement studies: Fair, average, good, excellent.
     - Supplemental studies: Concrete/asphalt paving, fencing, decking.

7. **Develop quality class benchmarks for improvements**
   - Establish benchmark properties from or for study area—consistent with CFB.
     —"Plus and minus adjustments" may be established as needed.
   - May use the current *Cost Factors for Residential Buildings* book by DOR.

8. **Develop local cost modifier (LCM)**
   - Each property class
   - Simplified LCM formula:
     1. From the appraisal area: Select "new property" sales only (if available). However, when sales are few or nonexistent, use the following:
        a. Listing of new homes; provides good supplemental data (however, adjustment may be needed as they will be on the high side of value); and/or
        b. Research "turn key" cost information from owners/builders/developers that "have just had it built." Obtain the cost details and appraise it using the cost approach.
     2. Time adjust sales to base appraisal date.
     3. Adjusted sale price - estimated land value and OSD = improvement value (residual).
     4. Calculate the estimated RCN of comparable improvements.
     5. Improvement Residual/RCN = LCM.

Note: RCN = replacement cost new
OSD = on-site development

9. **Develop depreciation benchmarks—Document your study**

Use improved property sales where there has been regular maintenance from appraisal area (study area can be extended if needed). Mass appraising in neighborhoods of houses with similar design, quality, and condition require only four or five depreciation benchmark properties to maintain uniformity. (Senior or experienced appraisers are generally responsible for depreciation studies.)

- Inspect typical improved property sales for study area (no remodels or homes with excessive deferred maintenance or unusual functional obsolescence).
- Verify quality class, condition, land attributes.

***Key note:** In valuing property, the assessor is usually interested in determining the percent good of the improvements. Percent good is defined as the percent of improvement value remaining and is the opposite of depreciation, the percent of improvement value lost.

10. **Develop depreciation guide (% good chart or schedule)**
    - Summarize benchmark data results on spreadsheet; graph results with curve; create table.

11. Conduct the physical appraisal of study area

- Application of depreciation as determined—the evaluation of physical conditions for improvements;
- Capture "exception value" for new construction, remodels and additions;
- Application of new land and OSD values.

12. Complete appraisal analysis & arrive at a final estimate of value

- Data entry of appraisal information;
- Computerized application of programmed cost factors from Cost Factor book.

Note: A supervising appraiser should review field work, studies, and final value conclusions.

The information provided in this chapter of the trainee manual is summarized from the following reference materials: Department of Revenue's 2006 *Mass Appraisal Principles* and the 2007 *Procedures of Residential Mass Appraisal*; International Association of Assessing Officer's *Mass Appraisal of Real Property* by Robert J. Gloudemans; and *Property Assessment Valuation, Second Edition*, *The Dictionary of Real Estate Appraisal, Third Edition,* and *The Appraisal of Real Estate, 12th Edition*, from the Appraisal Institute.

GENERAL FIELD INSPECTION NOTES

ASSIGNMENT

- Read the Field Preparation and Tool Box for New Appraisers.
- Required field techniques training—trainee will accompany senior appraiser:
  - Learn presentation skills for addressing property owners and builders.
  - Learn to measure a variety of homes:
    —Measure three single-story homes of various classes and complexities.
    —Measure three multi-story homes of various classes and complexities.

*Upon request, assistance for field training in the measuring and classing of homes is offered and provided by the Department of Revenue senior appraisal field unit staff.

Field Preparation and Tool Box for New Appraisers

In mass appraisal, preliminary planning with organization and self motivation for working independently are paramount for efficiency and volume production as a field appraiser. Have a plan. Before leaving the office an appraiser should have decided the area and established an order in which the day or weeks' work is to be performed. The work plan could begin with research into weather and road conditions and review of maps for the proposed work area. The appraiser should have a checklist of items needed for the work to be performed. It is advisable to always plan and take more work in the field with you than is usually projected and needed for the day.

Appraiser's work tools:

A professional appraiser should have a complete set of work tools to do an efficient job in the field. The following are suggested items with which the appraiser may be equipped:

- Identification badge and business cards;
- *Residential Cost Factor* book;
- Cost factors for farm buildings;
- Maps: Assessor/localized and general community maps;
- Property jackets or copies of the appraisal and diagram cards of the properties that are anticipated to be inspected for the day;
- Clipboard;
- Plenty of blank worksheets or % good forms, diagram cards, or graph paper;
- Note pads (self-stick note pads/Post-its are handy);
- Tape measure (100') and maybe a small 25/50' metal tape;
- Optional devises: Electronic measuring device, measuring wheel, ground stake to attach tape measure to when unable to attach to wall (spare 100' tape is handy if remote territory coverage or telecommuting travel is projected);
- Camera with wide angle and zoom (extra batteries) and log sheet for photos taken
- Pens/mechanical pencils (extra lead & erasers);
- Calculator;
- Small 6" clear plastic rulers/architectural scale/engineers scale (all are optional but handy when needed);
- Cell phone;
- Flashlight;
- Disinfectant wipes/adhesive bandages/sunscreen;
- Additional clothing: jacket, gloves, hat, sunglasses;
- WATER! (always carry an adequate amount);
- Scope out restroom facilities in proposed work area prior to beginning inspections!

Vehicles

The periodic and routine maintenance or care of your vehicle is encouraged for both safety and peace of mind. An appraiser depends on a well running vehicle. Consistently, plan on checking or monitoring the following often:

- Fuel level (try to start with a full tank);
- Head and tail lights, front and rear turn signals, brake lights, emergency flashers;

- Fluids: engine oil, coolant levels, transmission fluid, windshield washer fluid;
- Tires: wear and tear, air pressure, chains (carry instructions and verify fit), carry spare tire with jack and verify condition;
- Battery (carry jumper cables);
- Miscellaneous: brakes;
- Monitor fuel at all times.

Driver safety tips

It is your responsibility to notify your supervisor when defects in vehicle performance or safety features have been discovered. Follow your county policy regarding accidents and what duties or responsibilities need to be performed at the scene of an accident. Verify county policy on giving rides to persons other than county personnel.

Before leaving the office, make sure your supervisor knows where you will be (area or accounts appraising) and when you will be back in the office. If you think you're going to be late, call ahead. If working a remote area, or in case of an unexpected emergency, it is a good idea to inform someone in the office of your work plan for the territory you're covering.

If your driving is impaired due to medications or alcohol, don't drive. A DUI in a county or private vehicle can affect your job. If you have personal problems or have unmanaged stress occurring, it may be best not to drive; rearrange your field schedule or consult your supervisor. Don't eat while driving.

Cell phones:

- Pull over to answer or make calls.
- Put your phone where it is easy to reach while driving.
- Use a hands-free system if possible.
- Incoming calls: Allow automatic answer system to take the call and return them when parked.

Always wear your safety belt while driving.

Field inspection practice

It is important to greet a property owner with a nice introduction of who you are and the purpose for your visit. Appraisers should carry proper identification with them. Be prepared with your work assignment, be respectful, courteous and professional. Do your job and leave the premises!

Caution here! If permission to inspect the property is denied—then leave. **Do not argue.** Document what happened. You will still be required to value the property with what can be gleaned by your visit and other sources.

Caution here! Some property owners or builders love to visit; learn to manage your time effectively while communicating with them and still accomplishing the desired goal in the number of completed appraisals needed for your day.

Caution here! When an interior inspection of an occupied home or property is to be done, you are advised to ask the owner to escort and accompany you through the premises. This not only protects you, but the homeowner as well—a simple and safe rule of conduct

recommended and promoted by the Department of Revenue. Always be conscious and aware of the proximity or personal space of the person showing the house; be respectful in your demeanor and do not get close enough to make the person uncomfortable. Another good practice is not to share with other staff members, friends, or family members the personal belongings or property you see at the properties you inspect. Respect the homeowner's interest, privacy, and trust they have placed in you by opening their home for inspection. Because a county tax appraisal is public information, some detail and information should not be documented (e.g., private vault areas).

When entering any property, the appraiser should always respect the property owner's rights, including privacy; this should never be taken for granted. If the property owner or builder is not comfortable with you or your presence and has expressed such, quickly evaluate the situation. A little finesse goes a long way! You may choose to convey that you understand their concern, respectfully again explain your need and purpose for visit, and then offer that you will be "careful, objective, and fair" with the job you are entrusted and about to perform. This approach will sometimes disarm the property owner and they will allow you to proceed and accomplish your task.

If conflict occurs, use good judgment and do not engage in any verbal confrontations and exchanges—simply leave. If the owner asks or tells you to leave, then leave the property; you have no right to trespass from this point on. Proceed to your vehicle, leave the premise and immediately proceed to the nearest public property or right of way, and make notes of what you observed on the property because you may still have to estimate the value of the property. Photos can be taken from the public right-of-way if needed. Additional detail and information might be obtained from building permit and inspection records.

If a person other than the owner or tenant (i.e., a babysitter or child) answers the door, the appraiser should ask for the owner or parent. If neither is available, under no circumstances should the appraiser enter the residence. **Another caution!** Do not peer through windows, even though you are absolutely certain the building is vacant.

With the above scenarios, the appraiser should leave a business card and leave the premises. The inspection can be made at a later time after contact and arrangements have been made with the owner or builder. Proceed to the nearest piece of public property to finish your appraisal from the best information available. Always inform your supervisor of any problems that have occurred during your inspections.

A good working relationship with the public is absolutely vital to a good appraisal program. We advise that you discuss with your county management, the procedures and policy for entering all properties and structures, whether occupied, vacant, gated, or "trespass" posted properties.

Whether a building is vacant or occupied, be aware of your surroundings and keep safety in mind! Basically, each county should have a policy on greeting property owners and/or family members who may answer the door, especially concerning children and dogs! Get informed before you go in the field.

Pets and livestock sometimes may present a problem with inspections; always look for the dog! Be aware of your surroundings. Look for signs on the property that dogs might be present; i.e., big water and food bowls, holes dug in the yard, post with chains, large chew

bones. Never assume that animals and dogs are friendly. Use caution when approaching any animal or pet, especially when accessing backyards or rural- and ranch-type properties (whistle or make a little noise—it helps avoid surprise). If the property owners are home, ask them to restrain dogs until the inspection is completed.

Field inspection notes

Many appraisers learn how to inspect a property through on-the-job training. For a tax appraiser, the importance of property inspection should not be underestimated.

Each assessor's office is unique and they each have their own procedures or system with appraisal assignments. Typically, the appraiser will carry the property jackets in the field for the appraisal inspections. The jacket or a printout usually has the property record information that reflects ownership, situs address and legal descriptions, the appraisal reflecting values-improvement and inventory detail-land detail, and photos. Appraisers should be taking the current appraisal information in the field that is in the computer system in order to determine what data requires updating or correcting.

When an appraiser inspects the property, all the physical details of the site and its improvements, both above and below ground should be observed and documented. The observation should include the components and characteristics and overall condition of the improvements for the subject property that will influence value in the marketplace; and will be essential in making the necessary adjustments. Gathering accurate inventory and detail regarding each property you inspect is important. The appraiser should also distinguish, as appropriate, between the physical presence of possible environmental factors and the economic effect such factors may have in their value estimate.

Appraisers will find that many homes have features that are not ideal and perfect; in fact, many things could be improved in the design and layout of a typical home. Homes with design features, room sizes, their number and type and neighborhood could vary from the idealized highest and best use house.

The appraiser is not on a quest for the perfect house; rather, the appraiser is trying to observe, identify and distinguish some of the following:

- Design elements and components that will determine quality class;
- Design elements or components that affect value, both positively and negatively;
- Determine overall condition of improvement;
- Renovation: Rehabilitation, modernization, and remodeling;
- What is general on going maintenance and repair (see note below regarding Exception Value).

Many appraisers have little or no training in house design, and may tend to rely on their own likes and dislikes as a basis for making design judgments, an inappropriate basis on which to rely. **Decide to be objective!** It is better to learn and recognize what is generally accepted in the market as good design and quality. You will then be able to judge how a particular market reacts to homes that do not meet standard design and quality criteria.

Appraisal cards should reflect the date of physical inspection and your name or appraiser identification, along with important field notes. Measurements taken from plans should be checked against actual building measurements on site because alterations and additions are

often made after plans are prepared and originally approved. Exterior measurements for square footage calculations are used for all structures. Finished, unfinished, or low cost interior finishes must be observed and noted. **Square your structure before leaving the premises,** first time and every time (checking front-to-back and side-to-side measurements).

For a county appraiser, it is especially important to have complete and accurate details of the property improvements and structures. The areas of attached porches, garages, and other buildings or structures are always identified, noted, and calculated separately. Take photos of structures. Dated photographs are an important aspect reflecting condition, additions, remodels, and reappraisal.

It is essential to perform a thorough inspection the first time, as re-inspections are not always feasible. For many reasons it may be many years before re-appraisal or physical inspections are performed in that particular neighborhood or market area. Appraisers are fundamentally responsible for capturing and establishing the base data for appraisals on which later data analysis, revaluation, recalculation, or trending will be conducted.

When new subdivisions are created and developed, it is essential to visit the sales office. There you can obtain the various floor plans, sales prices, lot premiums, what comes with a standard package, and the options list for the various model homes. Create a subdivision file. Keep the office subdivision files current; obtain the latest sales listing in the subsequent phases, as the market activity tends to change.

Eight basic steps to measure a house

1. Begin the measuring from a corner of the house or garage, and record each dimensions and draw diagram as you go, working your way around the house.
2. Round your measurements to the nearest ½ foot or 1 foot depending on office policy. There is no need to carry extra precision beyond what the market will recognize.
3. Draw or sketch buildings to scale and close the diagram.
4. Measure all floor levels. Get as many dimensions for upper levels as possible from the outside. Observe which walls line up with the walls below and which ones don't.
5. **Be specific**—identify and note each area type such as first-floor living, second-floor living, third-floor living, basements, attics, covered roof areas, decking, garages, and flat work such as concrete, asphalt, or pavers. Detail matters! Be sure to note actual finish detail such as unfinished, low cost, or finished for attics, basements, and garages. Identify and note all vaulted areas, so square footage isn't calculated twice.
6. Do not accept help from property owners with either end of the tape—do it yourself.
7. For bay windows and angles, measure the square sides. In other words, measure the width and depth of the right angle.
8. **Square the house** or balance the measurements, after measuring is completed.
   - Verify your measurement, as they should match front to rear and then side to side.
   - **Don't leave the job site until this step is done.**

After squaring your house, calculate the square footage using the measurements on your sketch. Simply begin calculations by dividing the entire house area into boxes, rectangles, or other geometric shapes. Calculate their individual areas and add them together to get the total.

Basic field instructions

- Take or keep a copy of the *Residential Cost Factor* book and the *Cost Factors for Farm Buildings* in the field for reference.
- It's always important to quickly glance at the jacket and contents before getting out of your vehicle; check and know the purpose of the red tag inspection.
- Practice good form and be professional. Go to the door, announce yourself, and offer a business card, then state your purpose of visit before taking any photos and commencing your inspection.
- Ask questions. Ascertain construction details (i.e., when the construction started; when it will be finished; types of anticipated finish). Ask for whatever information is needed.
- Take your measurements as needed. Establish the following habit—**always square your measurements for new construction before you leave the job site.** Review a diagram of existing structures to see if there are any missing measurements; if there are, get them. Take new photos. Pay attention and make notes if omitted property is found. Ask questions and, if possible, determine when the addition or structure was constructed. Follow your office procedures. Remember the January 1 date if inspecting red tags after the first of the year. Ask property owners or builders what was physically there/finished as of January 1. Date and initial your work when at the site.
- Date and initial your work.
- Do you need to tag it again for next year or should you remove the red tag?
- Remember to make good notes in the field, especially if you draw diagrams or complete jackets back in the office (i.e., note what is decking, paving, what's new and what is existing—clarify with notes).
- **Become observant** and develop your own style in planning for efficiency. For instance, classing as you drive up or walk up; also when you walk up, be pacing asphalt/concrete paving and jotting down lengths. It's an effective time saver.
- Consider your personal safety in walking job sites, even looking above occasionally, careful as to where and what you walk on and, of course, dogs.
- Be careful and avoid parking in questionable places to do paperwork (i.e., drawing diagrams, reviewing work, etc.—people do call and complain).
- Finally, develop your style and routine for inspecting and appraising properties that is effective and efficient and then **stay consistent with your procedures and classing.**

Red tags

In most counties, a red tag is a property account that needs to be appraised or reviewed for the current or next assessment roll, an action for which an inspection is required for a

variety of reasons, including notification from the building or planning land management process for new or remodeled construction.

Basic planning and instructions

Consider and determine all the areas throughout the county you have red tags for and the amount/number in each area that need to be picked up over the next several months.

- Important consideration—verify if there are any priority maintenance areas with management!
- Plan to do all red tags in mountain areas or very rural areas first, considering weather—ice, snow, time change/darkness; travel time/distance from the office; and access/roads. Keep in mind that you need to plan or save and arrange office work or follow-up work to the jackets/accounts (diagram drawing, computer input, etc.) when severe weather is occurring.
- Once areas are determined, make sure there are maps for all red tags. Review the map and accounts; obtain the current appraisal printouts and organize and put them in order of inspection so you don't have back-tracking on a street/or area. Get in an area and do everything on one map and move on. Productivity matters and planning is essential and highly effective.
- **Plan to take enough work for the day and some extra.** Some red tags go fast and some don't. Taking extra work will ensure that you are keeping a good pace of production, as the number of inspections matter. (The numbers are purposely tracked as a matter of budget planning for management.)
- Before you leave the office, glance through the work ahead for the day and make sure you have a clear understanding of what the red tag is for (new construction only, generally not reappraisal) glance at the printouts: Are they current? Review to ascertain if there is any missing information or detail that should be collected while you are there on the site for the red tag. It only takes a moment to take a quick review to ensure that any computer-converted detail for the account is accurate and complete.
- It's important for new appraisers (and even experienced appraisers) to read and/or review the current *Exception Manual.* **You need a clear understanding of what is exception value and what is general on-going maintenance and repair.** Rules are specific. Don't do red tags without reviewing the manual (see note below).
- Make sure you have all the tools to take with you: extra mechanical pencils, an architectural scale, and maybe an engineer's scale. These are handy to use with the plans found on new construction job sites. Have an extra tape measure (especially if you are working a long distance from the office and or telecommuting). Have some extra colored pencils if your office uses them on diagram cards; extra diagram cards and percent complete worksheets; a clipboard; gloves for bad weather; an extra set of batteries for the camera; and a road atlas. Sticky note pads are great for quick notes.
- Make sure you have an understanding of how you arrive at percent complete or percent good when inspecting additions to existing homes. Along with that addition, observe and note if there is any remodeling to the existing structures or home occurring. Always make good field notes. Check with your supervisor if you have questions. (This topic is covered in DOR's *Procedures of Residential Mass Appraisal* textbook.)

Exception Value

Note: There is guidance and training for interpretation of statutes and constitutional provisions related to the addition of value for a variety of physical changes to property.

Exceptions and Measure 50 classes are scheduled periodically by the Department of Revenue. If this course isn't available or on the calendar in time for your first season of red tags, we have a DVD training course available upon request from the Continuing Education Section of Revenue or through the field office representatives. The credits are assigned just like the class: one hour for each one-hour session; six hours for the entire class. The counties will need to submit the credits on a Request for Training Credit form; the link is: http://www.oregon.gov/DOR/PTD/docs/338-002.pdf.

Appraiser responsibility

High ethical standards are essential and a cornerstone for greater professionalism in this field. The reliability of an appraisal and its determined value depends upon the basic competence and integrity of the appraiser, and upon the skill with which he or she processes pertinent data. As a registered county tax appraiser, you shall meet education, experience, and testing requirements followed by continuing education as set forth by the state in ORS 308.010.

You will find that in the field of appraisal; competency and expertise will be developed through continuing education and experience. In developing a real property or personal property appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques that are necessary to produce a credible appraisal.

A gentle reminder for you as a county appraiser, you or your county may be held legally liable for any misconduct of your job or for misinformation that you give out. Negligence, misrepresentation, fraud, and disclosure are just some of the possibilities both a fee and governmental appraiser should be careful of. Avoid giving any information you are not qualified to give or are unsure of. We recommend that you do not give legal advice to taxpayers. If you are unable or unsure of how to respond to a question, direct the taxpayer to a qualified source or contact your supervisor.

With regard to notes written on appraisals, be professional; remember they are public records.

In your role as a county appraiser, you may find conflicts of interest occur for one reason or another within your county or jurisdiction of authority. If you have a conflict of interest or a direct conflict with a taxpayer, you should notify your supervisor and arrange for another appraiser to perform the appraisal for the property in question. You must not allow yourself to be put in a position where your integrity is in question. Do not accept any gratuities or anything that could be misconstrued from or by a taxpayer.

An appraiser is often thought of by the general public and lenders as the expert in evaluating a property or neighborhoods' potential and or weakness with respect to value. Therefore, the appraiser must exercise this responsibility with care and impartiality; being certain that a considered judgment about a neighborhood's valuation and or trend is supportable by facts. Emotional arguments or advocacy must never affect the tax appraiser's opinion of value or presentation of demonstrable facts.

Remember, when on the job you are always in the public's eye.

COUNTY RATIO PROGRAM

OPTIONAL READING

- Chapter 7, "Statistics and Appraisal Standards," *Appraisal Methods for Real Property Manual*
- *Ratio Procedures Manual*

County Ratio Program

Ratio program

Each year county assessors develop a new assessment and tax roll. From one year to the next, the major change between rolls is the property values. Change is the one constant in the value of real estate. Changes may be gradual and not easily noticed, or changes may occur rapidly in an active market. Because property values are always changing, assessors must update the **real market values** (RMV) to keep them current. The process for measuring these changes is called the ratio study. Annually, the assessor shall prepare and complete a certified ratio study in the time and manner provided by the rules adopted by the Department of Revenue per ORS 309.200.

Both state and local county assessment agencies use ratio studies to monitor appraisal performance, to determine the need for a general revaluation, establish priorities for revaluation of selected groups of properties, identify potential problems with appraisal procedures, conduct market analyses, and adjust appraised values between revaluations.

The Assessor's Ratio Study compares the current certified roll RMV with the current market. Specifically, dividing the RMV by the sales price creates a ratio. Sales ratios show the percentage relationship between the RMV and the sale price. In the study, the ratio selected to represent the market area is referred to as the level of RMV, and it measures the degree to which the RMV reflects the current market.

The data used to calculate the relationship between RMV and the market are also used to calculate the uniformity and equity of the RMV estimates between properties. Uniformity and equity are measured by applying statistical formulae to sales ratios.

The Ratio Study is used to measure RMV levels and identify the amount of adjustment required to maintain RMV at 100 percent. This study is also used to measure the quality of appraisal programs. Dispersion and uniformity measurements are used to study how well appraisals are tracking with the variations in the market.

Recent changes in property tax laws increased the need for ratio analysis as an appraisal program management tool. To track program performance and analyze market trends, assessors, data analysts, and appraiser/analysts rely on market area analysis, and historical data and RMV measurements such as: coefficient of dispersion (COD), coefficient of variation (COV), and price related differential (PRD). The Department of Revenue also relies on the certified ratio study to review the counties' valuation programs for results and to determine the health of the statewide valuation system. Assessors and data analysts use the ratio study to develop an annual valuation plan to manage their annual appraisal programs.

The assessor is responsible for all aspects of the ratio study and adjustment program. This includes organizing the program, ensuring that adequate staff is provided, resolving policy questions, ongoing review during the sales year, and certifying the completed study. The department reviews the assessors' programs and data to verify standards are met.

Adequate staff is essential to ensure sales collection and confirmation are up to date and that both the ratio study and adjustment program are completed in a timely manner.

The assessor is responsible for preparing the ratio study. In smaller counties the assessor may fulfill the tasks of preparing the ratio study. In larger counties, a data analyst is assigned to perform the various duties related to sales collection and analysis. This person should have a strong knowledge of statistics and the ability to communicate effectively with the assessor, chief appraiser, support staff, data processing staff, and department staff. The data analyst works closely with each person providing periodic updates on the study's progress, giving direction as needed and identifying program objectives.

When warranted, additional support staff should be assigned:

- For deed (sales) take-off,
- To generate sales confirmation letters,
- To complete the sales records, and
- To input data.

The data analyst should periodically review the support staff's work to ensure correct procedures are being followed.

All counties have automated systems to store, sort, and retrieve data. The assessor must ensure that the computer system meets the needs of the ratio and adjustment programs.

Common Ownership Properties

Condominiums and planned communities

Condominiums and **planned communities** have two separate definitions under Oregon statutes and have two different legal ownerships. Please read Chapter 12 of the *Appraisal Methods Manual.*

Condominium—Refer to ORS Chapter 100 for definitions, provisions, restrictions, attributes, and related statutes.

The condominium, or "condo," is a form of ownership, not a form of property. A condominium is created when the declaration of condominium, together with the plat and building plans, are recorded in the county where the property is located. Individual dwelling unit estates are created within a larger property estate. When you own a condominium, you have fee simple title to the air space contained within the walls, floors, and ceilings of your unit, and an undivided share in all of the "common areas" of the condominium project in which the unit is located. Condominiums can come in all sizes and shapes, from high-rise luxury towers to older, converted apartment houses.

Condominiums are a collection of individual home units within a larger building complex designed with features comparable to that of single family-type homes. These developments have offered and created desirable living with amenities attracting affordability variations, retirement investment, or simply lifestyle choices. They offer close proximity to shopping, storefront businesses, employment, schools, and sometimes recreational playgrounds/ resorts within the vicinity.

Each unit owner is typically given one vote, but there may be other formulas used to determine the undivided interest in the common area. Other ways to determine undivided interests include:

1. By value—dividing the value of the single unit by the value of all units.
2. By living area—by dividing the living area of the single unit by the living area of all units.
3. In equal shares—by dividing the total number of units into 1.
4. By market price—by dividing the market price of the single unit by the market price of all units.

Planned communities—Refer to ORS Chapter 94 beginning with ORS 94.550 for definitions and statutes.

The Oregon Legislature found that, in Oregon, there were hundreds of homeowners associations to which the Oregon Condominium Law (ORS Chapter 100) did not apply. These homeowners associations had a pattern of ownership that did not fit the condominium statutes. In these developments, the ownership of a single unit made the owner automatically a member of a homeowners association with responsibilities for management and maintenance. Many of these homeowners associations as associations and their members as individuals have experienced problems from the lack of statutory provisions. ORS 94.550 to 94.783 were created to clarify and define responsibilities for developers, homeowners, and homeowners associations for these defined communities.

Planned communities were referred to as planned unit developments (PUDs) at one time. Many today cater to seniors, with very specific age and child restrictions.

A planned unit development by Oregon statute is not a "condominium" as defined under ORS Chapter 100.

Houses in planned communities are located on the owners' lots, but the yards, driveways, and streets are open space controlled by the homeowners associations. There may be large, protected open spaces created by the layout of the buildings that are intended for use by all residents of the developments. Different housing types (**single-family, two-family, multiple-family**) can be mixed in the development as well.

Under statute, the homeowners association has specific rights and obligations. Each lot or building site owner has one vote based on the number of sites owned. "Common property" means any real property or interest in real property within a planned community that is owned, held, or leased by the homeowners association, or owned as tenants in common by the lot owners, or designated in the declaration for transfer to the association.

Other Assessment Programs

Read the chapter in the *Appraisal Methods for Real Property Manual* titled "Other Assessment Programs." This chapter offers a brief overview of properties that are:

- Exempt.
- Partially exempt.
- Specially assessed.

Discuss the material with your coach or the assessor if you have questions about these exempt and specially assessed programs.

Where property is involved, taxation is the rule and exemption is the exception. Unless property is specifically exempt from taxation by statute, it is taxable. However, where **public** property is involved, exemption is the rule and taxation is the exception. Property owned by state governments or the federal government is distinctly different from the basis for exemption of privately owned property. Other than public property, the traditional property tax exemptions are for property exclusively used for nonprofit religious, educational, and charitable purposes. These exemptions have long been in place and represent good public policy, providing essential community services.

ORS 308.210 requires the assessor to assess each year the value of all taxable property within the county, except property that by law is to be otherwise assessed. Two examples of these properties are farm and forest land.

Public policy may also define the specific methods used to value specific types of property to arrive at a value other than real market value for tax purposes. Two examples would be low income housing and veterans exemptions.

Property tax exemptions

What is an exemption? It is a provision approved by the state legislature that relieves qualified organizations from paying all or part of their property taxes.

In Oregon, there are over one hundred property tax exemption provisions. Approximately 70 percent of Oregon property is exempt. Most exempt property is federal property and a small amount is state and local property and Indian Reservation property.

An exemption provision is created when a taxpayer desires an exemption and contacts their legislator. The legislator will introduce a bill and it then goes through public hearings. If the bill is passed by both the House and the Senate and signed by the Governor, it becomes law. Any taxpayer that qualifies for the exemption may then claim it, usually by filing an application with the county assessor's office. The assessor either grants or denies the exemption based on whether the applicant and use of the subject property meets the requirements of the law. Specific types of exemptions may be allowed to late file by paying a fee. Generally, property owned by the state, county or city does not require an application since it is automatically exempt if they are using it or intending to use it. Federal government property is exempt to the extent that taxation is forbidden by law.

Non-profit charitable, literary, and scientific institutions may qualify for property tax exemption (ORS 307.130). Real or personal property owned by non-profit art museums,

volunteer fire departments, and some retail stores that deal exclusively in donated inventory that supports a charitable program are exempt. There are strict qualifications and required documents that must be submitted with the application when an organization files a claim for exemption. Claims are evaluated on a case-by-case basis.

Examples of organizations that do **not** qualify for tax exemptions under ORS 307.130 as charitable organizations are:

- Chambers of commerce;
- Labor temples and union halls;
- Employee unions and retirement systems;
- Civic clubs and hobby clubs such as riding clubs or gun clubs; and
- Master gardener groups.

Property used by fraternal organizations may also be eligible for exemption under ORS 307.134 and .136. Some examples of qualifying fraternal organizations are: Masons, Knights of Pythias and Columbus, Elks, Eagles, Moose, Odd Fellows, Grange, American Legion, and Veterans of Foreign Wars. The International Association of Lions Clubs, Soroptimist International, Rotary International, and Kiwanis International organizations were added effective July 1, 2006.

Real or personal property owned by religious organizations may also qualify to be exempt from property tax (ORS 307.140). The entire property may be exempt or just a portion of the property including buildings and any property occupied and used solely for qualified purposes by the religious organization.

ORS 307.145 allows certain child care facilities, schools and student housing to qualify for tax exemption. Eligible applicants include incorporated religious organizations and incorporated eleemosynary (supported by charity) institutions. They must be nonprofit and charitable and the property must be used exclusively for educational purposes. A child care facility must be certified by the Child Care Division of the Employment Department each year.

Examples of **non**-qualifying educational schools and academies are:

- Beauty or barber colleges;
- Business technology or trade colleges;
- Electronics or television repair schools;
- Insurance or real estate schools;
- Equestrian or gymnastic academies;
- Dance or modeling schools;
- Truck driving or dog grooming schools.

Disabled War Veteran or Surviving Spouse Property Tax Exemption (ORS 307.250–307.283): Disabled war veterans or the surviving spouse of a war veteran may be entitled to exempt a certain amount of their homestead property's assessed value from property taxes. The exemption amount increases by 3 percent each year. The exemption is first applied to the home and then to the taxable personal property. If the veteran is an Oregon resident and a qualifying disabled veteran or the veteran's surviving spouse and lives in the home, they may file a claim with the county assessor and receive the exemption.

Other special assessment and deferral programs

Special assessment programs

As an appraiser for a county in Oregon, you should be aware of several special assessment programs. Examples of these programs are:

- Exclusive Farm Use Zone (EFU);
- Non-Exclusive Farm Use (non-EFU);
- Wildlife Habitat (WLH);
- Designated Forestland (DFL) with different qualifications for Western Oregon and Eastern Oregon programs;
- Small Tract Forestland Option (STF);
- Highest and Best Use Forestland;
- Conservation Easements;
- Historic Special Assessment;
- Low-Income Multi-Unit Rental Housing.

Other programs include Open Space Assessment (ORS 308A.300) where, for example, a watershed may qualify, Historical Property Special Assessment, and a Riparian Exemption where, perhaps the first one hundred feet along the sides of the creek may qualify for an exemption.

All of the property may be under one special assessment or portions of a property may be assessed at market value, while other portions are under special assessment(s), and other portions are exempt.

Examples of property that usually are valued at their **real market values** are:

- Real property structures such as dwellings, farm buildings, forest structures, covered areas, etc.;
- Real property improvements not exempt such as fixtures, machinery, equipment, automatic feeders, irrigation equipment, etc.;
- Farm processing machinery and equipment that are real and personal M&E used after the harvest;
- Personal property logging equipment;
- Non-qualifying land;
- Non-qualifying homesites.

Once farmland and forestland is qualified for special assessment, it is assessed at a value per acre by productivity and class. Also qualifying for special assessment are farm nursery stock, crops, trees, plants, products held in possession of a farmer, and certain equipment used in various farming operations. There are several statutes detailing these special assessment programs. See ORS 307.315, 320, 325, 390, 391, 394, 397, and 398.

Forestland is defined in Western Oregon for the 19 counties west of the crest of the Cascade Mountain Range under ORS 321.257(2), and for Eastern Oregon for the counties east of the western boundary of Wasco, Jefferson, Deschutes, and Klamath counties for a total of 17 counties ORS 321.805(4). Fifteen of these counties have timber. There are two Forestland Programs: Oregon Forestland and Small Tract Forestland Option.

Oregon Forestland: Tax is computed on 100 percent of the specially assessed value (paid annually to the county).

Small Tract Forestland Option (STF): Tax is computed on 20 percent of the specially assessed value (paid annually to the county) and a portion of tax is paid when timber is harvested, which is a severance tax that is paid to the Department of Revenue and then distributed to the county.

There are certain qualifications and criteria that both farmland and forestland must follow to become qualified for and remain specially assessed. The appraisal process includes the income approach using discounted cash flow analysis to value each class of forestland, and the market approach to collect and analyze forestland sales data to derive the bare land value by class.

Deferral programs

There are other special assessment and deferral programs in Oregon where the assessor's office may also be responsible for some portion of the administration of the property tax accounts.

The Oregon Legislature established programs that allow qualifying **senior citizens** and **disabled citizens** to delay paying property taxes on their residences. Under these deferral programs, the state pays the property taxes to the county. A lien is placed on the qualifying property. Lien fees and interest on the deferred taxes are also deferred. Certain requirements must be met before a tax payer is eligible for these property tax deferrals.

More information about property tax exemption and deferral programs is available from the Department of Revenue's information circulars distributed through assessor's offices. Copies of these circulars are also available on the department's website.

Acronyms and Abbreviations

A

A&T	Assessment and Taxation
AAG	Assistant attorney general
ABS	Acrylonitrile-butadiene-styrene
ACLB	Appraiser Certification and Licensure Board
AEP	Adaptive estimation procedure
AG	Attorney general
AIREA	American Institute of Real Estate Appraisers
AMAV	Average maximum assessed value
AMO	Accredited management organization
AOC	Association of Oregon Counties
AOI	Association of Oregon Industries
ARM	Accredited resident manager
ARMV	Average real market value
ATS	Assessments & Taxation Standards
AV	Assessed value
AVM	Automated valuation model

B

BOPTA	Board of Property Tax Appeals

C

CAAP	Computer assisted appraisal program
CAE	Certified appraisal examiner
CAFFA	County Assessment Function Funding Assistance
CAM	Common area maintenance
CAMA	Computer-assisted mass appraisal
CAMS	Computer-assisted mapping system
CATF	County Assessment and Taxation Fund
CBD	Central business district
CCRC	Continuing care retirement center
CE	Conservation easement
CIP	Construction in progress
COD	Coefficient of dispersion
COV	Coefficient of variation

CPI	Consumer Price Index
CPM	Certified property manager
CPR	Changed property ratio
CRP	Conservation reserve program
CVG	Clear vertical grain

D

DAS	Department of Administrative Service
DCBS	Department of Consumer & Business Services
DCR	Debt coverage ratio
DOJ	Department of Justice
DOR	Department of Revenue
DRC	Depreciated replacement cost or depreciated reproduction cost

E

EFU	Exclusive farm use
EGI	Effective gross income
EGIM	Effective gross income multiplier
EOSTOT	Eastern Oregon Small Tract Option
EZ	Enterprise zone

F

FF&E	Furniture, fixtures, and equipment
FIFO	First in, first out
FRM	Fixed rate mortgage
FTP	File transfer protocol
FU	Farm use

G

GI	Gross income
GIM	Gross income multiplier
GIS	Geographic Information System
GLA	Gross leasable area
GNMA	Government National Mortgage Association
GOMAR	General ongoing maintenance and repair
GRM	Gross rent multiplier
GRP	Grassland reserve program

H

HB	House Bill
HJR	House Joint Resolution
HOPTS	Health of (the) Property Tax System
HUD	Housing and Urban Development
HVAC	Heating, ventilation, air conditioning

I

IAAO	International Association of Assessing Officers
IREM	Institute of Real Estate Management
IPR	Industrial property return
IRR	Internal rate of return
IRV	Income= rate x value

J

JTAG	Joint Tax Advisory Group

K

L

LBL	Local budget law
LC	Legislative concept
LCDC	Land Conservation Development Commission
LCM	Local cost modifier
LIFO	Last in, first out
LIH	Low income housing
LUST	Leaking underground storage tank

M

M5	Measure 5
M50	Measure 50
MAI	Member of the Appraisal Institute
MAV	Maximum assessed value
MDF	Medium density fiberboard
MLS	Multiple listing service
MRA	Multiple regression analysis
MSAV	Maximum special assessed value

N

NIR	Net income ratio
NOI	Net operating income
NRCS	Natural Resource Conservation Service
NSAA	Not same as assessed

O

OAR	Oregon Administrative Rule
OAR	Overall rate
O.C.	On-center
ORMAP	Oregon Map Project
ORS	Oregon Revised Statute
OSACA	Oregon State Association of County Assessors
OSB	Oriented stand board
OSD	On-site development
OSI	On-site improvement
OTC	Oregon Tax Court

P

PAP	Policy and Administrative Procedures
PATL	Potential additional tax liability
PCA	Program cost account
PCM	Property class memorandum
P/E	Price-to-earnings ratio
PGI	Potential gross income
PLSS	Public Land Survey System
PPR	Personal property return
PRD	Price-related differential
PTD	Property Tax Division
PVC	Polyvinyl chloride

Q

R

R	Capitalization rate
REIT	Real Estate Investment Trust
RMV	Real market value
ROI	Return on investment

RP	Real property
RPR	Real property return

S

SAL	Summary of assessments and levies
SAV	Special assessed value
SB	Senate Bill
SCS	Soil Conservation Service
SDC	Systems development charges
STF	Small tract forestland

T

TAV	Taxable assessed value
T&G	Tongue and groove

U

UAR	Utility assessment roll
UGB	Urban growth boundary
URAR	Uniform Residential Appraisal Report
USPAP	Uniform Standards of Professional Appraisal Practice
USRSS	United States Rectangular Survey System

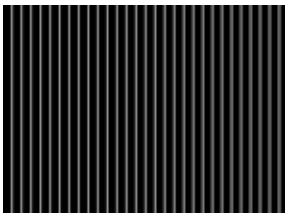
V

VHDZ	Vertical housing development zone
VTS	Value transmittal sheet

W

WC	Water closet
WOSTOT	Western Oregon Small Tract Option
WRP	Wetland reserve program

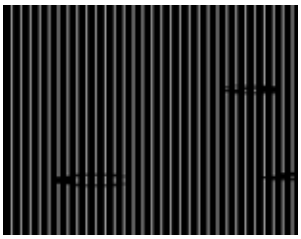
Mathematical Formulations



Squares and Rectangles

Area equals product of length and width.

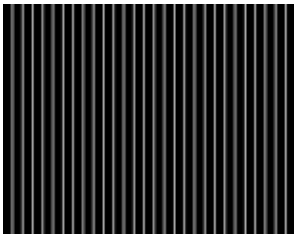
Area = L * W



Triangle

Area equals 1/2 the product of base and height.

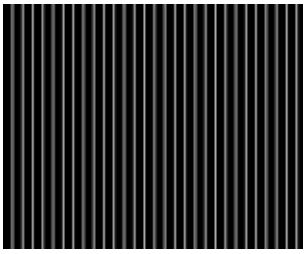
Area = (1 / 2) * b * h



Parallelogram

Area equals the product of base and height.

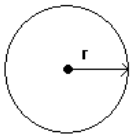
Area = b * h



Trapezoid

Area equals the product of the height and 1/2 the sum of the two parallel sides.

Area = (1 / 2)(a + b) * h



Circle

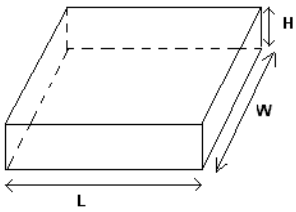
Area = πr2 (Pi = 22/7 or 3.1416)

Area equals the product of the circumference and 1/4 of the diameter.

Circumference (c) Diameter (d) Radius (r)

d = 2r

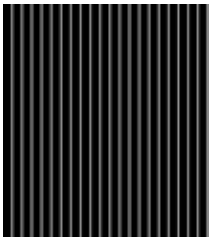
c = πd = 2 πr



Cube or Rectangular Solid

Volume equals the product of the base area and height.

V = L x W x H or A x H

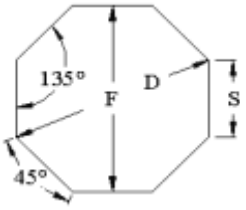


Cylinder

Volume equals the product of the base area and height.

V = (C / 2) x R x H or D2 x .7854 x H

Solutions to Octagons

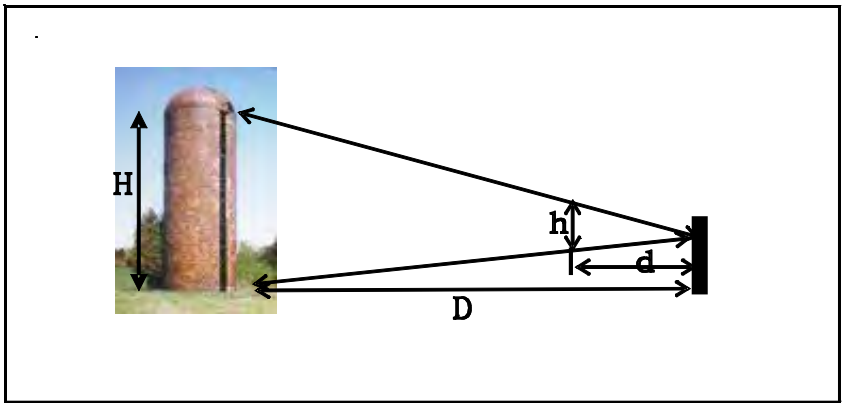


As shown in the illustration, the dimensions of the equal sided and angled octagon are designated F and D.

The angle between any two sides is 135° and between corners from center is 45°.

A = area.

Dimension Known	Formulas for area or dimension to be found		
F	$A=F^2 \times .82842$	$D=F \times 1.08268$	$S=F \times .4141$
S	$A=S^2 \times 4.83195$	$D=S \times 2.16478$	$F=S \times 2.4151$
D	$A=D^2 \times .70673$	$S=D \times .3825$	$F=D \times .92364$



The height of a structure may be estimated in the following manner:

H = Height of structure in feet
D = Measurement from eye to structure in feet
H = Measurement on ruler in inches
D = Measurement from eye to ruler in inches

$$H = D \times \frac{h}{d}$$

Tanks and Pipes

Doubling the diameter increases the capacity four times, tripling the diameter increases the capacity nine times, etc.

See also the *Marshall Valuation Service,* Section 3, Page 6.

Subtracting of dates

It's often necessary in the analysis of sale data to calculate the years, months and sometimes even the days between dates. Especially when analyzing data for support of a time trend. Typically a calculation as to the number of months is sufficient. In calculating the amount of months between dates representing a sale and resale of the same property may result in the following problem:

Example A:		Year	Month	
First Date: 2/07	Second Date: 6/08	2008	6th month	Latest Date
		- 2007	2nd month	First Date
	Result	1 year	4 months *or* 16 total months	

Example B:		Year	Month	
First Date: 9/06	Second Date: 7/08	2008	7th month	Latest Date
		- 2006	9th month	First Date
	Result	1 year	10 months *or* 22 total months	

Hint: Work from right to left. If the number of months is 9 from 7, then you must bring 12 from the year column and add 12 to 7 making it 19. Now you can subtract 19 minus 9 = 10 months. Then subtract the years, 2007 minus 2006 = 1 year.

Measures

Linear measure:

12 inches	= 1 foot
5,280 feet	= 1 mile
3 feet	= 1 yard
5.5 feet	= 1 rod
40 rods	= 1 furlong
8 furlongs	= 1 mile

Square measure:

144 square inches	= 1 square foot
9 square feet	= 1 square yard
43,560 square feet	= 1 acre
640 acres	= 1 square mile

Cubic measure:

1728 cubic inches	= 1 cubic foot
27 cubic feet	= 1 cubic yard
128 cubic feet	= 1 cord
24.75 cubic feet	= 1 perch

Measure of angles and arcs:

60 seconds	= 1 minute
60 minutes	= 1 degree
90 degrees	= 1 quadrant
360 degrees	= 1 full circle

Surveyors or land measure:

1 link	= 7.92 inches
1 rod (or pole)	= 25 links = 16.5 feet
1 chain	= 100 links = 4 rods = 66 feet
1 furlong	= 40 rods = 10 chains = 1/8th mile
1 mile	= 320 rods = 5,280 = 8 furlongs
1 acre	= 160 square rods = 43,560 square feet
1 square mile	= 640 acres

Irrigation equivalents:

1 acre foot	= 325,851 gallon
	= 43,560 cubic feet
	= 1 foot of depth over 1 acre

Useful rules

To find circumference:

Multiply diameter by	3.1416
or divide diameter by	0.3183

To find diameter:

Multiply circumference by	0.3183
or divide circumference by	3.1416

To find radius:

Multiply circumference by	0.15915
or divide circumference by	6.28318

To find area of a circle:

Multiply circumference by ¼ of the diameter	
or multiply the square of the diameter by	0.7854
or multiply the square of the circumference by	0.07958
or multiply the square of ½ the diameter by	3.1416

To convert cubic feet to bushels of capacity:

Multiply the total cubic feet by	0.8036

Glossary

ABS. Acrylonitrile-butadiene-styrene, the chemical makeup of a black, plastic-composite plumbing pipe used extensively for drain, waste, and vent systems.

Abstract of title. A summary of all recorded conveyances (such as deeds or wills), and legal proceedings that give the names of the parties, the description of the land, and the agreements. Abstracts are arranged to show the history of ownership, describe the land and improvements, and give the name(s) of past and present owner(s).

Abut. To touch or border; or share a common boundary with another property.

Access. The path by which a property is approached through a neighborhood; the means of physical entrance into or upon a property (ingress and egress).

Accessory building. A building subordinate to, and used in conjunction with, the main building.

Account number (also called reference number or computer reference number). A unique number assigned to each property by the assessor's office to identify, update, or delete assessment and tax roll records.

Accretion. A growth in size, especially by addition or accumulation. In land, the gradual and perceptible increase of riparian land by water deposition of mud, sand, or sediment. An area formerly covered by water thus becomes dry land.

Accrued depreciation. The amount of depreciation, from any and all sources, that affects the value of the property in question on the effective date of the appraisal.

Acoustical ceiling. A ceiling designed to lessen sound reverberation through absorption, blocking or muffling. The most common materials are acoustical tile, made of porous mineral fibers or organic fibers such as cane or wood, and acoustical plaster.

Acre. A land measure equal to 43,560 square feet.

Actual age. The number of years that have elapsed since construction was completed. Also called chronological age.

Ad valorem. Literally translated, it means "according to the value." For property taxes, a tax based upon the value of the item being taxed.

Adaptive estimation procedure (AEP). A computerized, iterative, self-referential procedure using properties for which sales prices are known to produce a model that can be used to value properties for which sales prices are not know. Also called "feedback."

Addition. Part of a building that has been added to the original structure.

Adjudicated value. The value ordered by the Board of Property Tax Appeals, the Department of Revenue, or the Oregon Tax Court. Adjudicated Value becomes the property's real market value (RMV) and can only be changed under certain conditions provided by statute.

Adjusted sales price. The sales price that results from adjustments made to the stated sales price to account for effect of time, personal property, financing, etc.

Administrative rules. The interpretation of Oregon Revised Statutes (ORS). Administrative rules are issued by a state agency and are meant to provide further understanding of the statute to which it refers.

After-ratio study. A ratio study designed to test whether or not a county's annual valuation program is produced values that meet the 100 percent of market value standard. Generally, the after-ratio study compares current year adjusted market values to current year arm-length market sales.

A-frame. A structural support framework in the shape of the letter "A" having sloping sides which act as both walls and the roof, forming a steep gable that normally extends to the ground. A style of architecture.

Agent. A person who has been given authority for another.

Agents in production. The elements of labor, capital, coordination, and land, which together create wealth, income, or services.

Aggregate. The materials used in the manufacture of concrete or plaster except water and the bonding agents. Aggregates include items such as sand, gravel, cinders, rock, etc.

Air conditioning (system). Treating air for simultaneous control of temperature, humidity, cleanliness, and distribution.

Allocation. A method used to estimate land value in which an appraiser analyzes sales of improved properties to establish a typical ratio of site value to total property value and applies this ratio to a property being appraised or comparable sale being analyzed.

Amenities. Tangible and intangible features that enhance or add to a property's desirability and perceived value.

Anticipation. The perception that value is created by the expectation of benefits to be derived in the future.

Appraisal. An opinion of value. An unbiased estimate of the nature, quality, value, or utility of an interest in, or aspect of, identified real estate and related personal property.

Appraisal date. For mass appraisal, this is a predetermined point in time to which all appraisals are made. All sales used in a pre-appraisal set-up are adjusted to this date. Adjusting to this date reflects market changes as of the appraisal date. This date may differ from the assessment date or the inspection date.

Appraisal ratio. The percentage relationship (ratio) between a property's current year assessment roll market value and its recently appraised market value.

Appraisal ratio study. A statistical compilation of appraisal ratios for a representative group of properties in a county or market area. These properties are randomly selected by property class to produce an indication of the ratio of the current year market value for a taxable property in that particular class within a specific appraisal or market area. Generally used in areas of limited or no sales data.

Appraiser. One who performs an appraisal. In Oregon, county and State Department of Revenue appraisers must be registered as per ORS 308.231.

Appreciation. An increase in property value resulting from an excess of demand over supply

Approaches to value. The appraisal methods used to estimate property value. The three methods, or approaches commonly used in appraising real estate are:

- Sales Comparison or Market Data Approach;
- Cost Approach, or the Depreciated Replacement Cost Approach or the Summation Approach; and
- Income Approach.

Architecture. A style of construction, such as Elizabethan architecture. Also refers to the science, art, or profession of designing and constructing buildings.

Area. The extent of the surface of a structural component or site in one plane, measured in units such as square-feet, square yards, acres, etc.

Arithmetic mean. A measure of central tendency also called the average or mean. The mean is the total of all the ratios or values (observations) in an array divided by the number of ratios or values in an array.

Arm's-length transaction. A transaction freely arrived at in an open market, unaffected by abnormal pressure or by the absence of normal competitive negotiations.

Array. The listing of a set of observations in a specific order; e.g., alphabetical, alphanumeric, chronological, order of magnitude.

Ashlar stone. Veneer stone such as cut limestone, attached to a concrete block or stud back-up wall using metal wall ties. The stones are irregular in shape and may be finished with a split face and backed with sawed surfaces for top and bottom bed joints.

Asphaltic concrete. An asphalt binder combined with stone or other aggregate used for paving used to produce a hard surface for streets, driveways, etc.

Assemblage. The combining of two or more parcels into one ownership or use.

Assembled cost. The cost factor equal to the combined cost of the segregated items which comprise a major structural component, such as the floors, exterior walls, plumbing, etc.

Assess. To estimate property value as a basis for taxation.

Assessed value (AV). The value used to determine the property tax burden for a given property. The assessed value may be 100 percent of market value or a lessor percentage. In Oregon, the lesser of the property's maximum assessed value (MAV) or real market value (RMV). For specially assessed property, the lesser of RMV or MAV for any market portion, plus the lesser of the specially assessed value (SAV) or maximum specially assessed value (MSAV) for each individual soil class, qualified home site, and on-site development. Taxes are imposed and calculated on the AV.

Assessment date. The specific date by statute used for setting the value of property for tax purposes. In Oregon the assessment date is January 1, at 1:00 a.m. as per Oregon Revised Statutes (ORS) 308.210.

Assessment program. The entire process used by the assessor to administer the property tax system.

Assessment roll. A certified listing of all property within the county prepared by the assessor for the current-year and must meet the requirements of ORS 308.215

Assessment year. The 12-month period for which assessed values must be determined. In Oregon, the assessment year is January 1 through December 31.

Assessor. The elected or appointed official who performs the assessor's duties within the county as defined by state statutes.

Atrium. An open central area in a structure, typically surrounded by corridors. Frequently atriums have ceilings of glass or other translucent materials to admit sunlight.

Attic. The accessible space between the top of the ceiling joists and the roof. It may or may not be a finished living area.

Automated valuation model (AVM). A mathematically based computer software program that produces an estimate of market value based on market analysis of location, market conditions, and real estate characteristics from information that was previously and separately collected. The distinguishing feature of an AVM is that it is an estimate of market value produced through mathematical modeling. Credibility of an AVM is dependent on the data used and the skills of the modeler producing the AVM. AVMs are characterized by the use and application of statistical and mathematical techniques. Values created by AVM's must be tested against the market area in which they will be applied. See computer-assisted mass appraisal (CAMA).

Average deviation. In statistics, the number obtained by subtracting the arithmetic mean of all the items from each item, adding up these differences without regard to sign, and dividing this sum by the number of items.

Average maximum assessed value (AMAV). The value determined by dividing the total maximum assessed value (MAV) of all unchanged property in the same area and property class by the total number of unchanged properties in the same area and property class. It is a number used in the calculation of a changed property ratio (CPR). See ORS 308.149(3)(a).

Average real market value (ARMV). The value determined by dividing the total Real Market Value (RMV) of all unchanged property in the same area and property class by the total number of unchanged properties in the same area and property class. It is a number used in the calculation of a changed property ratio (CPR). See ORS 308.149 (4) (a)

Average tax rate. An average tax rate computed for an area by dividing the taxes imposed in that area by the assessed value (AV) of taxable property.

Awning. A light framework and cover shelter extending over a doorway, window, porch, etc., which provides protection from the sun or rain.

Backerboard. A thin board of concrete or other material that resists shifting and is impervious to water, placed on an existing subsurface and used as a base for tiling.

Backfill. Material used in refilling an excavation for a foundation or in-ground pipe.

Backup. In a masonry wall, it is the cheaper material which is covered by a facing of material such as face brick, stone, marble, etc.

Baked enamel metal roofing/siding. Metal sheet roofing or siding material in a wide selection of textures, colors, and finishes that are baked on at a factory. Common types for residential uses are 24–26 gauge and for roofs come with 5-V crimp or standing-seam designs. Due to its durability and weather resistance it has many uses in commercial, industrial, and agriculture structures.

Balance. The principle of balance as used in appraising is that the greatest value in property will occur when the type and size of improvements and uses are proportional to each other as well as to the land.

Balcony. A balustrade or railed elevated platform projecting from the wall of a building; usually cantilevered or supported by columns. Access is typically by means of the structures interior.

Band-of-investment analysis. A perspective on (and a technique for estimating) the discount rate. The discount rate is viewed as having two components, each weighted in proportion to typical financing terms for properties of the type in question. For example, if 75 percent loans are available at 9 percent interest and investors are known to seek a 14 percent return on equity, then the discount rate is 10.25 percent, that is, (0.75 x 0.09 = 0.0675) + (0.25 x 0.14 = 0.0350) = 0.1025 = 10.25 percent.

Bargain and sale deed. A deed that conveys real property interests from a seller to a buyer. It does not warrant clear title as a warranty deed does.

Base cost factor. The unit amount expressed in terms of dollars representing the cost proportioned to each unit of a base structure described by the specifications. It may be expressed as $20 per square-foot, $35,000 per apartment, $5,000 per parking space, etc.,

Base material. The construction materials or items used in making up a building component, such as the exterior wall, roof, etc.

Baseboard heating. A heating system in which the heating element, usually an electric resistance or circulating hot water, is located at the base of an outside wall.

Basement. A full story-high space below the normal ground floor level.

Batten. A narrow strip of wood used to cover a joint between boards or to simulate a covered joint for architectural purposes.

Bay window. A foundation-supported window structure projecting from a wall. It is distinguished from an oriel or box bay window which lacks foundation support and would typically be cantilevered.

Beam. A principal horizontal load-carrying structural timber or steel member of a building.

Bearing wall. A wall that supports the building floors, roof or any vertical load in addition to its own weight.

Benchmark. In appraisal, the standard or base from which estimates and comparisons are made. As part of a mass appraisal program there would be building class, depreciation, land, landscape benchmarks, etc.

Beveled siding. Wood siding that is tapered or beveled so it's thinner on the upper edge than the lower edge and lapped when applied to an exterior wall. Also referred to as clapboard or lap siding.

Bi-level. A house or structure built on two levels. Depending on common usage for the region, the term may be used to denote a two-story dwelling, a raised ranch (split foyer) or a split level (tri-level) dwelling.

Black top. See asphaltic concrete.

Board lumber. Yard lumber less than 2 inches thick and 2 or more inches wide.

Board and batten. A type of siding, typically vertical wood siding with narrow wood strips (batten) used to cover joints between boards.

Board of Property Tax Appeals (BOPTA). In Oregon, a county board that hears taxpayer appeals of property assessment.

Bona fide sale/purchase. The purchase or sale of property by an individual in good faith that represents an agreement between the buyer and seller at current market price.

Bonds. A capital market instrument with a maturity of one year or more.

Bond rate. In Oregon, bonds are used to pay principal and interest for bonded debt. Under the provisions of Measure 50, new bonds, like local option taxes, are subject to a 50 percent voter turnout if the election is not a general election.

Book depreciation. An accounting term that refers to the amount of capital recapture written off on an owner's book.

Boundaries. The lines demarcating a neighborhood or district; the physical area that exerts relevant influences on a subject property's value.

Boundary survey. A closed diagram that mathematically describes the complete outer boundary of a site; shows dimensions, compass bearings, and angles. The survey is conducted by a licensed surveyor and a signed certification is required, and metes and bounds or other written description is included.

Bowstring truss. A steel or wooden truss with a top member that resembles a bow. Typically used in large commercial, farm, or industrial structures.

Box construction. A construction method using horizontal framing members to which siding is attached.

Breakdown method. A method of estimating accrued deprecation in which the total loss in value of a property is estimated by analyzing and measuring each cause of depreciation—physical, functional, and external separately.

Breezeway. A covered passage, open at both ends, which passes between two structures.

Brick veneer. A single tier of decorative brick laid against a wall of another material.

Broker. A person acting as an intermediary for either the seller or buyer, bringing together participants in a real estate transaction.

Bridge financing. Short-term financing used generally until permanent financing is arranged.

Buffer strip. A parcel of land, usually unimproved except for landscaping and screening that separates parcels with different land uses.

Building. A structure typically with walls and roof erected for permanent use.

Building block. Any rectangular masonry unit, except brick used in building construction.

Building class. The construction quality classification of the principal structure on the property. Sometimes referred to as stat class.

Building code. Local or state regulations controlling the design, construction, and quality of materials, use, occupancy, or related factors of all structures within its jurisdiction.

Building height. The greatest vertical distance measured from the curb, grade or floor level to the highest level of a flat or mansard roof, or to the average height of a pitched, gabled, hip, or gambrel roof.

Building paper. A heavy waterproof material, sometimes tar-impregnated, used on roofs and sidewalls to give protection against dampness and leaks. Also referred to as house wraps, tar-paper tyvex, etc.

Building permit. Authorization granted by a local jurisdiction within its jurisdiction for the erection, alteration or remodeling of improvements.

Building residual technique. A capitalization technique in which the net operating income attributable to improvements is isolated and capitalized by the building capitalization rate to estimated the improvements' contribution to the total property value.

Building site. A parcel of land on which a building may be erected, including all surrounding land allocated to the improvement.

Built-ins. Items that are permanently attached to a building structure such as cabinets of drawers and shelving attached as part of the building's interior construction and cannot be removed without leaving evidence of their removal. May include built-in appliances.

Built-up method. A method of identifying the elements of a capitalization or discount rate. There are four basic components of a discount or capitalization rate, the safe rate, management, nonliquidity, and risk. The resulting rate is referred to as a built-up rate.

Built-up roofing. A roof covering consisting of overlapping layers of felt paper sealed with hot asphaltic tar or roofing compound with a final coat of tar covered with small gravel. The gravel is used to protect the sealed surface.

Bundle of rights. The concept that compares property ownership rights to a bundle of sticks. Each stick within the bundle represents a distinct and separate property right such as the right to own, the right to sell, the right to give it away, etc.

Business value. A value enhancement that results from items of intangible property such as marketing, management skills, an assembled workforce, working capital, trade names, franchises, patents, trademarks, contracts, leases, and operating agreement. Generally must be separated when valuing real property, but may be included when valuing utility-type properties (unitary valuation).

Buyers market. A depressed market where supply exceeds demand. Buyers have the advantage over the seller.

Cabin. A small simple hut or house or rustic shelter.

Cadastral map. A scale map showing the dimensions of each parcel and related data such as parcel identifier, survey lines, and easements. Created and maintained by assessing officials for the primary purpose of assessment of property for property taxes.

Caisson foundation. A foundation system in which holes are drilled into the earth down to bearing strata or a depth to support the structure, then filled with rebar and concrete.

Cantilever construction. A building technique in which a portion of the structure is supported by a beam or slab supported at only one end. The opposite end then projects beyond its support.

Cape Cod house. An architectural style with the main cornice line at the second story level and a gable roof with rooms in a finished attic. Dormer windows are used and there is a detailed entrance with pilasters and cornices. These houses are usually frame-built with bevel or drop siding.

Capital assets. Assets of a permanent nature used to produce income; i.e., land, buildings, machinery, and equipment.

Capital expense. The amount required to satisfy the interest on and amortization of an investment.

Capital gain. The amount by which the net proceeds from the resale of an asset exceed the adjusted cost or book value of that item. Used primarily in income tax computations, but greatly affects real estate markets due to the tax treatment of capital gains proceeds.

Capitalization. The conversion of income into value. See also direct capitalization and yield capitalization.

Capitalization rate (R). Any rate used to convert income into value.

Capital recapture. The return of equity in an investment as distinguished from the return on equity. Investment capital may be recaptured through annual income or it may be recaptured all or in part through resale of the property at termination of the investment.

Carport. A roofed vehicle shelter that is not completely enclosed. It may be attached to residence or stand alone.

Cartographer. One who practices the science and art of making maps.

Casement window. A type of window with a sash and side hinges.

Cash equivalence. A price expressed in terms of cash, as distinguished from a price expressed totally or partly in terms of the face amounts of notes or other securities that cannot be sold at their face value.

Cash flow. The periodic income attributed to the interests in real property.

Cash on cash. The ratio of annual equity income to the equity investment, also called equity capitalization rate, cash flow rate, or equity dividend rate.

Casing. Trim molding of various widths and thicknesses used to trim door and window openings.

Caulking. A flexible material used to fill gaps at fixed joints in a building to reduce the penetration of air and water.

Cavity wall. In masonry, a wall constructed with an outer and inner wall separated by a cavity of varying dimension. The inner and outer wall may consist of solid brick, structural clay tile, or concrete masonry units and are bonded together with masonry ties. The cavity (ranging from 2 inches to 4-1/2 inches in width) may or may not contain insulation.

Ceiling joists. The horizontal structural members to which the ceiling is fastened; may also support the floor above.

Central tendency. In statistics, the tendency of samples or observations, to cluster around a central point in a frequency distribution. The measures of central tendency are the median, mean, or mode.

Centrally assessed property. Taxable property assessed by the Department of Revenue, including electric and communication utilities, rail transportation, air transportation, water transportation, gas pipelines, private railcars, and others; these properties are typically located across the state in more than one assessment jurisdiction.

Certified assessment roll. An assessment roll is certified under ORS 311.105 and there after becomes the tax roll for the current year.

Certificate of occupancy. An official document issued by the appropriate local or state jurisdiction indicating that a dwelling or structure has been built according to the applicable building codes and certifying that the structure is complete and ready for occupancy and can be used for its intended purpose.

Chain of title. A historical record of all conveyances and encumbrances affecting a property title from the time of the original patent from the U.S. government to the present.

Change. The principle that deals with the transitional nature of property and the forces that act upon it and influence its value. Real property, whether an entire neighborhood or a single property, is constantly changing, at times imperceptibly, from one condition or stage to another. Stages of change within a neighborhood include the development or growth stage, static or stability stage, disintegration or decline stage, and revitalization stage. Change is reflected in the real estate market as appreciation or depreciation in property value.

Changed property ratio (CPR). A Measure 50 term. The ratio determined by dividing the average maximum assessed value (AMAV) by the average real market value (ARMV) for the same area and property class of unchanged property. See ORS 308.153.

Chasing sales. Under Measure 50, the practice of using the sale of a property to trigger a reappraisal of that property. The practice of appraising properties to the known sales price. If sales with such appraisal adjustments are used in a ratio study, the practice creates unrealistic uniformity and creates invalid appraisal results. By extension, any practice that causes the analyzed sample to misrepresent the assessment performance for the entire population as a result of acts by the assessor's office. A subtle, possibly inadvertent, variety of sales chasing

occurs when the recorded property characteristics of sold properties are differentially changed relative to unsold properties. Then the application of a uniform valuation model to all properties results in the recently sold properties being more accurately appraised than the unsold ones.

Chattels. Any property other than a freehold or fee estate in real property.

- **Chattel real** is a non-ownership right in real property such as a leasehold, easement or lien.
- **Chattel personal** is tangible and movable items that are classed as personal such as machinery & equipment (moveable), office furniture, and computers.

Chimney. The vertical masonry or metal structure housing the passageway or flue to carry smoke and fumes out of the structure.

Chronological age. The number of years elapsed since a structure was built; also known as the actual age or historical age.

Cinder block. A masonry building block, similar to a concrete block, which is made using cinders as the coarse aggregate resulting in a lighter weight.

Cistern. A large tank for storing domestic water supply placed on or in the ground.

Clapboard. See beveled siding.

Class A, B, C, D & S building. The classification of building types, based on their fire-resistance rating because of the construction materials used. It is used by national appraisal cost services such as Marshall Valuation to classify buildings based on construction type. It may also be used to designate the quality of the features, such as location, construction, condition, management, tenants and amenities.

Clear lumber. Lumber mostly clear of defects in the wood such as knots or pitch pockets.

Clear vertical grain (CVG). Clear lumber with the grain running the length of the wood, usually referring to hardwoods such as cedar and fir used in furniture, moldings, etc.

Clear span. A portion of a structure built without internal supporting columns. May be important for some commercial or industrial uses.

Clear title. A title to a parcel of real estate clear of any encumbrances or defects.

Clerestory window. A lengthwise series of windows set in a vertical wall structure above the primary roof slope.

Closing costs. The settlement costs incurred as the result of the transfer of property ownership.

Cloud on title. An encumbrance that may affect the fee holder's ownership in real property; may affect the marketability or price of the property.

Code area. A geographic unit established by county assessors and identified by a code number, representing the combination of taxing districts in which a piece of property is located.

Coefficient of dispersion (COD). A measure of uniformity, calculated two different ways. For assessment purposes it is the ratio of the average absolute deviation to the median expressed as percentage. In statistics, the ratio is created using the mean.

Coffering. Recessed panels in a ceiling.

Cold storage. Refrigerated storage for perishable commodities.

Colonial architecture. Traditional design, most commonly following the characteristics of New England Colonial homes. These are usually two story houses with balanced openings along the main façade, windows subdivided into small panes, shutters and dormer windows. There is painstaking attention to detail, kept small in scale.

Column. A vertical structure member that supports horizontal members such as a beam; designed to transfer the load to its base.

Column footing. Reinforced concrete footings that support load-bearing columns.

Common area. The total area within a property that is not designed for sale or rental, but is available for common use by all owners, tenants, or their invitees; e.g., parking and its appurtenances, malls, sidewalks, landscaped areas, recreation areas, public toilets, truck, and service facilities.

Common area maintenance (CAM). The expense of operating and maintaining common areas.

Common wall. A single-load bearing wall used jointly by two buildings. Not a partition wall.

Comparables. A shortened term for competitive property sales, rentals, or operating expenses used for comparison in the valuation process. Also called comps.

Comparative unit method. A method used to derive a cost estimate in dollars per square foot or cubic foot of area, based on known costs of similar structures adjusted for time and physical differences.

Compatibility. The concept that a building is in harmony with its use and environment.

Competition. The active demand for real estate in short supply by two or more potential market participants.

Component cost. The complete in-place cost of items comprising a major structural feature, such as a wall, shingles, lavatory, etc.

Composite rate. An overall capitalization rate that blends or weights several rates of returns applicable to a single investment.

Composition (roofing/siding). A covering material formed by impregnating heavy felt paper with hot asphalt and covering the upper surface with finely crushed granules. Typically a reference to a form of roofing material. When it is used as siding it is designed to look like brick.

Compression. A Measure 5 term. The reduction in taxes required by the 1990 Measure 5 property tax rate limits. County assessors calculate compression as a dollar amount, but it can also be expressed as a tax rate. Compression is done on a property-by-property basis.

Compound interest. The continuous and systematic additions to a principal sum over a series of successive time periods so that previously earned interest earns interest.

Comprehensive plan. An official document adopted by a local jurisdiction that sets forth its general policies regarding the long-term use of real estate.

Computer-assisted appraisal program (CAAP). Any use of a computer to calculate or develop real property values or to store any property characteristics. The entire process used by an assessor to value property using computer-assisted valuations or computerized valuation methods.

Computer-assisted mass appraisal (CAMA). A system of valuing property through the use of computer technology and statistical modeling to value property. It uses cost models and sales comparison analysis methods such as multiple regression analysis and adaptive feedback analysis to assist the appraiser in estimating value a property's value. It may be used by assessment jurisdictions for mass appraisal purposes. See automated valuation model (AVM) and computer- assisted appraisal program (CAAP).

Concrete. A hard stone-like material comprised of sand, cement, and an aggregate such as gravel mixed with water and allowed to dry. Used for foundations of buildings, hard surfaces such as streets and driveways, pre-stressed construction beams, etc. It may be foamed, prestressed, reinforced, and insulated. A new technique allows it be translucent.

Concrete block. A masonry building block made by compressing concrete into a block and allowed to harden. Similar in nature to a cinder block.

Condemnation. The act or process of enforcing or exercising the right of eminent domain.

Condenser. An element in which high pressure, high temperature vapor is cooled and condensed to liquid, ready to start the refrigeration cycle again. Heat absorbed in the evaporator and heat added during compression are liberated from the refrigerant to the coils in the condenser.

Condominium. A building or complex in which units of property, such as apartments, are owned by individuals and an undivided interest in the common areas of the property. A form of fee ownership in real property.

Conformity. The appraisal principle that the value in real property is created and sustained when the property characteristics conform to the demands of the market and the uses by surrounding property.

Conservation easement. A restriction that limits the use of a all or a portion of a property in order to preserve or conserve an existing use such as for wildlife habitat, preservation or conservation.

Consideration. The amount of money and/or other valuable goods or services upon which a buyer and a seller agree to transfer property.

Consistent use. The appraisal concept that land cannot be valued on the basis of one use while improvements to the land are valued on the basis of another.

Consolidation. The merger of two or more contiguous parcels into a single parcel.

Contemporary architecture. A type of modern architecture that takes many forms. It is designed to promote close relationship to the outdoors, utilize new construction methods and materials, and create new uses of old materials. Large windows, open planning, horizontal lines, and simple details characterize this style. It may be one or two stories or have split levels to harmonize with the site conditions. Roofs may be flat, shed, gabled, or combined styles.

Contiguous. Adjacent to; sharing a property boundary.

Continuing care retirement center (CCRC). A newer version of a life care center (congregate care) that is distinguished by its method of financing. Residents are charged for the level of care that is necessary. The complex typically includes cottages, apartment units, and common areas.

Contribution. The concept that the value of a particular component is measured in terms of its contribution to the value of the whole property, or as the amount that its absence would detract from the value of the whole.

Contour line. A line on a map or site plan representing a elevation level. A contour map shows the configurations of a surface with contour lines that represent regular intervals of elevation.

Contract rent. The actual rental income specified in a lease. May be higher or lower than the market rent.

Contract sale. A sale in which title to the property remains with the seller until the buyer has fulfilled the terms of the contract, at which time the title to the property is conveyed. See conveyance.

Contractor. A constructor who is a party to the contract for construction of a structure, building, etc.

Contractor's overhead. The general and administrative costs, over and above the direct costs of material and labor that are incurred by a contractor on any construction project.

Contractor's profit. The amount by which the fee received by a contractor for work performed, is in excess of the total direct costs of material, labor, and overhead. See developer's profit.

Contribution. The principle of contribution requires an appraiser to measure the value of any improvement to a property by the amount it contributes to market value, not by its cost.

Conventional loan. A mortgage that is neither insured nor guaranteed by an agency of the federal government, although it may be privately insured.

Conveyance. A written instrument that passes an interest in real property from one person to another; e.g., a deed, mortgage, lease, but not a will.

Corbel. A beam or bracket projecting from a wall to support some other object or an embellishment rather than a structural element of the building.

Corner influence. The effect on value produced by a property's location at or near the intersection of two streets; the increment of value resulting from this location or proximity.

Corner lot. A lot abutting two intersecting streets at their point of intersection.

Cornice. The top course or ornamental crowning member of a wall; that portion of a structure located at the top of the side walls under the eaves.

Correlation. A statistical phenomenon and a technique for estimating the strength or closeness whereby knowledge of two or more variables are associated. The results of the three approaches to value are correlated to determine the strength of one approach over the others.

Corrugated. Formed or shaped into wrinkles or folds or into alternating ridges and grooves; as in corrugated siding which is made of metal and used on industrial and agricultural buildings. The corrugation increases the strength of the material used.

Conservation Reserve Program (CRP). A federal farm program where a landowner agrees not farm all or a portion his land for a period of several years (10 -15) for a yearly federal payment. The acreage accepted into the program must be planted to native grasses and weeds must be contained during the contract period.

Cost. In appraisal, the dollar amount required to replace or reproduce a new building or building item. The amount includes all building material, installation, profit, overhead, and any other pertinent direct or indirect expense.

Cost approach. One of three approaches to value and is based on the principle of substitution. A value is estimated by using the current cost to reproduce or replace the existing structure with a similar substitute with like utility, then by deducting accrued depreciation from all sources and adding the estimated land value.

Cost, direct. A cost that can be traced directly to a particular unit of output, for example the cost of raw materials or certain labor.

Cost, indirect. Costs incurred in construction away from the site such as for permits, insurance, loans, etc.

Cost to cure. The cost to restore an item of deferred maintenance to new or reasonably new condition.

Cost index. A multiplier used to convert a known historical cost into a current cost estimate.

County Assessment Function Funding Assistance Account (CAFFAA). A fund that is established and funded under ORS Chapter 294. It is under the direction of the Department of Revenue. The fund distributes grant monies to counties that the Department of Revenue has certified as having an adequate assessment and taxation programs. The grant amount is a percentage of each county's assessment and taxation costs as it bears to the total 36 county certified assessment and taxation costs.

Course. A continuous, horizontal layer of bricks or masonry blocks in construction that form a single layer of material such as in a brick wall.

Coved ceiling. A ceiling that curves down at the edges where it meets the wall, creating a smooth transition from the ceiling to the wall.

Covenant. A promise written into a legal agreement such as a deed which binds the parties to abide or refrain from certain acts; a deed restriction is a special kind of covenant.

Crawl space. The space between the ground and the floor joists for servicing the building and ventilation.

Crown molding. An ornamental ceiling border made of wood, plaster, polyurethane, etc.

Crop share. A rent paid to the landlord by the tenant, using a share of the crop grown or raised. The share amount varies based on the crop and area of the country. The landowner's contribution towards seed, fertilizer, water and harvesting costs will also vary.

Cupboards. A cabinet with shelves for storing cups, plates, food, etc.

Cupola. A small square or rectangular structure located along the roof ridge used for ventilation or ornamentation.

Curable depreciation. That part of depreciation that can be reversed by correcting deferred maintenance and remodeling to relieve functional obsolescence.

Curtain wall (panel wall). An exterior wall that encloses but does not support the structural frame of a building.

Curtilage. Fenced in area around a building.

Daylight basement. Most often used on sloping lots so that a portion of the basement can accommodate larger windows, and, depending upon the amount of slope, a doorway that

opens out to the exterior can be included in the design. Sometimes is referred to as a walk-out basement.

Debt coverage ratio (DCR). The ratio of net operating income to annual debt service; measures the ability of a property to meet its debt service out of net operating income.

Debt service. The periodic payment the covers the interest on and the retirement of the outstanding principal of the mortgage loan.

Deck. Common reference to an open porch on the roof of a lower floor area, porch, or separate elevated floor-type structure attached to an exterior wall.

Deed. A written, legal instrument that conveys an estate or interest in real property when it is executed and delivered.

Deed restriction. A limitation that passes with the land regardless of the owner; usually limits the real estate's type of use or intensity of use. See also restrictive covenant.

Deferred maintenance. Curable, physical deterioration where repairs and replacements that normally would have been made to a property, were not done. This deferred maintenance increases the overall amount of depreciation until cured.

Demand. The amount of a good or service that would be purchased at various prices during a given period; directly affected by supply.

Density zoning. A system of land use control in which residential occupancy is limited by the units per land area.

Depreciation. Loss in value of an object, relative to its replacement cost, reproduction cost, or original cost. Depreciation is sometimes subdivided into three types: physical deterioration (wear and tear), functional obsolescence (substandard design in light of current technology or taste), and externalities (economic obsolescence), poor location, or radically diminished demand for the product.

Depreciation, curable. That part of depreciation that can be reversed by correcting the deferred maintenance and by remodeling.

Depreciation, incurable. A defect or depreciation that cannot be practically or economically corrected.

Depreciated replacement cost (DRC). The replacement cost of an item less accrued depreciation.

Design. Refers to the structural arrangement of building components, such as walls, roof, floor, etc.

Dimension, lumber. Sawn lumber, usually 2 inches in depth and in any width, used in framing.

Direct capitalization. A method used to convert an estimate of a singles year's income stream into an indication of value in one direct step, either by dividing the income estimate by an appropriate rate or by multiplying the income estimated by an appropriate factor.

Direct costs. The expenditures for labor, contractors, materials, and heavy equipment used in the construction of a real property improvement.

Discount rate. A yield rate used to convert future payments or receipts into an indication of present value.

Discounted cash flow. A yield capitalization method used to calculate the present worth of anticipated future cash flows using appropriate discount rates.

Discounting. The process of estimating the present worth of a future income stream.

Discovery. The process by which the assessor identifies all taxable property in the jurisdiction and ensures that it is included on the assessment roll.

Dispersion. In statistics, the degree of scatter in a set of observations (data points) usually measured from a measure of central value such as the mean or the median.

Disposal. An electric mechanical device fixed between the kitchen sink and its drain, used for chopping up food waste to be carried away into the sanitary sewer.

Distressed sale. A sale involving a seller acting under duress; a forced sale.

Distribution panel. A panel board with fuses or circuit breakers that distribute incoming electricity to various circuits.

District tax rate. Tax rate expressed in dollars and cents per $1,000 of property value. It is computed by summing the permanent rate, the local option rate, the gap bond rate, and the bond rate for the district.

Division. The separation or segregation of one parcel into two or more parcels.

Dormer. A gable or shed like projection from the sloped surface of a roof that provides attic light, ventilation, and additional headroom. Contains one or more windows.

Double glazing. A double-glass pane in a door or window, with an air space between the two panes.

Double hung window. Two sashes in the same frame which provide an opening by each sash sliding vertically past the other.

Double majority. A term that refers to an election where at least 50 percent of the registered voters eligible to vote in the election cast a ballot and more than 50 percent voting on the question approve the ballot.

Double wall. An exterior frame wall with siding, sheathing, and interior lining.

Downspout. A pipe for carrying rainwater from roof gutters.

Downzoning. A public action in which the local government reduces the allowable density of an area or for subsequent development; e.g., fewer housing units, fewer stores, or changes the allowable use from a high use to a low use; e.g., multifamily to single family.

Drain field. A system of trenches containing coarse gravel and distribution tile through which septic effluent may be absorbed into the surrounding soil.

Drop ceiling. A non-structural ceiling suspended below the structural system; may contain a lighting system.

Drop siding. A tongue-and-groove wood forming a weather tight wall used as siding.

Dry rot. A decay of seasoned wood caused by fungus frequently associated with moisture and inadequate ventilation.

Drywall. Interior wall covered with material other than plaster, such as wall board material commonly composed of gypsum and paper, with taped seams and a coating of texture over entire surface.

Dumbwaiter. A small utility elevator, used to transport items between floors.

Duplex. A housing containing two separate dwelling units either side by side or one above the other.

Dutch Colonial architecture. Style of home design featuring a gambrel roof, exterior walls of masonry or wood, with porches at the side; especially adapted to flat sites.

Easement. An interest in real property that conveys use, but not ownership, of a portion of an owner's property.

Eaves. The outer edge of a roof projecting beyond the wall line.

Economic life. The period over which improvements to real property contribute to property value.

Economic obsolescence. Loss in value of a property (relative to the cost of replacing it with a property of equal utility) that stems from factors external to the property. For example, a buggy-whip factory, to the extent that it could not be used economically for anything else, suffered substantial economic obsolescence when automobiles replaced horse-drawn buggies. See externalities.

Economic rent. A term sometimes used in appraisal; synonymous with market rent.

Effective age. The age indicated by the condition and utility of a structure.

Effective gross income (EGI). The anticipated income from all operations of the real property after an allowance is made for vacancy and collection losses. The income includes monies

collected from sources other than from space rent such as for parking, vending machines, washer and dryers, etc.

Effective gross income multiplier (EGIM). The ratio between the sale price (or value) of a property and its effective gross income.

Effective tax rate. The ratio between the annual property tax on real property and its market value. The tax rate expressed as a percentage of market value; this will be different from the nominal tax rate when the assessment ratio is not equal to 1.00. For mass appraisal purposes may be a component of the overall capitalization rate when valuing income properties typically leased or rented on a gross rent basis.

Egress. A way out; an exit or outlet.

Electric wall heaters. Individual electric unit in the wall capable of heating only small areas.

Elevation. A flat scale drawing of the front, side, or rear of a building. The height above surface of the earth or the vertical distance from a given reference point.

Ellwood formula. A yield capitalization method that provides a formulaic solution for developing a capitalization rate for various combinations of equity yields and mortgage terms.

Eminent domain. The right of government to take private property for public use upon the payment of just compensation.

Encroachment. Trespassing on the domain of another.

English basement. A basement with about one half of its height above grade.

English half-timbered (Elizabethan) architecture. Rustic, informal, picturesque English-style homes featuring interesting exterior treatment and ornamentation of half timber effects, carved wood, stone, and brick. In the original Elizabethan type, the exposed exterior timbers were actually the structural frame of the building. Between the half timbering there is usually plaster. Roof slopes are steep and project at the ends with barges rather than cornices.

Enterprise zones. Designated areas that certain business properties can qualify for exemption for a limited number of years, under ORS 285.570 to 285.620. To be eligible, a business must meet several conditions relating to type of business activity and requirements for hiring and investment.

Entry. A way or passage by which to enter; a door, hall, etc. Also known as a foyer.

Environmental contaminant. Any tangible substance or intangible occurrence that degrades property resulting in decreased utility and typically negatively affecting value.

Entrepreneurial profit. A market derived figure that represents the amount an entrepreneur expects to receive for his or her contribution to a project; the difference between the total

cost of a property and its market value which represents the entrepreneur's compensation for the risk and expertise associated with the development; a component of value that must be reflected in the cost approach.

Equalization. The process by which an appropriate governmental body attempts to ensure that all property under its jurisdiction is assessed at the same assessment level required by law.

Equity. In assessment, the degrees to which assessments bear a consistent relationship to market value; synonymous with tax fairness. In ownership, the net value of property after liens and other charges have been subtracted.

Equity dividend. Before tax cash flow.

Equity yield rate. The required rate of return on invested equity capital; a component of the capitalization rate (or discount rate) that must be separately specified in the band-of-investment and mortgage analysis.

Escheat. The government right that gives the state titular ownership of a property when its owner dies without a will or any ascertainable heirs.

Escalation clause. A clause in an agreement that provides for an adjustment of a price or rent based on some event or index; e.g., a provision to increase rent if operating expenses increase.

Escrow. Property or evidence or property; e.g., money, securities, or instruments deposited by two or more persons with a third party to be delivered under a certain contingency or on the completion of specified terms. An escrow account is generally held to cover taxes and insurance.

Estate. A right or interest in property.

Estate in fee simple. An inheritable, possessory interest in real estate that may be freely conveyed by its owner; the largest possible estate in real property.

Estoppel. A legal doctrine under which one is precluded and forbidden from denying his or her own act or deed.

Evaporative cooler. An electrically powered unit utilizing a water system to cool and circulate air.

Exception. A Measure 50 term. Any value change to property, not including general ongoing maintenance and repairs.

Excess land. Surplus land that is not needed to accommodate a site's highest and best use.

Excess rent. The amount by which contract rent exceeds market or economic rent at the time of the appraisal.

Exemption. Property, goods, or income that is not subject to tax.

Expense. A cost or that potion of a cost, which under accepted accounting procedures, is chargeable against income of the current year.

Expense ratio. The ratio of expenses to gross income. A "typical" expense ratio is the relationship of normal expenses to effective gross income.

Exposed aggregate. Mineral fragments or small stones imbedded in concrete exposing the upper surface for a pleasing visual effect.

Exposed beams. A main structural member not covered by the ceiling material in open view.

Exterior plywood. Plywood that has the veneer laminations bonded together with weather resistant glue. See T1-11.

Exterior wall. Any outer wall, except a common wall, that serves as a vertical enclosure of a building.

External obsolescence. A form of depreciation caused by negative influences outside a property, generally incurable. Also known as economic obsolescence. See externalities.

Externalities. Influences from outside the property that affect the value. An appraiser should not assume externalities exist. Market analysis is necessary to determine whether external conditions are affecting the property's value. Externalities may refer to the use or physical attributes of properties located near the subject property or to the economic conditions that affect the market in which the subject property competes. For example, construction of a sewage treatment plant near the subject property may have a negative impact on value.

Extraction method. The method of estimating land value in which an appraiser estimates the contribution of the improvements to the improved property and deducts this amount from the total sale price to arrive at an estimated sale price for the land; most effective when the improvements contribute little to the total sale price of the property.

Extrapolation. Calculating or estimating a quantity beyond the range of the data on which the calculation or estimate is based.

Facade. The exterior front of a building, usually given special architectural treatment, but is often applied to any important face of the building.

Face brick/block. A better grade of clay brick or masonry block made especially for exterior use, often only on the façade, selected for color, texture, and uniformity.

Factor. One of the elements that contribute to a given result.

Factors of production (see agents of production). Economic resources: land, capital, labor, and entrepreneurial ability.

Factory built. Assembled or partially built in a factory or plant rather than on-site. The units are transferred to the building site where final assembly and finish work take place.

False ceiling. A suspended ceiling attached below the actual ceiling to provide space for and easy access to wiring, ducts, and plumbing or used to alter the space dimensions of a room.

False front. An exterior wall that extends beyond the sidewalls and/or roof of a building to create a more imposing façade or front.

Farmland. Land devoted to agricultural production including tillable, non-tillable, and woodlots.

Farmland, additional tax. The amount of tax and penalty when farmland changes use and becomes ineligible for farm use special assessment.

Farmland, special assessment. The special assessment of land used for farming that is less than full assessed value.

Fascia. A horizontal board or material applied at the top of the wall or the end of the eaves to cover the rafter ends.

Federal discount rate. The interest rate charged by the Federal Reserve for funds borrowed by member banks.

Fee appraisal. An appraisal of properties by an appraiser for pay.

Fee simple estate. Absolute ownership unencumbered by any other interest or estate, subject only to the limitations of eminent domain, escheat, police power, and taxation.

Fenestration. The design and arrangement of windows and other openings in a building wall.

Furniture, Fixtures, and Equipment (FF&E). Typically classed as tangible personal property.

Fiber cement. A mixture of cement, sand, cellulose fibers, silica, and other additives that are autoclaved and molded into siding products.

Fiberboard. A low density interior wall or ceiling cover formed from wood fibers by a felting process, dried, and pressed to a specified thickness, length, and width.

Field crop. In agriculture, an annual crop that is planned and harvested by mechanical means.

Field review. The practice of reviewing the reasonableness of valuations (assessments) by viewing the properties in question, sometimes by examining their interiors but more often by looking at their exteriors.

Field stone. Rough undressed rock native to the building site.

Fill. The material, usually earth or gravel, used to raise the ground level up to a desired grade.

Final value estimate. A range of values or a single dollar amount that an appraiser derives in the reconciliation of value indications and states in the appraisal report.

Finished goods. Inventory at the end stage of a manufacturing process. They are the results of combining raw materials, with labor, capital, machine time, and other components of production.

Finish grade. Final elevation of lawns, walks, drives, etc., after backfilling is complete.

Finish hardware. The exposed hardware in a structure, such as door knobs, door hinges, locks, clothes hooks, etc.

Finished plumbing. The third and final step in the plumbing installation process. Includes traps, hot- and cold-water hook ups, screens, and the individual plumbing fixtures set in place.

Final value estimate. The range of values or single dollar figure derived from the reconciliation of value indications and stated in the appraisal report.

Financing costs. The cost of acquiring capital to finance a project.

Fire wall. A brick or other incombustible wall built between buildings, or parts of a building, as a fire stop.

First floor. In the U.S., the floor of a building at or closest to grade; in Europe, the floor of a building above the ground floor.

First in, first out (FIFO). A method of recording the value of inventory, when there are many different batches of similar products. It presumes the next item shipped will be the oldest of that type. It is common for beginning companies to use FIFO for reporting their inventory. As the older, cheaper goods are sold, the newer, more expensive goods remain as assets on the company books. As the company prospers, it may switch over to LIFO accounting to reduce taxes.

First mortgage. A mortgage that has priority over all other liens on a property.

Fiscal year. The period covering a full year (not necessarily a calendar year) to which the annual budget and accounts apply.

Fixed asset. Property that has been brought to the point of highest and best use; that is, fully installed and used to produce income in an economically feasible manner. In business, permanent assets required for the normal conduct of a business.

Fixed capital. Capital invested in a stationary form that may be used many times in production. Permanent assets, such as land, ordinarily a tangible asset but not always.

Fixed liabilities. Long-term debt, over a year's duration, which are payable.

Fixed operating expenses. Fixed operating expenses are those costs of doing business that do not vary with occupancy or output and which have to be paid whether the property is occupied or vacant. Fire/liability insurance and property taxes are examples.

Fixed-rate mortgage (FRM). A conventional mortgage with an interest rate that does not vary over the life of the loan as compared to an adjustable-rate mortgage (ARM).

Fixed window. A stationary, non-movable window.

Fixture. Tangible property attached to the improvements that usually cannot be removed without impairing normal utility of the property. Examples include plumbing and lighting fixtures built into the structure.

Flagstone. Flat stone one to four inches thick used for rustic walks, steps, floors, etc.

Flashing. Sheet metal or other impervious material used in roof and wall construction to protect a building from seeping water.

Flat roof. A roof with just enough drainage to provide for proper drainage; a roof that does not exceed 20 degrees of pitch.

Flex space. Building space that is adaptable to various uses.

Floating foundation. A mat, raft or rigid foundation consisting of reinforced concrete slabs over the entire foundation area; used when the bearing ability of the soil cannot support spread footings and the use of pilings is not necessary.

Floodplain. The flat areas along the course of rivers, streams, and other bodies of water that are subject to overflow and flooding.

Floor area. The total area of one story or building level measured on the outside of exterior walls.

Floor area ratio. The ratio between the above-ground floor area of a building and the area of the land or plot on which it exists; most often expressed as a decimal; e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land size. Also called the building-to-land ratio.

Floor joists. Horizontal framing members to which flooring is attached.

Flue. The space or passage in a chimney through which smoke, gas, or fumes pass.

Flue liner. A smooth, one-celled hollow pipe, usually clay tile or metal, which is placed in a chimney for added fire protection.

Foamed concrete. Concrete in which bubbles of air are incorporated, producing a low weight concrete used in sub flooring, insulation, blocks, roof tiles, and sound proofing.

Foamed-in-place insulation. A plastic foam employed for thermal insulation installed by mixing an insulation substance with a foaming agent just before it is sprayed into the receptacle or wall cavities.

Footing. The wide projecting base of a foundation, pier, or column that transmits the building load to the ground.

Forage. All browse and herbaceous food that is available to livestock or game animals; used for grazing or harvested for feeding.

Forced-air heating. An air heating system in which circulation of air is accomplished by an electric fan. This system includes air-filtering devices and duct work.

Forced sale. The offering and transferring property for a consideration under conditions of compulsions and usually at a consideration not reflective of market value.

Foreclosure. The legal process in which a mortgagee or lending institution forces the sale of a property to recover all or part of a loan on which the mortgagor has defaulted.

Forestland. Tract land covered with trees with a highest and best use for the growing of timber.

Forestland, additional tax. The amount of tax and penalty when forestland becomes ineligible for forestland special assessment.

Forestland, special assessment. The special assessment of land used for growing timber that is less than full assessed value.

Formica®. A brand name for hard laminated plastic surfacing, used primarily on counter tops. Often used as a generic name for all hard laminated plastic surface finishes.

Foundation. Base on which an improvement is built; usually supports bearing walls and partitions or superstructure frame.

Foundation wall. A wall below the floor level and usually below or partly below grade, providing support for the exterior perimeter wall or other structural parts of a building.

Foyer. An entrance hallway.

Fractional assessment. Property assessments that are assessed by law at a ratio less than 1. Different classes of property may have assessment ratios of less than 100 percent of value.

Frame construction. Commonly refers to wall, floor, and roof structures formed of wood or metal studs, joists, and rafters nailed together in a conventional manner.

Framing. The wood, steel, or concrete load-bearing skeleton of a structure.

French architecture. Any of several styles originating in France. Most common is the small formal house, perfectly balanced, with a steep roof hipped at the ends, plastered walls on the

first story, and dormer windows on the second floor. The French farmhouse style is informal and made up of stone, painted brick, or plaster. Sometimes half timbering is used as an accent. Norman French architecture is large scale and usually distinguished by a round tower.

French doors or windows. A pair of glazed doors that hinged at the jamb and function as both doors and windows.

French drain. A drainage ditch or pit containing loose stone and covered with earth.

Frequency distribution. In statistics, a system for analyzing the distribution of a data set showing the number of percentage observations falling within the boundaries of a given set. Used by assessors as part of the ratio studies to summarize the distribution of individual ratios within a data set or array.

Front foot. A land measure one foot in width taken along the road or water frontage of a property.

Frontage. The measured footage of a site that abuts a street, stream, lake, bay, railroad or some other physical attribute.

Frost line. The depth of frost penetration in the soil, which varies by location. Footings should be placed below this depth to prevent movement of the structure.

Functional obsolescence. An element of accrued depreciation. A loss in property value caused by super adequacies or deficiencies inherent in the structure itself. A loss in value resulting from changes in taste or preferences, technical innovations, market standards, or poorly planned construction and layout.

Functional utility. The ability of a property or building to be useful and to perform the function for which it is intended according to current market tastes and standards.

Furnace. A heating system such as a boiler or warm-air heating plant that transfers heat from burning fuel to a heating system.

Furring strips. Thin strips of wood or metal fastened to a masonry wall for attaching a cover material or to provide an air space.

Fuse box. The electrical cabinet housing the fuses or breakers that control the electrical circuits of a structure.

Future worth of 1. Also called the compound amount of 1; this is the amount to which one dollar will grow at compound interest over a specified number of years and at a specified interest rate.

Future worth of 1 per period. The amount to which a series of equal periodic payments will accumulate at compound interest for a specified number of years and at a specified interest rate.

Gable. The triangular end of a building from cornice or eaves to ridge.

Galvanized. Coated (iron or steel) with rust-resistant zinc.

Gambrel. A gable roof with two slopes on each side and the lower slope being steeper.

Gap bond rate. Gap bonds represent debt obligations that have been funded with the operating taxes of districts. They are not a permanent fixture in the system in that they were only created for purposes of implementing Measure 50. There will be no new gap bonds in the future and the ones that currently exist will become part of the permanent rate for the districts that have them once the obligations are paid in full.

Garden apartment. An apartment development consisting of two- or three-story structures built in a garden-like setting; usually a suburban or rural-urban fringe development.

General data. Items of information on value influences that derive from social, economic, governmental, and environmental forces that originate outside the property being appraised.

General ongoing maintenance and repair. The repair or replacement of existing materials due to normal wear/tear/deterioration. Examples of ongoing maintenance and repair may include re-roofing, painting, and replacement of floor or wall covering. Under M50, the MAV of the property cannot be increased due to general ongoing maintenance and repair. According to administrative rule, general ongoing maintenance and repair: preserves the condition of existing improvements without significantly changing design or materials, achieves an average useful life that is typical of the type and quality so the property continues to perform and function efficiently, and does not create additions or new structures.

Generally accepted. Given authoritative recognition by professional bodies such as the Financial Accounting Standards Board and its "Generally Accepted Accounting principles."

General partner. The entity or individual in a limited partnership who has full management responsibility and assumes all personal liability for partnership debt.

Gentrification. A neighborhood phenomenon in which middle- and upper-income persons purchase neighborhood properties and renovate or rehabilitate them.

Geocode. A code used to locate or identify a point, such as the center of a parcel of real estate, geographically. The code is composed of the east-west and north-south coordinates of the point relative to some standard point of reference.

Geodetic survey. A federal program that supports and develops the rectangular survey system of maps for the United States. Land is divided into townships, approximately six miles square, taking into consideration the curvature of the earth. Generally, each township contains 36 sections and each section normally contains 640 acres.

Geodesic dome. An architectural design. A stable, dome-shaped structure fabricated from similar lightweight members, to form a grid of interlocking polygons.

Geographic Information System (GIS). One type of computerized mapping system capable of integrating spatial data (land information) and attribute data among different layers on a base map.

Geometric mean. A measure of central tendency computed by multiplying the values of all of the observations by one another and then taking the result to an exponent equal to one divided by the number of observations. The geometric mean is particularly appropriate when a typical rate of change is being calculated, such as an inflation rate or a cost index.

Georgian architecture. A formal colonial style adapted from English design of the 18th century, characterized by regularity of form, horizontal lines, classical proportions, pitched roofs, central entrances, balanced window openings, doors and chimneys, and first-floor windows extending to the ground.

Ginnie Mae (Government National Mortgage Association—GNMA). A government owned and financed agency that subsidizes mortgages through its secondary mortgage market and issues federally insured mortgage backed securities; a part of the Department of Housing and Urban Development—HUD.

Girder. The long heavy beam spanning from one foundation wall to the other. The girder may be supported at intervals by bearing posts on foundation piers.

Glass block. A hollow building block of transparent glass that admits light, but provides privacy and sound-insulating qualities, not intended for load-bearing uses.

Glulam®. A trade name used to describe glued-laminated timber used for headers, beams, columns, and as exposed architectural features.

Going-concern value. The enhanced or synergistic value of assets due to their assemblage into an economic operating unit that is expected to continue operations into the future with no necessity of liquidation or material alternation of the operation.

Goodness-of-fit statistics. Statistics used in multiple regression analysis and other kinds of statistical modeling to express the amount and importance of errors or residuals for all the predicted and actual values of a variable.

Goods. Items of tangible personal property that has market value; items intended for resale.

Goodwill. The economic advantage over competitors that a business has acquired by virtue of habitual patronage of customers. A salable business asset based on reputation, not physical assets.

Governing body. The county court board of commissioners, city council, school board, board of trustees, board of directors, or other managing board of a local government body.

Government lots. In the government survey system, land areas that are not divided into quarter quarters due to location or size, usually found along the northern or western borders

of townships, along rivers or lakes. These lots are greater or smaller than 40 acres and account for the curvature of the earth.

Government National Mortgage Association (GNMA). A federally owned and financed corporation under the Department of Housing and Urban Development that subsidizes mortgages through its secondary mortgage market and issues federally backed securities. Also called Ginnie Mae.

Government survey system. A national ground survey system used in Florida, Alabama, Mississippi, and all states north of the Ohio River or west of the Mississippi River (including Oregon, except Texas); divides land into townships approximately six miles square, each containing 36 sections of 640 acres. See also legal description.

Grade. The vertical rise and fall of the surface of the earth. Grade is expressed as a percentage of the horizontal distance between two points. A 3 percent grade indicates a rise of 3 feet for each 100 feet of horizontal distance.

Graduated rental lease. A lease that provides for specified changes in rent at one or more points during the lease term; e.g., step-up and step-down leases.

Grantee. The legal party, a buyer, to whom property is transferred by deed or other instruments.

Grantor. The legal party, a seller, who transfers property by deed or grants property rights through any other instrument.

Gravel base. The rock foundation material laid and graded on the ground in preparation for a cement or asphalt cover, as in paving.

Grazing capacity. The maximum number of animals that can feed in an area without damaging the vegetation or related resources.

Grazing land. Rangeland with an understory of vegetation that provides forage for grazing animals.

Grazing season. A period of time, when grazing makes optimum use of forage resources; for public lands, an established period for which grazing permits are issued.

Green building. Buildings that incorporate practices said to help the environment, reduce energy use and costs by efficient design, contribute to a healthier and more pleasant environment for occupants, and contribute to increased productivity.

Green field. A site formerly contaminated with a hazardous waste that has been cleaned or mitigated and returned to a usable state.

Gross floor area. Total area of all stories or floor levels (measured on outside of walls) excluding specified ancillary areas such as equipment penthouses, attic, attached garage, etc.

Gross income multiplier (GIM). A capitalization technique that uses the ratio between the sales price of a property and its potential gross annual income or its effective gross annual income. Once extracted from sold properties, a GIM may be multiplied against the income of a subject property to obtain an estimate of market value. When using effective gross income it is referenced as an EGIM.

Gross leasable area (GLA). The total floor area designed for the occupancy and exclusive use of tenants, including mezzanines, basements, etc. It determined by measuring from the center of interior partitions to outside wall surfaces and is the standard measure for determining the size of shopping centers where rent is calculated based on the GLA occupied.

Gross lease. A lease in which the landlord receives the agreed rent and is obligated to pay all or most of the property's operating expenses and real estate taxes.

Gross rent multiplier (GRM). A capitalization technique by which gross rent is multiplied by a ratio in order to obtain an estimate of market value. By convention, the GRM is the term used when developing the relationship between value and gross monthly rent.

Ground area of building. The total area of a building computed from the exterior dimensions of the ground floor; also known as building footprint or plot coverage.

Ground floor. Level or story of a building predominately at or near site grade.

Ground lease. A lease that grants the right to use and occupy land. Improvements made to the ground by the lessee typically revert to the ownership of the landowner upon expiration of the lease.

Ground rent. The amount of rent paid for the right to use and occupy land.

Ground rent capitalization. A method of estimating land value that is applicable when the ground rent corresponds to the owner's interest in the land, the leased fee interest; applied by capitalizing ground rent at a market-derived rate. This method is useful when comparable rents, factors rates can be extracted from sales of leased land.

Ground water. All water that has seeped down beneath the surface of the soil or ground into the sub soils. Water from springs or wells.

Ground water table. The top elevation of ground water at a given location and at a given time.

Grout. A thin concrete mixture used to fill spaces in masonry work.

Gunite® or Shotcrete®. A concrete mixture that is sprayed from a special gun over steel reinforcements in light construction.

Gutter. A channel and downspouts running along the length of a building or structure the collects and carries away rainwater. Its purpose is to protect the structure and its foundation from damage form excessive runoff.

Gypsum board. The generic name for the family of products comprised mainly of a noncombustible gypsum core and paper facings. Gypsum board is commonly referred to as drywall, wallboard, plasterboard and sheetrock, used instead of plaster or wood panels in construction to form walls.

Hardiboard or Hardiplank™. A fiber-cement pre-finished non-combustible siding that resists rotting or cracking and damage from rain and hail. One of a number of brands of composite concrete based siding materials.

Hardware. The metal fittings of a building such as hinges, locks, doorknobs, latch, etc.

Hardwood. Lumber cut from broadleaf trees such as oak, birch, maple, etc. Typically used for interior finishing components such as cabinets, doors and flooring. It refers to the type of tree not the hardness of the wood.

Hazardous waste/contaminated site. A site, on which a release of a hazardous substance has occurred, reported and listed by the government. Also known as a Brownfield.

Header. The horizontal structural member over an opening (for example over a door or window).

Hearth. The floor of a fireplace often extending out into the room usually made of brick, tile, or stone.

Heat pump. A refrigeration unit with reversible cycle so that it may function to cool the building or be reversed and heat the building.

Heating system. The device or system for heating a building, plus any regulating equipment, duct work, fuel storage tanks and lines, chimney, etc., in the building.

Heating, ventilation, and air-conditioning (HVAC). Refers to the entire unit or system which regulates the distribution of heat and fresh or cooled air throughout a building or structure.

Heavy industrial. Industries that are physically large and complex which typically require large tracts of land such as a steel mill, chemical plant, or paper mill and tend to produce hazards or nuisances such as objectionable fumes, pollution, noise, etc. Sometimes referred to as smoke stack industries.

Heavy soil. A clay soil; fine textured soil.

Heavy steel frame. A building constructed with framing members of heavy steel members such as beams, and girders that are designed to carry or support heavy loads and absorb shocks and vibrations.

Heterogeneous. An area or neighborhood that is composed of dissimilar elements, property, and people. The opposite of homogeneous.

Highest and best use. A principal of appraisal which states: The highest value that a property is capable of attaining at the time of appraisal considering the legally permitted use; financially feasible; the greatest net return to the land and/or buildings over a given period; and physically possible. In Oregon as per Administrative Rule 150-308.205 (A) (1)(e) "highest and best use" means the reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible, and that results in the highest value. See *The Appraisal of Real Estate,* 12th edition (2001).

Highest and best use as though vacant. The most reasonable use that yields the highest present land value after payments are made for labor, capital and coordination. The use to which a parcel of land most likely would be put to under the assumption that the parcel is vacant or can be made vacant by the razing of any existing improvements. Important in order to determine the portion of the overall value attributed to the land. Land valuation is the foundation of any appraisal while it can be said that improvements to the land contributes either positively or negatively to the overall value of the property.

High technology. Commonly refers to the industrial market segment that deals with or is somehow related to technologically advanced products such as computer and or their related components.

Hip roof. A roof with sloping sides and end slopes that are connected by a ridge, the length of which is called a run; distinguished from a pyramid roof in which all slopes meet so that virtually no ridge remains.

Histogram. A bar chart or graph of a frequency distribution in which the frequencies of the various ranges of data points are indicated by either horizontal or vertical bars whose length are proportional to the number of percentage of observations in each range. See frequency distribution.

Historical age. The number of years elapsed since an original structure was built. Synonyms are actual age and chronological age.

Historic property. Improved property that may belong to any of the real property classes that has been granted a partial exemption due to its historic designation.

Historical cost. The cost of property/buildings for when they were originally constructed.

Historic district. An area that has been designated for the retention and preservation of its historic qualities and structures.

Holding period. The length of time an investor expects to own a given property before selling it.

Holdout sample. A portion of the sales data which is held out or set aside for testing the results of an analysis. Also known as a control sample.

Home site. The land surrounding a dwelling and containing amenities necessary for support of the dwelling.

Homogeneous. A market area where the property types and uses are similar and the inhabitants have compatible cultural, social, and economic interests. The opposite of heterogeneous.

Horizontal inequity. The differences in the levels of appraisal of groups of properties, based on criteria other than value. For example, properties in one market area may have a higher level of assessment than similar properties in another market area. See vertical inequity.

Hotspot. A geographic or market area that displays rapid market changes and where assessment standards are not being met.

Humidifiers. Electrically operated unit used to inject moisture into the air.

"I" beam. A steel joist or girder with short flanges and a cross section formed like the letter I.

Illiquidity. Describes the condition where an asset cannot be converted to cash readily.

Impact study. An analysis of pertinent data to determine the effect of development upon the environment such as an environmental impact study.

Impervious soil. Soil that does not allow for the passage of water, air, or plant roots. Generally a soil in which a septic system cannot be approved.

Improper expenses. For income properties, expenses incurred by the owner that are not used to estimate value when utilizing the income approach to value; e.g., interest on a mortgage.

Improved land. Land that has been developed for some use by the addition of a building or structure.

Improvements. Any dwelling, building, structure, manufactured structure, or physical addition to the land that is relatively permanent.

Improvements to land. Additions to land designed to enhance a site's utility for general use. Improvements may be on-site or off-site, both of which enhance the overall utility and typically the lands value. Examples of on-site improvements include fill, leveling, water, sewer, etc. Example of off-site improvements includes such items as curbs, gutters, sidewalks, streets, water and sewer trunk lines, etc. See OAR 150-307.010(1) for definitions.

Inadequacy. The inability of a property to yield a reasonable return on the value of the land and the reproduction cost of the improvements (less accumulated physical depreciation) because of its lack of capacity.

Income. The payments to its owner that a property is able to produce or generate in a given time span, usually a year. Gross income (GI) is the income prior to the subtraction of allowable expenses while net operating income (NOI) is the gross income net of allowable expenses.

Income approach. One of the three approaches to value sometimes revered to as the income capitalization approach. The income approach defines value as the present worth of future benefits arising from the ownership of a property over its remaining economic life. This

definition reflects the principle of anticipation. Income-producing property typically is purchased for the right to receive the future income stream of the property. The appraiser analyzes this income stream in terms of quantity, quality, and duration and then converts it by means of an appropriate capitalization rate into an indication of market value. The basic formula is: Value equals income divided by rate.

Income capitalization. The process of dividing a property's net annual income by a capitalization rate in order to arrive at an estimate of value.

Income multiplier. A form of income capitalization; see gross income multiplier.

Income-producing property. A type of property created primarily to produce monetary income.

Income stream. The series of payments (rent) receivable from an investment over the economic life of the investment (property).

Increasing and decreasing returns. Increasing the amount of agents in production produces a greater net return to the property up to a point (point of diminishing returns). Once the point of diminishing returns is reached, successive investment increments will decrease their net benefit to the property. This principle helps the appraiser compare alternative use patterns and intensities of use to establish the highest and best use of the property.

Incurable depreciation. That part of depreciation that cannot be reversed by correcting deferred maintenance and remodeling to relieve functional obsolescence. This condition occurs when the cost of correcting the condition exceeds the value added.

Incurable functional obsolescence. An element of accrued depreciation; an incurable defect caused by a deficiency or super adequacy in the structure, materials, or design that cannot be practically or economically corrected.

Incurable physical depreciation. A part of accrued depreciation caused by physical deterioration that occurs when the cost of correcting the condition exceeds the value added.

Indexed lease. A lease that provides for periodic rent adjustments based on some index such as the consumer price index (CPI). Generally these are long-term leases. The index may be applied annual or on an accumulative basis on a set time such as five-year increments.

Indirect costs. Costs that are incurred in construction away from the actual construction site; e.g., fees, permits, insurance, and loans. Also known as soft costs.

Industrial plant. A single location where industrial operations are performed; includes all structures and in Oregon machinery and equipment.

Inflation. An erosion of purchasing power of currency characterized by price escalation and an increase in the volume of money.

Ingress. A means of entering; an entrance.

In lieu tax. A tax that substitutes for property taxes.

Inside lot. A lot that is removed from a street intersection and unaffected by corner influence.

Institute of Real Estate Management (IREM). An organization of real estate professionals concerned with property management that confers the following designations: AMO (Accredited Management Organization), ARM (Accredited Resident Manager), and CPM (Certified Property Manager).

Instrument. In real estate, a formal legal document such as a deed, contract, mortgage, lien, lease, will, etc. For use by an assessor, the instrument must have recording number(s) issued by the clerk's office in the county where the property is located.

Insulation. Any material used to resist the passage of sound, heat, vibration, or electricity from one place to another.

Intangible personal property. Property that has no physical existence beyond neither merely representational, nor any extrinsic value; includes rights over tangible real and personal property, but not rights of use and possession. Its value lies chiefly in what it represents. Examples include corporate stock, bonds, money on deposit, goodwill, restrictions on activities (e.g., patents and trademarks), and franchises.

Intangible value. A value that cannot be imputed to any of the physical property; e.g., the excess value attributed to a favorable lease, the value attributed to goodwill, for personal property, money at interest, equities, copyrights, brand names, etc.

Integrated house wiring system. A wiring system that allows control of security, phone, computer, multimedia, heating, lighting, satellite, etc., from touch pad or touch screen remote.

Intercept. Graphically, the point at which a trend line intersects the axis on which the dependent variable is represented.

Interest. The premium paid for the use of money; a rate of return on capital. The interest rate usually incorporates a risk factor, a liquidity factor, an illiquidity factor, an inflation factor, and potentially other factors. See also discount rate.

Interest-only mortgage. A non-amortizing loan in which the lender receives only interest during the term of the loan and recovers the principle in a lump sum at the time of maturity.

Interest rate. The price of money; the level of market interest carried by the debt instrument from the day it is executed over the duration of its life. The rate of return or yield rate on borrowed capital usually expressed as the nominal annual percentage of the amount loaned or invested.

Interim financing. A temporary or short-term loan that is secured by a mortgage and generally paid for by the proceeds of permanent financing. Usually used during the construction period of a project.

Interim use. The temporary use to which a property or site is used until it is ready to be put to its highest and best use.

Interior trim. The finish on the interior of a building; e.g., casing, molding, baseboard.

Internal rate of return (IRR). The annualized yield rate on capital that is or could be generated by an asset over a period of ownership. The rate that discounts all future cash flows to a net present worth equal to the original investment. The internal rate of return is calculated usually by trial and error, from the knowledge of the relevant cash flows.

International Association of Assessing Officers (IAAO). A professional organization for property tax officials that confers the following designations: AAS (Assessment Administration Specialist), CAE (Certified Assessment Evaluator), CMS (Cadastral Mapping Specialist), PPS (Personal Property Specialist), RES (Residential Evaluator Specialist).

Interpolation. The estimation of a quantity within the range of data on which the estimation is based.

Intersection. The point at which two or more lines cross; may also refer to the crossing of two or more streets.

Intestate. The state of having died without leaving a valid last will and testament.

In-transit goods. Personal property that is in movement from one jurisdiction to another; the property is not assessable because of its lack of situs.

Invested capital. The original monies or capital invested in an enterprise plus any accumulated profits that are not withdrawn but allowed to remain and augment the initial investment.

Investment holding period. The length of time that typical investors generally hold an investment of a specified type.

Investment value. The worth of an investment property to a particular investor. Investment value may or may not be the same as market value depending upon the requirements of the specific investor.

Investment yield. The rate of return on invested capital that is generated from an investment over the period of ownership. It includes both income and resale. See internal rate of return.

Inwood coefficient. A factor used to obtain the present worth of a level stream of income; also known as the present worth of 1 per period factor.

Inwood annuity capitalization. A traditional technique in which present value factors from standard compound interest tables are used to discount a stream of level income into an indication of present worth. Also known as Inwood coefficients.

Irrigation. The artificial application of water to the soil for full crop production; used in arid regions or when rainfall is insufficient.

Irrevocable. That which cannot be recalled or revoked.

IRV. A mnemonic for the basic equation of the income approach: Income = (Capitalization) Rate x Value.

Italian architecture. A style that varies from a completely balanced design to an informal composition with formal treatment and openings. Typical details include high window openings that are completely framed, often with circular heads. Roofs are made of s-shaped red tile.

Iteration. One repetition or repeated cycle in a process of estimating values as close as possible to actual values by repeated approximations. The results of each approximation are used in the next.

Job built. Constructed on the building site with readily available material.

Joint. The point of intersection where two objects or materials meet; the space between the bricks or blocks in a masonry wall that is filled by mortar or bonding material.

Joint tenancy. Joint ownership by two or more people with the right of survivorship.

Joint venture. A combination of two or more entities that join together to undertake a specific project.

Joist. One of several parallel beams comprising a floor or ceiling frame. It sometimes acts as both a ceiling joist and rafter, as in a flat roof.

Judgment lien. A statutory lien on real and/or personal property of a judgment debtor; created by the judgment itself.

Judicial sale. A court action that enforces a judgment lien by selling a property to pay a debt.

Junction box. A box in an electrical system where main circuits are connected or smaller circuits join the main circuit.

Jurisdiction. The physical territory such as that for a county or city over which the governmental entity has power, authority or control.

Just compensation. In condemnation, the amount of loss for which a property owner is compensated for when his/her property is taken; the basis for is usually market value, but may or may not exceed market value.

Keystone. A wedge-shaped structural masonry block that forms the center unit at the top of a masonry arch.

Kicker. Payments made to a lender over and above the nominal interest rate and amortization payment.

Kick plate. A metal strip placed at the lower edge of a door to protect the finish.

Kiln. An oven-like chamber that bakes hardens or dries material such as for green lumber, bricks, etc.

Kiln-dried lumber. Lumber that is dried in a kiln to reduce its moisture content.

Kilometer. A metric linear unit of measure equal to 1,000 meters.

King post. The vertical member at the center of a triangular truss.

Knee joist. A brace placed diagonally at the juncture of a post and beam to provide rigidity.

Knockdown. Describes prepared construction materials that are delivered to the construction site unassembled but complete and ready to be assembled and installed. A type of wall finish where the applied texture is then knocked down or smoothed to some degree.

Knot. A defect in a piece of lumber caused by the limb growing from the main trunk of the tree and becomes visible as the result of the log being sawn into boards.

Lacustrine soils. Soils formed from materials deposited by the waters of lakes and ponds; usually of fine texture.

Laissez-faire. A doctrine opposing government interferences in economic affairs beyond that minimum necessary to maintain peace and property rights; the belief that the market place is the most productive when persons as allowed to follow their own interests with a minimum of restrictions.

Laminate flooring. Usually made from high-density fiberboard and other materials, glued and fused together into a plank.

Laminated. Thin layers of material united into layers by adhesive or other means, used to create plywood and laminated beams.

Land. In law, a portion of the earth's surface, together with the earth below it, the space above it, and all things annexed thereto by nature or man.

Land patent. A legal document in which the federal government conveys the title to land to an individual.

Land capability classification system. A system developed by the Soil Conservation Service to classify agricultural land use based on a soils limitation, not on its potential yield, indicates the risk of damage to soil, soil needs, and response to management.

Land contract. A real estate installment purchase agreement that permits the buyer to use, occupy, and enjoy land without a deed being given by the seller (no title has been passed) until all or a specified part of the sales price has been paid. Subsequently evidenced by a valid recorded deed. Also referred to as land sale contract or contract for sale.

Land improvements. The improvement of land with utilities, roads, and services that makes the land suitable for resale as buildable sites. These can be on-site or off-site improvements.

Landfill. A tract of land used for the disposal of solid wastes. Also known as a garbage dump.

Landing. A level part in a staircase, usually at the end of a flight of stairs.

Landlord. The person granting a possessory interest in property as the result of a lease.

Landlocked parcel. A parcel of land that has no legal access to a road.

Landscaping. The act of modifying the land typically surrounding a structure by adding land improvements such as grading, plantings such as trees, shrubs, lawns, paths, sidewalks, gardens, etc.; also refers to the land improvements once they are put in place.

Land or site analysis. A careful study of factual data relating to the neighborhood characteristics that create, enhance or detract from the utility and marketability of the land or site as compared with competing comparable land or sites.

Land residual technique. A method of estimating land value in which the net operating income attributable to the land is isolated and capitalized to produce an indication of the land's contribution to the total value. Also known as the abstraction method.

Land surveying. The location and identification of a parcel of land by a professional surveyor or engineer.

Land-to-building ratio. The ratio of land area to gross building area. For a given use, the most frequently occurring ratio will be that of a functioning economic unit. Also known as the land ratio or land-to-improvement ratio.

Land use regulation. A legal restriction such as a zoning ordinance that controls the use to which land may be put; typically put in place by local governments.

Lap joint. The overlapping of two adjoining pieces of timber, wallpaper, or other material.

Lap siding. Siding applied horizontally to finish the exterior surface of a house or other structure.

Last in, first out (LIFO). A historical method of recording the value of inventory, a firm records the last units purchased as the first units sold. The method is permitted in the belief that an ongoing business does not realize an economic profit solely from inflation. LIFO better matches current cost against current revenue.

Lath. A building material of wood, metal, gypsum, or masonry material on which a plaster cover is spread.

Lean-to. A smaller addition to a main building that shares a common wall and roof support usually erected against the outside wall of a larger building.

Lease. A written contract by which the lessor (owner) transfer the rights to occupy and use real or personal property to another (lessee) for a specified time in return for a specified payment or rent.

Lease, crop share. A agricultural lease where the landlord (lessor) receives a set percentage of the net proceeds after the crop is raised and sold. Landlord may also participate in a share of the costs as well.

Lease, graduated. A long-term lease with specified increases or decreases in the rent that take place at a specified interval. Also referred to as a step up or down lease.

Lease, gross. A lease under the terms of which the landlord (lessor) receives a stipulated rent and pays all of the operating expenses.

Lease, ground. A lease conveying an interest in land exclusive of any improvements or structures.

Lease, net. A lease under the terms of which the lessor pays all of the agreed rent as well as all operating expenses including maintenance and taxes. Frequently net leases are referred to by the different levels of net such as triple net. Terms such as double net or triple net have different meanings in different locales.

Lease, percentage. A lease in which the consideration is measured by or dependent on the operating earnings or sales of the business using the property. Many percentage leases have a base, put a percent of sales over the base. This form of lease is also known as an overage lease.

Lease, step up. A lease that calls for set increases in rent at specified intervals.

Lease, straight. A lease that calls for rent in a set amount to be paid periodically (by month, by year) over the term of the lease.

Leaseback. An arrangement whereas the seller of a property is obligated to lease the property from the buyer under terms and conditions that are not negotiable.

Leased fee estate. An ownership interest held by a lessor with the rights of use and occupancy by lease to another.

Leasehold estate. Interests in real property under the terms of a lease for a specified time; in return for rent or other compensation; the interests in a property are associated with the lessee (tenant) as opposed to the lessor (landlord). May have value when market rent exceeds contract rent.

Leasehold improvements. Items of personal property such as furniture and real property fixtures associated with a lessee (the tenant), that have been affixed to the real property owned by a lessor. Frequently, leasehold improvements that are classed as real property are required to be left in place by virtue of the lease terms upon vacation of the rented or leased space.

Leasing commissions. Fees paid to a real estate agent for leasing tenant space. When spread out over the term of the lease they are typically expensed, when included as part of the initial leasing fees , they are typically capitalized.

Ledger board. A narrow horizontal board attached to a row of studs to support the ends of floor or ceiling joists.

Legal description. A description of property that serves to identify the parcel for all purposes of law. It is an exact description that enables the real estate to be located and identified. It may use the township, range, section, subsection and parcel number, lot and block of a subdivision, metes and bounds, distance, etc.

Legal non-conforming use. A current use that was legally established, is maintained, and has the right to continue, but the use is no longer allowed by current zoning regulations.

Legal owner. The person or entity that holds title to the property.

Lessee. One who has the right to use or occupy a property under a lease agreement; a tenant or leaseholder.

Lessor. One who holds property title and conveys the right to use and occupy the property under a lease agreement; a landlord or leased fee owner.

Level annuity. An income stream in which the amount of each payment is the same. A level, unchanging flow of income over time.

Level of assessment. The common or overall ratio of assessed value to market values. In Oregon the level of assessment varies by county by major property class; e.g., residential, commercial, etc.

Level of trade. Appraisers recognize three distinct levels of trade: The manufacturing level, the wholesale level, and retail level. Personal property should be assessed at the trade level at which it is found. The valuation of the inventory of one owner should be based on the price for which it would be exchanged with a similar business, at the same trade level, for example, from one manufacturer to another. Value in exchange increases as a property moves from manufacturing through retail levels of trade.

Leverage. The effect of borrowed funds on investment returns. They may either increase or decrease the return that may have been received on free and clear equity.

Levy. The total amount of money to be raised from the property tax as set forth in the budget of a taxing jurisdiction.

Liability. Any debt or legal obligation owed against a property or business.

Lien. A charge placed against personal or real property to satisfy a debt.

Life care facilities. A property designed for the housing and care of elderly individual who require assistance with life-care services such as cooking, cleaning, and nursing care. Included in this broad category are assisted-living, nursing homes and continuing care retirement centers (CCRC).

Life, economic. The period during which a given tangible asset such as a building is expected to positively contribute to the value of the total property.

Life estate. The total rights of use, occupancy, and control, limited to the lifetime of a designated party, often known as a life tenant.

Life, physical. The period over which a tangible asset such as a building or a piece of machinery is capable of functioning without being scrapped or reconstructed.

Limited partner. A passive partner in a limited partnership who has no personal liability beyond their investment.

Limited partnership. An ownership arrangement consisting of general and limited partners. General partners manage the business and assume full liability for partnership debt, while limited partners are passive and liable only to the extent of their investment.

Line, property. A line bounding a parcel of land. A property line may or may not coincide with a lot line.

Linear regression. A type of statistical analysis used to investigate whether a dependent variable and a set of one or more independent variables share a linear correlation and, if they do, to predict the value of the dependent variable on the basis of the values of the other variables.

Linoleum. A durable, washable material made in sheets by pressing a mixture of heated linseed oil, rosin, powdered cork, and pigments onto a burlap or canvas backing and is usually used as a covering, especially for floors.

Liquid assets. Assets that can be quickly converted into cash.

Liquidation value. The estimated gross dollar amount that could be realized at a properly conducted auction held under forced conditions and under present-day economic conditions.

Liquidity. The ease with which an asset can be readily converted into cash.

Listing. The written contract in which an owner employs a real estate broker to sell or lease their property.

Living unit. An apartment, condominium house or any other residential property occupied by one household.

Load. The weight supported by a structural part or member such as beam.

Loading dock leveler. An adjustable mechanized platform built into a raised loading dock which can be raised or lowered to accommodate the level of the cargo truck for the loading or off-loading of goods or material.

Loafing shed. An open shed that provides shelter for livestock.

Loam. A soil that is a combination of different grades of sand, silt, and clay in which no one characteristic dominates.

Loan, constant. See mortgage, constant.

Loan fee. The fee paid to a lender for the use of money or for the service of making the loan, also called points.

Loan-to-value ratio (M). The relationship (ratio) between the amount of a mortgage and the value of property expressed as a percentage.

Loan term. The length of time over which a loan must be repaid.

Lobby. An interior entranceway to a structure such as that found in a motel/hotel, a public building, a theater, etc.

Local cost modifier (LCM). A LCM is a market-derived modifier used to adjust cost estimation guides for local areas and appraisal dates.

Local option rate. A feature of Measure 50 and is the only way for taxing districts to raise operating revenue beyond the amount from their permanent rate. Voters at the local level must approve these levies, they represent one aspect of the local control over the level of property taxes. Measure 50 required that local option levies be approved by a majority of voters in a general election or an election with at least a 50 percent turnout.

Locally assessed property. Property where the assessed value is determined by the county assessor, as compared to centrally assessed property where the assessed value is determined by the state Department of Revenue.

Locational obsolescence. A component of external obsolescence; a loss in value due to suboptimal siting of an improvement either on its site or within a greater market area.

Long-lived items. Items that are the basic structure of a building which are not typically replaced during a structures economic life which includes items such as the roof trusses, foundation, exterior walls framing, etc.

Lot. Any marketable parcel into which a tract of land may be divided as the result of the platting process.

Lot, government. See government lot.

Lot, standard. See standard lot.

Lot and block system. A legal description of a parcel of land that refers to the lot and block numbers that appear on maps and plats of recorded, subdivided land. See also legal description.

Lot line adjustment. Any addition to the square footage of land for a real property tax account which includes a corresponding subtraction of square footage from the land of a contiguous real property tax account.

Louver. A slat over an opening that is pitched at an angle to keep out rain, snow or sunshine or may be used to direct the flow of air in a certain direction such as that for a heat vent.

Luminous ceiling. A lighting system consisting of many rows of fluorescent light tubes above a suspended ceiling of translucent material, which makes the ceiling appear to be luminous.

LUST. Refers to a leaking underground storage tank such as that for gasoline. May refer to the cause of a contaminated site.

Machine shed. A farm building used to store farm machinery; may be open on one side.

Macroeconomics. The economics of the economy as a whole as opposed to a small portion of the overall market.

Maintenance. Expenditures on an asset such a machine or structure that tends to preserve or extend the useful life.

Major addition. A Measure 50 term. An addition that has a RMV greater than $10,000 and adds square footage to an existing structure.

Mantel. A complete facing of wood, stone, marble, etc., around a fireplace, including a projecting shelf or slab above it.

Manufactured home, manufactured structure. A structure intended for human occupancy, built off-site and designed to be moved by means of a detachable wheel system for transportation to a permanent site.

Market adjustment factors. Market adjustment factors, reflecting supply and demand preferences, are often required to adjust values obtained from the cost approach to the market. These adjustments should be applied by type of property and area and are based on sales ratio studies or other market analyses. Accurate cost schedules, condition ratings, and depreciation schedules will minimize the need for market adjustment factors.

Market area. A group of properties that generally share important characteristics that influence value. A market area may be defined by physical/geographical or abstract boundaries, or in the case of commercial property, according to use. A market area can include multiple neighborhoods. Each market area should contain a sufficient number of accounts to ensure an adequate sales sample for analysis.

Market price. The amount actually paid, or to be paid, for a property in a particular transaction. Differs from market value in that it is an accomplished or historic fact, whereas market value is and remains an estimate until proven. Market price involves no assumption of prudent conduct by the parties, or absence of undue stimulus, or of any other condition that is basic to the fair or open market value concept.

Market rent. The rent currently prevailing in the market for properties comparable to the subject property. Market rent is capitalized into an estimate of value in the income approach.

Masonry. Stone, brick, concrete, hollow tile, concrete block, or other similar building units bonded together with mortar to form a wall, pier, foundation, or similar mass.

Mass appraisal. A method of appraising a large number of properties at one time by adopting standard techniques using standard methods, employing common data, and allowing for statistical testing. The method gives due consideration to the valuation process so that uniformity and equity of values can be achieved between all properties.

Mass appraisal model. A mathematical expression of how supply and demand factors interact in a market.

Maximum assessed value (MAV). A term defined by Measure 50 that was approved by Oregon voters in 1997. MAV is the greater of 103 percent of the property's AV from the prior year or 100 percent of the property's MAV from the prior year. MAV may be increased or recalculated under certain circumstances to reflect changes to the property (exceptions). The base MAV for 1997-98 was the RMV for the tax account in 1995-96 less 10 percent.

Maximum specially assessed value (MSAV). For the 1997-98 tax year, maximum specially assessed value (MSAV) was the 1995-96 SAV less 10 percent. MSAV may be increased or recalculated under certain circumstances to reflect changes to the property. For tax years after 1997-98, MSAV increased by 3 percent per year.

Mean. The result of adding all the values of an array and dividing by the number of values. Also called the arithmetic mean.

Measure 5. The constitutional tax rate limitations passed by voters in November 1990, which can be found at Article XI, Section 11b of the Oregon Constitution. Measure 5 limited school taxes to $15 per $1,000 of assessed value and non-school taxes to $10 per $1,000 of assessed value, starting in 1991–92. The school limit fell by $2.50 per $1,000 each year until it reached $5 per $1,000 in 1995–96. The non-school limit remains at $10 per $1,000. Levies to pay bond principal and interest for capital construction projects are outside the limitation. The Measure 5 rate limits still apply under the provisions of Measure 50, passed in 1997, but apply to RMV only.

Measure 37 partition. A partition granted to a particular landowner where the current zoning restrictions are waived and the zoning in place at the time of purchase are recognized for the current owner. Building rights are not transferable.

Measure 50. Approved by Oregon voters in 1997, which can be found at Article XI, Section 11 of the Oregon Constitution. This measure contains a mathematical calculation used to establish the current AV using the 1995–96 RMV less 10 percent for the 1997–98 tax year. For tax years after 1997–98, MAV is the greater of 103 percent of the property's AV from the prior year or 100 percent of the property's MAV from the prior year.

Median. A measure of central tendency calculated by determining the exact middle ratio in an array. The value of the middle item where an odd number of items are arrayed according to size, or the arithmetic average of the two central items if there is a even number of items. It is a positional average and is not affected by the size of extreme values.

Medium-density fiberboard (MDF). An engineered wood product formed by breaking down softwood into wood fibers, combining it with wax and resin, and forming panels by applying high temperature and pressure.

Metal flashing. Sheet metal used to reinforce and weatherproof the joints and angles of a roof.

Metes and bounds. A legal description of a parcel of land that refers to the parcel's boundaries, which are formed by the point of beginning and all intermediate points, the bounds, and the courses of each point, the metes. See also legal description.

Millage; mill rate. A tax rate expressed as mills per dollar. For example, a 2 percent tax rate is $2 per $100, $20 per $1,000, or 20 mills per dollar.

Millwork. Generally includes building materials and components made of finish wood which are fabricated in woodworking plants or shops. Includes such items as sash and doors, their frames, mantels, panel work, stairways, moldings, and interior trim. This does not include flooring, sealed covers, or siding.

Mineral rights. The right to extract ore, petroleum, or other minerals from a property.

Minor construction. Measure 50 term. An improvement or addition to real property that results in an addition to RMV but does not qualify as an addition to MAV due to a value threshold. To be added to the MAV, the RMV of the improvement or addition must be greater than $10,000 in any one assessment year or more than $25,000 for all cumulative additions made over five assessment years.

Minor partition. A partition that is subject to approval by a city or county under a regulation or ordinance adopted pursuant to ORS 92.046 and that does not include the creation of a road or street.

Mode. A measure of central tendency. (1) In an array of the values of a variable, the most frequently occurring value. (2) By extension for grouped data, the class with the greatest number of observations. A ratio that occurs most frequently in a ratio array.

Model. For purposes of appraisal, a representation (in words or an equation) that explains the relationship between value or estimated sale price and variables representing factors of supply and demand.

Model calibration. The development of adjustments, or coefficients, based on market analysis, that identifies specific factors with an actual effect on market value.

Model specification. The formal development of a model in a statement or equation, based on data analysis and appraisal theory.

Modernization. A type of renovation that replaces worn or outdated elements with their current counterparts.

Modular home. A construction system where pre-built sections are delivered to the building site and affixed to a permanent perimeter foundation.

Monument. A term used in land surveying and geodesy to mean a permanent object placed in the ground marking a point, the location of which is known, on the surface of the earth.

Mortar. A pasty mixture of cement, lime, sand, and water that gradually hardens on exposure; used as a bonding agent for brick, stone or other masonry units.

Mortgage. A contract under the terms of which the legal, but not the equitable, title to a specific property of one person (the mortgagor) is conditionally conveyed to a second person (the mortgagee) as security for the payment of a debt or performance of some other act. **Note:** In some states, legal title to mortgaged property passes to the mortgagee on execution of the mortgage; in others, legal title passes when the debt secured by the mortgage is in default; in still others, the mortgage is simply a lien, and legal title does not pass until foreclosure proceedings have been completed.

Mortgage, chattel. A mortgage in which the security consists of tangible personal property. **Note:** A chattel mortgage usually takes the form of a bill of sale drawn in favor of the mortgagee with a clause defeating the transfer during compliance by the mortgagor with specified conditions. In Oregon, these documents will be recorded in the county clerks' misc. deeds.

Mortgage constant (Rm). The capitalization rate for debt; the ratio of the annual debt service to the principal amount of the mortgage loan.

Mortise. A notch or hole that is cut in a piece of wood or other material to receive the projecting part (tenon) of another piece wood or material to join the two pieces together.

Moving average. A statistic used to smooth the values of a variable when those values are erratic over distance or time, as in the case of land values and mortgage commitments. For example, a five-block simple moving average of land values along a major street would assign to block 16 the average of the values for blocks 14-18; it would assign to block 17 the average of the values for blocks 15-19, and so on.

Mud room. An entrance or entry in a residence, where muddy clothes and footwear maybe removed or stored. Usually located away from the main entrance and is near a bathroom or laundry.

Mud sill. A foundation footing formed of heavy wood timbers laid out on the ground.

Multiple regression, multiple regression analysis (MRA). A particular statistical technique, similar to correlation, used to analyze data in order to predict the value of one variable (the dependent variable), such as market value, from the known values of other variables (called "independent variables"), such as lot size, number of rooms, and so on. If only one independent variable is used, the procedure is called simple regression analysis and differs from correlation analysis only in the correlation measures the strength of relationship, whereas regression predicts the value of one variable from the value of the other. When two

or more variables are used, the procedure is called multiple regression analysis. See linear regression.

Neighborhood. (1) The environment of a subject property that has a direct and immediate effect on value. (2) A geographic area defined for some useful purpose, such as to ensure for later multiple regression modeling that the properties are homogeneous and share important locational characteristics. A group of complementary land uses where properties may or may not be homogeneous.

Net income. The income expected from a property, after deduction of allowable expenses. Net annual income is the amount generated by a property after subtracting vacancy and collection losses, adding secondary income, and subtracting all expenses required to maintain the property for its intended use.

Net income multiplier. A factor expressing the relationship between value and net operating income; the reciprocal of the overall rate.

Net income ratio (NIR). The ratio of net income to total gross income. This ratio can be expressed as a percentage of potential gross income or of effective gross income and is used as a comparison unit for income-producing properties.

Net leasable area. The area within a building or structure that is actually occupied by an individual tenant. Net leasable area does not include any of the common areas, such as lobbies and restrooms, shared by other tenants.

Net lease. A lease in which the landlord (lessor) receives a stipulated rent amount and the tenant (lessee) pays all operating expenses and taxes attributable to the property. Also known as a triple net lease.

Net operating income (NOI). Annual net income after all operating expenses are subtracted from effective gross income. Does not include payments for interest or principal.

Net profit. Excess of revenue over operating expenses.

New construction. Any new structure, building, addition, or improvement to the land, including site development. May qualify as an exception under Measure 50.

Newel post. The post at the bottom of a stair or the end of a flight of stairs, to which the balustrade is anchored. The center pole of a spiral staircase.

Nonconforming use. A use of property that does not comply with the applicable zoning ordinance. Uses that differ noticeably from prevailing uses in a neighborhood are sometimes also referred to as "nonconforming."

Nonhomogeneous. A market area where the property types, types of buildings, building ages, and uses are dissimilar and the inhabitants have non-compatible cultural, social, and economic interests. The opposite of homogeneous.

Normal distribution. A theoretical distribution often approximated in real-world situations. It is symmetrical and bell-shaped; 68 percent of the observations occur within one standard deviation of the mean, and 95 percent within two standard deviations.

Obsolescence. One of the causes of depreciation; an impairment of desirability and usefulness caused by new inventions, current changes in design, improved processes for production, or external factors that make a property less desirable and valuable for a continued use; may be either functional or external.

Occupancy rate. The relationship between the income received from the rented units of a property and the income that would be received if all the rentable units were occupied and rented.

Omitted property. Taxable property discovered and added to the roll after the roll is certified to the tax collector. The assessor can go back the current year, plus the five previous years to add omitted property when discovered.

On center (O.C.). A term describing the spacing between studs, rafters, joists, nailing strips, etc., measured from the center of one member to the center of the next.

On-site development. Land improvements within the site which support the buildings or other property uses. These include but are not limited to items such as grading, fill, drainage, wells, water supply systems, septic systems, utility connections, extension of utilities to any structure(s), retaining walls, landscaping, and graveled driveway area. See OAR150-307.010(1)

Opening. Common term used to denote doors, windows, etc., in the exterior walls of buildings.

Oregon Administrative Rules (OAR). The interpretation of Oregon Revised Statutes issued by a state agency such as the Department of Revenue. The Department of Revenue uses a unique method for indexing its rules: 150– is the agency identifier assigned by the Secretary of State, followed by the statute number for which the rule is written, explaining the statute. OAR 150-307.010.

Operating expenses. Those expenses which are necessary to maintain the flow of income from a property. These expenses are deducted from the effective gross income of a property to obtain a net operating income (NOI), which is then capitalized in the income approach to obtain an indication of market value. These expenses generally include the costs of property insurance; heat, water, and other utilities; repairs and maintenance; replacement reserves for such items as heat and air-conditioning systems, water heaters, built-in appliances, elevators, roofing, floor coverings, and other items whose economic life will expire before that of the structure itself; management; and other miscellaneous items necessary to operate and maintain the property. Not considered as operating expenses are depreciation charges, debt service, income taxes, capital improvements, and personal or business expenses of the owner. In addition, for assessment purposes, property taxes are usually treated as an adjustment to the capitalization rate rather than as an expense item for assessment purposes.

Operating statement. A written summary of the gross income, expenses, and net operating income or loss for an income producing property over a fixed period of time.

Ordinance. A local government's public regulation, statute, or law.

Oregon Revised Statutes (ORS). The laws of the state of Oregon, as the legislature amends, changes, and deletes. The first numbers to the left of the "." indicate the chapter and the numbers to the right of the "." indicate the section of the law. Example: ORS 307.025 would indicate section 25 of chapter 307.

Oriented strand board (OSB). An engineered panel made of strands, flakes, or wafers of wood fibers combined with resin binders that is heated and pressed into panels. OSB is unique in that wood strands are oriented, not randomly placed.

Outlet. A supply point on an electric circuit where electric current is tapped by the equipment using it.

Outlier. An observation that has an unusual value that varies widely from a measure of central tendency. Some outliers occur naturally, others may be due to data error.

Overall age/life method. Method of estimating accrued depreciation based on straight-line depreciation in which the building is assumed to depreciate by a constant percentage each year over its economic life.

Overall rate (OAR). A capitalization rate that blends all requirements of discount, recapture, and effective tax rates for both land and improvements; used to convert annual net operating income into an indicated overall property value.

Overimprovement. An improvement that does not represent the most profitable use for the site on which it is placed. The improvement may be too large, costly, and cannot develop the highest possible land value; it may be permanent or temporary. See underimprovement.

Overhang. A projection of an upper part (as a roof or upper story) of a building beyond the lower part.

Parameter. Descriptive characteristics of a population as a whole. For instance, it could be the average square footage, the average RMV, or the average percent good in the marketplace.

Parcel. Must look to statutes for specific definitions. Generally, a contiguous area of land under one ownership. It may be described in a single legal description or as one of a number of lots on a plat; separately owned, either publicly or privately; and capable of being separately conveyed.

Parcel identification number. A unique numeric or alphanumeric description of a parcel. Assessors use various systems, many with common features. A growing number of these systems include geocoding. In the 30 states where it exists, the Public Land Survey System, authorized by the United States government in 1785, is often a basis for parcel identification.

Parquet. A patterned wood surface such as flooring or paneling usually in a geometrical design.

Partial exemption. The amount of taxable value removed from tax liability by constitutional and/or statutory action.

Partial interest. An interest (in property) that is less complete than a fee simple interest.

Particle board. A dense, hard, synthetic board manufactured of wood fibers and bonding resins that are pressed into specified thicknesses.

Partition. A wall that subdivides spaces within any story of a building.

Partition land. To divide an area or tract of land into two or three parcels within a calendar year when such land exists as a unit or contiguous units of land under single ownership at the beginning of such year.

Patented land. In appraisal, governmental land that has been conveyed or transferred to private parties. The government uses a "Patent" to transfer land to private parties. Beginning of a chain of title.

Patio. A ground level area, generally immediately adjacent to a building, used for outdoor living or entertaining. It's typically a concrete slab.

Percent good. An estimate of the value of a property, expressed as a percentage of its replacement cost, after depreciation of all kinds has been deducted.

Perimeter. The total length of the periphery of a given area; the lineal feet of exterior wall of a structure.

Permanent rate. A Measure 50 term. Taxes (sometimes referred to as operating taxes), are used to fund the general operating budgets of the taxing districts and account for the single largest component of property taxes. The permanent rates are rate limits, so districts may use any rate below their permanent rate.

Personal property. All property that is not classified as real estate. Includes items that are moveable and are not permanently affixed to or a part of the real estate.

Physical deterioration. A cause of depreciation that is a loss in value due to ordinary wear and tear and the forces of nature.

Picture window. Usually a large fixed plane glass window located to take advantage of the outside view.

Pier. A column of masonry, often rectangular in horizontal cross sections, or field stone used to support other structural members.

Pilaster. An upright architectural member (column) that is generally more decorative than structural and usually projects a third of its width or less from the wall.

Planned communities. A subdivision that includes a common area and a homeowners' association that is responsible for the maintenance and cooperation of the common area. Owners of individual lots, by virtue of their ownership, automatically are members of the homeowners' association.

Plat map. A map showing the division of land into lots or parcels. Upon approval and recordation with the appropriate legal authorities, the land in the plat can be legally described by reference to the plat.

Platted land. Land that has been surveyed and divided into marketable lots delineated on a legal plat and intended to be used as building sites.

Plate. Horizontal wood members located at the top and bottom of studs that provide bearing and anchorage for wall, floor joists, ceiling joists, and rafters.

Plottage. The increment of value created when two or more sites are combined to produce greater utility. The assembling of adjacent parcels of land into a single unit. The excess cost of assembling adjacent parcels of land into a single unit under single ownership over the estimated cost at which such parcels might be acquired individually by independent purchasers.

Plumbing. The system of pipes and fixtures carrying water and waste, including supply and sewerage hook up.

Plywood. A structural material made of layers of wood glued together, usually with the grains of adjoining layers at right angles to each other.

Police power. The right of government under which property is regulated to protect public safety, health, morals, and general welfare; usually no compensation is provided for property owners whose property is affected.

Porch. A floor extending beyond the exterior walls of a building. It may be covered and/or enclosed.

Porte cochere. A roof that extends from the entrance of a building over an adjacent driveway.

Portico. A roof supported by columns; can be attached to a building or standing alone.

Possessory interest. The right to the occupancy and use of any benefit in a transferred property, granted under lease, permit, license, concession, or other legal contract.

Post. A vertical structural member resting on a foundation footing, etc., designed to carry compressive stresses and support beams, girders, and trusses.

Post and beam plumbing. The first step in the installation of plumbing. Includes all plumbing materials, braces, and brackets attached to post or beam located within the crawl space under the floor.

Potential gross income. The sum of potential gross rent and miscellaneous income, that is, the income from rent and other sources that a property could generate with normal management, before allowing for vacancies, collection losses, and normal operating expenses.

Potential gross rent. The total rent a property would produce if 100 percent occupied at market rent.

Power of attorney. A written authorization in which one person gives authority to another person to act on his or her behalf.

Powder room. A lavatory for guests in a private home and is usually a half bath.

Prefabricated. Factory-built components usually applied to a complete structure, trucked in packages to a site, and assembled on a conventional perimeter or slab foundation. Also referred to as pre manufactured, pre built, modular, and sectionalized.

Preservation easement. A restriction that prohibits certain physical changes to a property, usually based on the property's condition and use at the time the easement was acquired.

Price-earnings ratio (P/E). The ratio of the market price per share of the common stock of a specific company to the earnings per share of common stock of that company during a 12-month period. Typically, the ratio is based on the current market price and the most recent 12-month period for which earnings are known. This ratio is the reciprocal of the earnings-price ratio (E/P).

Progression. The concept that the value of an inferior property is enhanced by its proximity to a superior property.

Property class. For property tax purposes, the three-digit classification code assigned to each tax lot. The property class will be determined by the property's highest and best use except when specially assessed. OAR 150-308.215(1)-(A) lists the property class codes approved by the Department of Revenue.

Property residual technique. A technique used to estimate the value of a property from a knowledge of its net operating income, discount rate, remaining economic life, the amount of the reversion, and the income path attributable to the property over the holding period (generally the remaining economic life of the property). The technique estimates total value by discounting anticipated income and adding the result to the present worth of the reversion.

Protective finish. Refers to paints, sealers, etc., applied to building materials as a preservative and protective covering.

Public Land Survey System (PLSS). A rectangular survey system established in the United States by the Land Ordinance of 1785. The basic survey unit is the six-square-mile township. Townships are located by baselines and meridians parallel to latitude and longitude lines; they are defined by range lines running parallel (north-south) to meridians and township lines running parallel (east-west) to baselines.

PVC (Polyvinyl chloride). A man-made material used for vinyl siding, pipe/plumbing/conduit fixtures, flooring, roofing membranes, electrical cables, etc. The material is often used for pipelines in the water and sewer industries because of its inexpensive nature and flexibility.

Quality class. A subjective classification of a structure by an appraiser, intended to describe materials used, workmanship, architectural attractiveness, functional design, and the like. Quality class, or its synonym "grade," is the key variable in most cost schedules.

Quantity survey method. A method of estimating reproduction cost in which a complete itemization is made of all labor and material costs by component and subcomponent and all indirect costs; these are added to obtain an estimate of the cost of a structure or a reasonable bid for a contractor to submit on a proposed project.

Quartiles. The values that divide a set of data into four equal parts when the data are arrayed in ascending order. The first quartile includes the lowest quarter of the data; the second quartile, the second lowest quarter, and so forth.

Quitclaim deed. A legal document by which a person releases or "quits" any claim that they may have had to property. Of the different types of deeds, the quitclaim has the least assurance that the person receiving it will actually get any rights, but in many states it is a deed of choice to transfer property. The person who provides a quitclaim deed makes no warranty or representation that they actually own anything. The quitclaim merely provides that whatever they had or may have had, they are conveying it.

Radiant heat. A heating system in which heat is transmitted by radiation and convection from surfaces heated by hot water in pipes or electric wires embedded in the surfacing material.

Rafter. One of a parallel series of structural members on a roof designed to support roof loads.

Ranch-style house. A one-story house that is usually rambling, low to the ground, with low-pitched gable or hip roof. The room plan is open with respect to the interior layout and it may have a basement.

Random sample. A sample for which each item of the population has an equal chance of being included and, by extension, each possible combination of n items has an equal chance of occurrence.

Range. (1) The maximum value of a sample, minus the minimum value. (2) The difference between the maximum and minimum values that a variable may assume.

Ratio study. A study of the relationship between the current roll real market value and the market value (sale prices). Indicators of market value may be either sales (sales ratio study) or independent "expert" appraisals (appraisal ratio study). Of common interest in ratio studies are the level and uniformity of the appraisals or assessments. The assessor's certified ratio study (ORS 309.200) is filed with the clerk of the Board of Property Tax Appeals by October 15 each year. The contents must comply with OAR 150-309.200(B) and the current *Assessor's Ratio Study Procedures Manual.*

Real market value (RMV). Oregon's constitution defines real market value as the minimum amount in cash that could reasonably be expected by an informed seller acting without compulsion, from an informed buyer acting without compulsion, in an "arms-length" transaction during the period for which the property is taxed.

Real property. Physical land, including any improvements attached to the land.

Reappraisal. The mass appraisal of all property within an assessment jurisdiction accomplished within or at the beginning of a reappraisal cycle.

Reappraisal cycle. The period of time necessary for a jurisdiction to have a complete reappraisal.

Rebar. See reinforcing, steel rods.

Recalculation. An automated valuation processing method where traditional mass-appraisal set-up techniques are utilized and applied. These techniques and market-based value components are implemented using tabled, computer-aided formats replicating RMV levels for applicable classes of real property. See automated valuation model (AVM).

Recapture. A portion of the overall capitalization rate in an income approach representing the return of an owner's investment in property, expressed as the current year's percentage of the remaining economic life.

Recapture rate. The annual rate at which invested capital is returned to the investor over a specified period; in addition to interest or a return on interest. Today, appraisers use the term when some income provision must be made to compensate for the loss of invested capital.

Reconciliation. The final step in the valuation process in which an appraiser considers alternate value indications and selects a final value estimate.

Reconstruction. To rebuild or replace an existing structure with one of comparable utility.

Recording. The act of filing with the local county clerk, where the property is located, the legal documents involved in a property transfer, mortgage or lien. In Oregon, all property transactions must be recorded to have effect. The recorded document creates a public record for the protection of all concerned and gives constructive notice to the public at large.

Red tag. A flagging method for new construction and accounts that will be reviewed by appraisers each year.

Refrigeration. Withdrawing heat to produce and maintain the temperature of a substance or space at a lower value than the surrounding atmosphere.

Regression. The concept that the value of a superior property is adversely affected by its association with an inferior property.

Regression analysis. See multiple regression analysis.

Rehabilitation. To restore to a former condition without changing the basic plan, form, or style of a structure.

Reinforcing, steel rods. Steel rods imbedded in concrete slabs, footing, beams, or columns to increase strength.

Reject code. A flag applied to a record indicating that it should not be used for certain purposes. In ratio studies, a coded sale not used to determine market adjustments.

Real Estate Investment Trust (REIT). A combining of many investors capital to acquire or finance real estate through the formation of a corporation whose shares are traded in a market.

Reliction. The gradual recession of the water line on real property leaving land permanently uncovered.

Remaining economic life. As of the appraisal date, an estimate of the number of years remaining in the economic life of a structure. The estimated period the improvement will continue to contribute to property value.

Remodeling. A type of renovation that changes the basic plan, form, or style of the property.

Renovation. To modernize, remodel, or restore older structures or historic buildings.

Rent:

Economic rent. In appraisal, the annual rent that is justified for the property on the basis of a careful study of comparable properties in the area; market rent. In economics, the payment received by an owner of something being bought or rented in excess of the minimum amount for which he or she would have sold or rented it.

Gross rent. The total amount received by a lessor from a lessee, without deduction for taxes, maintenance, or any other payments made by the lessor on account of the leased property.

Ground rent. The rent paid for the right of use and occupancy of a parcel of unimproved land, or that portion of the rent paid for the right of use and occupancy of a parcel of improved land that is imputed to the land as distinguished from the improvements. Compare rent, economic.

Net rent. The amount remaining to the lessor out of gross rents after deducting taxes on the property, insurance, repairs, expenses of management, and any other operating and maintenance expenses payable by him or her on account of the leased property. **Note:** Net rent is arrived at before deduction of depreciation expenses, interest on the lessor's investment in the property, and income taxes payable by the lessor.

Rentable area. A specified unit area of leasable space.

Reproduction cost. The estimated cost to construct, at current prices, an exact duplicate, or replica, of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship, and embodying all the subject's deficiencies, super-adequacies, and obsolescence.

Restoration. To return a property to its original appearance and condition.

Restrictive covenant. A private agreement that restricts the use and occupancy of real estate that is part of a conveyance and is binding on all subsequent purchasers; may involve control of lot size, setback, placement of buildings, architecture, or cost of improvements.

Revaluation. A reappraisal of property or properties; a complete reappraisal of real property after assessment for one or more years on valuations most (or all) of which were established in some prior year.

Revenue stamps. Stamps purchased from the state government and affixed to documents or instruments of deeds of conveyance and provide an indication of the sales price. At one time in Oregon, stamps in the following denominations were required: $1.10 for each $1000 and $0.55 for each $500 of value were required.

Retaining wall. A vertical wall, that restricts or confines earth or other material.

Reversion. A lump-sum benefit an investor receives or expects to receive at the termination of an investment.

Ridge beam. A beam for supporting the upper ends of rafters below the ridge of a roof. Thicker than a ridge board.

Ridge board. Horizontal board that serves as a support in the highest point of the roof structure.

Ridge cap. A continuous metal structure designed to cover the ridge of a roof.

Right of first refusal. An option that gives the holder, usually the lessee, the right to purchase a property before any offer to purchase can be made by a third party.

Right of redemption. A property owner's right to reacquire foreclosed property by paying the mortgage debt or real estate taxes plus fees and interest, within a limited time after the sheriff's sale has occurred. In some states, this right can be sold to a third party.

Right of survivorship. Right of the surviving joint tenant to acquire the interest of the deceased joint tenant in joint tenancies and tenancies by the entirety without any probate proceedings.

Right, title, and interest. A phrase in legal documents that effect a transfer of property title. A grantor is conveying all that he or she held claim to.

Rim joist. A board fastened to the end of the joists, typically opposite of the ledger.

Riparian. Pertaining to the bank of a river or other body of water.

Riparian rights. The right of an owner of land abutting a body of water to use the water area for piers, boat houses, fishing, boating, navigation, and the right of access for such purposes.

Riser. (1) Vertical boards behind the steps of a stairway going upward. (2) Vertical water supply pipe.

Residual technique. A method of arriving at the unknown value of a property component by subtracting the known values of other components from a known overall value.

Roll roofing. A lightweight fiber roofing material saturated with asphalt and applied in one layer.

Romex wiring. Electrical wire in flexible nonmetallic sheathing such as plastic.

Roof covering. Any type of material used on a roof for protection from the weather to make it watertight.

Roof pitch. To define the pitch of a roof, the pitch is measured as rise over run, usually in inches. For example, an "8 pitch" would mean 8 inches of rise over 12 inches of run.

Roof sheathing. The covering over the roof structure used as a base for the roofing material.

Roof types:

Flat: A roof with a slope just sufficient to provide drainage.

Gable: An inverted 'V' design forming a ridge at the top.

Gable hip: A hip design with the upper part of the slope cropped to form a gable.

Gambrel: A gable with a broken slope, making two or more distinct pitches.

Hip: All four sides slope up toward the center of the building to form ridges and peaks.

Mansard: Two slopes on each of the four sides, the lower on being much steeper than the comparatively flat upper one.

Pyramid: A design of four triangle-shaped slopes meeting at a point.

Saw tooth: Design with cross sections resembling the teeth of a saw. The vertical side of the roof has windows for ventilation and light.

Shed: A single slope design reaching from wall-to-wall or eave.

Rough-screened. A rough surface finish on concrete floors or paving.

Rough-in plumbing. The second step in the plumbing installation process. Includes plumbing materials, braces and brackets installed in the interior wall framing, and fiberglass tub/shower installation.

Rubble work. Masonry work or rough undressed rock found locally.

R-value. A system used to rate the insulating value of materials.

Sale, arm's-length. A sale in the open market between two unrelated parties, each of whom is reasonably knowledgeable of market conditions and under no undue pressure to buy or sell.

Sales analysis. A method of analyzing RMV levels by measuring sales prices against prior year's RMV.

Sales array. A grouping of sales listed in ascending order according to the size of the ratio.

Sales comparison approach. One of three approaches to value, the sales comparison approach estimates a property's value (or some other characteristic, such as its depreciation) by reference to comparable sales. When comparable sales data is available it is the most common and preferred method.

Sales data. For appraisal purposes, the information concerning the real estate transaction: reason for the sale, how the sales price was arrived at, financing, length of time on the market, and the characteristics of a property as of the date of sale.

Sales file. A file of sales data.

Sales list. A listing of all sales used to prepare the ratio study.

Sales price. The actual selling price of a property. See market price.

Sales ratio. The relationship between RMV from the certified assessment roll and the selling price for a particular property. This can be expressed as a percent or decimal. The common practice is to express the ratio as a whole number.

Sales ratio study. A statistical compilation of sales ratios designed to produce an indication of the RMV ratio for each property class within each appraisal, market, or study area county-wide. Each county is required to create a yearly ratio study to maintain RMV under ORS 309.200.

Sample. In statistics, a limited or finite number of observations selected from a universe and studied to draw qualified, quantitative generalizations with respect to the universe the data was selected from.

Sampling. The selection of representative statistical data from which inferences are drawn about the characteristics of an entire statistical population.

Sampling error. The difference between a sample statistic and the characteristic that would have been found if the entire population had been tested.

Sanitary sewer. An underground system of pipes or conduits used to carry sewage, not storm water runoff from the neighborhood buildings to a treatment facility.

Sash. A frame for holding panes of glass in a window or door.

Scatter diagram or scatterplot. A graphic means of depicting the relationship or correlation between two variables by plotting one variable on the horizontal (X) axis and one variable on the vertical (Y) axis. Often in ratio studies it is informative to determine how ratios are related to other variables. A variable of interest is plotted on the horizontal axis, and ratios are plotted on the vertical axis.

Scheduled rent. Income due under existing leases.

Scratch coat. The first coat of plaster, which is scratched or scored to provide a base for the second coat to adhere to.

Scuttle. A framed opening in a ceiling, roof, or wall fitted with a lid or cover and used to gain access to the attic, roof, etc.

Secondary financing. A loan that is junior or subordinate to existing loans that have priority as security for the amounts owed on the property.

Section. In the government survey system, one of the 36 sections, each one-mile square, into which each township is divided.

Segregated cost method. Costs broken down into separate items or components. Used to make adjustments to an estimated cost per square foot. Also known as unit-in-place cost.

Segregation. A division out of a parent parcel of land.

Septic system. External plumbing system to treat and dispose of waste effluents from a structure. Includes septic tank, cesspool, drain field, etc.

Service panel. Electrical panel that distributes the main electrical current from the utility source.

Setback. Zoning regulations that designate the distance a building must be set back from the property lines.

Sewage system. The network of waste disposal lines, such as drain lines from sinks, water closets, etc., that carries sewage to a point of disposal.

Sewer. An underground system of pipes or conduits that carries sewage and/or rainwater from a point of reception to a point of disposal.

Shake. A rough shingle used as siding to cover buildings.

Shear wall (or braced wall). A wall composed of braced panels to counter the effects of lateral loads acting on a structure; wood frame stud walls covered with a structural sheathing material like plywood.

Sheathing. The inner sub covering next to the wall studding or roof rafters of a building.

Sheetrock™. A trademark used for plasterboard.

Shingle. A thin oblong piece of material such as wood, asphalt, asbestos, or slate cut to stock lengths, widths, and thickness that is laid in overlapping rows to cover the roof or sides of a house or other building.

Shiplap. Wood exterior sheathing, usually nominal one-inch stock with lapped joints at the edges.

Shutters. A movable screen or cover for a window, usually hinged and fitted with louvers. Today they are used mostly as a nonfunctional decorative attachment to the sides of window openings.

Siding. The finish covering on the outside wall of a frame building.

Sill. Wood structure on top of the foundation wall supporting the floor framing.

Single wall. Exterior frame cover serving both as the sheathing and exterior wall cover.

Sinking-fund method. A way of calculating the recapture rate in the income approach. It assumes that an investor will deposit recapture income in an interest-bearing account and will thus, in effect, accelerate recapture. To use it, an appraiser goes to a compound interest table to locate the interest rate the investor would probably get and looks down the column of sinking-fund factors to the number of years equal to remaining economic life of the improvements. Adding that sinking-fund factor to the discount rate gives the recapture rate.

Site characteristics. Characteristics of and data that describe a particular property, especially land size, shape, topography, drainage, and so on, as opposed to location and external economic forces. By extension, any characteristics of either the site or the improvement.

Site development. Improvements made to a land site (for example, grading, utility installation, roadways, and curbs) before a building is constructed. See OAR 150-307.010(1).

Situs. In real estate, the physical location of a property; in personal property, the taxable location, because property may be moved from one place to another.

Skewed. The quality of a frequency distribution that makes it asymmetrical. Distributions with longer tails on the right than on the left are said to be skewed to the right or to be positively skewed; distributions with longer tails to the left are said to be skewed to the left or to be negatively skewed.

Slope. In statistics, the change in the dependent variable associated with a change of one in the independent variable of interest. The slope is given by the coefficient of the independent variable.

Skirl. A term that refers to an uneven edge to the butt edge of the bevel.

Sleeper. Timber laid on the ground to receive joists. Strips of wood imbedded in concrete to support finished floor.

Soffit. The undersurface of a building member, such as an arch, cornice, overhang, or stairway.

Sole plate. The bottom, horizontal framing member of a wall that's attached to the floor sheeting and vertical wall studs.

Spanish architecture. A residential architectural style characterized by a heavy tile roof and adobe or stucco walls. The style also features an enclosed patio designed for outdoor living.

Specification. Description of the kind, quality, and quantity of materials and workmanship that govern the construction; a standard.

Split level. Two or three sets of short stairs, three or four levels. Entry on a middle floor between two floors. The front door opens directly into what is usually the formal living area. This mid-level floor houses LR, DR, K, and has a short flight of stairs leading up to bedrooms, and another short flight of stairs leading down to informal living areas and garage. All true splits have at least three levels; many have a fourth level or cellar below the formal living room/entry level.

Sprinklers, lawn. An underground lawn or landscape watering system of lines and distributions heads. May be operated automatically or manually.

Stairway. One or more flights of stairs and landings or platforms connected to it that forms a continuous passage from one floor to another.

Standard. A basis for comparison in measuring or judging capacity, quality, quantity, or value.

Standard lot. A lot that is selected as the standard in size, shape, grade, and alley influence, usually because it is representative of the majority of lots in an area.

State Responsibility Industrial Accounts. See ORS 306.126, OAR 150-306.126.

Principal industrial property. Any unit of industrial property having a RMV of more than $5 million for the improvement on the assessment roll for the preceding year.

Secondary industrial property. Any unit of industrial property having a RMV of more than $1 million but of $5 million or less for the improvement on the assessment roll for the preceding year.

Stratification. The division of a sample of observations into two or more subsets according to some criterion or set of criteria. Such a division may be made to analyze disparate property types, locations, or characteristics, for example.

Statistical class (stat class). A three-digit classification code of structural improvements (not to be confused with property classification). This code identifies characteristics of the structure, such as type, stories, building class, etc.

Stem wall. The small (usually 6 to 12 inches high), vertical, concrete extension of the slab foundation usually surrounding the perimeter and intended to keep exterior water/moisture from finding its way to the interior. Stem walls are often used in garages, where the slab floor is below exterior finished grade.

Storm window. An extra window usually placed on the outside of an existing window as additional protection against cold weather.

Story. Portion of a building between a floor and the ceiling or floor structure above.

Street improvements. Facilities that are provided and usually maintained by local government; e.g., paving, curbs, sidewalks, and sewers.

Strip mall. A shopping center that usually has parking directly in front of the stores and does not have enclosed walkways linking the stores.

Stucco. Most commonly refers to cement plaster used to cover exterior surfaces. Stucco also includes synthetics which are more durable in wetter climates.

Stud. The parallel vertical wooden framing of walls and partitions.

Study area. Typically, a group of properties identified during the sales ratio process when an analysis of the sales indicate a separate market is developing due to unique characteristics setting these properties apart from the rest of the area.

Style. A type of architecture based on distinctive qualities of appearance, such as Cape Cod, Colonial, Contemporary, Spanish, etc.

Subdivision. A tract of land that has been divided into blocks or plots with street, roadways, open area, and other facilities appropriate to its development as residential, commercial, or industrial sites.

Subfloor. Boards, planks, or sheet material laid on joist or beams over which a finished floor is to be laid. Also called floor sheathing.

Substitution. The appraisal principle that states that a potential owner will pay no more for a property than the amount for which a property of like utility may be purchased; that a property's value tends to be set by the cost of acquiring an equally desirable substitute.

Superadequacy. A feature of a property exceeding in quality or amount the corresponding feature in a typical property of the same use. Super insulation is one example. Superadequacy fall into the larger category of functional obsolescence.

Supply and demand. The appraisal principle that states that the price of real property varies directly, but not necessarily proportionately, with demand, and inversely, but not necessarily proportionately, with supply.

Surplus productivity. The net income that remains after the cost of capital, labor, and management has been paid.

T1-11. A type of plywood siding that comes in 4-foot by 8-foot panels with pre-cut 1/8th inch grooves that give a vertical look to an exterior wall.

Tax. A charge levied to pay the costs of running the government and providing public services.

Tax district. A political subdivision of one or more assessment districts where a governmental unit has the authority to levy tax.

Tax exemption. Total exemption or freedom from tax; granted to educational, charitable, religious, and other nonprofit organizations. Partial exemptions from ad valorem tax are granted on homesteads in some states. In Oregon, partial exemptions are available to qualifying veterans, widows of veterans, and disabled persons.

Tax rate. The ratio between the tax and the tax base; applied to the assessed value to determine the amount of tax; obtained by dividing the amount of the tax levy by the total assessed value of all properties in the tax district; usually expressed in dollars per one hundred dollars of assessed value.

Tax roll. The official list of all taxpayers subject to property tax, the amounts of their assessments, and the amounts of taxes due.

Tax year. In Oregon, the fiscal year from July 1 through June 30.

Tenancy. The act of using or occupying property, especially real property whose fee title is vested in someone other than the occupant.

Tenancy by the entirety. A state of tenancy, recognized by some states, in which the husband and wife are considered as a single person, neither one being free to create interests in the estate without the consent of the other and the survivor acquiring the whole interest upon the death of either. Compare tenancy, joint.

Tenancy in common. A state of tenancy involving two or more persons owning undivided possessory interests that have arisen out of separate and distinct conveyances, any one of the tenants being free to create interest in his portion of the estate and the heirs or devisees acquiring the interest of any tenant who may die. Compare tenancy, joint; tenancy by the entirety.

Tenancy in severalty. A state of tenancy involving one person who owns a divided possessory interest.

Tenancy, joint. A state of tenancy involving two or more persons owning undivided possessory interests which have arisen out of a single conveyance, no one of the tenants being free to create interests in the estate without the consent of the others, and the surviving tenants acquiring the interest of any tenant who may die.

Terrazzo. A flooring material made of colored stone or marble embedded in concrete and polished to a high glaze.

Testate. The state of having died after executing a valid last will and testament.

Texture. Decorative finish applied to gypsum drywall featuring a patterned rough surface.

Three approaches to value. A convenient way to group the various methods of appraising a property.

The **cost approach** encompasses several methods for estimating replacement cost new of an improvement less depreciation plus land value.

The **sales comparison approach** estimates values by comparison with similar properties for which sales prices are known.

The **income approach** methods are based on the assumption that value equals the present worth of the rights to future income.

Tile. Usually a thin square or rectangular piece of fired clay, stone, concrete, asphalt, plastics, vinyl, or fiberglass used for flooring, wall, ceiling, facing, and trim.

Timber. Wood in forms suitable for heavy mill-type construction, specifically, sawed lumber four-by-four inches or more in breadth and thickness.

Title search. An examination of public records to ensure the quality of the seller's title to a specific property. Preparation of an abstract of title requires a complete title search, as does preparation to foreclose on a property in a delinquent tax suit.

Tongue and groove (T&G). Boards or planks with a groove on one edge and corresponding tongue on the other.

Topographic map. A map that shows the topography of an area of the earth's surface, using contour lines, tinting, or shading.

Topography. The relief features or surface configurations of an area; e.g., hills, valleys, slopes, lakes, rivers. Surface gradations are classified as compound slope, gentle sloping land, hilly land, hog wallows, hummocks, rolling land, steep land, undulating land, and very steep land.

Township. In the government survey system, the area between two township lines and two range lines; normally contains 36 sections of approximately 640 acres each.

Tract land. Unimproved acreage where the highest and best use is other than farm, range, or timber production.

Tread. Structural member consisting of the horizontal part of a stair or step

Trend. A series of related changes, such as real estate price trends, time trends, market trends, etc.

Troweled surface. A smooth finished concrete surface.

Truss. A supporting structure or framework composed of beams, girders, or rods commonly of steel or wood lying in a single plane. A truss usually takes the form of a triangle or combination of triangles, since this design ensures the greatest rigidity. Trusses are used for large spans and heavy loads, especially in bridges and roofs. Their open construction is lighter than, yet just as strong as, a beam with a solid web between upper and lower lines. The members are known as tie-beams, posts, rafters, and struts; the distance over which the truss extends is called the span. The upper and lower lines or beams are connected by web members.

Trussed rafter. A light truss usually constructed of regular dimension material where the chord members also serve as rafters and ceiling joists, utilized in pitched roof construction.

Tyvek® (DuPont™). A trade name sheet material that is wrapped around the exterior of a house, over the sheathing and under the exterior siding with cut outs around openings, that acts as an infiltration barrier and also prevents any rain or condensation that gets behind the siding from getting into the insulation and framing.

U factor. The heat transmission factor of a wall, roof, window, or floor assembly measured in B.T.U. per square foot per degree Fahrenheit.

Underimprovement. An improvement that does not develop a site to its highest and best use; usually, a structure that is of lesser cost, quality, and size than typical neighborhood properties.

Underpinning. A building's ground floor supporting posts and beams.

Undivided interest. Fractional ownership without physical division into shares.

Uniform Standards of Professional Appraisal Practice (USPAP). Current standards of the appraisal procession, developed for appraisers and users of appraisal services by The Appraisal Standards Board of the Appraisal Foundation. The Uniform Standards set forth the procedures to be followed in developing an appraisal, analysis, or opinion and how that appraisal, analysis, or opinion is communicated.

Uniformity. In assessment, denotes assessed values that bear the same relationship to market value, or another value standard, as all other assessments in the tax district; implies equalization of the tax burden.

Unit in Place Method A method of cost estimating in which all the direct and some of the indirect costs of individual construction components (such as the foundation walls) are specified in appropriate units (such as cost per unit of area, volume, or length), multiplied by an estimate of the quantity required by the particular structure, and added to obtain an estimate of the cost of the structure. See segregated cost method.

Units of comparison. The components into which a property may be divided for comparison purposes; e.g., square foot, front foot, cubic foot, room, bed, seat, apartment unit.

Urban. Pertaining to the area inside a city and surrounding population concentration.

Useful life. The period of time over which a structure may reasonably be expected to perform the function for which it was designed.

Vacancy and collection loss. The amount of money deducted from potential annual gross income to reflect the effect of probable vacancy and turnover, or nonpayment of rent by tenants. Vacancy and collection loss is commonly expressed as a percentage of potential annual gross income, and it should be based on market research, not actual rental history of a property. What is typical for this type of property.

Valuation. A universal term used to encompass all methods of estimating the market value of property from the traditional physical reappraisal to alternative methods (recalculation, etc.).

Valuation area. An area in a county generally composed of one or more school districts, a city or political subdivision, or any other logical division established by the county assessor for the purpose of conducting an orderly valuation of taxable properties.

Valuation date. The roll year when the last property valuation was made. It also is a specific date the property was valued.

Valuation model. A representation in words or in an equation that explains the relationship between value or estimated sale price and variables representing factors of supply and demand.

Vapor barrier. Material used to retard the passage of vapor or moisture into walls and floors and prevent condensation. This may be specialized paint, woven polyethylene film, plastic sheeting, foil sheeting, or Kraft paper or other similar material.

Vaulted ceiling. A ceiling that angles upward on one or both sides to create volume in the room.

Veneer. An outer facing of brick, stone, or other material placed on a wall for protection or decoration and not for strength. A layer of material covering the base of another substance, such as walnut veneer on less valuable wood.

Vent. A small opening serving as an outlet for air.

Vertical housing. A housing development where each building consists of one or more upper-level floors for residential use and the ground-level floor (at least) of each building is for commercial use.

Vertical inequity. Differences in the levels of assessment of properties related to the value ranges of the properties. That is, properties of higher value have assessment levels different from properties of lower value. See horizontal inequity.

Vitreous (china). Having a shiny and non-porous surface.

Wainscot. The lower 3 or 4 feet of an interior wall when finished differently than the remainder of the wall.

Wall plate. Plate on top or bottom of wall or partition framing. Further defined as top plate, at top, and sole plate, at bottom.

Wallboard. Large rigid sheets made of layers of fiberboard or paper bonded to a gypsum plaster core used especially for sheathing interior walls and ceilings.

Warranty deed. A deed that conveys to the grantee title to the property free and clear of all encumbrances, except those specifically set forth in the document.

Wasting asset. An asset whose value diminishes with the passage of time. For example, buildings are a wasting asset, but land and gold, traditionally, are not.

Water closet (WC). A toilet or a room that contains a toilet.

Water rights. A right to a definite or conditional flow of water, usually for use at specific times and in stated quantities. A water right may be a right acquired by:

- By prescription—open, notorious and undisputed use of water over a statutory period of years.
- By appropriation—a grant from an agency of government with the right to distribute an unappropriated surplus waters of the state
- A riparian right under the common law doctrine of riparian ownership of waters that wash land.

Weatherstrip. Narrow strips made of metal or other material that keep air, water, moisture, or dust from getting into the house through the door or window sash.

Weighted average. A ratio of the assessed total values to the total sales values. It is influenced by low or high ratios in a given array of sales.

Wiring. A structure's electrical circuitry.

Wrought iron. A soft, pure form of iron easily molded into bars and worked into ornamental shapes; widely used for decorative railings, gates, panels, etc.

Yard improvements. Construction items on the building site that are not part of the main structure, such as a driveway, walks, fences, retaining walls, etc.

Yard pole. A pole or timber on a building site that serves as a power distribution point from the main service panel. May also be used to mount a floodlight system.

Zero clearance. The lack of a need for a specified distance between a well-insulated heating unit or metal wood burning fireplace and a combustible surface.

Zoning. The public regulation of the character and intensity of real estate use through police power; accomplished by establishing districts or areas with uniform restrictions relating to improvements, structure heights, areas, bulk, density of population, and other limitations on the use and development of private property.

OREGON REVISED STATUTES AND ADMINISTRATIVE RULES

AN OVERVIEW

Statute	**v.**	**Rule**
• Force of law		• Force of law
• Adopted, repealed, and amended by legislature and signed by governor		• Adopted, repealed, and amended by agency
• Must be consistent with state and federal constitutions and federal laws*		• Must be consistent with constitutions and federal laws*
• *ORS		• *OAR

Oregon Revised Statutes

What is a statute?

The Oregon Revised Statutes are the very foundations upon which we stand…law.

The Oregon Revised Statutes (ORS) are an authoritative instruction or command as to the methods or standard of action and conduct of assessment of property for taxation. Every county appraiser should become aware and familiar with this resource as it is the legal and systematic process that provides the basis for the job you perform. The statutes and rules can be found at http://www.oregon.gov/DOR/adminrules.shtml.

The statutes cover everything from subdivision, partitions, public records, definitions, special districts, economic development, revenue and taxation, appeals, exemptions, assessment for taxation, land special assessments, ratio studies, tax rates, tax limitations, collection of taxes, timber and forestland, urban renewal, historic preservation, manufactured parks, and much more.

The following important excerpts are from the Oregon Revised Statutes to both introduce and broaden your perspective of responsibility in your job as a county appraiser.

ORS 308.330 Duty of assessor to assess properly. No assessor shall willfully or knowingly:

(1) Omit to assess any person or property assessable.

(2) Assess any property or class of property under or over its value, as provided in ORS 308.146. [Amended by 1981 c.804 §53; 1997 c.541 §172]

Supervision of Property Tax Administration by Department of Revenue

Oregon law charges the Department of Revenue with general supervision of the property tax system; whereas, counties have been charged with administration and delivery of this service at the local level.

ORS 306.113 Legislative findings. The Legislative Assembly finds that for the property tax system to function appropriately it is essential that administration be results-based, innovative and efficient. Any direction to, or review of, county administration by the State of Oregon shall carry out this finding. [1997 c.782 §1]

Note: 306.113 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 306 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

ORS 306.115 General supervision over property tax system; correction of assessment rolls.

(1) The Department of Revenue shall exercise general supervision and control over the system of property taxation throughout the state. The department may do any act or give any order to any public officer or employee that the department deems necessary in the administration of the property tax laws so that all properties are taxed or are exempted from taxation according to the statutes and Constitutions of the State of Oregon and of the United States. Among other acts or orders deemed necessary by the department in

exercising its supervisory powers, the department may order the correction of clerical errors, errors in valuation or the correction of any other kind of error or omission in an assessment or tax roll as provided under subsections (2) to (4) of this section.

(2) The department may order a change or correction to the assessment or tax roll for the current tax year applicable to all real or personal property of the same class or in the same area if the order of the department is mailed not later than October 15 of the current tax year.

(3) The department may order a change or correction applicable to a separate assessment of property to the assessment or tax roll for the current tax year and for either of the two tax years immediately preceding the current tax year if for the year to which the change or correction is applicable the department discovers reason to correct the roll which, in its discretion, it deems necessary to conform the roll to applicable law without regard to any failure to exercise a right of appeal.

(4) Before ordering a change or correction to the assessment or tax roll under subsection (3) of this section, the department may determine whether any of the conditions specified in subsection (3) of this section exist in a particular case. If the department determines that one of the conditions specified does exist, the department shall hold a conference to determine whether to order a change or correction in the roll.

(5) For purposes of this section, "current tax year" means the tax year in which the need for the change or correction is brought to the attention of the department.

(6) The remedies provided under this section are in addition to all other remedies provided by law. [1983 c.605 §1; 1985 c.613 §18; 1987 c.656 §1; 1989 c.171 §42; 1991 c.5 §20; 1991 c.459 §32; 1995 c.650 §66; 1997 c.541 §89]

Administrative Rule

What is a rule?

Defined by ORS 183.310(9):

Any agency directive, standard, regulation, or statement of general applicability that implements, interprets, or prescribes law or policy or that describes the procedure or practice requirements of any agency.

Why do we need Administrative Rules?—A historical perspective

"Government action should be taken in public. There must be appropriate public participation in the rulemaking process (except for emergencies) and rules must be published and orders must be on file and served before they can be effective." 33 Oregon State Bar, Committee Reports 11-35 (1967) (report of committee on Administrative Law).

Administrative rules relating to property assessment and taxation adopted by the Oregon Department of Revenue are filed with the Secretary of State.

Why have rules?

- Rules fill in the gaps left by statutes.
- Rules facilitate open and accountable government.
- The rulemaking process provides an opportunity for public input into public policy.
- Rules promote consistency and protect the public from arbitrary agency action.
- Rules and the rulemaking process give fair notice to those involved.

When are rules required?

- When an agency's statutes say a rule is required.
- When an agency must interpret broad statutory authority delegated by the legislature.
- To amend or repeal an existing rule.

When is a rule not required?

- When the statutes are clear enough to administer without rulemaking.
- When an exception to the definition of "rule" applies ORS 183.310(8)(a),(b) or (c).
- When the agency merely interprets an existing rule (unless the interpretation changes?).
- When an agency announces in a contested case decision the adoption of a general policy applicable to the case and subsequent cases of like nature. ORS 183.355.

Types of rules

- Permanent rules;
- Temporary (emergency) rules;
- Minor corrections (ORS 183.335(7);
- Statute implemented v. statutory authority.

Who writes rules & why?

The Department of Revenue writes administrative rules to:

- Reflect statute changes as a result of bills passed in regular or special legislative sessions;
- Reflect Oregon Tax Court or Oregon Supreme Court decisions; and
- Reflect or clarify current department practice(s).

Numbering and Formatting

In the rule numbered **OAR 150-307.420(3)-(A),** the OAR stands for Oregon Administrative Rule. The Department of Revenue numbers its administrative rules to correspond with the related statute. All DOR rules begin with 150-. There are no spaces in the numbering. The **"307.420"** refers to the section of the statute. The **"(3)-(A)"** is part of the statutory reference, and it specifically refers to the subsection of the cite.

Examples:

1. The statute is: ORS 308.232
   The rule is: OAR 150-308.232

2. The statute is: ORS 308.290(4)(b)
   The rule is: OAR 150-308.290(4)(b)

Rule:

OAR 150-308.231 **Appraisal of Real Property by Registered Appraisers**

Only appraisers registered under ORS 308.010 shall appraise real property. If non-registered appraisal assistants are utilized for gathering inventory data, it shall be only for gathering or recording factual inventory data or property characteristics. Any value estimates, or appraisal judgment decisions shall be made only by registered appraisers. Value estimates include lump sum dollar adjustments or percentage adjustments, depreciated replacement costs (DRC), land or site valuation. Judgment decisions include determination of quality class, quality adjustment, depreciation from all causes; or over-improvement or under-improvement and estimated market rent.

Demonstration
Narrative Report Guide

Introduction and procedures

You have been assigned to write a demonstration narrative report by your coach. This assignment is important as it will demonstrate your ability to apply your knowledge of the appraisal principles you have learned. It will test your skills to gather the necessary data, analyze the data properly, and write an appraisal report setting forth the data and analysis that will lead your coach to the same conclusion of value.

Your career as an appraiser not only requires the ability to develop a value but to be able to **defend** that value. Eventually, you may be called upon to testify as an expert witness at the Board of Property Tax Appeals, the Department of Revenue, Oregon Tax Court, or the Oregon Supreme Court. At each of these levels your value opinion must be supportable. Your testimony in any one of these settings will require the submission of supporting documents, one of which could be a written narrative report. This exercise will guide you through the process of developing an opinion of value supported by various studies and presented in an easily understood narrative format.

Work closely with your coach while you work on this project. The guidance and advice you receive will save you time and reduce frustration as you move toward completion. Remember, your coach is there to help you.

Your coach will evaluate your completed report. Make sure all supporting documents and studies are clearly labeled, neatly formatted, and accurate.

Subject property selection

The following suggestions are intended to help you prepare a narrative demonstration report that is sufficiently comprehensive so your coach can visualize the property being appraised and follow your reasoning through each section of the valuation process. It is **essential** that the adjustments, assumptions, and conclusions in the report be adequately supported by factual data.

Make sure you allow enough time to prepare this report and adequately finish your analysis. Include additional time to allow for unexpected problems that may arise.

Work with your coach to select a residential property that allows you to factually demonstrate all three approaches to value and to reconcile your conclusions into a final value estimate. If your subject property is in an area that does not offer a sufficient volume of sales to perform certain studies, work with your coach to find alternate solutions. One idea might be to use a list of sales from a neighboring county that can be applied to your situation.

Formatting

Your coach's first impression will be drawn from the appearance of your report. Create consistent formatting in the narrative text as well as spreadsheet documentation. For instance, be consistent in title placements, font sizes, and style throughout. When using direct quotes from appraisal industry texts, make sure you have credited the source. Basic appraisal principles, your experience, common sense, and sound professional reasoning are the necessary ingredients of a good report.

Use the sample report as a **guideline.** It will help to clarify the instructions by providing an actual example of what is being requested. The sample report has been altered to conceal the identity of the appraiser and subject property. It was prepared as a demonstration report. **Your report will reflect the studies demanded by the nature of your subject property.** For example, if your subject property has a view, your report should include a study that derives an adjustment for views or indicates that no adjustment is required. Personalize your report to fit your subject property.

Exhibits

Place illustrations within the report where they will be most helpful to the reader. Exhibits are included in the Addendum and should contribute to the clear understanding of your written description and discussion. Exhibits should include, but are not limited to, the following.

Photographs—Additional photographs of the subject property that were not included in the main report. Examples could be a street scene for the subject property, comparable sale properties, land sales, and rental properties, or any other scenes that might be considered important to understanding the valuation conclusion. Identify and date all photographs.

Maps—You might include additional neighborhood maps indicating the location of the subject property to comparable sale properties (including land sales) or comparable rentals. Be sure to include a north arrow on each map.

Plot Plan—If not included in the main report, include a plot map that shows lot and building dimensions, easements, the placement of the improvements on the site, and abutting rights-of-way. The plan should have an arrow indicating north.

Floor Plan—If not included in the main report, include a drawing of each level of the principal building, illustrating main room locations and relevant dimensions. The floor plan does not need to be drawn to scale.

Procedure

The instructions presented here do not cover all situations and types of properties. In the final analysis, the coach and appraiser must judge what should and should not be included. Remember that the report must present sufficient information, developed and analyzed in an orderly manner, to convince your coach that your value estimate is adequately supported, and that you have the ability to apply the valuation process.

Here is a brief description of suggested procedures to complete your narrative report. More detailed instructions are included later in this document.

1. Meet with your coach to identify possible subject property locations. Do not start without your coach's approval.
2. Ideally, you will be able to locate a property in an area that is fairly active with bare land sales, new construction sales, double sales, rental sales, and older construction sales. If the market in your area does not offer an abundance of data in these areas, work with your coach to identify the best type of property that will enable you to demonstrate your appraisal knowledge and skills.

3. Gather sales data on bare land, new construction, and older construction.
4. Meet with your coach to evaluate this preliminary data and select a final subject property.
5. Establish a **base appraisal date.**
6. In all analyses, use the three standard statistical calculations—mean, median, and weighted mean—or matched pairs analysis, to identify the correct factor or adjustment to apply.
7. **Time adjustment:** Analyze double sales or sales of comparable properties to establish whether or not an adjustment for changes over time is required to adjust sales prices to the appraisal date. Make sure the analysis indicates the correct adjustment for both improved and unimproved properties. Identify any differences.
8. **Site value:** Analyze land sales to develop base land values. Apply the appropriate time trend. Determine adjustments that should be applied for variations caused by size, view, topography, location, etc.
9. Develop **on-site development (OSD)** value from the market or by surveying for actual costs.
10. **The Cost Approach to Value**
    - Determine the land value.
    - Determine the OSD value. Add for landscaping where appropriate.
    - Develop a local cost modifier (LCM) by the analysis of new construction sales.
    - Conduct a depreciation study by analyzing sales of older homes of various ages and conditions.
    - Estimate the replacement (or reproduction) cost new (RCN) of the subject improvements.
    - Adjust the RCN of the improvements by applying the appropriate LCM and percent good to arrive at a total depreciated cost for the improvement.
    - Add the total land value to the total depreciated improvement cost to get a final value indication.
11. **The Sales Comparison Approach to Value**
    - Select three to five sales of properties that are the most comparable to the subject.
    - Adjust them for time, if appropriate.
    - Using matched pairs analysis, determine value adjustments for differences in elements of comparison that need to be made to the comparables to make them similar to the subject.
    - Analyze the resulting values to determine a final value indication.

12. **The Income Capitalization Approach to Value**

- Analyze sales of rentals to develop the gross rent monthly multiplier (GRMM).
- Compare subject property to rental sales to identify the best comparables.
- Determine the potential monthly rent for the subject.
- Use the GRMM to determine the final value indication.

13. **Reconciliation and Final Value Estimate**

- Compile all data and write the narrative portion of the report. Make sure it is in proper sequence and all requirements are met.
- Proofread for spelling, punctuation, and grammatical errors. You may want to ask someone with strong editing skills to review your final draft.
- Create a title page, a table of contents, and letter of transmittal. The letter serves as a cover letter to your coach declaring that you have completed the assignment and states the appraisal date and final conclusion of value.

General Information

Things to do

- Explain your reasoning completely, but concisely.
- Put arrows indicating north on maps, plats, and aerial photos.
- Give sources for all definitions.
- Affix inserts, such as photographs, in an attractive, consistent manner and identify them adequately.
- Use a word processing program to compose your narrative.
- Explain any departure from normal procedure and consider the effects of any adverse conditions noted in the subject property. Remember that the factors affecting the subject property in one approach should also be considered in the other two approaches.

Things not to do

- Do not fabricate data.
- Do not rely on unsupported assumptions, conclusions, or opinions.
- Do not rely on outdated material, e.g., demonstration reports published several years ago, unless your coach approves them as examples.
- Do not select a subject property that is new, or almost new, since it will not give you an opportunity to measure depreciation.
- Do not adjust rent multipliers.
- Do not conclude that the present use is the highest and best use of the property simply because it conforms to other improvements in terms of zoning.

- Do not express estimates or conclusions based on estimates with an unrealistic degree of precision. Use good judgment.
- Do not average your three value conclusions. Select one to be your final conclusion of value.
- Do not use statements such as "Based on my experience and knowledge..." or "Knowledgeable people in the area say..." to support your adjustments.

Suggested Report Outline

Title page

Letter of transmittal

Part I—Introduction

Subject photograph

Assumptions and limiting conditions

- Summary of important facts and conclusions
- Purpose of the appraisal
- Function of the appraisal
- Date of value estimate
- Property rights appraised
- Definition of value

Part II—Factual Descriptions

- Identification of the property
- History
- Regional and city data
- Market influences
- Neighborhood data
- Site data
- Zoning
- Tax and assessment data
- Description of improvements

Part III—Analysis of Data and Opinions of the Appraiser

Highest and best use analysis

Site value

The Three Approaches to Value:

- Cost Approach
- Sales Comparison Approach
- Income Capitalization Approach

Reconciliation and final value estimate

Certificate of value

Qualifications of the appraiser

Addenda

Report Detail

Title page

Include:

- Identification as an appraisal report
- Property address
- Date of valuation
- Name and address of the client and/or person authorizing report
- Name and address of the appraiser
- Date of preparation

Table of contents

The table of contents lists the major components of the report in sequence with page references. The numbering of pages normally begins after the table of contents. Use heads and subheads to identify the major divisions of the report.

Letter of transmittal

The letter of transmittal formally presents the appraisal report. As a demonstration narrative report, it will most likely be addressed to your coach or assessor. A suitable letter of transmittal may include:

- Date of letter and salutation
- Street address or location of the property and a brief description if necessary
- Property type
- Statement identifying the interest in the property being appraised
- Statement that inspection of the property and necessary investigation and analysis were made by the appraiser
- Reference that the letter is accompanied by a complete appraisal report
- Effective date of the appraisal
- Value estimate
- The letter should also clearly state that this appraisal is for demonstration purposes only and should not be used for any other valuation purposes
- Appraiser's signature

Part I—Introduction

Photograph (optional)

A good front-view photograph of the property at the beginning of the report is optional but will give the reader a clear mental picture of the property being appraised.

Assumptions and limiting conditions

This section states what assumptions the appraiser makes about legal descriptions, ownership rights, property condition, and that the property exists within the legal boundary and required setbacks. There are also statements regarding guarantees, liabilities, permitted uses of the report, and limiting the requirements of the appraiser to give further consultation or testimony with reference to the subject property.

Summary of important facts and conclusions

A statement of the major points and important conclusions in the report is desirable. Such a statement provides readers of the report with a convenient summary and gives you an opportunity to stress points that you considered in reaching the final estimate.

Purpose and function of the appraisal

State the purpose of the appraisal report, that is, the question to which the client seeks an answer. The purpose is usually to estimate the market value of the property on a given date.

Date of value estimate

The date of which a value conclusion is made is integral to the report.

Property rights appraised

Identify and define the property rights appraised. State the source of the definition, either in the body of the report or in the footnotes.

definition of value

Define the value that is the purpose of the appraisal in the report. The definition used should be clearly stated and easily understood. Include the source of the definition used.

Part II—Factual descriptions

Identification of the property

Its exact and complete address, legal description, and owner should identify the property. The type of ownership should be specified and other identifying remarks may be included.

History

The history section of the report may include original assemblage, acquisition, or construction cost information; capital additions or modernization expenditures; financial data; and the dates of transfers of ownership for the past five years.

Regional and city data

Starting with a brief but specific description of the geographic location, this section should then consider the four basic forces that influence value. The material gathered should be germane to the property being appraised. Emphasize facts that indicate a trend affecting the area or that may be significant for the probable future marketability or economic life of the appraised property.

Avoid public discourses. If statistical data of any length are considered desirable, include these data as an exhibit and analyze them within the body of the report.

The section should end with a conclusion on the future of the area, its general property values, and the relationship of this future to the subject property.

Regional or city data must be analyzed in a narrative appraisal report. It is your responsibility to explain these influences adequately in this section of the report.

Neighborhood data

The neighborhood data section of the report should briefly, but convincingly, establish the foundation for the remainder of the report. Locational factors are certainly among the most important considerations in estimating the value of residential properties. The development of this section of the report normally lends itself to a geographic delineation of the neighborhood. Neighborhood data may also include the following.

- Boundaries of the neighborhood and why they are applicable;
- Distance and direction from the central business district or employment centers;
- Proximity, adequacy, and reputation of supporting facilities such as schools; places of worship; shops; access and transportation/ and civic, recreational, and cultural facilities;
- Population demographics;
- Types, styles, price levels, and quality characteristics of nearby residences in the neighborhood;
- Age and condition of the residences, overall appearance of the neighborhood, and percentage of undeveloped land, if any;
- Description of available types of financing, mortgage ratios, and rates;
- Availability, cost, and adequacy of sewer, water, power, and other utility services and of public services such as police, fire, and sanitation;
- The ratio between owner-occupied and tenancy-occupied properties;
- Nuisances, hazards, and any other adverse influences within the neighborhood or in the immediate surrounding area;
- Life stage and trends.

The final paragraph of this section should contain conclusions based on the data presented and a market projection of future trends that may affect the value of the subject property. Data presented in the neighborhood section should relate to the property being appraised.

Site data

Describe the site accurately. Include a plat or sketch at this point or refer to it here and include it in the addenda. This section includes information on:

- Site dimensions, area, and shape;
- Topography, drainage, and soil and subsoil conditions;
- Street improvements;
- Availability, adequacy, and description of utilities;

- Any easements or other encumbrances and their effect on value, including private restrictions;
- Landscaping and onsite improvements;
- Relationship between the subject site and its surroundings. Is it typical?;
- Utility of the site. The acceptability and marketability of the site depend on how well its physical and functional characteristics meet the desires and standards of typical purchasers in the marketplace;
- Nuisances and hazards;
- Location on block, e.g., corner or inside, and distance to nearest street if an inside lot.

Zoning

The official zoning designation of the property and what it indicates should be stated in the body of the report. The full text of the ordinance applicable to the property can be reproduced as part of the addenda. Briefly describe the allowable uses. Make a statement about the subject's conformity or lack of conformity to zoning regulations and describe any other public restrictions. If the property does not conform to current zoning, this should be fully explained.

Tax and assessment data

Include a statement of the subject's assessed value and taxes with a brief review of property taxes over the past three to five years and a projection of probable future trends. The tax burden of the appraised property in relation to similar properties and any special assessments should be discussed in this section.

Description of improvements

The description of a dwelling should include general characteristics such as architectural style, type, dimensions and area, room count, number of baths, structural and construction details, mechanical equipment, and the presence or absence of a garage or other auxiliary buildings. This section should describe the age and condition of all structures and specifically consider items of deferred maintenance and structural deficiencies that would adversely affect the marketability of the property. It also should include statements on the functional utility, or lack thereof, of the improvements. The effective age of the property should be discussed.

A sketch of the subject floor plan and all other major and minor improvements may be illustrated and included in this section.

Part III—Analysis of data and opinions of the appraiser

Highest and best use analysis

This section of the report should include a complete analysis of both highest and best use as though vacant and highest and best use as improved.

- Describe the size, quality of construction, design, and other characteristics of an ideal dwelling.

- Include a conclusion as to whether or not the improvements, or parts of the improvements, add to or detract from the property as a whole.
- The report should also state what repairs or renovations are recommended.

The conclusions as to the highest and best use of the property should consider uses that are legally permitted, physically possible, appropriately supported, and functionally feasible as well as how these uses relate to the types of improvements existing in the neighborhood.

Be sure to include the definition of highest and best use and state your source.

Site value

Site value is best indicated by comparable sales. The data should be reduced to appropriate units of comparison. The land or site must be valued as if vacant and available to be put to its highest and best use. Each comparable sale should be briefly described, analyzed, and evaluated in terms of the time of sale, conditions of sale, physical characteristics, and locational characteristics. You must include the following data for each sale: sale date, price paid, size of property (both dimension and area), differences that could affect value (such as shape, topography, neighborhood), and location map.

You must also determine the value for on-site development (OSD). This can be identified by using a residual method or by doing a market survey of contractors in the area that provide landscaping services and by interviewing the county and/or city building departments for the costs for utility hookups.

Establish a range of values for landscaping by surveying landscaping companies to get local costs for various plants, trees, and design features.

The Three Approaches to Value

Adjustment for changes in time analysis

Real estate markets are subject to change over time. To accurately estimate a value as of the base appraisal date, an adjustment may be needed to reflect a change in value that has taken place between the date of the sale and the value estimate date. A comprehensive study will reveal whether sale prices are increasing, decreasing, or staying the same over time. The adjustment is calculated on a percentage basis and applied to the sale price. The result is a value indication adjusted for changes due to time.

The Cost Approach to Value

Give a brief explanation of the approach.

- Value the land as if vacant. Use the value from the site value study to establish a land value for the subject property.
- Add OSD and landscaping values to determine the total land value.
- Develop a local cost modifier (LCM). Evaluate sales of new construction to determine the difference between current construction costs for your area and the latest publication of the Department of Revenue's *Cost Factors for Residential Buildings*.

  —Obtain a list of new residential construction sales.

  —Adjust the sale prices for changes over time, if appropriate.

—Subtract the total land value from the sale prices to establish the residual improvement cost.

—Determine the improvement's replacement cost new for each sale by using tables from the most recent publication of the Department of Revenue's Cost Factors for Residential Buildings.

—Divide the residual improvement cost by the replacement cost new for each sale to determine the LCM.

—Compute the three standard statistical calculations—mean, median, and weighted mean. Select the number that best represents the array to use as an LCM for the subject property.

- Conduct a depreciation study:

  —Analyze sales of older homes of various ages and conditions.

  —Adjust the sale prices for changes over time, if appropriate.

  —Subtract the total land value from the sale prices to establish the residual building cost.

  —Estimate the replacement cost new (RCN) of the subject using the Department of Revenue's Cost Factors for Residential Buildings. Define RCN and give the source of your definition. The unit price should be adjusted to the subject property and all calculations and sources should be shown.

  —Divide the residual improvement costs by the RCN (including the applied LCM) for each sale to determine the percent remaining good.

  —Compute the three standard statistical calculations—mean, median, and weighted mean. Select the number that best represents the array to use as a suggested percent good for the subject property.

  —Estimate the RCN of the subject improvements.

  —Adjust the RCN of the improvements by applying the appropriate LCM and percent good to arrive at a total depreciated cost for the improvement.

  —Add the total land value to the total depreciated improvement cost to arrive at a final value indication.

The Sales Comparison Approach to Value

Give a brief explanation of the approach.

- Discuss the general content and depth of your market research in terms of the sales' proximity of time and location, physical similarity, and the market activity of sales and listings.
- Choose three to five comparable sales that are the most indicative.
- Describe each selected comparable sale so that the reader can make comparisons.
- Analyze the major value-influencing characteristics of the comparable properties as they relate to the subject property. These factors should include, but are not limited to,

time or date of sale, physical characteristics, locational characteristics, and conditions of sale (including financing).

- Use the time trend analysis to determine the adjusted sales prices of the comparables as of the date of value estimate of the subject.
- Make market-oriented adjustments to the comparable sales for the differences between the comparable properties and the subject. The use of "paired sales" is the preferred technique. An adjustment grid may accompany the explanation of adjustments.
- The adjusted comparable prices should be reconciled into a final value indication.

Photographs of each comparable sale property may be included in this section or in the Addenda. A map showing their location in relation to the subject property should also be included.

The Income Capitalization Approach

Explain the approach briefly. In appraising residential properties, the monthly gross rent multiplier (GRMM) is generally employed.

- Select a list of sales of rental properties similar to the subject.
- Use the time trend analysis to adjust the sales to the date of value estimate of the subject.
- Compute the GRMM for each sale by dividing the adjusted sale price by the monthly rent.
- Compute the three standard statistical calculations—mean, median, and weighted mean. Select the number that best represents the array to use as indicated GRMM for the subject property.
- Estimate the market rent for the unfurnished subject property, based on rents of similar properties.
- Multiply the indicated market rent by the GRMM to arrive at final value indication.

Reconciliation and final value estimate

The purpose of reconciliation is to complete the process of correlation, which has taken place throughout the report, and to develop the value indications into a final value estimate. Reconciliation gives the appraiser the opportunity to consider the quantity and quality of the data examined under each approach, the inherent advantages and disadvantages of each approach, and the relevancy of each approach to the subject property and the appraisal problem.

Explain any wide discrepancies, but do not lead the reader to believe that complete agreement of the three approaches is mandatory. Apply sound reasoning to the facts and interpretations that lead to your final conclusion, bearing in mind the definition of value and the use of the report.

Certificate of value

The certification of value in an appraisal report may follow the table of contents or be combined with the final value estimate. In a demonstration report, appropriate placement is

after the final value estimate. The signature of the appraiser and the date are then added. In addition, any factors peculiar to the assignment in question should be fully explained.

Qualifications of the appraiser

The appraiser's qualifications may be placed in the introduction or after the reconciliation section of the report. Qualifications should be listed in a brief and concise fashion. Qualifications may include:

- Educational background and training;
- Professional experience;
- Business, professional, and academic affiliations and activities;
- Some important appraisal assignments.

Addenda

Addenda are supplements to a report and may be used to avoid interrupting the narrative. Data that pertain directly to your narrative, e.g., comparable sales, other market data, maps, and sketches, should be included in the body of the report. The addenda should include any necessary supplementary exhibits, including all or some of the items listed below. Exhibits should be prepared well to give the report a professional appearance.

- Additional photographs of the subject property; where possible, include views of the facade, one side, and the rear. Interior views often help supplement narrative descriptions, particularly in regard to depreciation.
- Photographs of street views in the immediate area of the subject property and of properties referred to in the report.
- Maps of secondary importance.
- City and regional statistical data.
- Any material that may help the reader to visualize the property or understand the appraisal.

For detailed discussion and explanation of the valuation process and the appraisal report, refer to the current edition of *The Appraisal of Real Estate*, published by the American Institute of Real Estate Appraisers.

APPRAISAL REPORT

and

VALUATION ANALYSIS

Single-Family Residence located at:

4934 Heathwood Street
Riverview, Oregon 97000

Date of Value Estimate
May 1, 20XY

Prepared for

_____, Coach

Prepared by

_____ (Name)
Appraiser Trainee
Central County

Prepared _____ (Date)

Table of Contents

_____ (Date)

_____, Coach
Address1
Address 2

Re: Single-Family Residence, 4934 Heathwood Street, Riverview, OR 97000

Dear (Name of Coach):

As you requested, I have completed a narrative appraisal on a single-family residence located at 4934 Heathwood Street, Riverview, OR 97000. The detailed analysis of all factors pertinent to an estimate of the unencumbered fee simple title to the property is attached. I have personally inspected the property and have developed my estimate of market value.

The purpose of this appraisal is to provide you with a demonstration of my ability to use the three approaches to value to develop a final estimate of value for a subject property. This appraisal is not to be used for any other valuation purpose.

In my opinion, as of May 1, 20XY, the market value of the subject property was $230,000 (two hundred thirty thousand dollars).

This letter does not constitute a complete appraisal report of the property. The complete report is attached for your review. Also, please make note of the assumptions and limiting conditions that are located in the introduction of the report.

Respectfully submitted,

_____ (Name)
Appraiser Trainee

Attachment

Part I—Introduction

[Suggested location for subject property photograph(s). Examples below:]

Subject Property: 4934 Heathwood Street, Riverview, Oregon

Subject backyard

Subject kitchen

Subject living room with fireplace

Subject master bath

Assumptions and limiting conditions

The appraiser assumes:

- That any legal descriptions furnished are correct.
- That the title to the property is considered in fee simple with no encumbrances or defects of title.
- That the property will be managed efficiently and maintained properly.
- That the condition of the property is as observed. No hidden or unapparent conditions were identified or assumed.
- That there are no major engineering defects in the structure. That any plans or sketches furnished are correct and are to be used as an aid to visualizing the property.
- That all zoning and use codes have been complied with and that the property exists within the property lines and within the required setbacks.

This report is submitted subject to the following contingent conditions:

- That no guarantee is made, nor liability assumed for inaccuracies or errors in estimates or opinions identified in this report as being furnished by others.
- That no survey of the property has been made by the appraiser and no liability is assumed on matters of a legal character affecting the property, such as title defects, overlapping boundaries, etc.
- The distribution of the total valuation between land and buildings applies only under the existing program of utilization. The separate valuations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.
- This report, or any parts thereof, may not be reproduced in any form without permission of the appraiser.
- This report is to be used only as a demonstration narrative report.
- The appraiser, by reason of this appraisal, is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

Summary of important facts and conclusions

The estimate of value applies as of May 1, 20XY.

The purpose of this appraisal is to estimate the market value of the unencumbered fee simple title to the single-family residence located at 4934 Heathwood St, Riverview, OR 97000.

The site is an irregularly shaped lot approximately 67x102 feet and listed on the county assessment records at 0.16 acres. It is a level interior lot. The subject's tax lot is zoned RS (Single-Family Residential). Highest and best use of the lot as though vacant and as improved is the same as the current use.

The improvement is a one story single-family residence.

- Estimated monthly rent for this property $1,100
- Estimated land value $68,000
- Estimated on-site development fees..... $15,000
- Estimated value of landscaping.....$4,000
- Estimated total land value..... $87,000
- Estimated depreciated cost of building and minor improvements $143,302

Value indicated by:

- Cost approach $230,300
- Sales comparison approach.....$230,000
- Income approach $227,700
- Final estimate of value $230,000

Purpose of the appraisal

The purpose of this appraisal is to arrive at a supportable estimate of market value of the unencumbered fee simple title to the single-family residential property located at 4934 Heathwood Street, Riverview, Oregon 97000.

Function of the appraisal

The function of this appraisal is to provide a demonstration narrative appraisal report for a single-family residence to _____, Coach, _____County Assessors Office. This appraisal will be used to evaluate the appraiser's skills at applying the three approaches to value. It is an educational/training project only.

Date of value estimate

The effective date of the appraisal is May 1, 20XY.

Property rights appraised

The property rights being appraised are the fee simple title to the subject that is held by the owners, _____ (names). **Fee simple title** is defined as a title that signifies ownership of all rights in a parcel of real property, subject only to the limitations of the four powers of government: eminent domain, escheat, police power, and taxation.[7]

Definition of value

Market value is defined as the most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.[8]

7 Appraisal Institute ,*The Dictionary of Real Estate Appraisal*, 4th Edition, 2002.
8 Appraisal Institute.

Part II—Factual descriptions

Identification of the property

The subject property is a one-story single-family residence. It is held in fee simple title by the owners, _____ (names). It is located on a rectangular-shaped lot approximately 67x105 feet and listed on the county assessment records at 0.16 acres lot. The lot is situated approximately one lot east of the intersection of Heathwood Street and 48th Avenue. The legal description is:

Parcel 3, Partition Plat 1994-41, Central County

It is also identified in the records of the Central County Assessor's office as:

Account No.: 12345-6
Map No.: 8S 4W 20DA
Tax Lot No.: 04702

The street address is: 4934 Heathwood St, Riverview, Oregon, 97000

History

The house and attached garage were built in 2002. There has been no remodeling to the house that could be identified by the appraiser.

The current owner purchased the home in _____ (date) for $_____ (amount). The house had one previous owner and was never used as a rental.

Regional and city data

The subject is located in Riverview, Oregon. Riverview is located in the Willamette Valley 10 miles southwest of Salem, on the west bank of the Willamette River and is surrounded by some of the most fertile farmland in the state.

Riverview is a small town with a population of 7,517. It is the third largest urban area in Central County. The major employers besides the local farming community are a spa manufacturer, a saw mill, and a cabinet factory. Its central location and easy accessibility permits Riverview to be a small city with big-city amenities and small-town livability.

Forces that affect value

There are four basic forces that influence the market and the valuation of properties. These forces are social, economic, governmental, and environmental. To effectively understand a market, these four forces need to be analyzed according to their present influences. Also, trends that are in existence, developing, or declining must be taken into consideration. Each of these forces will, in turn, be identified, defined, analyzed and evaluated for their effect on the subject property and the subject's property type.

Social influences encompass the framework of the population base and how it is changing. Issues such as population (growth, stability, or decline), representative age groups, educational levels, recreational opportunities, household compositions, and availability of cultural and artistic events can affect market activity and values.

Riverview has a record of steady population growth since the early 1990s with the expectation that this will continue. The 2000 census stated the population was 6,035 comprised of 49.2 percent males and 50.8 percent females. The population is projected to increase over the next decade. There is a good mixture of young and old residents with no majority in either group. There is a strong network of public schools providing education for kindergarten through college. Several small private colleges and a state university are located within a short commute of Riverview.

Recreational opportunities are varied and plentiful within Riverview's city limits or within a short drive. Riverview is located on the Willamette River which provides boating and fishing activities. Within an hour's drive to the east a resident can enjoy mountain scenery and recreational activities such as boating, fishing, hunting, hiking, or skiing. A drive to the west will take the resident to the Pacific Ocean and its beach communities with all of their recreational offerings.

Married couples make up 53.7 percent of the population. The median age is 28.9 compared to the median age in the state of 26.3 years. The average household size is 3.0 people. Owner-occupied homes represent 65.4 percent of all homes. Residents with income below the poverty level comprise 16.9 percent compared to 11.6 percent for the whole state.[7]

Cultural and artistic events are available by driving to Salem, Eugene, or Portland. These include art shows and exhibits, opera, symphony, theater, and concerts.

All of these social influences have a positive effect on Riverview's market, making it a desirable place to invest.

Economic influences relate to the financial capacity of a market area's occupants and their ability to rent or own property, to maintain it in an attractive and desirable condition, and to renovate or rehabilitate it when needed.[8] The potential income of wage earners, employment opportunities—both those in existence and in development—price levels of goods and services, and the ease or difficulty in acquiring financing can profoundly affect the ability of sellers to find buyers willing to pay their expected prices for properties.

Riverview's highest employment for males in industry is agriculture, forestry, fishing and hunting at 14 percent, followed by public administration at nine percent. Employment for females is in educational services at 17 percent and health care at 11 percent. Agricultural workers or administrators are the most common occupation for males. Females most commonly work in office and administrative support positions. The surrounding fertile farmland supports a large food processing and agricultural industry. There are a few major employers such as a spa manufacturer, a large saw mill operation, and a cabinet factory. Smaller businesses including retail companies, restaurants, banks, health care, professional services, and other service-oriented employers support these major employers. The region's economic base is fairly stable with a future of regular growth indicated by leading state and national economists.

7 Oregon Department of Employment.

8 *The Appraisal of Real Estate,* 12th edition, page 169, The Appraisal Institute, 2001.

Environmental influences consist of "the natural or man-made forces that may be analyzed for real estate appraisal purposes include the following:

- Climatic conditions such as snowfall, rainfall, temperature, and humidity;
- Topography and soil;
- Toxic contaminants such as asbestos, radon, and PCBs;
- Natural barriers to future development such as rivers, mountains, lakes, and oceans;
- Primary transportation systems, including federal and state highway systems, railroads, airports, and navigable waterways;
- The nature and desirability of the immediate area surrounding a property."[9]

The Willamette Valley enjoys a mild climate. In summer, days average in the low 80s with cool nights. There are occasional showers. Winter temperatures usually average in the low 40s with a slight chance of snow. Snowfall is usually of short duration and is usually washed away by warmer rain within a few days. Spring is mild and brings out a profusion of color as plants and bulbs bloom. Fall is filled with cooler days and colorful leaves.

The Dictionary of Real Estate Appraisal, The Appraisal Institute, 2002, defines location as "The time-distance relationships, or linkages, between a property or neighborhood and all other possible origins and destinations of people going to or coming from the property or neighborhood."

Riverview is located in the middle of the Willamette Valley, the home of some of the most fertile and productive farmland in the northwest. There are several small, stable communities (10,000 to 15,000 populations) within 20 miles of Riverview that also contribute to the stable economic foundation of Riverview. The Willamette River flows on the eastern boundary of the city. The Cascade Range Mountains to the east and Pacific Ocean to the west are an hour's drive distant. Interstate 5, the state's main artery from California to British Columbia passes by Riverview on the west. Highway 99, a secondary highway, also passes through.

Riverview's location in relation to employment centers, recreational opportunities, climate, small town atmosphere, and quality of life make its location very attractive to investors.

Governmental influences are the fourth and final force that affects the market. Included are public services (police, fire, sanitation, roadways and public transit, and availability of utilities), zoning and land-use restrictions, other local policies or controls, and any special laws that can affect the value of property.

Riverview has a solid network of public support services. The city has its own police force, and the fire department has three substations located for quick response to fire emergencies as well as paramedic calls. The city has a 9-1-1 program that significantly reduces the response time to any emergency. The city's sanitation and waste disposal department has an adequate system to support the present population and has plans for future growth. Also, Riverview has initiated a recycling program that has reduced the total volume of waste having to be buried in the town's landfill. Water and sewer are managed by the city with drinking water coming from the Willamette River. Other available utilities include electricity, natural gas, and cable television.

9 *The Appraisal of Real Estate,* 12th edition, page 169, The Appraisal Institute, 2001.

The Willamette Valley's stable economic base and growth rate will help maintain the quality of life and sustain an attractive value level for properties.

Neighborhood data

The subject is located in a neighborhood[10] of Riverview known as Crest Dale. This area is centrally located and is within half a mile of both the downtown shopping district and the Riverview Mall. Crest Dale is a subdivision of Riverview with the majority of homes built from the mid-1990s to the early 2000s. The area's boundaries are Territory Road on the north, Heathwood Street on the south, 48th Avenue on the west, and 67th Avenue on the east. These boundaries are either zoning barriers or the point at which the neighborhood changes character and quality. The neighborhood is completely built up with few vacant lots to be found.

Improvements are one- and two-story single-family homes of fair quality and workmanship attractively positioned on well-maintained two-lane paved streets. Most of the homes have attached, double-car garages. The majority are owner-occupied with few rentals to be found. Residents are typically middle-income families. There are more homes with school-age children than those with middle-aged and retired people. These properties are generally well maintained and show pride of ownership.

The subject being appraised was built in 2002. It is a one story ranch style. It is in average condition for its age. It solidly conforms to the architectural style and appearance of the rest of the neighborhood.

Riverview Rapid Transit (RRT), Riverview's bus system, serves the area well. In addition to the Riverview Mall, there are two supermarkets located in strip malls within one mile. Schools serving the area are two elementary, a middle school, and one high school. There are several churches located within a few miles of the subject.

Cultural events are available in Riverview. An arts and crafts fair is held every November and performing arts groups schedule regular performances of concerts and plays. Portland, Salem, and Eugene provide Riverview's residents with additional cultural and entertainment possibilities. Portland and Eugene have their own symphony orchestras, ballet companies, and opera companies. Broadway shows are regularly scheduled in both of these cities. Riverview has its own radio station that broadcasts popular music and local news.

Recreational activities include one movie theater, boating, fishing, hunting, skiing, and ocean beach attractions. Concerts, plays, and other stage productions are offered. Winery tours, four golf courses, and a popular casino are within a short driving distance from town.

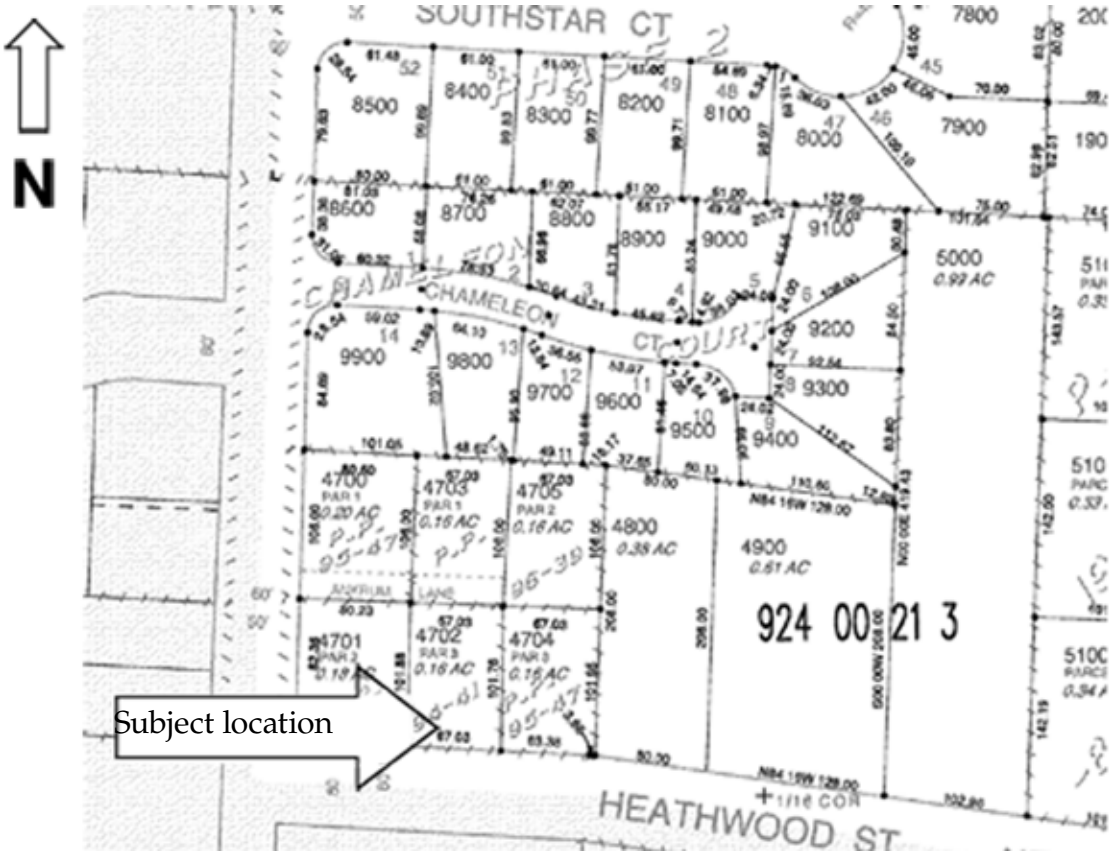
Riverview has a strong network of utilities and public services. Police and fire protection and emergency medical care is available through the 9-1-1 system. Sanitation services are well maintained and refuse is buried in the local landfill. A recycling program is in operation through the garbage collection service. Utilities such as electricity, natural gas, and cable television are offered to the city's residents.

There are no special hazards located nearby. There are no items of external obsolescence located in the area that would affect the value.

10 A group of complimentary land uses. *The Dictionary of Real Estate Appraisal,* 4th edition, The Appraisal Institute, 2002.

This neighborhood, being firmly established in the city's residential area will remain a very desirable area for buyers. Its location in respect to employment, shopping, churches, schools, transportation, and recreation will provide a solid base for value retention. The subject property's architectural style and condition reflect the same characteristics of its neighbors and will, therefore, enjoy the same relative value stability.

[Suggested location for neighborhood map. Example below:]



Subject neighborhood map

Subject neighborhood aerial photograph

Site data

The subject is located on a nearly rectangular south-facing interior lot. It contains 6,825 square feet with a front footage of 67 feet along Heathwood Street. The nearest cross street, 48th Avenue, is located approximately 80 feet to the west of the subject. The lot is level with good drainage. It is serviced with city sewer, water, electricity, natural gas, telephone, cable TV, and street lights. All utilities feed the subject from underground. There are no known easements, encroachments, encumbrances, or private restrictions affecting the subject.

The street is well-maintained asphalt with good drainage through the city's sewer system. The street has two lanes with traffic traveling in both directions. All streets have curbs and sidewalks. The street improvements are in good condition.

A 26x26 foot driveway is located on the south border of the site with the entrance from the street. A concrete walk leads from the sidewalk to the front door.

The house and garage are located near the center of the lot. The landscaping is average for the area with a few small shrubs (dwarf rhododendrons, evergreens, and azaleas) and two small cherry trees growing in good quality soil. The rest of the yard has flower beds and lawn. The backyard is completely enclosed in a 6-foot high wood fence.

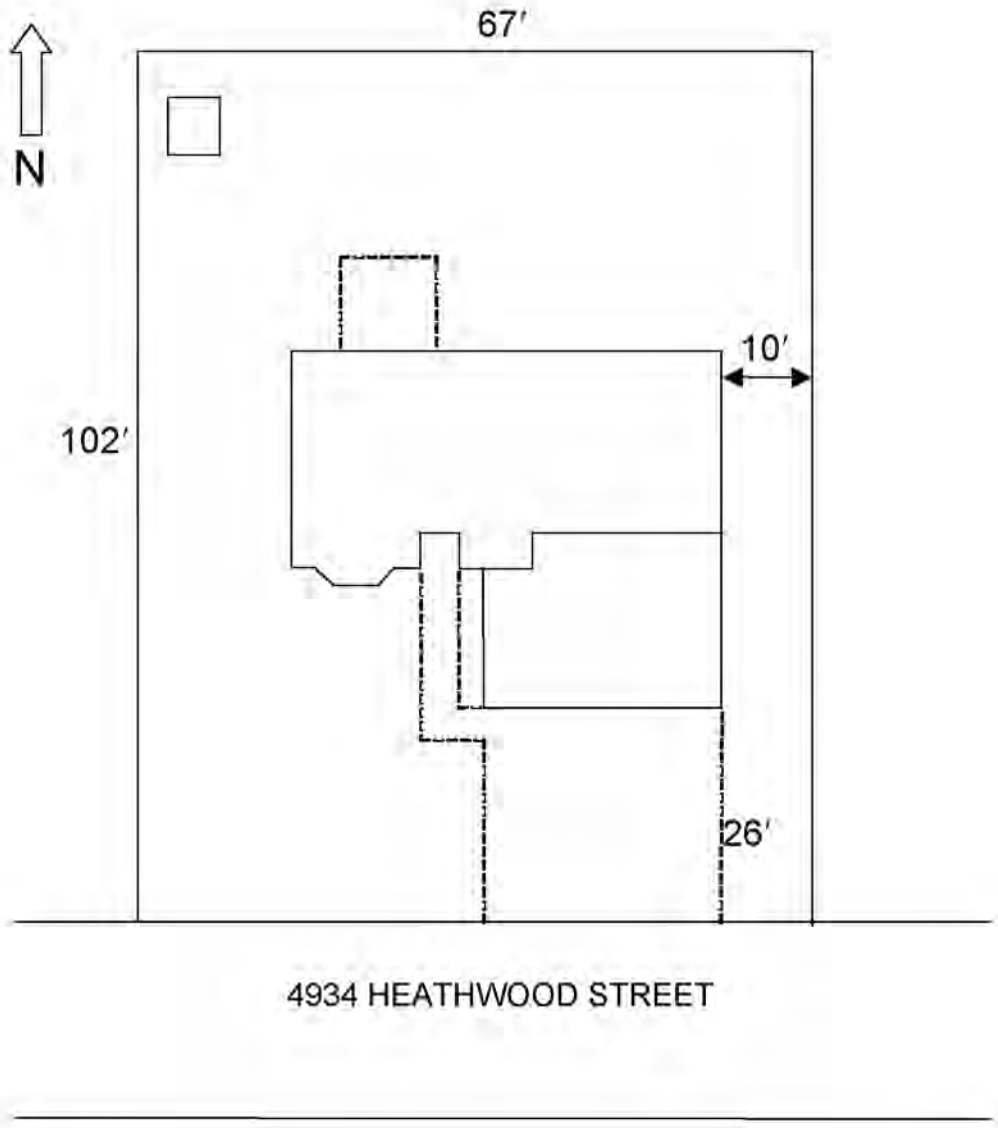
The site is typical of those found in the neighborhood with no significant differences. It conforms to its surroundings. The physical and functional characteristics of the site meet the desires and standards of typical purchasers in the market as well as the highest and best use of the site as though vacant.

Zoning

Riverview's Planning Department enforces zoning laws for the subject's area. The subject is located well within the boundaries of its zone in a well established neighborhood. No zoning changes are anticipated, planned, or targeted by the city.

The house is located in an RS (Residential, Single-Family) zone (see Addenda Exhibit J.) This zone's permitted uses are restricted to single-family dwellings or one duplex, if located on a corner lot with a minimum 8,000 square feet.

[Suggested location for site diagram. Example below:]



Subject site diagram

Restrictions to improvements limit dwellings to 30 feet in height and not less than 1,050 square feet of floor area. Minimum lot area is 5,000 square feet with a minimum width at the front building line of any lot created in the RS zone is 50 feet. One accessory building per legal building lot is allowed if used in conjunction with any single-family structure. However, no main building or group of main buildings shall occupy more than 40 percent of the area of any single lot.

The subject represents a conforming use to zoning requirements.

Tax and assessment data

The assessment data provided below is for the 20XX/XY tax year. The real market value (RMV) of the property was estimated by the assessor to be $222,300 as of January 1, 20XY. Real market value is the value the assessor estimates the property would sell for on the open market. The maximum assessed value (MAV) for the tax year was $133,700. Taxes are based on assessed value which is the lesser of RMV or MAV.

The property is located in Tax Code Area 9929 and has a total tax rate of $19.06 per thousand of assessed value applied to it. The rates are:

Education Category $ 8.02

- K-12 School District
- Educational Service District
- Community College

General Government Category $11.04

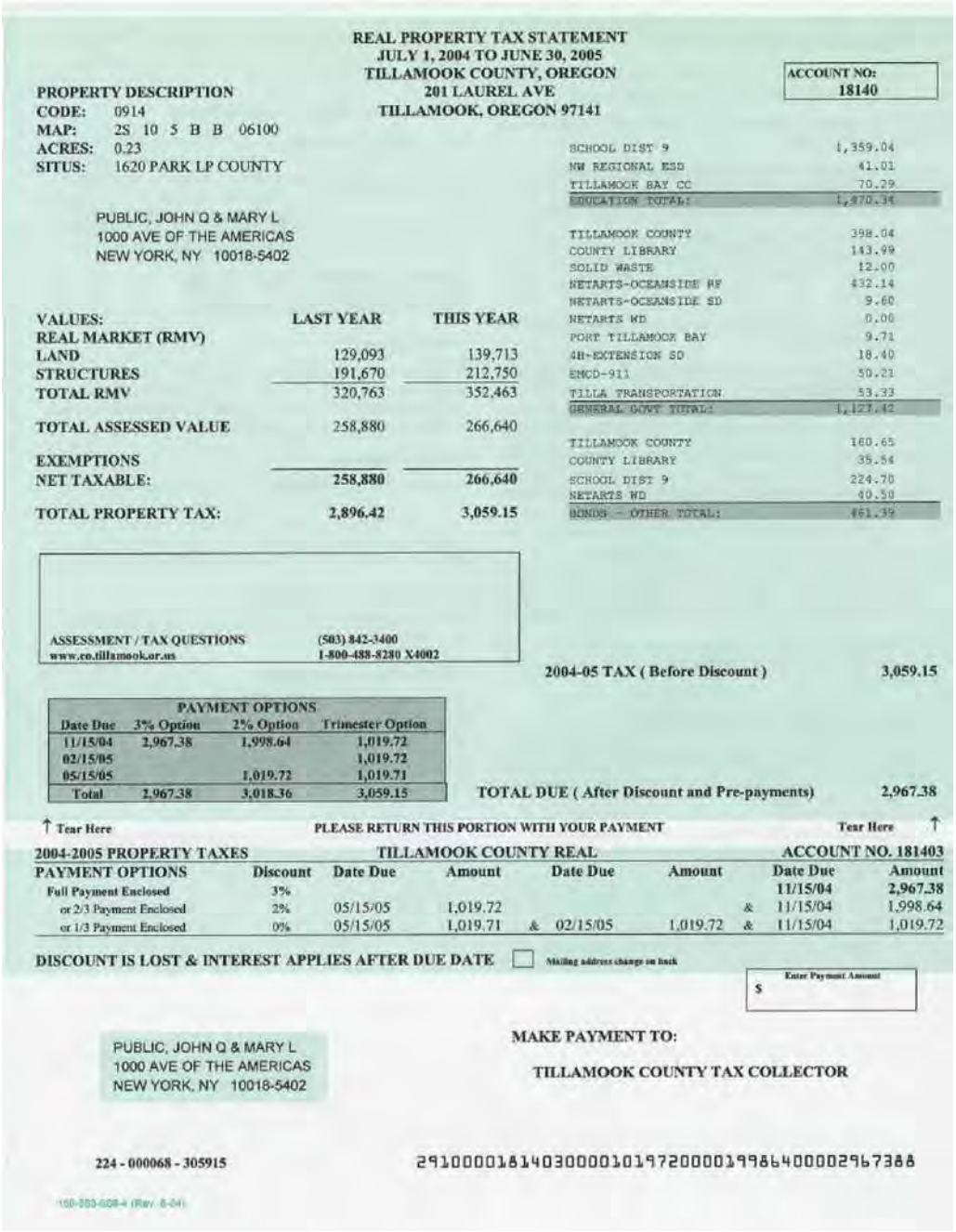
- County
- City
- Other

The tax calculated for education prior to the imposition of the $5 constitutional limit for education was $1,072.27. After the imposition of the limit the tax imposed on the property was $786.50.

The tax calculated for general government prior to the imposition of the $10 constitutional limit for general government was $1,476.05. The general government limit is $1,573.00. Since the limit is greater than the tax, the full tax amount of $1,476.08 is imposed on the property.

The total tax imposed on the property was $2,262.58.

[Suggested location for latest tax statement. Example below:]



REAL PROPERTY TAX STATEMENT
JULY 1, 2004 TO JUNE 30, 2005
TILLAMOOK COUNTY, OREGON
201 LAUREL AVE
TILLAMOOK, OREGON 97141

ACCOUNT NO: 18140

PROPERTY DESCRIPTION
CODE: 0914
MAP: 2S 10 5 B B 06100
ACRES: 0.23
SITUS: 1620 PARK LP COUNTY

PUBLIC, JOHN Q & MARY L
1000 AVE OF THE AMERICAS
NEW YORK, NY 10018-5402

VALUES:	LAST YEAR	THIS YEAR
REAL MARKET (RMV)		
LAND	129,093	139,713
STRUCTURES	191,670	212,750
TOTAL RMV	320,763	352,463
TOTAL ASSESSED VALUE	258,880	266,640
EXEMPTIONS		
NET TAXABLE:	258,880	266,640
TOTAL PROPERTY TAX:	2,896.42	3,059.15

SCHOOL DIST 9	1,359.04
NW REGIONAL ESD	41.01
TILLAMOOK BAY CC	70.29
EDUCATION TOTAL:	1,470.34
TILLAMOOK COUNTY	398.04
COUNTY LIBRARY	143.99
SOLID WASTE	12.00
NETARTS-OCEANSIDE RF	432.14
NETARTS-OCEANSIDE SD	9.60
NETARTS WD	0.00
PORT TILLAMOOK BAY	9.71
4H-EXTENSION SD	18.40
EMCD-911	50.21
TILLA TRANSPORTATION	53.33
GENERAL GOVT TOTAL:	1,127.42
TILLAMOOK COUNTY	160.65
COUNTY LIBRARY	35.56
SCHOOL DIST 9	224.70
NETARTS WD	40.50
BONDS - OTHER TOTAL:	461.39

ASSESSMENT / TAX QUESTIONS (503) 842-3400
www.co.tillamook.or.us 1-800-488-8280 X4002

2004-05 TAX (Before Discount) 3,059.15

PAYMENT OPTIONS			
Date Due	3% Option	2% Option	Trimester Option
11/15/04	2,967.38	1,998.64	1,019.72
02/15/05			1,019.72
05/15/05		1,019.72	1,019.71
Total	2,967.38	3,018.36	3,059.15

TOTAL DUE (After Discount and Pre-payments) 2,967.38

↑ Tear Here — PLEASE RETURN THIS PORTION WITH YOUR PAYMENT — Tear Here ↑

2004-2005 PROPERTY TAXES — TILLAMOOK COUNTY REAL — ACCOUNT NO. 181403

PAYMENT OPTIONS	Discount	Date Due	Amount		Date Due	Amount		Date Due	Amount
Full Payment Enclosed	3%							11/15/04	2,967.38
or 2/3 Payment Enclosed	2%	05/15/05	1,019.72				&	11/15/04	1,998.64
or 1/3 Payment Enclosed	0%	05/15/05	1,019.71	&	02/15/05	1,019.72	&	11/15/04	1,019.72

DISCOUNT IS LOST & INTEREST APPLIES AFTER DUE DATE ☐ Mailing address change on back

Enter Payment Amount
$

PUBLIC, JOHN Q & MARY L
1000 AVE OF THE AMERICAS
NEW YORK, NY 10018-5402

MAKE PAYMENT TO:
TILLAMOOK COUNTY TAX COLLECTOR

224 - 000068 - 305915

2910000181403000010197200001998640000296738 8

150-303-008-4 (Rev. 8-04)

Description of improvements

The subject improvement was built in 2002 and consists of a fair quality one story single-family ranch style residence. It has a double-car attached garage. The house has 1,278 square feet of finished living area. The attached garage has 552 square feet with a low-cost finished interior and an automatic garage door opener. A covered porch 4x7 feet is located at the entry to the house next to the garage. There is an average sized concrete patio at the rear of the house. The lot is a level lot with all utilities and measures approximately 67x102 feet. The site improvements include landscaping, curbs and sidewalks.

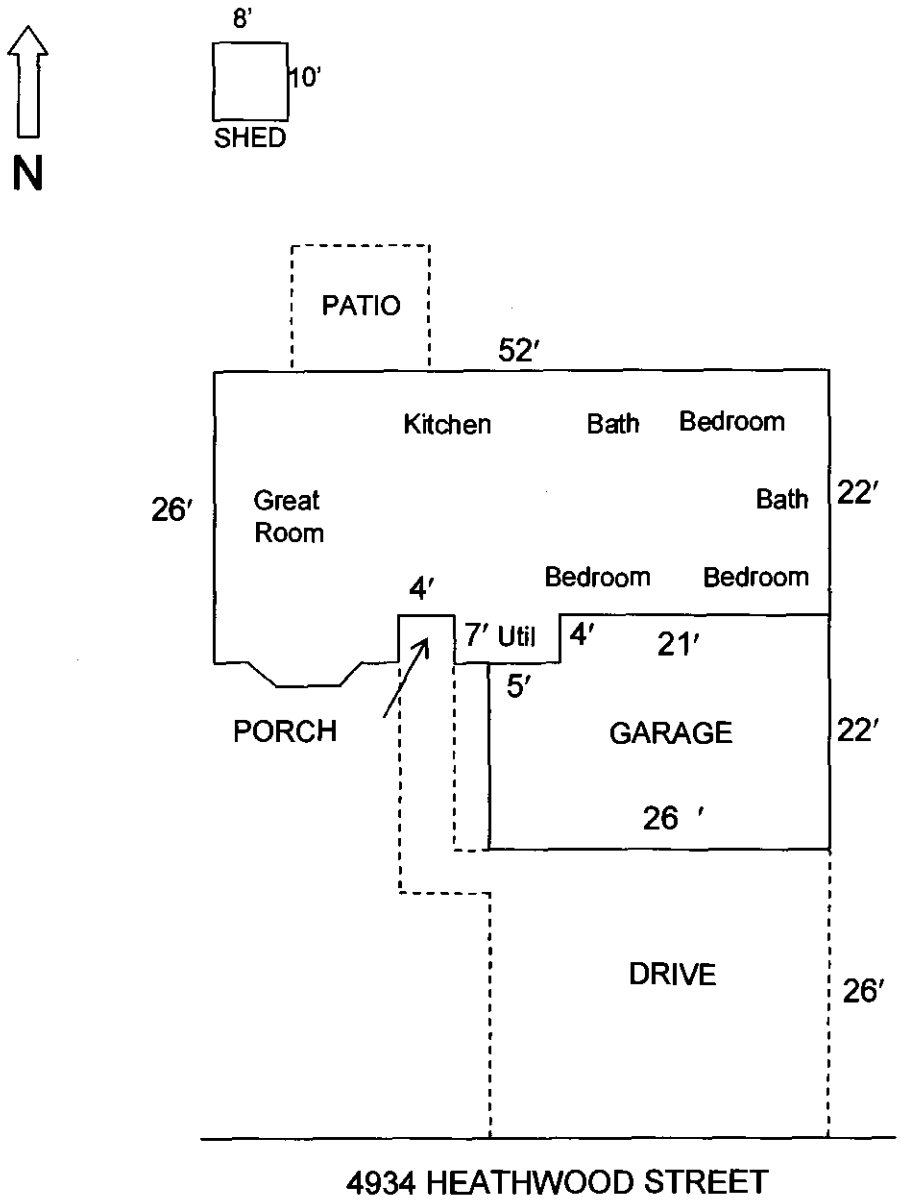
The concrete foundation supports a structure built on a 2x4 inch wooden frame. Exterior walls are of double construction with painted fiber-cement lap siding. The exterior doors are of solid wood. Windows are double pane vinyl with screening on all. The house has a gable roof and the roof cover is composition shingle. Metal gutters and downspouts adequately direct runoff to the sewer system. A vent cap for the single gas direct vent fireplace is located on the west side of the house.

The house contains a living room, dining area, kitchen, family room, two full baths, and three bedrooms. The laundry facilities are located in a small nook near the garage. The house has a good floor plan with no functional obsolescence observed.

The walls of the house are textured sheetrock throughout. The dining area and family room have wainscoting on the walls and wood laminate flooring. The bedrooms and hall are carpeted and the kitchen and bathrooms have vinyl flooring. The family room has direct access to the patio and backyard. The fireplace is located in the living room and has a fair quality hardwood mantel with tile surround. The kitchen contains a drop-in stove, a dishwasher, microwave oven with venting system, and garbage disposal. Cupboards are of fair quality finished oak facing with European-type hinges.

The house and garage are in average condition for their age as well as the roofing, paint, and carpeting. Heating and cooling is provided by a heat pump system. The water is heated by a 50-gallon gas water heater.

[Suggested location for subject floor plan. Example below:]



Part III—Analysis of data and opinions of the appraiser

Highest and best use

Highest and best use is defined as:

> "The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity."[7]

Implied in this definition is that the determination of highest and best use takes into account the contribution of a specific use to the community and community development goals as well as the benefits of that use to individual property owners. Hence, in certain situations the highest and best use of land may be for parks, greenbelts, preservation, conservation, wildlife habitats, and the like.

The only legally permissible use of this property is that of a single-family residence. Any other use would require a zoning change. This is highly unlikely because the subject is located well within the boundaries of the RS zone. There are no known zone changes anticipated for this area—therefore it is concluded that the highest and best use of the property is for single-family residential.

The present use of the subject property is for single-family residential. This use adequately conforms to the neighborhood and the zoning requirements. The improvements blend well with neighboring properties, which helps to maintain a homogeneous nature for the area.

The observed depreciation for the subject is that it is in average condition for its age.

The improvements do not represent either an under- or over-improvement for the neighborhood. They are typical for the area.

Because of the style, age, and condition of the subject property and improvements, the zoning, and the surrounding neighborhood, the highest and best use of this property as if vacant or improved is as it is presently used—a single-family residence.

Site value

The subject's neighborhood is entirely built up with no vacant land sales for quite some time. To determine lot values, a survey was made of Riverview developers actively marketing homes and lots in neighborhoods of similar quality. Four developers were contacted and each stated that lots similar in size and similar attributes to the subject were selling for $66,000 to $70,000 as of the effective date of this appraisal. All lot values include streets, sidewalks, and curbs. Sewer, water, and utilities are available to the site, but hook-up fees are not included in the price. Landscaping costs are also not included.

After interviewing the developers, a survey was made of actual lot sales in the area (see Exhibit B in the Addenda). The 17 sales chosen for review occurred within twelve months of

7 The Appraisal Institute, *The Dictionary of Real Estate Appraisal,* 4th edition, 2002.

the effective date of the subject property's appraisal. All were inspected for comparability to the subject site. Factors such as size, shape, location, and street type were compared to the subject.

A study was conducted to determine if changes over time affected values in this area (see Exhibit A in the Addenda). A conclusion of 0.5% per month was determined to be an appropriate adjustment factor for both land and improvements to adjust the sale prices to the appraisal date of May 1, 20XY. The mean and median adjusted sales prices were calculated to determine a typical value per site. An analysis was then made to identify value changes among lot sizes. The sales were sorted into ascending order of square footage to determine if sales price is a function of size. From this analysis, the values for vacant lots were determined to be:

6,000 to 7,000 sq ft	$68,000
7,001 to 8,000 sq ft	$72,000
8,001 to 11,000 sq ft	$76,000

Utility hookups and city site preparation fees

The city planning and building department was contacted to determine the costs involved in preparing the site for construction. This included sewer and water hookups and fees. They were:

Sewer inspection fee	$1,200
Sewer systems development fee	$4,200
Water hookup fee	$5,600
Water systems development fee	$4,000
Total On-site Development Fees	$15,000

Landscaping

A survey was made of landscaping companies in Riverview to determine the value of plantings in the subject and comparables. Landscaping costs varied depending on the number of plants, trees and design features. From this survey the value for landscaping of the subject and comparables was determined to be:

Good	$6,000
Average	$4,000
Fair	$2,000
Minimal	$750

The three approaches to value

An appraiser must consider all three approaches to value when establishing his or her opinion. The three approaches to value are the cost approach, the sales comparison approach, and the income capitalization approach.

In the **cost approach**, an estimate of the replacement cost new of the buildings will be made, from which will be subtracted depreciation due to wear and tear, design and plan, and neighborhood defects, to arrive at an estimate of the depreciated cost of the buildings. The estimated market value of the land plus the estimated value of the land improvements will be added to the depreciated cost of the buildings to arrive at an indication of value by this approach.

In the **sales comparison approach**, comparable competitive properties will be compared with the subject property. Dollar adjustments will be made for differences between the comparable properties and the subject property to indicate the most probable sale price for the subject property.

The **income capitalization approach**, as it applies to single-family residential property, involves multiplying the estimated rental value of the subject property by a gross rent multiplier to arrive at an indicated value by this approach.

The three approaches may indicate different value estimates. The appraiser must then use judgment to review the data collected for each approach and determine which approach or approaches provide the most reliable estimate of value. This step is called **reconciliation**. Once the appraiser chooses the preferred approach, a final estimate of value can be determined.

Cost approach—Exhibits C, D, & E in Addenda

In the cost approach, the appraiser attempts to estimate the cost to reproduce an exact replica of the subject or to replace its utility. **Utility** is the ability of a product to satisfy a human want, need, or desire.[8] The value developed using the cost approach is called the reproduction or replacement cost new (RCN). **Reproduction cost** is the estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building.[9] **Replacement cost** is the estimated cost to construct, at current prices as of the effective appraisal date, a building with utility equivalent to the building being appraised, using modern materials and current standards, design, and layout.[10] For purposes of this appraisal, the replacement cost new will be used.

Once the RCN has been developed for each of the sales, the appraiser can compare these totals to the sales prices to determine total accrued depreciation for each property. **Depreciation** is the loss in value from any source such as wear and tear, functional obsolescence, or economic obsolescence. The depreciated values of the comparables can then be used to develop the depreciated value of the subject by comparing it to the comparables.

8 The Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 4th edition, 2002.
9 *Ibid.*
10 *Ibid.*

A highest and best use analysis is made to determine if the improvement as it stands develops the vacant site to that point that will return the greatest value. If the land were vacant and ready for improvement, a brand new structure, using current construction methods and materials would probably return the greatest value. However, when a structure already exists, the cost to remove and replace it can exceed any anticipated increase in value. In these instances the highest and best use of the property would remain its current use with all items of curable depreciation corrected. This situation applies to the subject property.

The indicated value of the subject by the cost approach was determined to be $230,300.

Sales comparison approach—Exhibits F, G, & H in Addenda

In the sales comparison approach, the appraiser analyzes the market to identify sales of properties that are comparable to the subject. Each of the comparables is compared to the subject and adjustments for differences are developed and applied. The resulting adjusted sales prices are then analyzed by the appraiser to determine the range within which the potential value of the subject would fall. By further reviewing each comparable sale the appraiser can determine which most accurately represents the subject and then determine an estimate of value.

In the 12 months before the effective date of the appraisal there were 20 sales of properties that were potential comparables to the subject. All of these properties were used to develop the adjustments described in the preceding paragraph. From these 20 sales, five were chosen as being most representative of the subject. The selected sales also all occurred within five months of the effective date of the appraisal.

Following is a brief description of the comparables:

Comparable #1:

4982 Marshall Drive, located approximately one block east and one block south of the subject. This class 4 one-story ranch style house sits on a 6,950-square-foot interior lot. It has three bedrooms and two baths and was built in 2002. The living area is 1,380 square feet. The house is heated and cooled by a heat pump forced air system. There is a double attached garage. The house has a single gas fireplace and a patio similar in size to the subject's. The landscaping is superior to the subject except an adjustment was made for no sprinkler system. The house is in similar condition than the subject. This property sold three months ago for $229,000. This sale was confirmed with the listing agent.

Comparable #2:

4595 Nicks Court, located approximately one block east and one block north of the subject in a cul-de-sac. This class 4 house sits on a 6,167-square-foot interior lot. This single-level ranch style house has three bedrooms and two baths. The house was built in 2002 and has 1,322 square feet of living area. The house is heated by a forced air furnace and an adjustment was made for the lack of a cooling system. The house has a single gas fireplace and a small patio. The lot is partially fenced and there is no underground sprinkler system. There is a double-car attached garage. The house sold one month ago for $228,000. This sale was confirmed with the listing agent.

Comparable #3:

5040 Heathwood Street is located across the street and two blocks east from the subject. This one-story class 4 house is on an 8,000-square-foot corner lot. This house was built in 2004. There are three bedrooms and two baths and 1,336 square feet of living area heated by a forced air furnace. An adjustment was made for the lack of a cooling system. The kitchen appliance set is superior to that of the subject. The house no fireplace. There is a small patio with a cover. There is a double car attached garage and an RV pad. The house is in similar condition to the subject. The house sold four months ago for $230,000. The sale was confirmed with the buyer.

Comparable #4:

1235 Plum Court, located five blocks west and one block south of the subject. This class 4 one-story house is on a 7,500-square-foot interior lot and was built in 2003. It has three bedrooms, two baths, and 1,350 square feet of living area. The house is heated by a forced air furnace with no cooling system. The kitchen appliance set is superior to that of the subject. The house no fireplace. There is a covered deck at the back of the house. There is a double car attached garage and an RV pad. The house sold two months ago for $232,000.

Comparable #5:

1830 Apple Way, located nine blocks east and two blocks south of the subject. This one-story class 4 ranch-style house is on a 6,900-square-foot interior lot. It has three bedrooms and two baths. It has 1,560 square feet of living space and was built in 2001. There is a single gas fireplace in the living room, and the kitchen has high-end appliances, cabinets, and countertops. There is a double attached garage. A covered patio is in the rear of the house. The house sold five months ago for $235,000.

The subject and all comparables are located on side streets of major Riverview arterials. They are all located sufficiently far enough from these busier streets that they suffer no observable deficiency.

Sales comparison analysis and conclusion

After analyzing all the sales, all comparable properties were similar in quality and all in average condition for their age, therefore no adjustment was required to upgrade inferior or downgrade superior quality properties in these elements of comparison. The depreciated cost per square foot of living space at the quality level of the subject was determined to be $60.00. All other adjustments were taken from market studies and the cost factor tables for class 4 properties found in the 2005 publication of Cost Factors for Residential Properties, Oregon Department of Revenue.

Sales 1 and 2 were selected as being the most comparable to the subject because they were recent sales, needed the least number of adjustments for differences, and were given equal weight in the value conclusion. They were supported by Sales 3 and 4. Although these sales had small net adjustment values, they both required several more adjustments than Sales 1 and 2. Sale 5 required only a few adjustments, however it had the largest adjustment for improvement size, resulting in the largest net total adjustment.

The value for the subject indicated by the sales comparison approach was determined to be $230,000.

Income capitalization approach—Exhibit I in Addenda

In the income capitalization approach, the appraiser reviews sales of rental properties that are comparable to the subject. From these sales, a gross rent monthly multiplier is developed. A **gross rent monthly multiplier** is the relationship or ratio between sale price or value and gross rental income.[11] By taking the sale price of each rental and dividing it by its monthly gross rent (total rent received before expenses are deducted), a range of multipliers can be identified. The analysis of these sales, their rents, and their GRMMs will enable the appraiser to develop an estimate of value based on potential income.

I went to Riverview Realty, a local real estate firm, and spoke with the coordinator for their rental office. He gave me a list of their rentals that were available as of March 20, 20XY. The list can be found in the addenda. I reviewed the rents and all of these properties to determine which ones were most similar to the subject. From my review of these sources, I estimate that the subject could be rented for $1,100 per month.

Five sales of rental properties were found in the subject's neighborhood. All rentals were single family dwellings of similar age, quality of construction, and condition as the subject. Land values corresponded to those developed for the subject and comparable sales while gross rent came from gathered data. The time trend study developed for the subject was used to determine the adjusted sales prices of the rentals. This value, divided by the actual gross rent, established the GRMM for each property. After analyzing these values, the GRM was determined to be 207 (rounded).

Finally, by multiplying the estimated monthly rent of $1,100 by the GRMM of 207, the estimate of value by the income approach was determined to be $227,700. Although slightly higher than the indicated market value of the other two approaches, this study lends support to the final conclusion of value.

Reconciliation and final value estimate

Reconciliation

Reconciliation is defined as "the last phase of any valuation assignment in which two or more value indications derived from market data are resolved into a final value opinion, which may be either a final range of value or a shingle point estimate."[12]

At this point the appraiser reviews all three approaches to value and assesses the quality of the data used to support them. Each approach's value estimate is thoughtfully analyzed and reviewed to determine which approach or approaches best represent the subject's value. The appraiser must ensure that this final estimate of value is reasonable and supportable because he/she may be called upon to testify to that effect in a court of law.

Highest and best use analysis is required in every appraisal to identify the use that will return the greatest value for the investment. Since the property is located well within an established RS zone and is currently developed to the requirements of that zone definition, it is determined that the highest and best use of the property as though vacant and improved is as it is currently used—as a single-family residence.

11 The Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 4th edition, 2002.
12 The Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 4th edition, 2002.

Land values in this appraisal were established by an analysis of land sales in subdivisions of similar quality neighborhoods located within four miles of the subject. There were no vacant land sales in the subject's neighborhood because it has been entirely built up since the early 2000s. Site improvements were identified by surveying the city of Riverview's Planning Department and a number of local landscaping contractors for landscaping costs.

All sales prices were adjusted from the date of sale to the effective date of the appraisal at a rate of one-half percent per month based on the study shown in Example A.

The cost approach analysis indicated a value estimate of $230,300. Replacement cost new was established for the subject and all comparables using the 2005 publication of the Department of Revenue's *Cost Factor Book for Residential Properties*. A local cost modifier analysis was conducted to determine the percentage difference between actual local costs and the cost factors found in the cost factor book. A depreciation analysis was developed from sales and the subject's estimated depreciation came from a review of that study. The value indicated by the cost approach supports the final value estimate as that indicated by the sales comparison approach.

The sales comparison approach included a review and analysis of recent sales in the area. This approach indicated a value range of $224,455 to $231,000. The value estimate selected from this approach is $230,000. The value indicated by the sales comparison approach was selected as the best estimate of value for the subject because this approach best represents the motives of buyers and sellers in the market place.

The income approach, developed from sales of rentals and observed percent good indicated a GRMM of 207 and an estimated monthly rent of $1,100. A value estimate of $227,700 was developed using these figures. Because the subject is not a rental property, this approach was not given as much weight in the final value estimate. However, the value indicated by this approach strongly supports the conclusion arrived at through the sales comparison approach to value.

Final value estimate

After consideration of the three approaches to value, I estimate the market value of the subject property to be $230,000.

Certificate of Value

I hereby certify that I have personally inspected the subject property and the comparable properties and have considered all factors affecting value. This report has been made in conformity with recognized standards and rules of professional ethics. To the best of my knowledge, all statements in this report are true and correct, subject to the underlying assumptions and conditions. My opinion of value of the unencumbered fee simple title has been formed as of May 1, 20XY. This appraisal was conducted to be used as a demonstration narrative appraisal to meet the requirements of my appraiser trainee position.

_____ _____

Date Signature

Qualifications of the appraiser

Appraisal Classes Attended:

Appraisal Principles, Oregon Department of Revenue, _____(date)

Set-Up in Mass Appraisal, Oregon Department of Revenue, _____(date)

Appraisal Principles, Appraisal Institute, _____(date)

Professional Experience:

_____ (job title), _____ (location), _____(date)

_____ (job title), _____ (location), _____(date)

_____ (job title), _____ (location), _____(date)

Important Appraisal Assignments:

- XYZ City Depreciation Benchmark Study
- XYZ City Land Appraisal
- ABC Depreciation Benchmark Study
- ABC Residential Appraisal
- Appraisal Area #1 Depreciation Benchmark Study
- Riverview Residential Appraisal

Addenda

Example of Contents

Exhibits:

- Exhibit A—Change in Time Analysis

Land valuation

- Exhibit B—Site Value Land Sales Analysis

Cost approach

- Exhibit C—Local Cost Modifier Study
- Exhibit D—Depreciation Study
- Exhibit E—Replacement Cost Analysis

Sales comparison approach

- Exhibit F—Improvement Square Foot Adjustment Study
- Exhibit G—Market Data Grid
- Exhibit H—Comparable Property Photographs

Income approach

- Exhibit I—Rental Property Study

Other

- Exhibit J—RS Zone Description

Adjustment for Change in Time Analysis

	Improvement Quality, Condition, Age	Sale Date	Sale Price	Time Span	Dollar Difference	Overall Percentage Change	Monthly Percentage Change
Double Sale	similar to subject	12/20XW	185,200				
		12/20XX	194,500	12 mos	9,300	5.02	0.42
Double Sale	similar to subject	1/20XX	213,000				
		11/20XX	225,600	10 mos	12,600	5.92	0.59
Sales of Comparable Properties	similar to subject	11/20XW	208,000				
	similar to subject	8/20XX	218,500	9 mos	10,500	5.05	0.56
Sales of Comparable Properties	similar to subject	10/20XW	227,500				
	similar to subject	8/20XX	239,000	10 mos	11,500	5.05	0.51
Sales of Comparable Properties	similar to subject	8/20XS	220,000				
	similar to subject	10/20XX	235,000	14 mos	15,000	6.82	0.49

Adjustment for time conclusion: the range is 0.42 to 0.59.
Analysis suggests an adjustment of **0.5% per month**.

This adjustment will be applied to both land and improvements for all sales to adjust the prices to the appraisal date of May 1, 20XY since they are improved properties similar to the subject.

Site Value—Land Sales Analysis

Sale #	Map	Tax Lot	Sale Date	Sale Price	Number Months	Adjusted Sale Price	Lot Size	Shape	Location	Topog	Instrument
1	XX 4W 5CD	5900	Jul-20XX	64,800	10	68,040	6,000	Rectangle	Interior	Level	691-940
2	XX 4W 5CD	5500	Aug-20XX	64,800	9	67,716	6,100	Rectangle	Interior	Level	694-720
3	XX 4W 5CD	5100	Sep-20XX	65,600	8	68,224	6,200	Rectangle	Interior	Level	690-650
4	XX 4W 5CA	4400	Dec-20XX	66,400	5	68,060	6,300	Rectangle	Interior	Level	686-705
5	XX 4W 5CD	5800	May-20XX	64,800	12	68,688	8,000	Rectangle	Interior	Level	695-805
6	XX 4W 5CA	2600	Jun-20XX	66,400	11	70,052	7,500	Irregular	Interior	Level	695-602
7	XX 4W 5CD	7000	Jul-20XX	67,200	10	70,560	7,300	Rectangle	Cul-de-sac	Level	686-705
8	XX 4W 19B	2402	Nov-20XX	68,800	6	70,864	7,500	Rectangle	Interior	Level	686-220
9	XX 4W 8CB	100	Nov-20XX	69,600	6	71,688	7,200	Irregular	Interior	Level	684-210
10	XX 4W 19B	1107	Dec-20XX	70,400	5	72,160	8,000	Rectangle	Cul-de-sac	Level	688-350
11	XX 4W 8CC	1900	Dec-20XX	72,000	5	73,800	7,800	Rectangle	Interior	Level	685-140
12	XX 4W 17C	3900	Dec-20XX	72,000	5	73,800	7,950	Irregular	Interior	Level	690-501
13	XX 4W 8CC	1600	Feb-20XY	72,000	3	73,080	7,543	Triangle	Cul-de-sac	Level	683-405
14	XX 4W 17C	1500	Jul-20XX	73,600	10	77,280	7,900	Irregular	Cul-de-sac	Level	692-105
15	XX 4W 5CD	4800	Nov-20XX	72,800	6	74,984	10,800	Irregular	Interior	Level	684-920
16	XX 4W 5CD	5200	Jan-20XY	75,200	4	76,704	10,000	Rectangle	Interior	Level	684-750
17	XX 4W 5CD	6300	Apr-20XY	76,000	1	76,380	8,500	Rectangle	Interior	Level	688-720

Indicated Range of Value Based on Lot Size

	Mean	Median	Round To
6,000 to 7,000 sq ft	68,010	68,050	**68,000**
7,001 to 8,000 sq ft	72,197	71,924	**72,000**
8,001 to 11,000 sq ft	76,023	76,380	**76,000**

On-Site Development Fees

Sewer Inspection Fee	$1,200
Sewer Systems Development Fee	$4,200
Water Hook-up Fee	$5,600
Water Systems Development Fee	$4,000
Total On-site Development Fee	**$15,000**

Landscaping Costs

Good	**$6,000**
Average	**$4,000**
Fair	**$2,000**
Minimum	**$750**

Exhibit B

LCM Analysis

Map	Tax Lot	Bldg Class	Sale Date	Sale Price	Number Months	Adjusted Sale Price	Land Value	Residual Imp Value	RCN	LCM
XX 4W 5CB	4500	3+	Feb-20XY	225,000	3	228,375	68,000	160,375	154,952	1.035
XX 4W 5CB	6900	4-	Aug-20XX	218,500	9	228,333	68,000	160,333	155,814	1.029
XX 4W 8CC	703	4-	Apr-20XY	232,500	1	233,663	72,000	161,663	157,259	1.028
XX 4W 17C	300	4	Jul-20XX	227,000	10	238,350	68,000	170,350	165,228	1.031
XX 4W 19AA	4202	4	Aug-20XX	232,000	9	242,440	72,000	170,440	165,476	1.030
XX 4W 5CD	6200	4	Nov-20XX	228,000	6	234,840	72,000	162,840	157,791	1.032
XX 4W 5CA	2300	4	Jun-20XX	215,750	11	227,616	76,000	151,616	146,348	1.036
XX 4W 8CA	2600	4	May-20XX	215,900	12	228,854	72,000	156,854	150,821	1.040
XX 4W 5DD	1900	4	Jul-20XX	226,800	10	238,140	72,000	166,140	160,212	1.037
XX 4W 5DB	6300	4	Sep-20XX	218,900	8	227,656	72,000	155,656	151,416	1.028
XX 4W 5CB	3901	4	Apr-20XY	232,500	1	233,663	72,000	161,663	157,106	1.029
XX 4W 8CC	2601	4	Dec-20XX	234,800	5	240,670	76,000	164,670	159,719	1.031
XX 4W 17C	5400	4+	Jun-20XX	217,800	11	229,779	72,000	157,779	152,296	1.036
XX 4W 19AA	5601	4+	Aug-20XX	231,900	9	242,336	76,000	166,336	162,437	1.024

Mean	1.032
Median	1.031
LCM	**1.03**

Depreciation Study

	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5	
Address	4111 Webb Dr	4322 Percy Ct	486 Ithaca St	1235 Hardy Dr	1837 Wiggins Way	
Sale Price	$228,500	$226,700	$219,500	$228,000	$234,000	
Sale Date	3 mos ago	1 mo ago	4 mos ago	6 mos ago	5 mos ago	
Adj Sale Price	231,928	227,834	223,890	234,840	239,850	
Land RMV	68,000	68,000	68,000	68,000	72,000	
OSD RMV	15,000	15,000	15,000	15,000	15,000	
Landscaping	6,000	4,000	4,000	2,000	4,000	
Other Imps RMV	3,208	4,140	4,875	5,704	2,431	
Building Residual	139,720	136,694	132,015	144,136	146,419	
RCN	135,010	131,110	126,760	137,820	139,980	
Remaining Good	0.9663	0.9591	0.9602	0.9562	0.9560	0.96 Mean 0.96 Median

Sales of comparable properties were selected to derive a reasonable effective age for the subject property.
The RCN above includes an LCM of 1.03 from a separate study.

Analysis suggests a percent good of **96%** be applied to the RCN of the subject property.

Exhibit D

Replacement Cost Analysis

(Cost sources are from the 2005 publication of the Oregon Department of Revenue *Cost Factors for Residential Buildings*. The improvements fit within the specifications for class 4.)

HOUSE	Sq Ft/ Number	Cost Factor	Total Value
Finished Living Area	1,278	74.44	95,134
Dishwasher	1	480	480
Garbage disposer	1	150	150
Microwave	1	450	450
Fireplace: gas-prefab	1	3,140	3,140
Bathroom	2	1,600	3,200
Kitchen sink	1	450	450
Water heater	1	400	400
Heating: FA-HP-AC	1,278	3.95	5,048
Subtotal House			108,452
+ LCM (1.03)			3,254
Total House			111,706
GARAGE			
Double, Attached-Low Cost Finish	552	49.09	27,098
Automatic door opener	1	400	400
+ LCM (1.03)			825
Total Garage			28,323
OTHER IMPROVEMENTS			
Patio	144	3.00	432
Driveway	676	3.00	2,028
Fence 6' cedar-solid privacy	200	21.00	4,200
Porch/Walkway	28	3.00	84
Sprinkler system: 4 zones	1	2,500	2,500
Total Other Improvements			9,244
Total Replacement Cost New (RCN)			149,273
Less Depreciation (96% R.G.) = Total Improvement Value			143,302

LAND	
Land	68,000
Sewer and Water Hookups and Fees	15,000
Landscaping	4,000
Total Land	**87,000**
Add Total Depreciated Improvement Value	143,302
Cost Approach Value	**230,302**

Conclusion:

The estimated value of the land plus the depreciated cost of the buildings concludes an indication of value by the cost approach to be **$230,300** (rounded).

Improvement Square Foot Adjustment

	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5	
Price	226,500	220,500	218,000	225,500	224,000	
	4 mos ago	3 mos ago	6 mos ago	2 mos ago	4 mos ago	
Time Adjustment	4,530	3,308	6,540	2,255	4,480	
Adjusted Sale Price	231,030	223,808	224,540	227,755	228,480	
Lot value	87,000	87,000	87,000	91,000	91,000	
Garage	32,000	32,000	28,500	35,000	31,500	
Appliance/Fireplace	8,500	6,300	7,000	16,300	8,200	
Features	5,800	8,700	9,100	5,000	3,200	
Dwelling Residual	97,730	89,808	92,940	80,455	94,580	
Square Feet	1,554	1,400	1,558	1,480	1,570	
Square Feet Residual	62.89	64.15	59.65	54.36	60.24	
					60.26	Mean

Adjustment for time conclusion: the range is $54.36 to $64.15 with a mean of $60.26.
Analysis suggests the improvement square foot adjustment be **$60 per square foot**.

This adjustment will be applied to the sales comparison approach comparable properties as an adjustment for improvement size differences.

MARKET DATA GRID

Element of Comparison	Subject Property	Comp #1		Comp #2		Comp #3		Comp #4		Comp #5	
Address	4934 Heathwood St	4982 Marshall Dr		4595 Nicks Ct		5040 Heathwood St		1235 Plum Ct		1830 Apple Way	
Sale Price		$229,000		$228,000		$230,000		$232,000		$235,000	
Sale Date		3 months ago		1 month ago		4 months ago		2 months ago		5 months ago	
			Adjustment		Adjustment		Adjustment		Adjustment		Adjustment
Time Adj		+1.5%	3,435	+.5%	1,140	+2%	4,600	+1%	2,320	+2.5%	5,875
Lot Size	.16 ac	0.16 ac		0.14 ac		0.18 ac	-4,000	0.17 ac	-4,000	0.16 ac	
Site	level/rectangle	similar		similar		similar		similar		similar	
Location	interior lot	similar		similar		similar		similar		similar	
Landscaping	average	good	-2,000	similar		similar		fair	2,000	similar	
Imp Size	1,278	1,328	-3,000	1,322	-2,640	1,336	-3,480	1,350	-4,320	1,460	-10,920
Quality	class 4	similar		similar		similar		similar		similar	
Condition	average	similar		similar		similar		similar		similar	
Year Built	2002	2002		2002		2004		2003		2001	
Heating	FA-HP-A/C	similar		FA	1,500	FA	1,500	FA	1,500	similar	
Bed/Bath	3/2	3/2		3/2		3/2		3/2		3/2	
Func Utility	average	similar		similar		similar		similar		similar	
Appliances	dish/disp/mw	similar		similar		superior	-2,000	superior	-2,000	superior +	-4,000
Fireplace	1-gas	similar		similar		no	3,140	no	3,140	similar	
Patio/Deck	patio	similar		similar		patio w/cov	-1,500	deck w/cov	-1,500	patio w/cov	-1,500
Fence	yes	similar		partial	500	similar		similar		similar	
Sprinkler	yes	no	2,500	no	2,500	similar		similar		similar	
Parking	2-attached	similar		similar		similar +RV	-1,000	similar +RV	-1,000	similar	
Original Sale Price			229,000		228,000		230,000		232,000		235,000
Net Adjustment			935		3,000		-2,740		-3,860		-10,545
Indicated Market Value After Adjustments			**229,935**		**231,000**		**227,260**		**228,140**		**224,455**

Time adjustment, lot and improvements size adjustments: see separate studies in Addenda.
Component adjustments: see DOR 2005 *Cost Factors for Residential Buildings*

Conclusion: The sales comparison approach indicates the most probable sale price for the subject property is $230,000.

Exhibit G

Comparable Properties

	**Comparable #1** 4982 Marshall Dr Sold for $229,000 February 20XY
	**Comparable #2** 4595 Nicks Ct Sold for $228,000 April 20XY
	**Comparable #3** 5040 Heathwood St Sold for $230,000 January 20XY

	**Comparable #4** 1235 Plum Ct Sold for $232,000 March 20XY
	**Comparable #5** 1830 Apple Way Sold for $235,000 December 20XX

Rental Property Study

Sales of Rental Properties Similar to Subject

Map	Tax Lot	Sale Date	Sale Price	Number Months	Adjusted Sale Price	Quality Class	Bed/ Baths	Garage	Monthly Rent	GRMM
XX 4W 5CA	2200	Dec-20XX	210,500	5	215,763	4	3/2	Dbl Attached	1,000	216
XX 4W 5CD	4300	Aug-20XX	208,500	9	217,883	4	3/2	Dbl Attached	1,050	208
XX 4W 5CD	300	Mar-20XY	225,500	2	227,755	4	3/2	Dbl Attached	1,100	207
XX 4W 5CD	6100	Apr-20XY	222,900	1	224,015	4	3/2	Dbl Attached	1,100	204
XX 4W 8CB	2900	Feb-20XY	237,500	3	241,063	4	3/2	Dbl Attached	1,200	201
										207 Mean
										207 Median
										207 Indicated GRMM

Riverview Realty Available Rentals:

Area	Rent	Bed/Bath
NE Riverview	850	3/1
NE Riverview	875	3/1
SE Riverview	895	3/1
SE Riverview	925	3/1
NW Riverview	950	3/1
NW Riverview	1,000	3/2
SE Riverview	1,100	3/2
NE Riverview	1,150	3/2
SE Riverview	1,150	3/2
S Riverview	1,400	3/3
NW Riverview	1,600	4/2
SE Riverview	1,650	4/2

Most similar to subject property:

1,000
1,100
1,150
1,150

1,100 **indicated rent for subject**

Conclusion of Value:

Rent x GRMM = **$227,700**

An examination of recently sold rental properties developed an indicated **GRMM of 207 for the subject property**.

An examination of comparable properties that are currently rentals, an indicated **rent for the subject of $1,100**.

The income approach to value results in the indicated rent of $1,100 multiplied by the GRMM 207 producing a final value estimation for the subject property of $227,700.

Exhibit I