

# FUNDAMENTALS OF COMMERCIAL PRINT READING (HYBRID)

## AGC Colorado – Fundamentals of Commercial Print Reading (Live-Online)

### Instructor Information:

Dan Rondinelli

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### Textbook & Prints

“Print Reading for Construction, Residential and Commercial” by Walter C. Brown and Daniel P. Dorfmueller, Eighth Edition, 2023 (Provided as part of course fees)



### Supplies

Students are required to purchase or have access to an Architect, and Engineer scale **by 3/10/2025**. Amazon seems to be the best place to purchase. Most stores do not carry architectural / drafting supplies. Cost is approximately \$20.

A construction calculator is handy but not required for this class. Costs range from \$60-\$80 (available Home Depot, Lowes, & Amazon). You can also download the “Construction Master Pro” App, they offer a 14-day free trial.

### Course Description

This hybrid course allows you to complete, at your own pace, reading assignments, on-line courses, and workbook exercises during the week (approximately 3-4 hours per week) and connect LIVE weekly on **MONDAYS 5:30-7:00pm (Mountain Time) ZOOM CALL** with the Instructor, and other learners for 1 ½ hour “Live Learning Lab” to review workbook answers and ask questions. A Zoom link will be sent under separate cover to the registered email address.

This course establishes the foundation and process necessary for you to understand commercial building prints. Skills learned in this course will be utilized throughout your construction career. Skills include reading site plans, architectural prints, foundation, and structural prints in addition to bonus content on how to read an Architect’s / Engineers scale, understanding specifications / building codes, various building materials / uses, and understanding welding symbols on commercial prints.

The text was written, and the course is taught by experienced commercial construction professionals and utilizes an on-line learning platform that organizes materials and content that is available two (2) years after you complete the course.

### Office Hours (in person or virtual)

Email me at [dan@my-cmi.com](mailto:dan@my-cmi.com) to schedule a virtual or in-person visit outside of class.

Office Location: 7255 South Havana Street, Suite #165; Centennial, CO 80112; (located 1 mile East of I-25 & Arapahoe and ½ mile South of Arapahoe on Havana St.)

# FUNDAMENTALS OF COMMERCIAL PRINT READING (HYBRID)

## **Class 1 – 3/5/25 – Intro Zoom 8:00am-9am (Mountain Time) Introductions, User Training**

Introduction

User training for portal (Construction Mastery Institute)

**PREVIEW - Math Review (Textbook pgs. 347-354)**

Questions and Answers

**(Units 1, 2 & 3 Drop 3/9/2025) DUE 3/17/2025 @ 1pm**

## **Class 2 – 3/10/2025 – Zoom call 5:30-7:00pm (Mountain Time)**

**REVIEW – Math Review**

**PREVIEW - Unit 1 Construction drawing organization (Textbook pgs. 3-16)**

After completing this unit, you will be able to:

- Explain why drawings are important to the construction industry
- Identify what is included in a set of construction drawings describe how drawings and prints are made
- Handle prints properly

**PREVIEW - Unit 2 Construction math and application (Textbook pgs. 19-28)**

After completing this unit, you will be able to:

- Convert between improper fraction and mixed numbers
- Add, subtract, multiply, and divide decimal fractions
- Calculate dimensions
- Calculate areas and volumes of objects
- Relate math to construction problems

**PREVIEW - Unit 3 Reading measuring tools and using scales (Textbook pgs. 37-46)**

After completing this unit, you will be able to:

- Read customary (English) rules and tapes.
- Identify the drawing scale of a print.
- Read dimensions on a print.
- Make measurements using an architect scale.
- Make measurements using an engineer scale.

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**(Units 4, 5 & 6 Drop 3/16/2025) DUE 3/24/2025 @ 1pm**

**Class 3 – 3/17/2025– Zoom call 5:30-7:30pm (Mountain Time)**

## **REVIEW Units 1, 2 & 3**

### **PREVIEW - Unit 4 Lines and symbols (Textbook pgs. 59-64)**

After completing this unit, you will be able to:

- Identify the comments of type lines used on prints.
- Identify features from different lines.
- Match drawing symbols with their meanings.

### **PREVIEW - Unit 5 Fundamental drawing practices (Textbook pgs. 69-82)**

After completing this unit, you will be able to:

- Use proper techniques to make freehand sketches.
- Sketch lines, circles, arcs, and ellipses.
- Make sketches of objects in correct proportion.
- Visualize orthographic views of objects and structures. Create orthographic views.
- Identify standard dimensioning practices used on construction drawings.
- Describe the dimensioning methods used for building features on different drawing types.

### **PREVIEW - Unit 6 Specifications and building codes (Textbook pgs. 93-96)**

After completing this unit, you will be able to:

- Explain what is included in specifications.
- Explain why specifications are needed.
- Find a particular topic within specifications.
- Understand how building code requirements impact the building process.

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**(Units 7 & 8 Drop 3/23/2025) DUE 3/31/2025 @ 1 pm**

**Class 4 – 3/24/2025– Zoom call 5:30-7:00pm (Mountain Time)**

**REVIEW Units 4, 5 & 6**

**PREVIEW - Unit 7 Construction materials type and uses (Textbook 107-130)**

After completing this unit, you will be able to:

- Identify a variety of basic materials used in construction. Identify the basic components of concrete.
- Describe different types of masonry brick, block, and mortar.
- Classify wood as hardwood or softwood.
- Recognize different structural steel shapes.
- Describe various types of glass, plastics, and insulation.
- Identify symbols representing materials on a drawing.
- Explain the fundamentals of green building construction.

**PREVIEW - Unit 8 Site plans (Textbook pgs. 135-144)**

After completing this unit, you will be able to:

- Recognize common features of site plans.
- Identify property line descriptions.
- Explain the difference between true north and plan north.
- Read contour lines on a site plan.
- Plot topography sections.

**(Units 9, & 10 Drop 3/30/2025) DUE 4/7/2025 @ 1 pm**

**Class 5 – 3/31/2025 – Zoom call 5:30-7:00pm (Mountain Time)**

**REVIEW Units 7 & 8**

**PREVIEW - Unit 9 Architectural drawings (Textbook pgs. 149-160)**

After completing this unit, you will be able to:

- Identify the types of drawings classified as architectural drawings.
- List different types of floor plans used in construction projects.
- Describe the purpose of elevations, sections, and details.
- Identify materials specified on architectural drawings.
- Interpret construction requirements specified on architectural drawings.

**PREVIEW - Unit 10 Foundation prints (Textbook pgs. 169-180)**

After completing this unit, you will be able to:

- Identify footings on a foundation plan.
- Describe different types of foundation support systems.
- Identify various components of a foundation system.

# FUNDAMENTALS OF COMMERCIAL PRINT READING (HYBRID)

**(Units 11, & 16 Drop 4/6/2025) DUE 4/14/2025 @ 1pm**

**Class 6 – 4/7/2025– Zoom call 5:30-7:00pm (Mountain Time)**

## **REVIEW Units 9 & 10**

### **PREVIEW - Unit 11 Structural prints (Textbook pgs. 189-202)**

After completing this unit, you will be able to:

- Identify different types of structural construction systems.
- Recognize various types of concrete floor systems.
- Understand concrete reinforcement notation. Recognize reinforcing steel on prints.
- Read beam and column schedules.
- Identify various structural steel members.

### **PREVIEW - Unit 16 Welding prints (Textbook pgs. 271-275)**

After completing this unit, you will be able to:

- Identify different portions of a welding symbol.
- Explain weld details based on the welding symbol on a print.

**Class 7 – 4/14/2025 – Zoom call 5:30-7:00pm (Mountain Time)**

## **REVIEW Units 11 & 16**

### **Course Wrap-up**

- Questions and Answers
- Plus / Delta Conversation
- Course Survey