

Basic Blue Print Reading Syllabus

Time: 16 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: This course will give the participant the basic knowledge needed to navigate through a set of blue prints. The class will cover all aspects of a complete set of drawings and reading a scale (Architects' and Engineers'). Participants will develop a thorough understanding of blue prints and develop the ability to cross reference through architectural, structural and other working drawings. Ample time will be devoted to hands-on exercises using actual Blue Prints.

Goals/Objectives/Student Learning Outcomes:

- Read and interpret plans and specifications.
- Identify schematic symbols and line types.
- Interpret different views and schedules.
- Interpret lines and elevations.
- Interpret and explain the cover page, index, drawing identification and designation systems, sheet types, page numbering and drawing types.
- Explain and demonstrate scaling measurement on drawings.
- Describe how and when to use Architects' and Engineers' scale rulers.
- Understand and describe dimensions on drawings.
- Demonstrate how to move through drawings and track down specific information.
- Describe how plans and specifications work together.
- Describe uses of submittals and shop drawings.
 - Perform a take-off from a complete set of blue prints.
- Calculate and estimate materials per blueprint scale.
- Identify specific lines and symbols.
- Complete a materials order form using a plan schedule sheet.
- Define and explain why specifications are needed
- Identify flow meters, clarifiers, digesters, pumps, aeration tanks, underground piping, concrete structures, and landscape plans.
- Understand and describe RFI's (Requests for Information).

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Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials

- Set of Orange County Sanitation District Mechanical Pipe Blue Prints
- (Job # P2-90) & March Wastewater Reclamation Facility Blue Prints Phase 1 & 2
- Basic Blueprint Reading Student Handout Packet:
 - Mechanical and HVAC Drawings
 - Materials Order Form
 - Krieger & Stewart, Incorporated Clarification No. 65
 - Gas Company Requirements
 - Pipe Pressure Test Data
 - Request for Information packet
 - Using Engineer and Architect Scales packet
- Basic Blue Print Reading Exit Exams 1A & B, 2A & B

Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of safety glasses
- 12 hard hats

Course Requirements

To receive credit for the course, participants must:

- Be present for full sixteen hours
- Participate in all classroom exercises
- Pass a written exam

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Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.