

# H: Small Business/Community Improvement Plan

Content Area: **Generic Content Area**  
Course(s): **Generic Course, Level 1 Engineering Drawing**  
Time Period: **Generic Time Period**  
Length: **3 weeks**  
Status: **Published**

## Unit Introduction

---

In this unit, students will develop a set of plans for a Small Business or a Community Improvement Project...the plan will include Site Plans, Floor plans, Elevations, Structural Cross Sections, 3-d Renderings, etc..... Students will use all their plans and Models to produce a formal presentation to the class that conveys the feasibility of their project...this unit may be included as part of a student design competition (TSA/STEAM)

## Standards

---

9.3.12.AC.1	Use vocabulary, symbols and formulas common to architecture and construction.
9.3.12.AC.2	Use architecture and construction skills to create and manage a project.
9.3.12.AC.6	Read, interpret and use technical drawings, documents and specifications to plan a project.
9.3.12.AC.7	Describe career opportunities and means to achieve those opportunities in each of the Architecture & Construction Career Pathways.
9.3.12.AC-CST.2	Describe the approval procedures required for successful completion of a construction project.
9.3.12.AC-CST.7	Compare and contrast the building systems and components required for a construction project.
9.3.12.AC-CST.9	Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals.
9.3.12.AC-DES.1	Justify design solutions through the use of research documentation and analysis of data.
9.3.12.AC-DES.3	Describe the requirements of the integral systems that impact the design of buildings.
9.3.12.AC-DES.4	Apply building codes, laws and rules in the project design.
9.3.12.AC-DES.6	Apply the techniques and skills of modern drafting, design, engineering and construction to projects.
9.3.12.AC-DES.8	Apply standards, applications and restrictions pertaining to the selection and use of construction materials, components and assemblies in the project design.
9.3.12.AC-MO.4	Determine work required to repair or renovate an existing building.
12.9.3.ST.2	Use technology to acquire, manipulate, analyze and report data.
12.9.3.ST.6	Demonstrate technical skills needed in a chosen STEM field.
12.9.3.ST-ET.3	Apply processes and concepts for the use of technological tools in STEM.
12.9.3.ST-ET.4	Apply the elements of the design process.
12.9.3.ST-ET.5	Apply the knowledge learned in STEM to solve problems.
12.9.3.ST-SM.2	Apply science and mathematics concepts to the development of plans, processes and

projects that address real world problems.

## Essential Questions

---

1. How does the world/societies/cultures/environments impact/influence Architecture past, present and future?
2. What is the role the "Design Process" in good Architecture?
3. What can we learn from the experiences involved in developing a small business plan or community improvement project?

## Content / Skills

---

*Textbooks:*

**Basic Technical Drawing** - Spencer, Dygdon, Novak, 8th edition, 2004

**Engineering Drawing & Design** - D.A. Madsen, D.P. Madsen, 6th edition, 2017

**Architectural Drafting & Design** – A. Jefferis, D.A. Madsen, D.P. Madsen, 7th edition, 2017

*Skills: See Below*

• Layout	•
• Plotting Drawings to Scale	•
• math operations	•
• measurement	•
• mechanical drawing	•
• safety	•
• sketching	•
• teamwork	•
• using CAD	•
• visualization	•