BOARD APPROVED: 6/2002 **RESIDENTIAL ARCHITECTURE GRADES 9-12**

TECHNOLOGY EDUCATION CURRICULUM SUMMARY

The purpose of the Technology Education Curriculum Summary is to present an overview of the Residential Architecture curriculum. Parents are the intended audience of the Technology Education Curriculum Summary.

Technological Devices:

- Knowledge and skills needed to operate a computer.
- Knowledge, understanding, and skills needed to access, evaluate, and use information.
- Knowledge and skills needed to operate a 3-D parametric solid modeling software.
- Knowledge and skills needed to select proper storage devices.
- Knowledge, understanding, and skills needed to produce multimedia presentations.

Theory of architectural graphics communication and computer-aided design:

- Traditional 2-dimensional residential drafting and its limitations.
- Limitations of traditional 2-dimensional residential design.
- Linkages, and transformations of 2-dimensional residential drafting and design to 2-dimensional residential computer-aided design and drafting.
- Boolean operations in primitive 3-dimensional residential design and drafting.
- Three-dimensional parametric technology in modern residential design and drafting.
- Basic design processes in 3-dimensional parametric solid modeling.
- Basic 3-dimensional parametric drafting processes with parametric solid models.
- Basic associative design parameters.

Fundamentals of residential architecture research and development:

- New and reversed residential designs.
- Introduction to green's residential engineering design.
- Societal impacts of residential engineering design.

Effective 3-D parametric residential design marketing with multimedia technologies.
Potential careers in modern residential engineering design.
Team dynamics.