

### **COMPREHENSIVE HIGH SCHOOL #4**

### DESIGN DEVELOPMENT PRESENTATION. JANUARY 21, 2014







Paul Andress, Director of Operations **Robert Bostic**, Assistant Superintendent for Academic Programs David Hicks, Executive Director of Secondary Programs Glen Martin, Construction Coordinator Mike Mattingly, Assistant Superintendent for Curriculum **Debbie Monschke**, Assistant Superintendent for Administrative Services Ernie Stripling, Technology Information Officer

### **COMPREHENSIVE HIGH SCHOOL #4** design development presentation

**DESIGN COMMITTEE** 



### COMMUNICATION

Sharing thoughts, questions, ideas and solutions

### COLLABORATION

Working together to reach a goal – putting talent, expertise, and smarts to work

### CREATIVITY

Trying new approaches to get things done equals innovation and invention

### **CRITICAL THINKING**

Looking at problems in a new way linking learning across subjects and disciplines

### **COMPREHENSIVE HIGH SCHOOL #4** DESIGN DEVELOPMENT PRESENTATION

**DESIGN CONCEPTS** GOALS

'Academic House' Concept Open and Transparent Collaborative Spaces Large Windows into Learning Spaces Indoor/Outdoor Space with Flexible Walls Robust Wireless Access and Generous Technology Integration Architectural Connections Among Primary Building Components Mobile Furniture and Book Stacks Student/Teacher Conference Spaces Prominent Library/Lecture Hall Location with Public Access Strategic Incorporation of Natural Light Adaptable/Flexible Classroom Spaces Access control Large Classrooms Art Displays in Corridors Departmental Storage Rooms First-class Athletic Practice Facilities Multiple Points of Sale in Cafeteria to Accommodate Large Groups **Common Hallway Printers** Work Environment Functionality Work Partnerships - Spaces Accessible to Public Modular Meeting Areas - Maker/Creation Spaces Unique Furnishings Classroom Digital Signage for Teacher Messages **RFID** or Tapping Technology Secure Marketplace Incorporation **Timeless Design Durable Finishes** 

### SITE ORGANIZATION FEATURES

Student Parking Adjacent to Fine Arts and Athletics Separate Parent, Student, and Bus Traffic Prominent Main Entrance Limited and Secure Public Access Convenient Parking

### FUTURE 9TH GRADE FEATURES

Direct Connection Between Comprehensive HS and 9th GC Shared Support Spaces: Library, Fine Arts, Kitchen, Athletics

### COMMUNITY-USE FEATURES

Prominent Entrances Sound Control to Allow Multiple Activities At One Time Controlled Access Community-use Facilities

### ADMINISTRATION FEATURE

General Administration and Counseling Areas Decentralized Vice Principal and Counseling

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**GOALS / DESIGN FEATURES** 



### SAFETY FEATURES

Lockdown and Weather-safe Indoor/Outdoor Camera Surveillance Secure Vestibule Card Access RFD Door Monitors

Strategic Stair Landing Placement

### OUTDOOR LEARNING ENVIRONMENT FEATURES

Low-maintenance/Low Water Use Amphitheater As a Learning Tool and Performance Space Context-sensitive

### TEACHER-BASED FEATURES

Maker/Creation Spaces Throughout School Teacher Commons in Each Academic House

### LIBRARY FEATURES

After-hours Access for Testing and Virtual Coursework Access to Information - Print and Electronic Ample Charging Stations Restrooms and External Access Ample E-Book Access General Access Space for Computers and Virtual instruction Extend Library Borders

### AFTER-HOURS ACCESS FEATURES

Lecture Hall, Athletics, Library, Fine Arts, Art Galleries, Food Service

### OUT-OF-DISTRICT/CATE FEATURES

Partnerships for Shared Space/Instruction with Universities Publicize Student Performance and Achievement Business Partnerships to Create Jobs for Graduating Students (Fed Ex, Cosmetology, Trades, Coffee Bar)

### CONTEXT-SENSITIVE FEATURES

Fits In With Neighborhood/Community Cost effective Forward-thinking Curriculum and Architectural Aesthetic Cutting-edge, Yet Equitable

### STUDENT OWNERSHIP FEATURES

Banners, Student Display, Student-centric Collaboration Student Store

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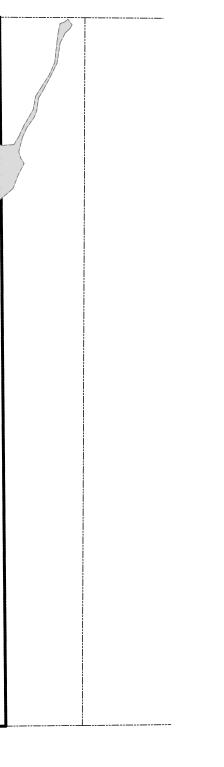
**GOALS / DESIGN FEATURES** 

- **01** Rainwater Collection System
- 02 Condensate Water Collection System
- **03** Bioswales
- 04 Ground Source Heat Pump HVAC (Geothermal)
- 05 Ground Source Heat Pump Water Heating
- **06** Infrastructure for Future Solar Photovoltaics
- 07 Building Orientation and Fenestration
- 08 Additional Wall/Roof Insulation
- **09** Continuous Insulation on All Walls
- 10 Cool Roofs
- 11 Double-pane Insulated Glazing with Low-E Coating
- **12** Daylighting in Classroom Spaces
- **13** High-efficiency Lighting LED Fixtures
- 14 Regional Materials: Brick (Denton Acme Plant), CMU, Steel, Gypsum
- 15 Recycled Materials: Steel, Concrete, Ceiling Tile
- 16 Low VOC Materials: Paint, Sealant, Carpet
- 17 Indoor Air Quality
- 18 Construction Indoor Air Quality
- **19** Low-flow Plumbing Fixtures
- 20 Native Plants and Drought-tolerant Landscaping
- **21** Recycle Construction Material to Reduce Waste
- 22 Campus Recycling Program
- 23 Food Service: Equipment Implementing Condensate and/or Steam Reclamation 49 Tighter Thermal Design to Increase Occupant Comfort
- 24 Food Service: On-demand Defrost for Remote Refrigeration Systems
- 25 Food Service: Faster Cooking Equipment
- **26** Durable, Low-maintenance Finishes: Polished Concrete

- 27 Low-emitting, Fuel-efficient Vehicle Preferred Parking
- **28** Commuter Bicycle Storage and Changing Rooms
- 29 Rain Garden
- **30** Joint-use Facility
- **31** Light Pollution Reduction
- 32 School As A Teaching Tool
- 33 Energy Efficiency Optimization
- 34 Refrigerant Management
- **35** Lighting Occupancy Sensors
- 36 Variable Speed Exhaust for Kitchen Hoods
- **37** Carbon Dioxide Sensors for Demand Controlled Ventilation
- 38 EMS Control of All Exterior Lighting
- **39** EMS Control of Re-circulation Pumps on Domestic HW Systems
- **40** Contactors for EWCs to Shut Off After Hours
- **41** Vending Machine Energy Savers
- **42** Energy Star Appliances
- **43** Mold Prevention Materials
- 44 Water Well for Irrigation
- 45 Low-impact Storm Water Design
- 46 LEED Professional on Project Team
- 47 Heat Island Effect White Concrete
- 48 Investigate Green Power Availability
- 50 Construction Activity Pollution Prevention
- **51** Refined Acoustics in Learning Spaces
- 52 Environmental Tobacco Smoke Control

### **FEATURES SUSTAINABLE**





### **PROPERTY PLAN**



**SITE PLAN** 





### LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation FLOOR PLAN - LEVEL 01



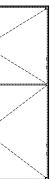




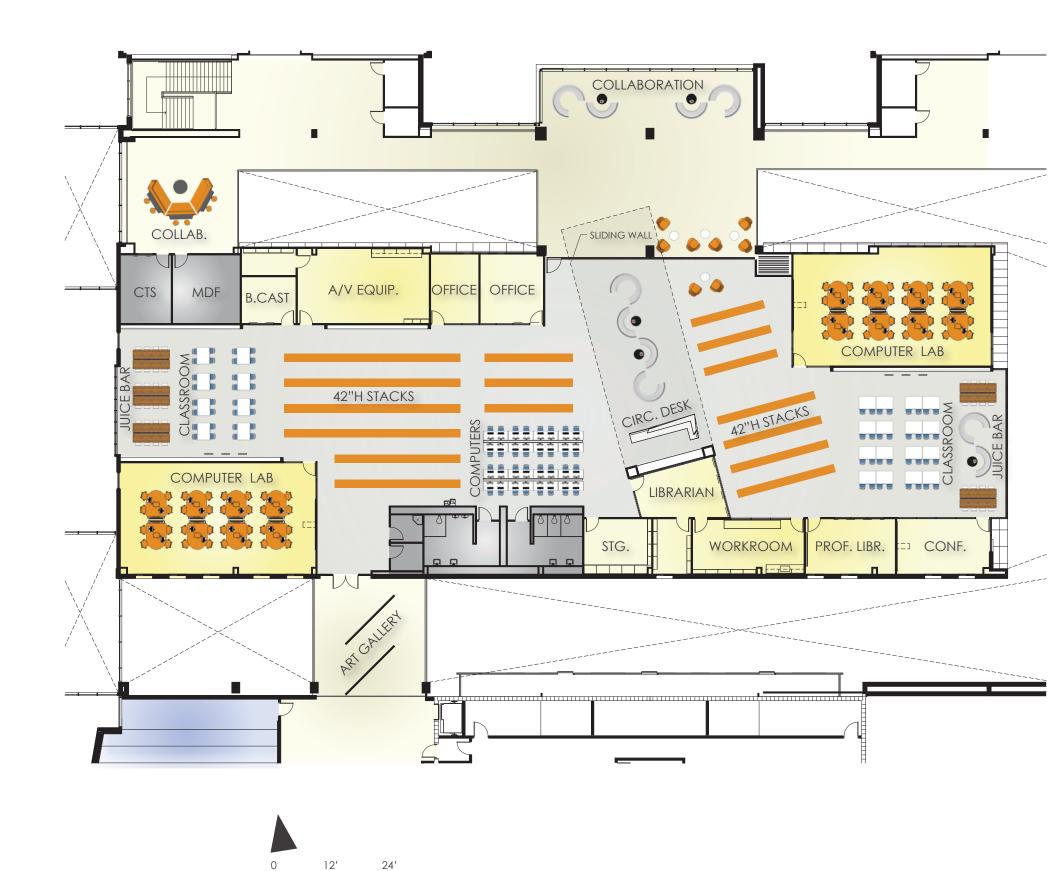
### LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation

# FLOOR PLAN - LEVEL 02



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### LEGEND

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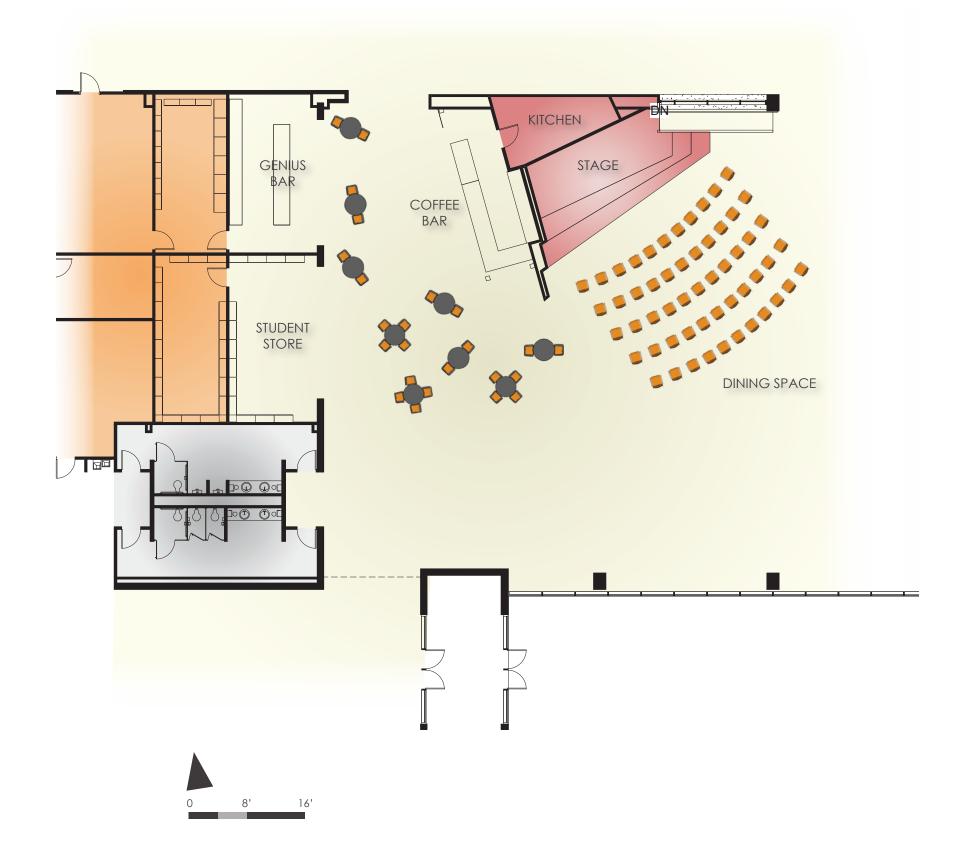
LIBRARY PLAN ENLARGED





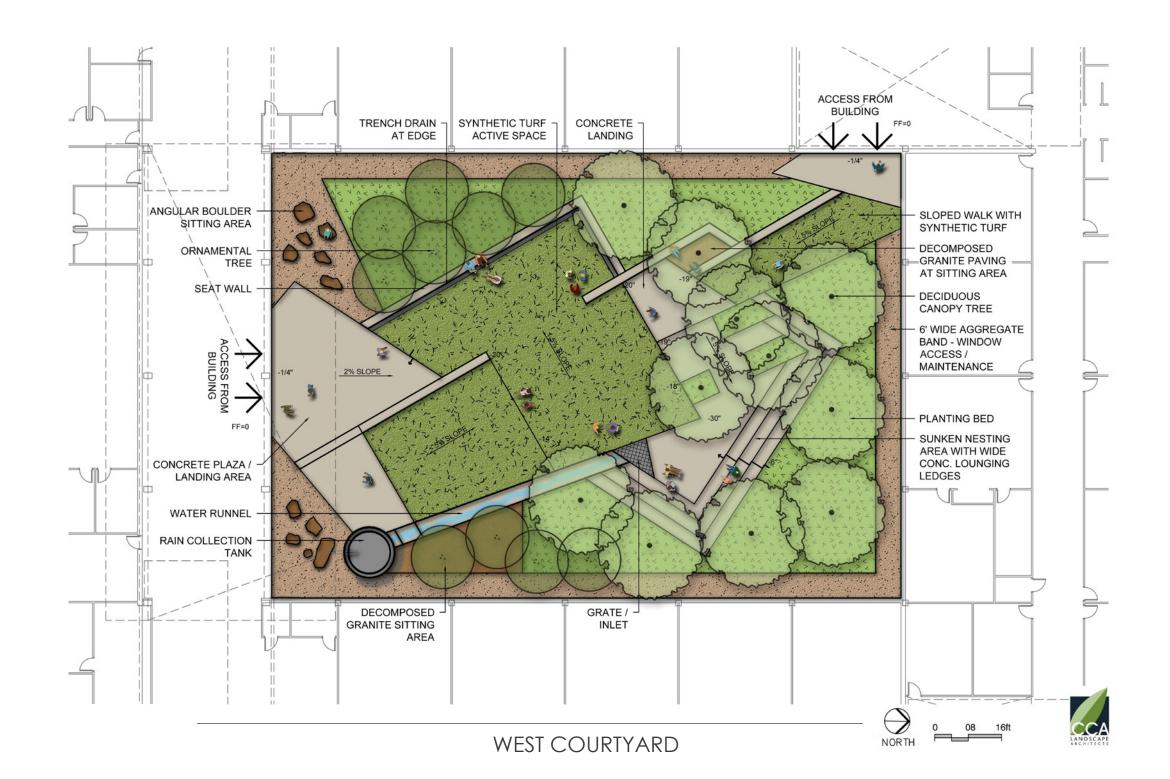
### LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation COLLABORATION PLAN ENLARGED



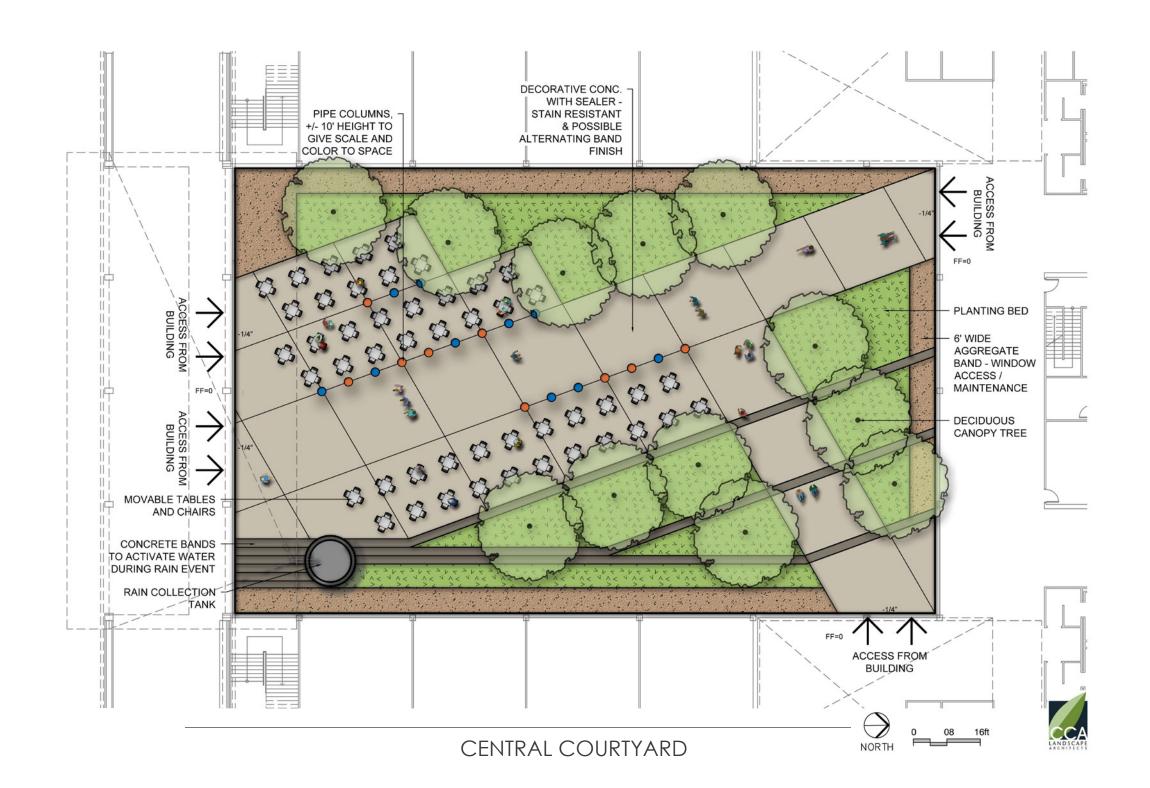
### LEGEND

Classroom Collaborative Area Science Lab Special Education Technology Library Athletics Administration Fine Arts Agricultural Science Food Services Service Circulation BAR **COFFEE/GENIUS** PLAN ENLARGED



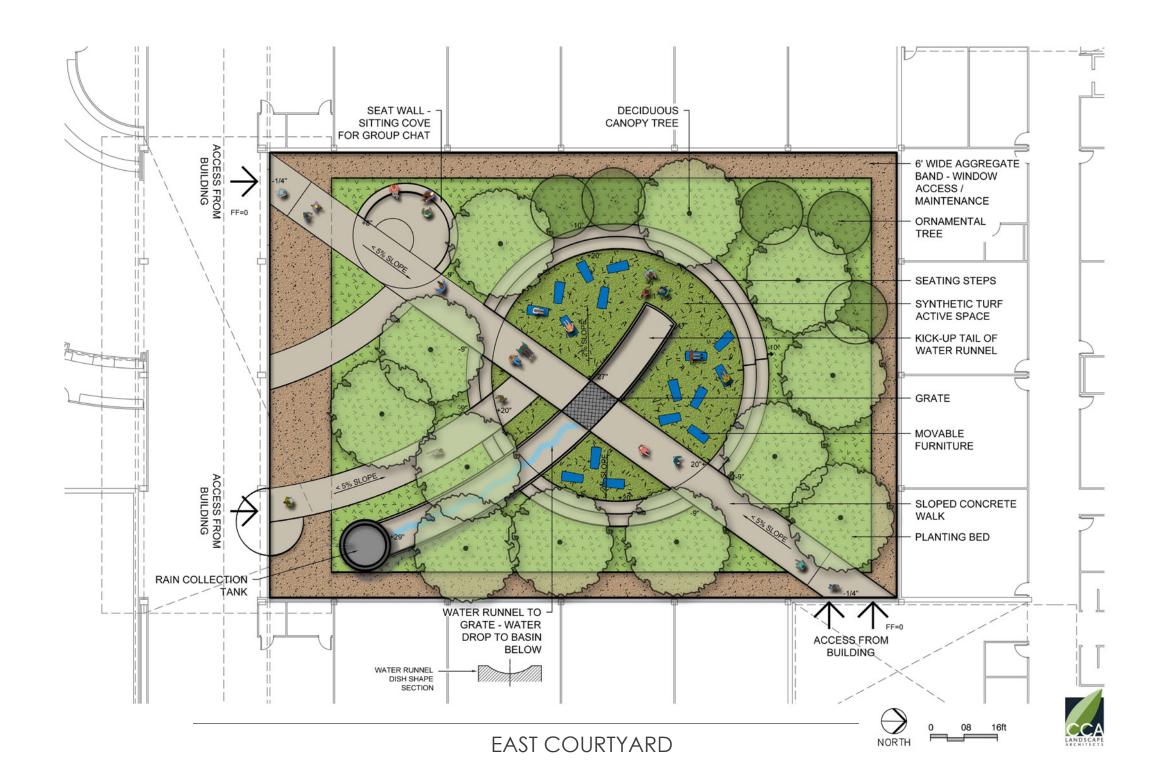




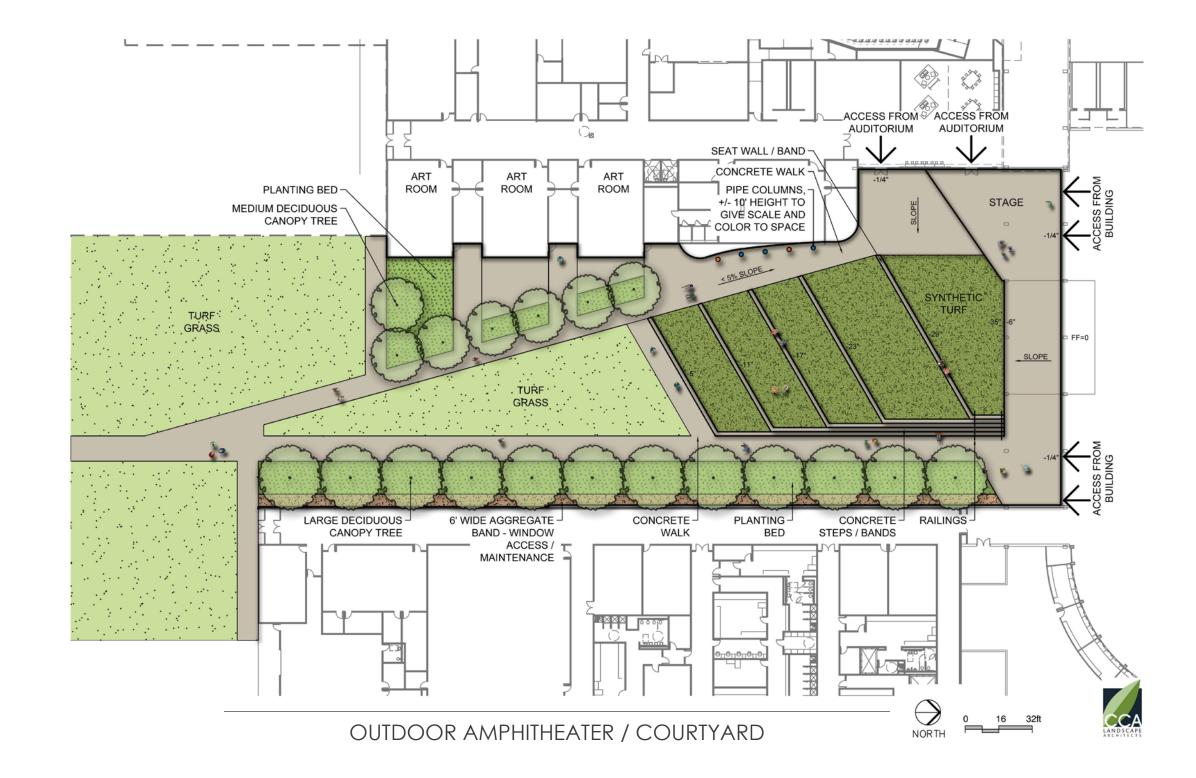












COURTYARDS





## **AERIAL PERSPECTIVE**





### **MAIN ENTRANCE**





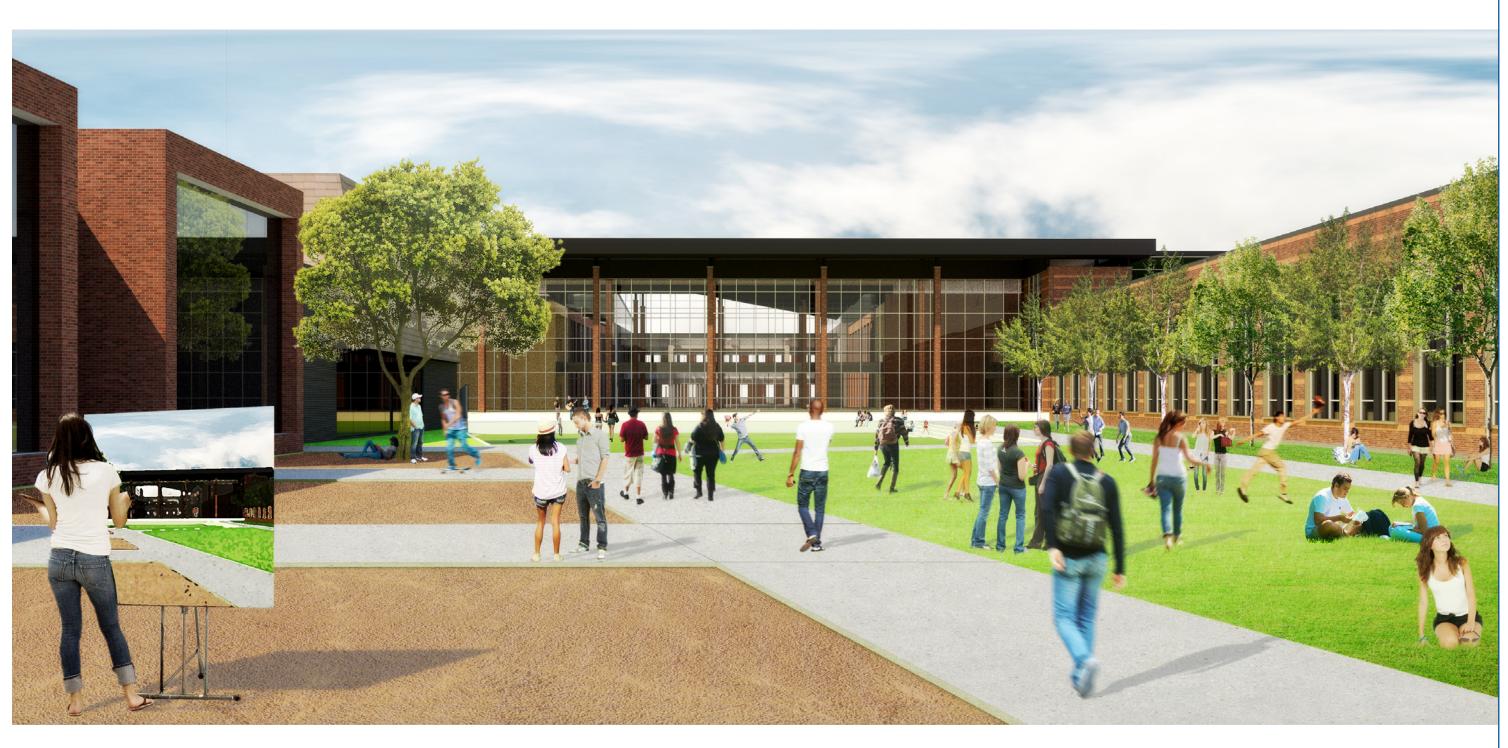
### WEST COURTYARD





## **ACADEMIC HOUSES**





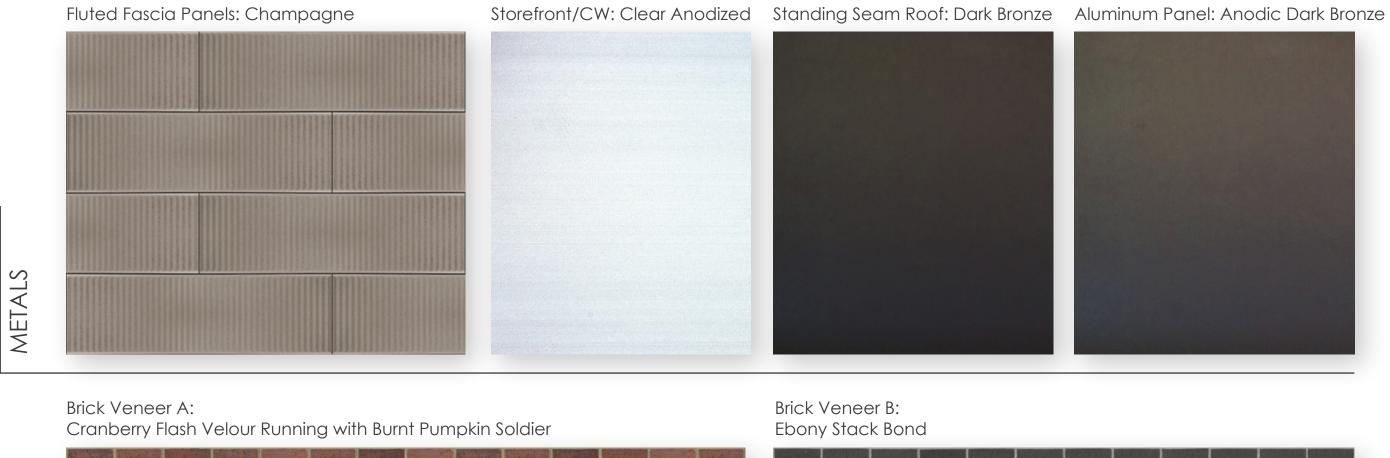
# **OUTDOOR AMPHITHEATER**



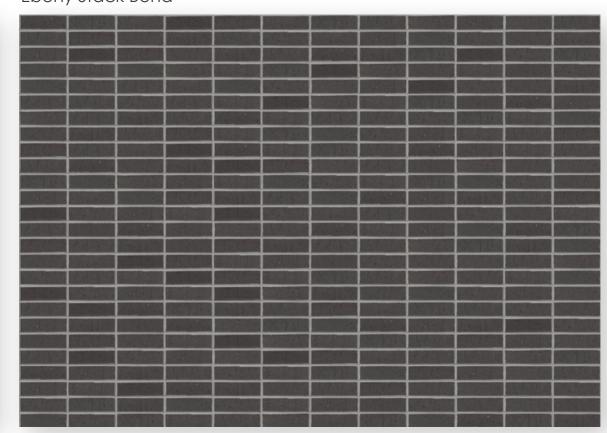








MASONRY



### **COMPREHENSIVE HIGH SCHOOL #4** DESIGN DEVELOPMENT PRESENTATION

**EXTERIOR FINISHES** 



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