

Buckingham County Primary & Elementary Schools at the Carter G. Woodson Education Complex

Project Description

Placemaking, Community, and Reuse

The more vernacular a building material, the more historical influence that material can have on a place and its legacy of natural resources. Such is the case with Buckingham County, Virginia slate, one of the only true dark charcoal slate stones that can be seen on historic buildings in Washington, DC – like the Smithsonian. For Buckingham County's newly renovated and restored primary and elementary school campus, the choice to use local Buckingham stone as a central expression of the campus identity serves to tell children the story of Buckingham County's cultural history, geological past, and sustainable future.

The project recognizes the positive social, ecological, and economic benefits of reusing local sites and structures. The application of Buckingham stone – durable, hand-crafted, and featuring a natural texture and luster that withstand weather damage and the test of time – reinforced this mission to specify materials that would support a community setting for decades to come. This commitment to re-investment also supported an increase in space utilization through consolidation, with the aim to promote a healthy learning community for 1,000 K-5 students.

Fostering Healthy, Connected Communities

Select demolition, renovation, and new construction on two former school sites led to the creation of a "one school" complex that simultaneously demarcates distinct entries for primary and elementary school students. The center of the campus situates shared communal learning spaces around an outdoor piazza featuring slate and stone. An all-glass bridge frames outward views of the campus – highlighting creative applications of local stone found in the entry piazza and nearby landscapes and garden terraces which radiate outward from this communal threshold.

Indoors, the stone appears prominently in large gathering spaces – such as in the Community Commons and monumental stair – reaffirming the community's connection to its natural context. Outdoors, a rainscreen cladding system with custom slate shingles emphasizes the sculptural qualities of the architecture. Another unique use of slate is found in the slate-lined stormwater conveyance channel cutting through the entry plaza. The channel visibly measures the size of storms, allowing students to understand the occurrence and volume of water associated with each storm event and apply real-world skills to natural contexts.

Healthy By Design

The design team worked with key stakeholders, public health scientists, and a pediatrician to identify a set of pedagogical goals foregrounding health and well-being. The project integrates healthy eating, food stewardship, and physical activity as educational and architectural components to allow healthy behavior to seamlessly become a part of the school day.

With an organic and tactile quality that changes with the weather and seasons, slate plays an important role in enlivening the children's everyday landscape. The stone serves the architecture and learning curriculum equally well as both large expressions (i.e. benches, shingles, counters, and honed tiles) as well as smaller pieces (i.e. stacked stone, which nicely offset flora and fauna in the landscape). Durable and expressive – slate highlights natural ecologies and local resources to foreground a learning environment that is equally flexible and inspiring.

[Word Count: 499]

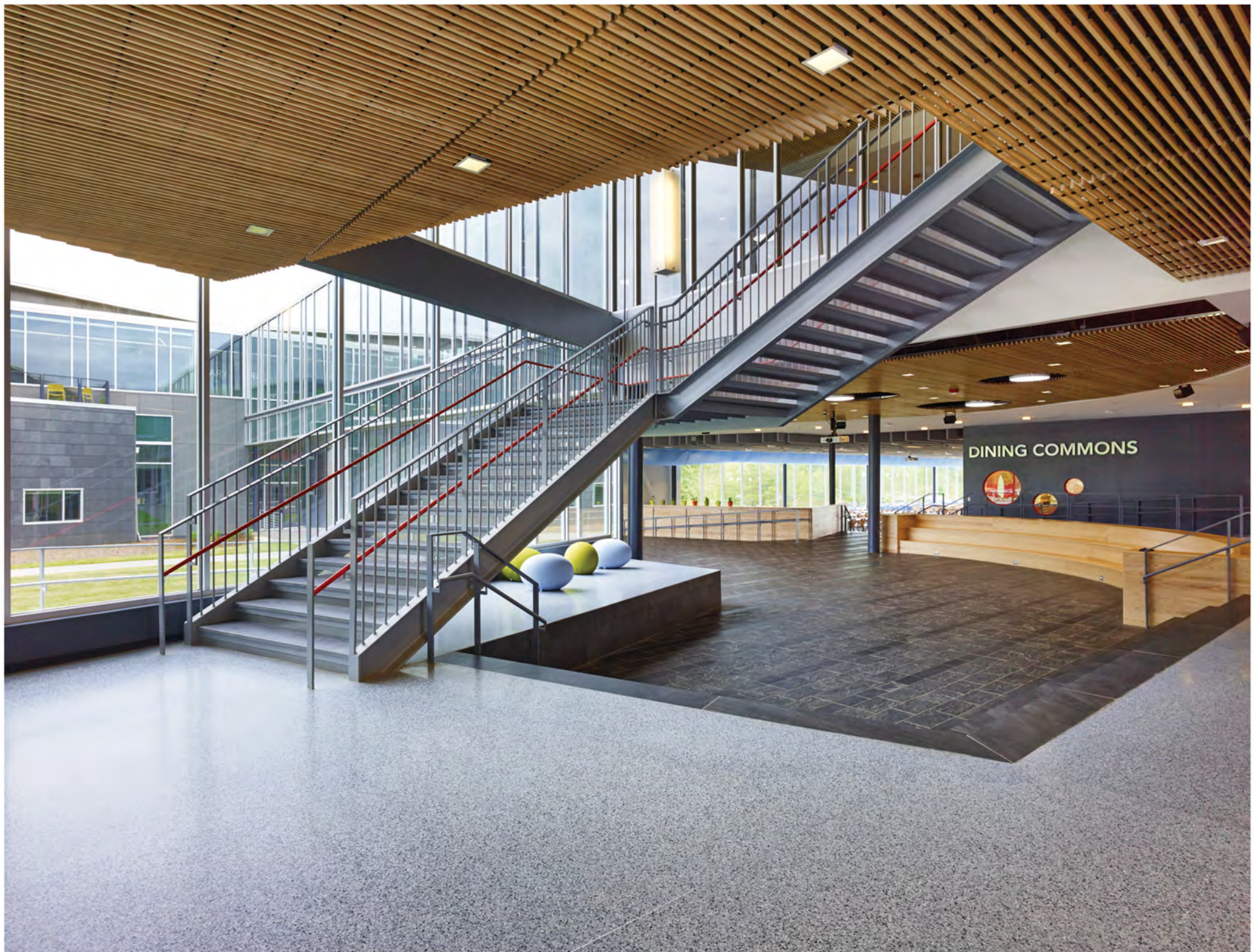


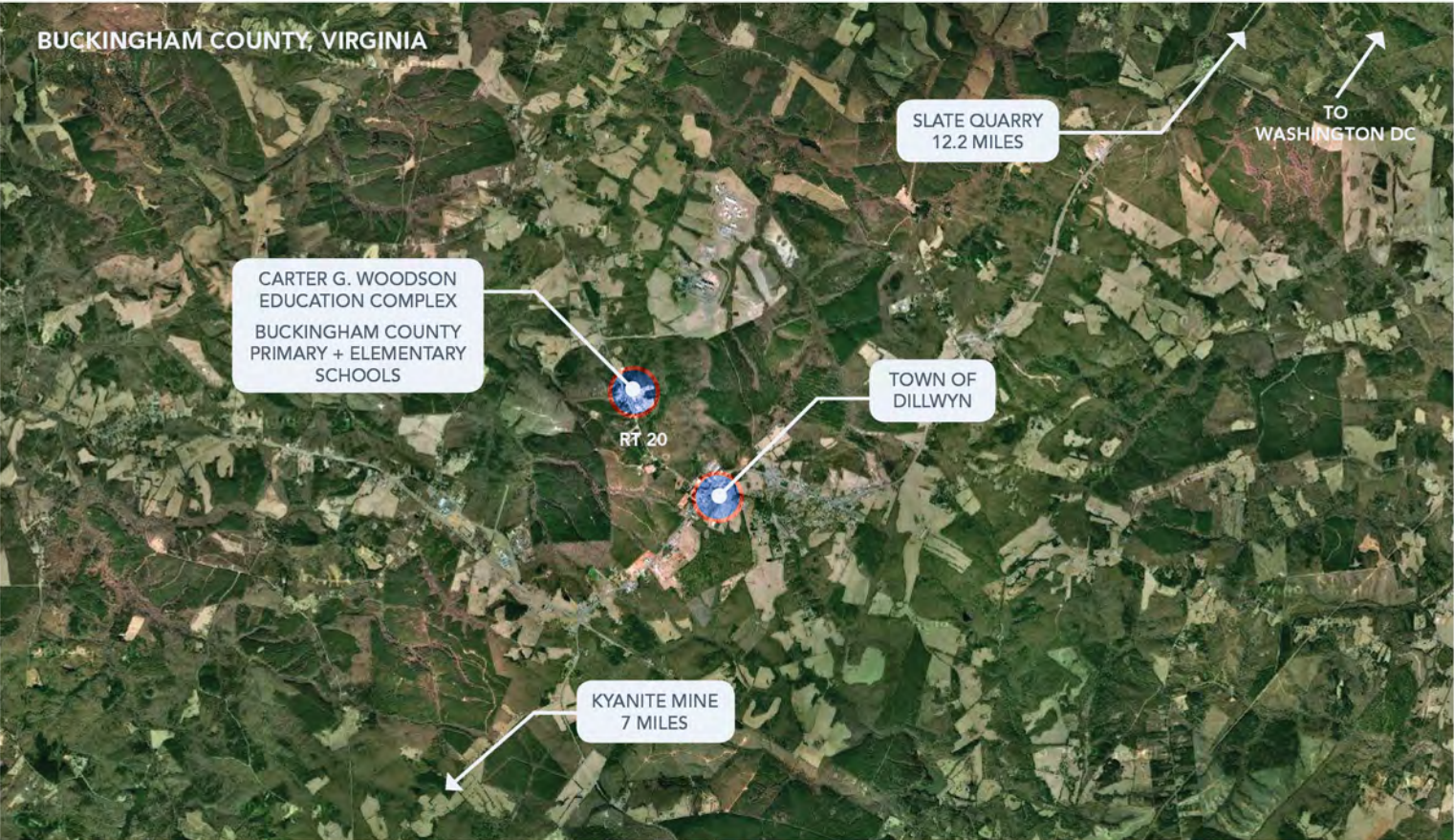
BUCKINGHAM COUNTY PRIMARY SCHOOL

















Grab-n-Go
Berry Patch



Kitchen Gardens



Rock River Stream +
Native Meadow



Pollinator Bee +
Bug Garden



K-2 Science Garden



Fruit Tree Allée



Frog Bog +
Observation Deck



Bioswales +
Cleansing Biotopes

A PRIMARY SCHOOL
RENOVATION

A.1 PRIMARY SCHOOL
NEW

B ELEMENTARY SCHOOL
NEW

C SHARED PROGRAM
NEW



A PRIMARY SCHOOL
RENOVATION

A.1 PRIMARY | ELEMENTARY
SCHOOL
B.1 +
C SHARED PROGRAM

B ELEMENTARY
SCHOOL
RENOVATION



EXISTING SCHOOLS [WEST ELEVATIONS]
PRE-RENOVATION

PANORAMA_DINING COMMONS + CLASSROOM STUDIOS [NORTH ELEVATION]



↑
B.1 ELEMENTARY SCHOOL
+
C SHARED PROGRAM
NEW

↑
A.1 PRIMARY SCHOOL
B.1 ELEMENTARY SCHOOL
NEW





↑
B.1 ELEMENTARY SCHOOL
+
C SHARED PROGRAM
NEW

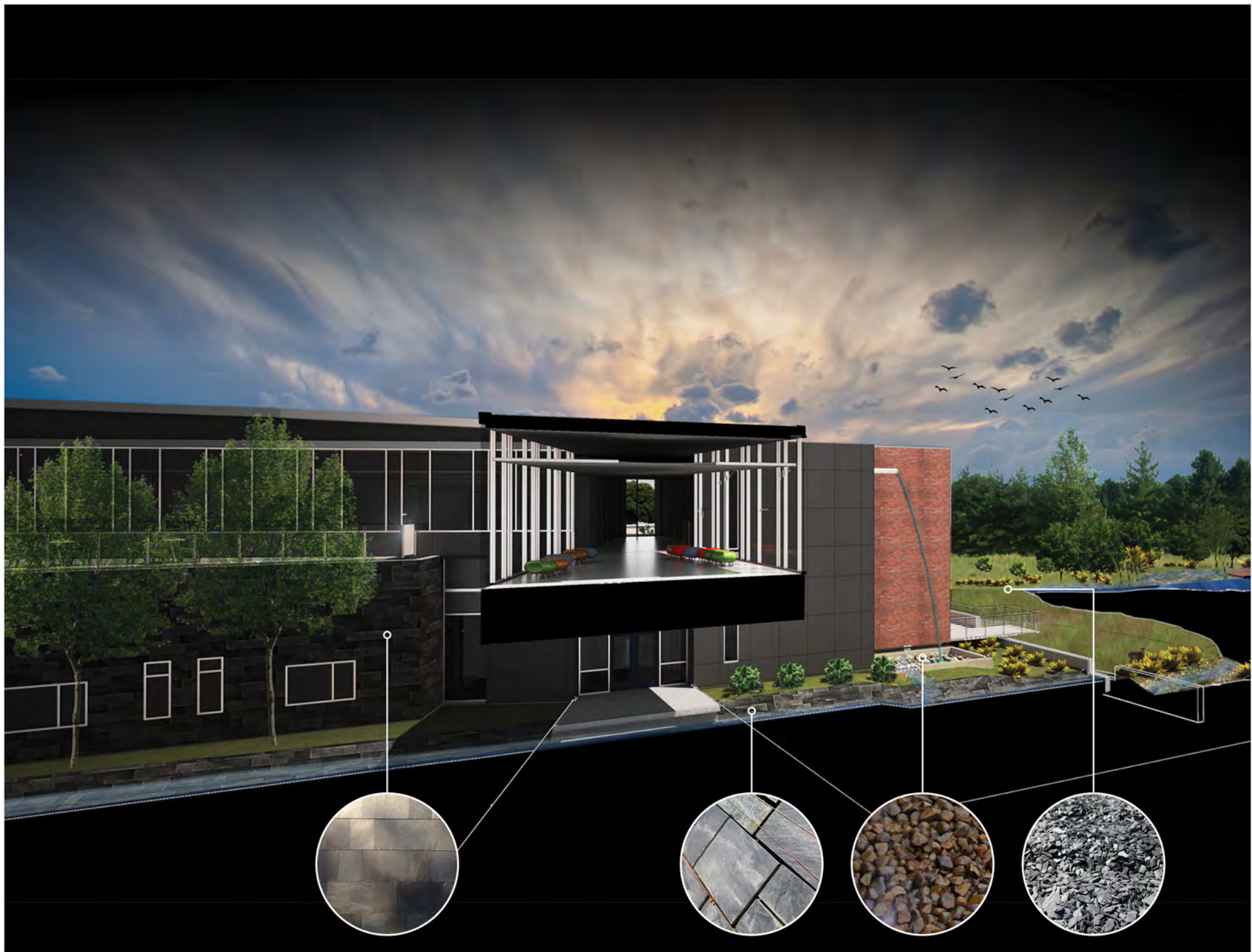


↑
A.1 ELEMENTARY SCHOOL
+
C SHARED PROGRAM
NEW



EXISTING SCHOOLS [NORTH, SOUTH, EAST ELEVATIONS]
PRE-RENOVATION







SLATE SCOPE

LANDSCAPE

| | | |
|---|--|----------------|
| 1 | DIMENSIONAL SLAB PAVING INLAY IN CONCRETE WALKWAYS | 600 SF |
| 2 | DIMENSIONAL SLAB BENCHES | (3) 7'L X 16"D |
| 3 | ROUGH STACKED MORTAR SET SITEWALLS | 2' WIDE X 10' |
| 4 | DIMENSIONAL STONE ASHLAR MORTAR SET RAINWATER CHANNEL | 750 SF |
| 5 | DIMENSIONAL SLAB CHALKBOARDS RECESSED INTO SITE WALLS | 70 SF |
| 6 | TUMBLED SLATE LANDSCAPE BORDERS & RAINWATER CATCHMENTS | 2000 SF |
| 7 | SLATE 'RIP-RAP' STORMWATER CHANNELS | 2400 SF |
| 8 | CRUSHED SLATE & STONEDUST WALKWAYS | 24,000 SF |
| 9 | DIMENSIONAL SITE SIGN | |

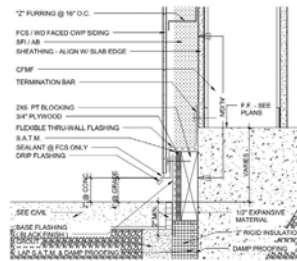
BUILDING EXTERIOR

| | | |
|----|--------------------------------|---------|
| 10 | SLATE TILE RAINSCREEN CLADDING | 2900 SF |
|----|--------------------------------|---------|

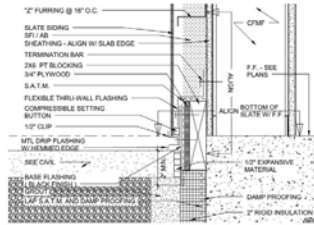
INTERIOR

| | | |
|----|---|---------|
| 11 | DIMENSIONAL SLAB STAIR TREADS & LANDINGS | 350 SF |
| 12 | DIMENSIONAL TILE ASHLAR MORTAR SET FLOORING | 1950 SF |
| 13 | DIMENSIONAL SLAB COUNTERTOPS | 50 SF |

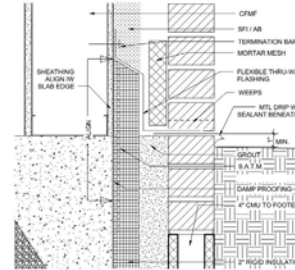




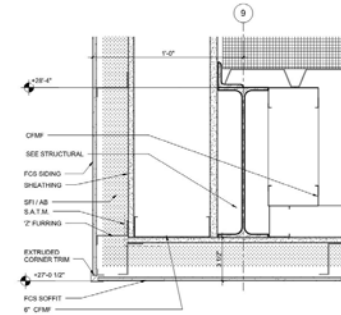
1 SIDING @ BASE CONDITION
3' x 1'-0"



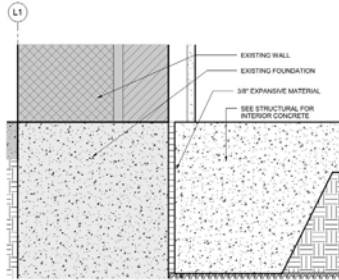
2 SLATE @ BASE CONDITION
3' x 1'-0"



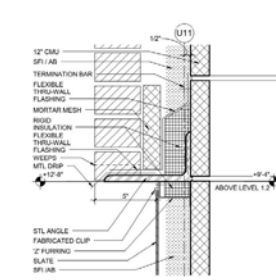
4 BRICK @ BASE CONDITION
3' x 1'-0"



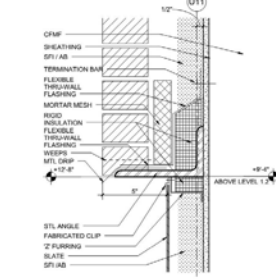
5 SOFFIT @ ROOF OVERHANG
3' x 1'-0"



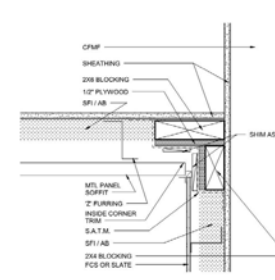
6 INTERIOR SLAB @ EXISTING WALL
3' x 1'-0"



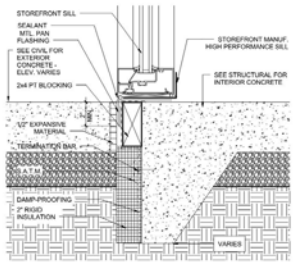
8 BRICK WITH SLATE BELOW @ CMU
3' x 1'-0"



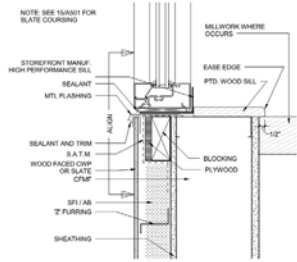
9 BRICK W/ SLATE BELOW @ CMF
3' x 1'-0"



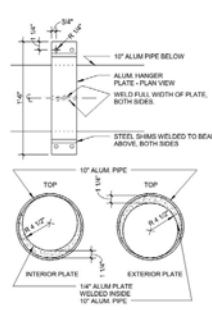
10 MTL PANEL SOFFIT
3' x 1'-0"



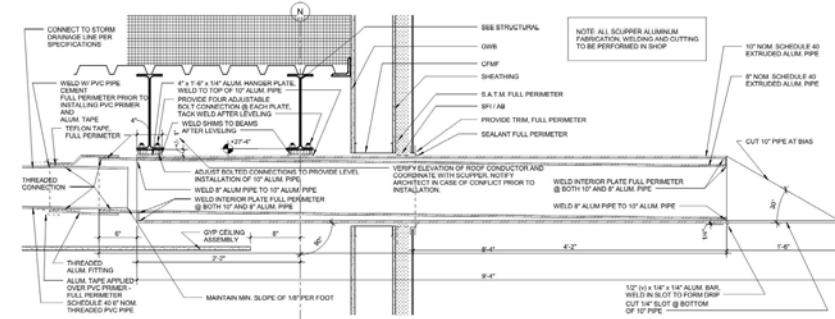
11 STOREFRONT SILL @ GRADE
3' x 1'-0"



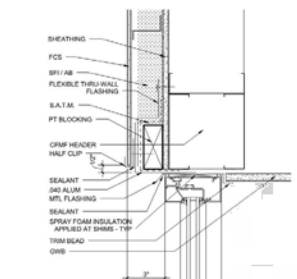
12 STOREFRONT SILL @ SLATE OR WOOD FACED CWP
3' x 1'-0"



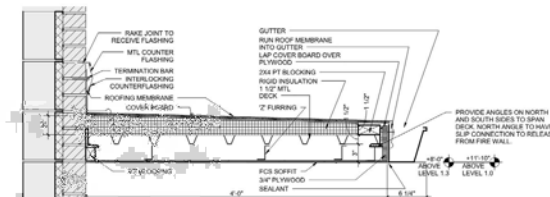
13 SCUPPER DETAILS
1' 1/2\"/>



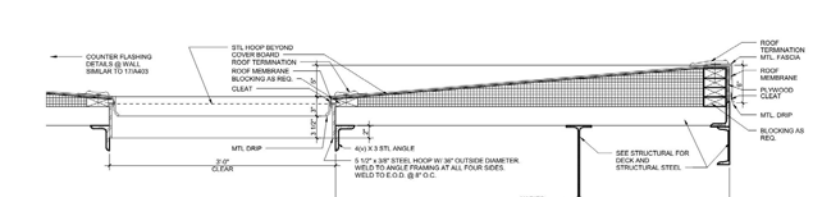
14 SCUPPER SECTION
1' 1/2\"/>



16 STOREFRONT HEAD @ FCS
3' x 1'-0"



17 SECTION @ ZONE D-CAVITY
1' 1/2\"/>



19 ROOF SECTION @ STAIR B.1
1' 1/2\"/>

| ISSUES AND REVISIONS | | DATE |
|----------------------|--|------------|
| SUBMITAL | | 10-15-2010 |
| CONSTRUCTION SET | | |

| | |
|------------|---------|
| Checked By | Checker |
| Drawn By | Author |

SECTION DETAILS

A403



SPRAY APPLIED INSULATION / AIR BARRIER

BACK-UP SYSTEM

"COMPRESSIBLE" SPACER

CUSTOM FABRICATED ST. STL. CLIP

12"X18"X $\frac{1}{4}$ " SLATE TILE W/ CLEFT
FACE AND GAUGED BACK

THROUGH WALL FLASHING ASSEMBLY

WOOD BLOCKING

COMPRESSIBLE SPACER

CUSTOM FABRICATED ST. STL. CLIP

ST. STL FLASHING W/ HEMMED DRIP EDGE

CUSTOM SLATE CLADDING DETAIL

