Schematic Design Presentation – February 6, 2018
Architectural / Engineering Services
New Pulaski County Middle School
Discussion Topics

- 1. Overall Schedule Goals and Status
- 2. Status of Site Development Plan
  - Q+A
- 3. Schematic Design of Building (seeking formal approval)
  - Q+A
- 4. Next Steps
RULE #2 - Follow the Law of the Project Management Triangle

DESIGN
Scope/Quality

BUDGET

RRMM

SCHEDULE
### Milestone Task Description

<table>
<thead>
<tr>
<th>Task Description</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td>Authorization to Proceed if Referendum Passes</td>
<td>Jan, Feb, Mar, Apr</td>
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<tr>
<td>Schematic Design Phase</td>
<td>May, Jun</td>
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<tr>
<td>Design Development Phase</td>
<td>Jun, Jul</td>
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<td>Site-Related Approvals</td>
<td>Aug, Sep</td>
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<td>Early Grading Bid Documents?</td>
<td>Oct</td>
<td>Nov, Dec</td>
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<td>Bidding of Early Site Package?</td>
<td>Nov</td>
<td>Dec</td>
<td>Jan, Feb</td>
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<td>Pre-grading of site?</td>
<td>Mar, Apr</td>
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<td>Construction Documents Phase</td>
<td>May, Jun</td>
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<tr>
<td>Bidding / Contract Award</td>
<td>Jul, Aug</td>
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<td>Construction Phase (21 months)</td>
<td>Sep, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec</td>
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<td>Occupy / Move-in</td>
<td></td>
<td>Nov</td>
<td>Dec</td>
<td>Jan, Feb</td>
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SCHEMATIC SITE DESIGN UPDATE

CIVIL AGENDA

- SITE PLAN
- VDOT/ACCESS
- ZONING PLANNING
- SANITARY SEWER
- ENVIRONMENTAL
- SURVEY
- $1.3M FUND
SCHEMATIC SITE DESIGN UPDATE

SITE PLAN
VDOT/ACCESS
ZONING PLANNING
SANITARY SEWER
ENVIRONMENTAL
SURVEY
$1.3M FUND
CIVIL SITE PROGRAM

• SITE PROGRAM
  • Building:
    • Student Capacity: Middle school building for enrollment of 1,000 current (1,200 future)
  • Vehicular
    • Vehicular car parking: ~225 spaces
    • Bus Parking: 24 buses (with additional after-hours of 120+ car parking spaces)
    • Special needs buses: 4 buses
    • Traffic Separation: Separated bus and car loading / unloading areas and queues
    • Service area: Loading / services area with dock, dumpsters, maneuvering area
  • Athletics / recreation
    • Diamond sports: 1 softball plus 1 baseball
    • Multipurpose (Soccer): 2 rectangular fields for practice / rec usage (soccer, football, lacrosse, rugby, etc.)
    • Multipurpose (football): 1 multipurpose “football” field inside track in center of master-planned stadium
    • Track / field: 400m six-lane track (and field events) around football field
    • Trails: Plan for a meandering pathway / trail network through the campus
    • Grandstands: FUTURE: master-plan capacity seating for 1,000 spectators at the stadium field
    • Field support: FUTURE: master-plan space for field house, pressbox, concessions, and restrooms
    • Tennis: FUTURE: master-plan space for 6 tennis courts
• Queue length – 3 Options:
  • **Option A**: ~920 ft = 37-46 cars
  • **Option B**: ~1520 ft = 61-76 cars
  • **Option C**: ~2020 ft = 81-101 cars

• Parking
  • Daily parking provided in lot(s): 225 spaces
  • Additional after hours in bus loop = 50-80 spaces

• Property size: ~57.2 acres
Pulaski County Public Schools

UPDATED SITE PLAN

Possible Easement Area for Stormwater, Grading, or Utilities

Secondary Access Options

Proposed Middle School Building

Proposed Middle School Property - 57.36 acres

Multi-Purpose Field

Softball Field

Baseball Field

To Dublin

Crossover A

To Pulaski

Crossover C

Crossover B

US Route 11 - Lee Highway

RRMM ARCHITECTS

GAY AND NEEL, INC.
ENGINEERING  LANDSCAPE ARCHITECTURE  SURVEYING
SCHEMATIC SITE DESIGN UPDATE

SITE PLAN

VDOT/ACCESS

ZONING PLANNING

SANITARY SEWER

ENVIRONMENTAL

SURVEY

$1.3M FUND
SCHEMATIC SITE DESIGN UPDATE

• VDOT / Traffic
  • Original traffic counts in December; rejected due to snow
  • New traffic counts in late January (after all schools back in function)
  • TIA Model-building and analysis now underway
  • Expectations:
    • NOT likely to receive approvals for two entrance points
    • More likely to end up justifying (and being permitted for) only ONE entrance

ORIGINAL PREFERRED CONCEPT

• Schedule moving forward:
  • TIA Prepared and submitted ~ 2/16
  • VDOT Review ~ 2/16 – 3/16
  • Address comments and resubmittal ~ 3/30
  • Aim to have approval of VDOT TIA by mid-April

UPDATED CONCEPT

• Important dates:
  • By mid-February, we will know what the TIA ‘traffic model’ says about our hopes for a traffic signal
  • By mid-April, we should know for sure the direction of the site access plan and roadway improvements
SCHEMATIC SITE DESIGN UPDATE

- What about Hatcher Rd. realignment?
  - Strong idea for future planning
  - Not required / needed for PCMS project
  - However, PCMS project desires to NOT do anything to hinder future roadway development opportunity

- PCMS Site Plan Changes
  - Moved track / field venue back from Rte 11
  - Created room for future alignment
  - Planning for future options
SCHEMATIC SITE DESIGN UPDATE

SITE PLAN
VDOT/ACCESS
ZONING PLANNING
SANITARY SEWER

ENVIRONMENTAL
SURVEY
$1.3M FUND
SCHEMATIC SITE DESIGN UPDATE

• Environmental
  • Jurisdictional Determination (JD) process underway
  • Field visit with the USACE Rep on Wed, 1/31/2018
  • Received POSITIVE outcome:
    • USACE agrees that the “farm pond” is isolated (hydraulically / vegetatively), of minimal ecologic value
    • USACE is going to waive any federal jurisdiction
  • Approved Final JD anticipated by 3/15/28
  • Still must file permit paperwork with DEQ to fill / remove pond
SCHEMATIC SITE DESIGN UPDATE

SITE PLAN

VDOT/ACCESS

ZONING PLANNING

SANITARY SEWER

ENVIRONMENTAL

SURVEY

$1.3M FUND
SCHEMATIC SITE DESIGN UPDATE

• Zoning / Planning
  • Comprehensive Plan Amendment approved by PC and BOS
  • 2232 Review is next up; on agenda for Tuesday, 2/13
  • Rezoning of ‘parent parcel’ by Property Owner / Seller is moving forward
    • Seeking rezoning to a Planned Unit Development (PUD);
    • provides the Seller, the Schools, and the County the maximum flexibility
  • Schedule of rezoning process is
    • Application submittal is complete.
    • 2/13/2018: Planning Commission public hearing
    • 2/26/2018: Board of Supervisors public hearing
SCHEMATIC SITE DESIGN UPDATE

APPROXIMATE LOCATION OF ROADWAY CONNECTION TO HATCHER ROAD (SHALL BE ADJUSTED BASED ON REALIGNMENT)

ZONING: CM COMMERCIAL

POTENTIAL INTERNAL SCHOOL ROADWAY CONNECTION TO HATCHER ROAD

POTENTIAL HATCHER ROAD REALIGNMENT

PROPOSED SCHOOL ENTRANCE

LEE HIGHWAY

PULASKI COUNTY PUBLIC SCHOOLS

GAY AND NEEL, INC.

RRMM ARCHITECTS
SCHEMATIC SITE DESIGN UPDATE

- Topographic / Boundary Survey
  - GNI had site aerial survey flown in early January
  - GNI doing additional field work now
  - Complete survey by Friday, 2/23/18.
  - Additional aerial flight data available for sanitary sewer corridor collected as well; seeking to provide to county for offsite sewer design
SCHEMATIC SITE DESIGN UPDATE

- Sanitary Sewer
  - Original project estimate prepared with pump station / force main as the approach due to property ownership
  - County has examined a gravity sewer approach
    - PC met with all private land owners and VDOT and received approval
    - PC prepared several estimates on sewer options and cost
    - PC recommends / prefers gravity approach
    - But offsite gravity sewer requires more costs than in original school project estimate
SCHEMATIC SITE DESIGN UPDATE

- Sanitary Sewer
  - PC updated cost estimate indicates a TOTAL (onsite and offsite) sanitary sewer project budget:
    - $1,115k+ for hard costs
    - $304k+ for soft costs (based upon 30% of hard costs)
    - $1,420k for TOTAL San. Sewer Project Estimate
  - ($869k funds) ‘available’ from School bond estimate
  - $551k costs remaining beyond our original $45.7M estimate necessary to fund the FULL sewer project (onsite and offsite)
  - Therefore, County is recommending the allocation of these $551k in funds from the $1.3M that was added to the project Bond amount

- Advantages of this approach
  - No Rural Development (RD) program red-tape, delays, etc.
  - Can do the work on our school project timeline
  - Golf course work can happen in winter
SCHEMATIC SITE DESIGN UPDATE

- The $1.3M Additional Amount
  - $45.7M = Original School Project Budget Estimate
  - $1.3M = Amounted added to project estimate
  - $47.0M = The full / max. bond amount

- Purpose of those funds:
  - Cost of bond issuance
  - Offsite utility improvements (namely possible gravity sewer)
  - Possible additional expenses for right-of-way improvements at entrances / access points

- Update as of last week:
  - ~$500k for finance costs of bond issuance
  - ~$550k for additional sewer costs offsite
  - ~$1.05M running total “allocation” of these funds

- Thus, $250k subtotal remaining thus far (of the $1.3M); this amount is still awaiting possible expenditures for additional work in the right-of-way beyond the amount originally included in the school estimate
SCHEMATIC SITE DESIGN UPDATE

Discussion

- Site Plan
- VDOT/Access
- Zoning Planning
- Sanitary Sewer
- Environmental
- Survey
- $1.3M Fund
Second Floor Plan – Option 5
Numerous meetings held with PCPS staff...

1. Administrative
2. Athletics
3. Library / Media Center
4. Fine Arts (Band, Choral, Drama, Art)
5. Career and Technical (Agriculture, Business, FACS, STEM)
6. Food Service
7. Maintenance
8. IT (Information Technology)
Fine Arts & CTE

Pulaski County Public Schools

RRMM Architects
First Floor Plan
Second Floor Plan
Gym Entrance (foreground) and Main Entrance
Gymnaisum and Locker Rooms
Classroom Wings
Rear Vestibules
Courtyard
1. HVAC System
2. Preparing for Future Additions
3. Enhanced Snow Loads
4. Emergency Power
5. Roof Warranty
5. Transparency
6. Interior Wall Construction
7. Polished Concrete
8. Daylighting
Deep Grind Polished Concrete at South Salem School – City of Salem
Deep Grind Polished Concrete at Masons Cove ES – Roanoke County
“Salt and Pepper” Grind - Polished Concrete at Masons Cove ES
“Salt and Pepper” Grind - Polished Concrete at Masons Cove ES
Recommendations on Building Systems

1. HVAC System
2. Preparing for Future Additions
3. Enhanced Snow Loads
4. Emergency Power
5. Roof Warranty
5. Transparency
6. Interior Wall Construction
7. Polished Concrete
8. Daylighting
Light Monitors at Auburn HS – Montgomery County
Next Steps in the “Design Development” Phase
Light Monitors at South Salem ES
Light Monitors at Martinsville HS and Masons Cove ES
Classroom Daylighting
Next Steps in the “Design Development” Phase

1. Additional Staff Meetings regarding:
   - Science
   - General Classrooms
   - Student Lockers
   - Transparency

2. Exterior Refinement

3. Bid Alternates?

4. Prepare for Early Site Package?

5. And many other details....