



# West Shore School District



## *Project Updates*

April 12, 2018



# OUTLINE

## I. **Rossmoyne ES**

- Schedule
- Design Development
- Building Capacity
- Cost Estimates

## II. **Red Land**

- Schedule
- Design Development
- Building Capacity
- Traffic Study Impact
- Cost Estimates

## III. **Crossroads M.S.**

## IV. **Next Steps**

# 4 C'S OF EDUCATION

## COLLABORATION

Group Zones & Team Projects

## CREATIVITY

Spontaneous Social Interaction & Break-Out Space

## COLLABORATION

Group Zones & Team Projects

## COMMUNICATION

Lectures & Presentations

## CRITICAL THINKING

Individual & Small Group Study with Connected Project Lab

rlps

I.

ROSSMOYNE  
ES



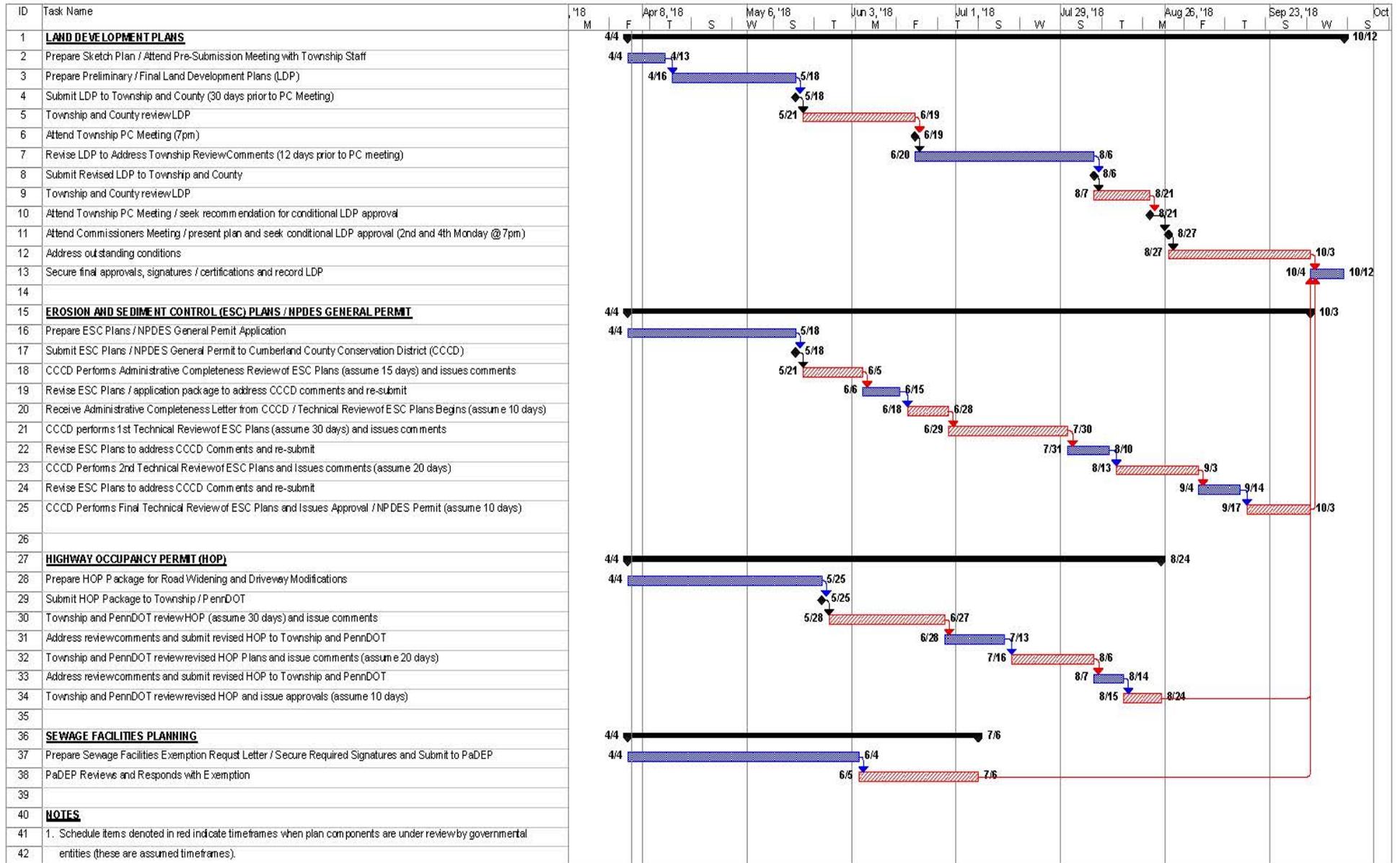
West Shore  
School District

- Schedule





**WSSD - New Rossmoyne ES**  
 Tentative Design / Approvals Schedule  
 March 4, 2018



# Rossmoyne Schedule - 2018

## **APRIL**

- Feasibility study group review
- School board review
- Staff meetings – design reviews
- Coordination team meetings
- Land development process

## **MAY**

- Staff meetings – design reviews
- Coordination team meetings

## **JUNE**

- Advertise Act 34 hearing
- School board review
- Coordination team meetings

## **JULY**

- Public Act 34 hearing
- Public comment period
- Coordination team meetings

## **AUGUST**

- School board approve Act 34 project
- Coordination team meetings

## **SEPTEMBER**

- Staff update of project
- Coordination team meeting
- School board approval for bid
- Submit for building permit
- Contractor bid process

## **OCTOBER**

- Receive bids from contractors
- School board to award contracts
- Receive building permit and approvals

## **NOVEMBER**

- Begin construction

## **2020/21 SCHOOL YEAR**

- Open new Rossmoyne K-4

- Design Development

- Site Plan
- Floor Plans
- Exterior



# Existing Site Plan Rossmoyne ES



# Overall Site Plan Concept – Rossmoyne ES



# K-4: Main Floor Plan



## LEGEND

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# K-4: Second Floor Plan

**LEGEND**

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
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# K-4: Exterior Perspective Concepts



# K-4: Exterior Perspective Concepts

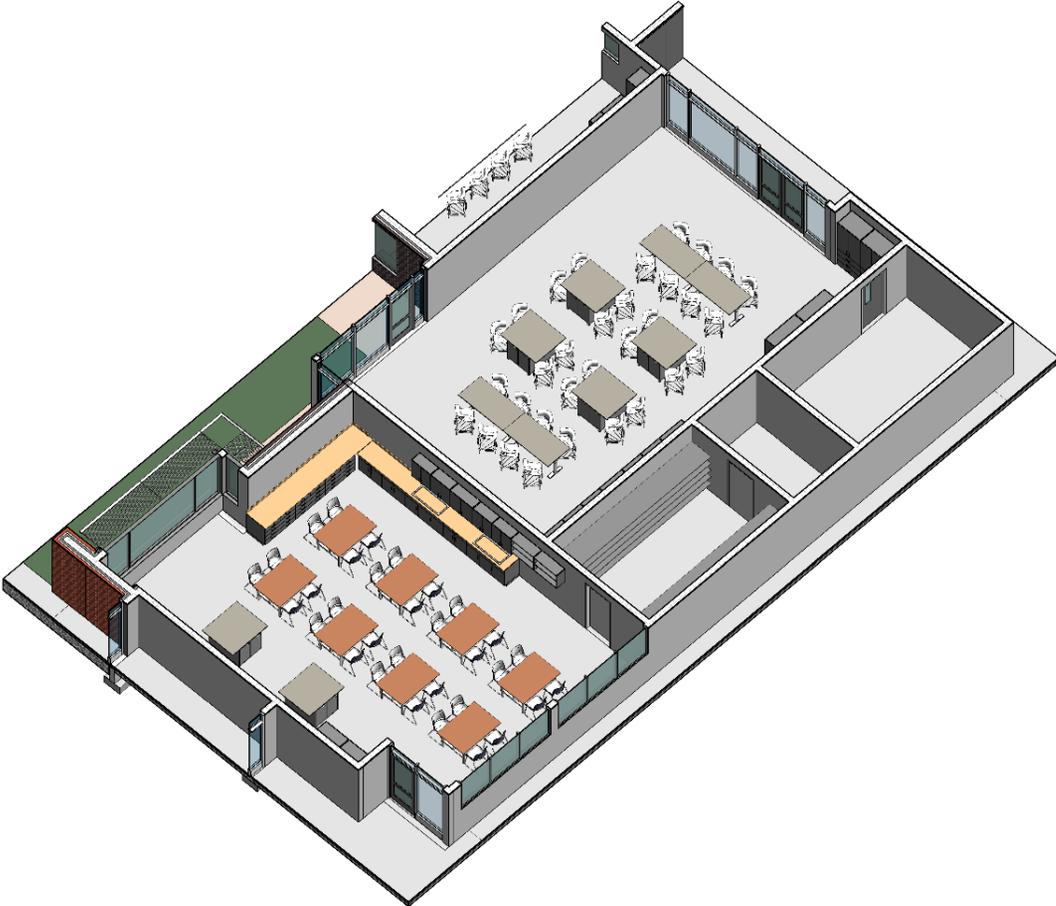


# K-4: Kindergarten Pod

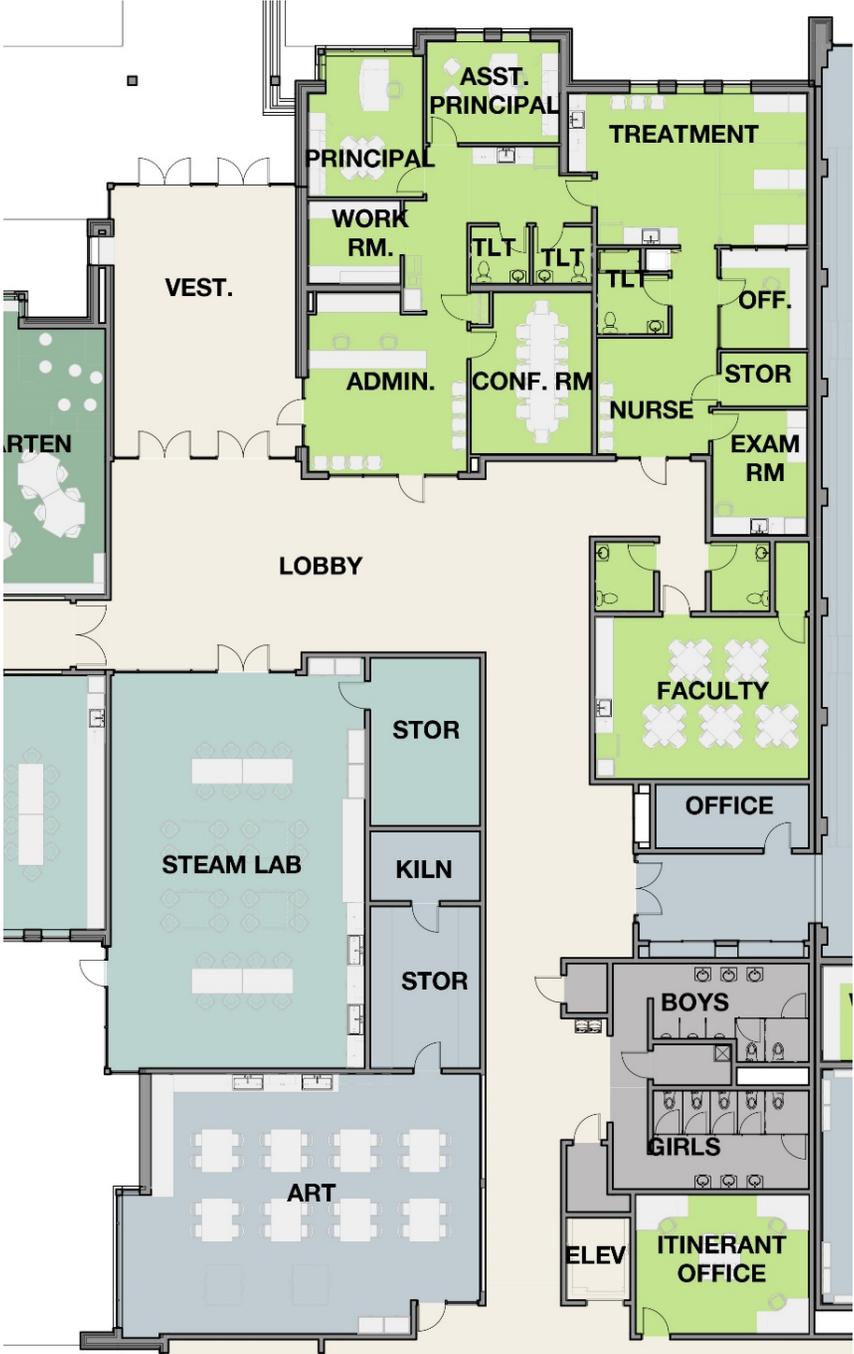


Typical Kindergarten Classroom

# K-4: Entry/ STEM/ Admin



STEAM/ Art Classroom

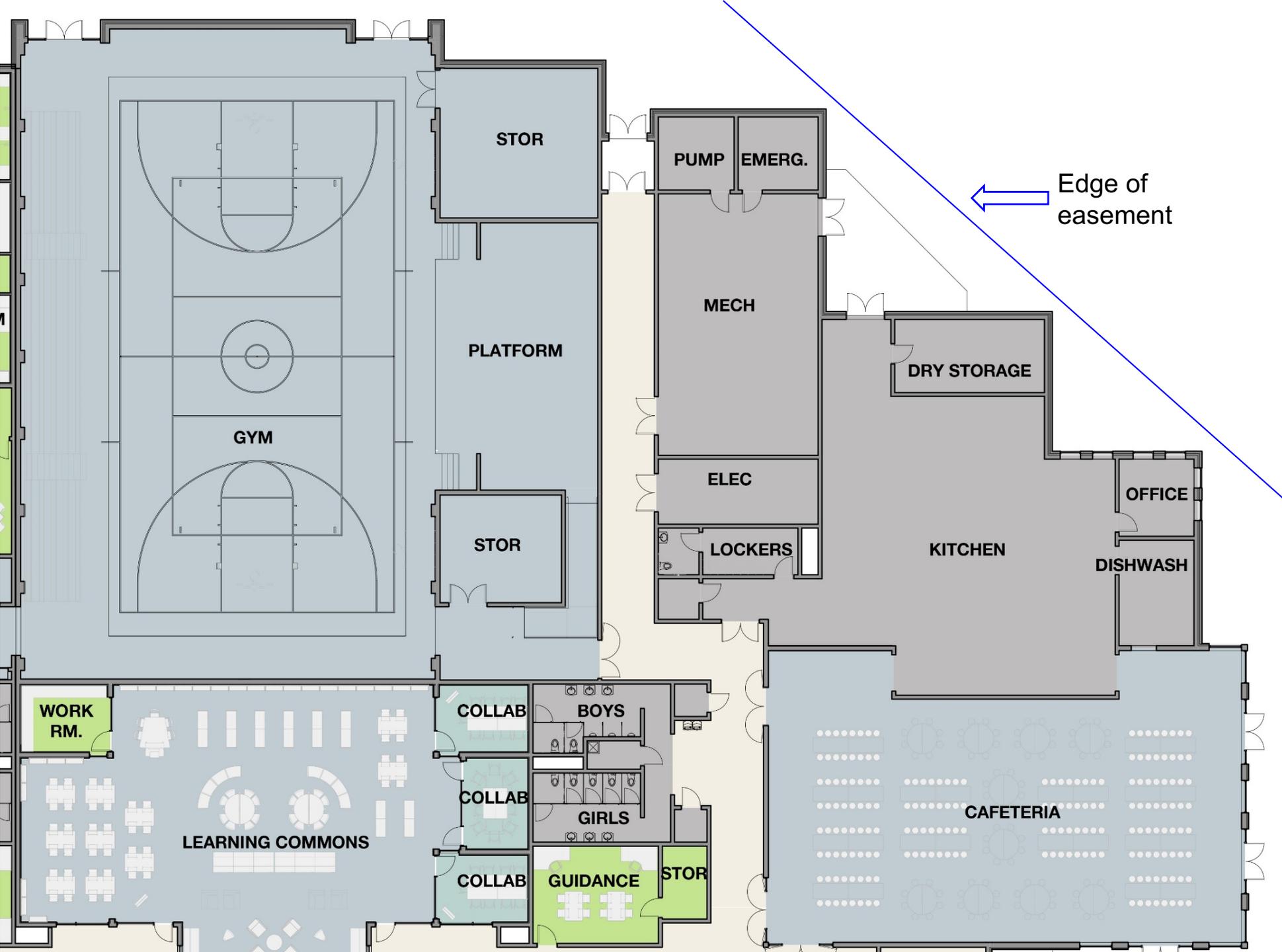


# Large Group / STEAM

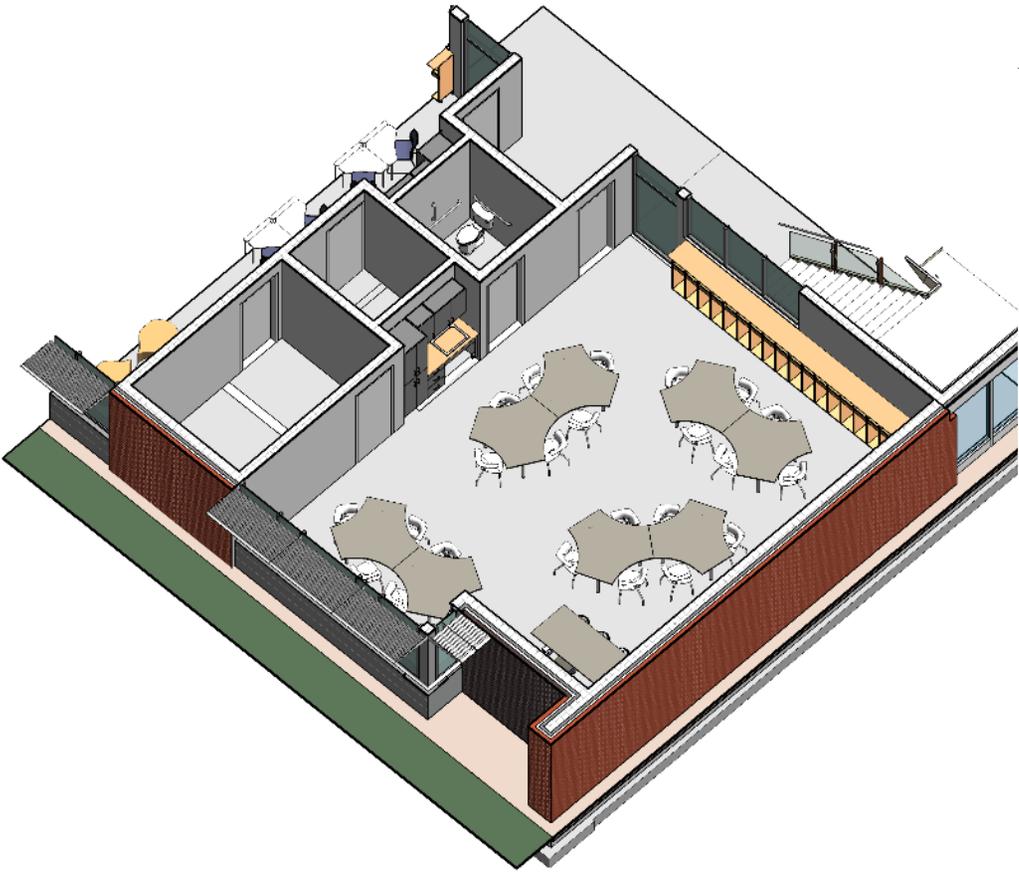
Monroe Elementary School



# K-4: Gym/ Cafeteria/ Learning Commons



# K-4: 1<sup>st</sup>/ 2<sup>nd</sup> Classroom Pods



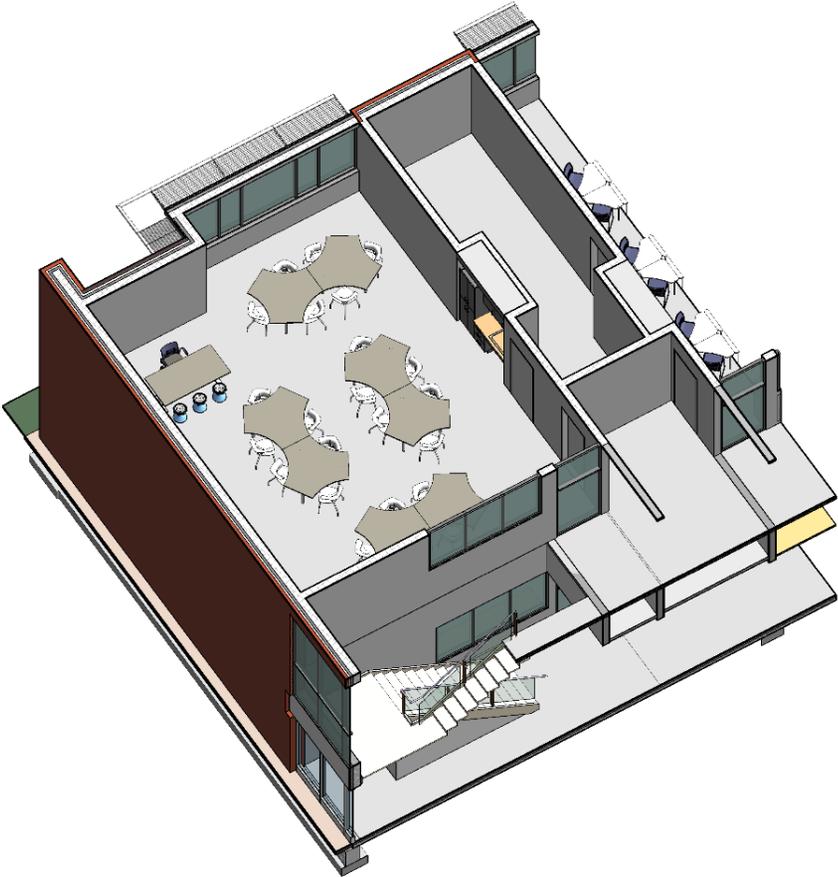
Typical 1<sup>st</sup>/ 2<sup>nd</sup> Grade Classroom

# Classroom

Manheim Central Elementary School



# K-4: 3<sup>rd</sup>/ 4<sup>th</sup> Classroom Pods



Typical 3<sup>rd</sup>/ 4<sup>th</sup> Grade Classroom

# Corridor Lockers

Manheim Township Intermediate School



# Corridor Lockers

Manheim Central Elementary School



- **Building Capacity**

- Square Foot Comparison
- Programming



## K-4 Elementary School Square Footage

Square Footage	Feasibility Study 78,000sf	Current 93,482 sf*
Grossing Factor	PDE 1.58	WSSD 1.51

\* Additional Program Space:

1. Dedicated large group instruction for each classroom pod
2. Learning support classrooms (additional)
  - a. Emotional Support
  - b. Autistic Support
3. Learning support small group instruction rooms
  - a. Reading Support
  - b. Literacy Coach
  - c. ESL Support
  - d. OT/ PT
  - e. Speech Support
  - f. Gifted Support
  - g. Hearing/ Vision Specialists

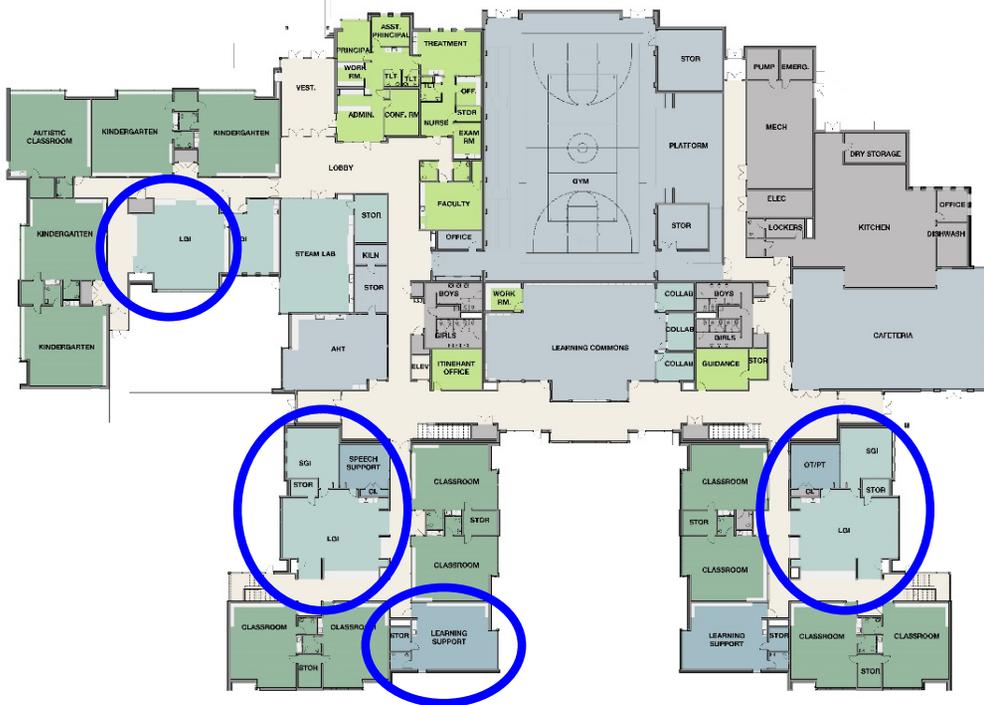
# K-4: Additional Program Spaces



Second Floor Plan

## Second Floor Program Spaces:

1. Large Group Instruction
2. Small Group Instruction
  - a. Literacy Coach
  - b. Reading Support
  - c. ESL Support
  - d. Gifted Support
3. Emotional Support Classroom



First Floor Plan

## First Floor Program Spaces:

1. Large group instruction
2. Small group instruction
  - a. OT/PT
  - b. Speech support
  - c. Hearing/ Vision specialist
3. Autistic support classroom

## ■ Cost Estimates

- Average Cost Per SF
- Cost Comparison
- Soft Cost Information





**New Construction**

<b>Site</b>	<b>Variable</b>
<b>General Construction</b>	<b>\$123.50 / SF</b>
<b>Mechanical (HVAC)</b>	<b>\$28.00 / SF</b>
<b>Plumbing</b>	<b>\$ 8.50 / SF</b>
<b>Fire Protection</b>	<b>\$ 4.00 / SF</b>
<b><u>Electrical / Technology</u></b>	<b><u>\$26.00 / SF</u></b>
<b>Totals</b>	<b>\$190.00 / SF</b>

## K-4: Cost Estimate

<u>Construction Costs</u> K-4 Square Foot	<u>Feasibility Study</u> 78,000sf	<u>Current</u> 93,482sf
Cost per SF	\$195/ sf	\$190/ sf
Site Costs	\$2,000,000	\$2,300,000
Inflation – 2018	\$516,300	\$355,231
Demolition	\$250,000	\$250,000
2% Design Contingency	(in \$/ sf)	\$402,336
<b>Construction Cost</b>	<b>\$17,976,300</b>	<b>\$21,069,147</b>
Soft Costs	20% \$3,595,260	20% \$4,213,830



# Soft Costs

## Soft Cost Breakdown:

A.	Basic A&E Services	5.5%
B.	Construction Contingency	3.0% - 4.0%
C.	Furniture, Fixtures and Equipment	3.0%
D.	Technology (A.V. and Comm. Eq.)	2.0%
E.	Financing	0.0%
F.	Construction Manager/ Clerk	1.0% - 5.0%
G.	Asbestos (Eng. and Removal)	0.5%
H.	Miscellaneous	2.5%
	1. Building Permit	
	2. Geotechnical Report	
	3. Site Survey	
	4. Start-up Supplies	
	5. Site Submittal Fees	
	6. Utility Hook-up Fees	
	7. Construction Insurance	
	8. Special Inspections / Testing	
	9. Commissioning	
	10. Reimbursable Expenses	

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Total: 17.5% - 22.5%

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Group Zones & Team Projects

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## CRITICAL THINKING

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# II.

## RED LAND INTERMEDIATE

- Schedule



# Red Land 5/6 Schedule - 2018

## APRIL

- Feasibility study group review
- School board review
- Staff meetings – design reviews
- Coordination team meetings
- Land development/ PennDOT

## MAY

- Staff meetings – design reviews
- Coordination team meetings

## JUNE

- School board review
- Coordination team meetings

## JULY

- Coordination team meetings

## AUGUST

- Advertise Act 34 hearing
- Coordination team meetings

## SEPTEMBER

- Public Act 34 hearing
- Public comment period
- Staff update of project
- Coordination team meetings

## OCTOBER

- Act 34 public comment period
- School board update on PennDOT
- Coordination team meetings

## NOVEMBER

- Coordination team meetings

## DECEMBER

- Coordination team meetings

## JAN. - APRIL 2019

- PennDOT/ Township approvals
- Bid process/ award contracts

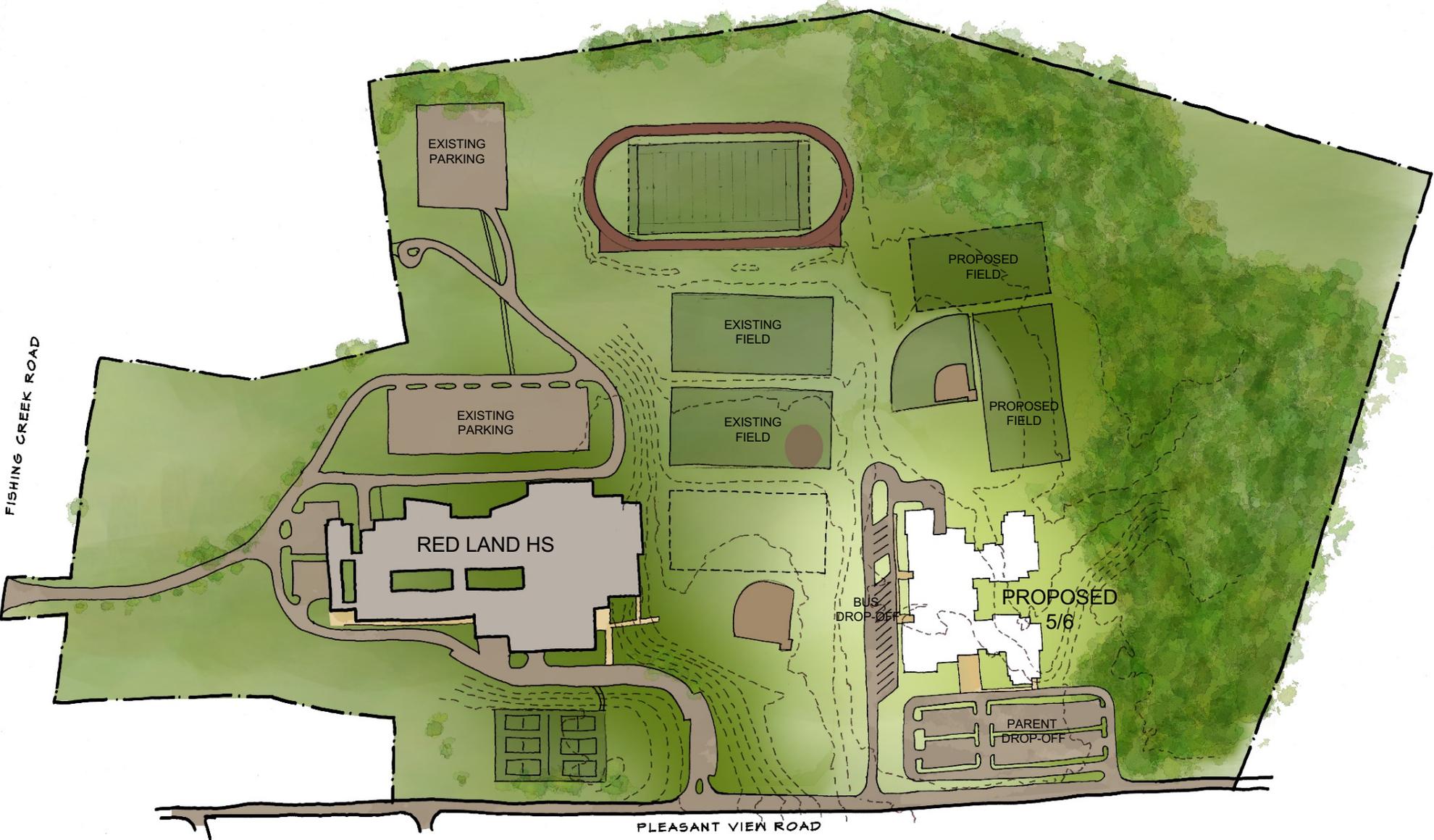
## 2021/22 SCHOOL YEAR ?

- Open new Red Land 5/6

- Design Development
  - Site Plan
  - Floor Plans



# Overall Site Plan Concept



# 5/6: Main Floor Plan



## LEGEND

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# 5/6: Second Floor Plan



**LEGEND**

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# 5/6: Classroom Wing



## LEGEND

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# 5/6: Entry/ Gym/ Admin



**LEGEND**

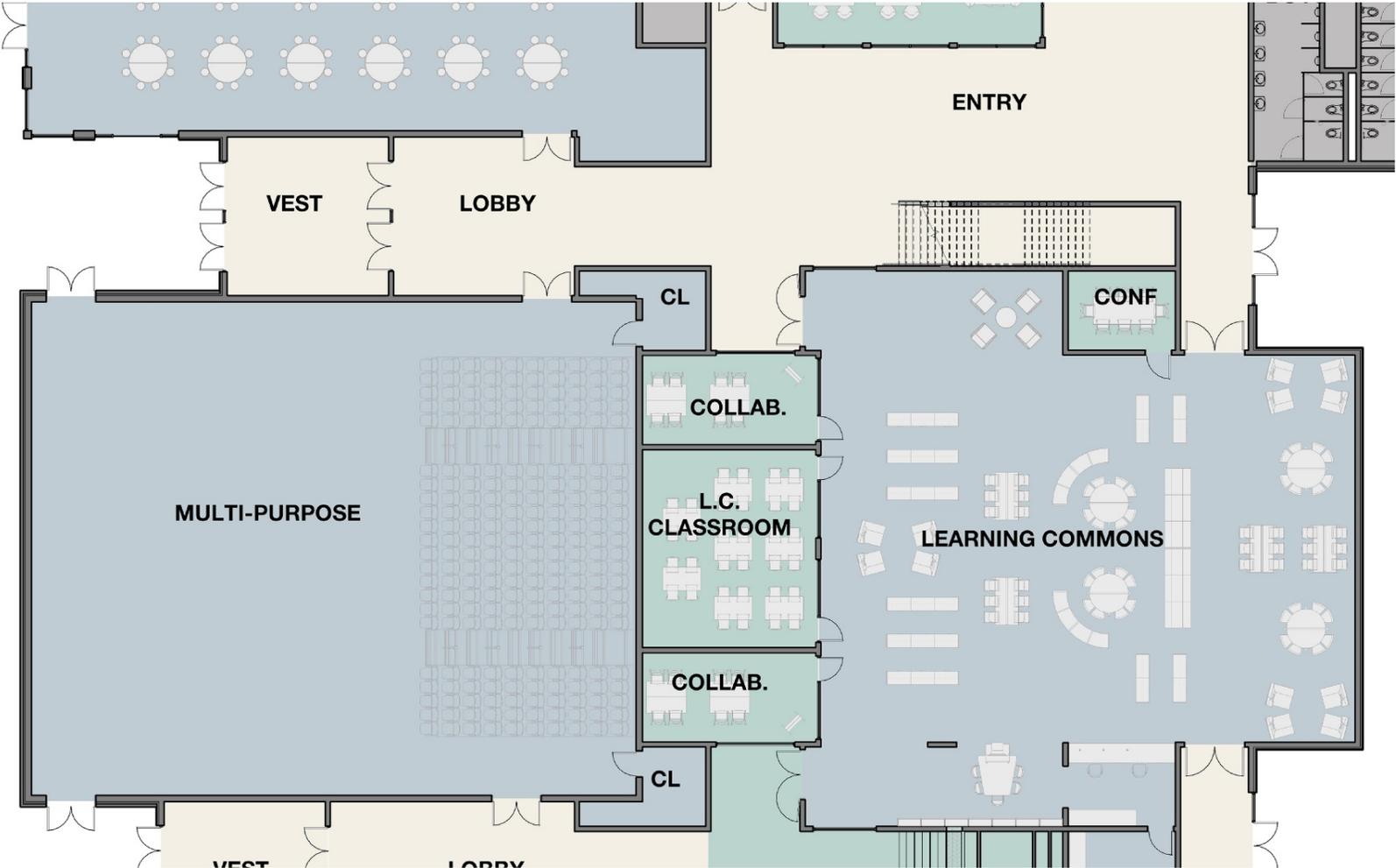
- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# Learning Stairs

York Country Day School



# 5/6: Learning Commons/ Multi-Purpose/ Makerspace



**LEGEND**

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# Multi-Purpose Room

York Country Day School



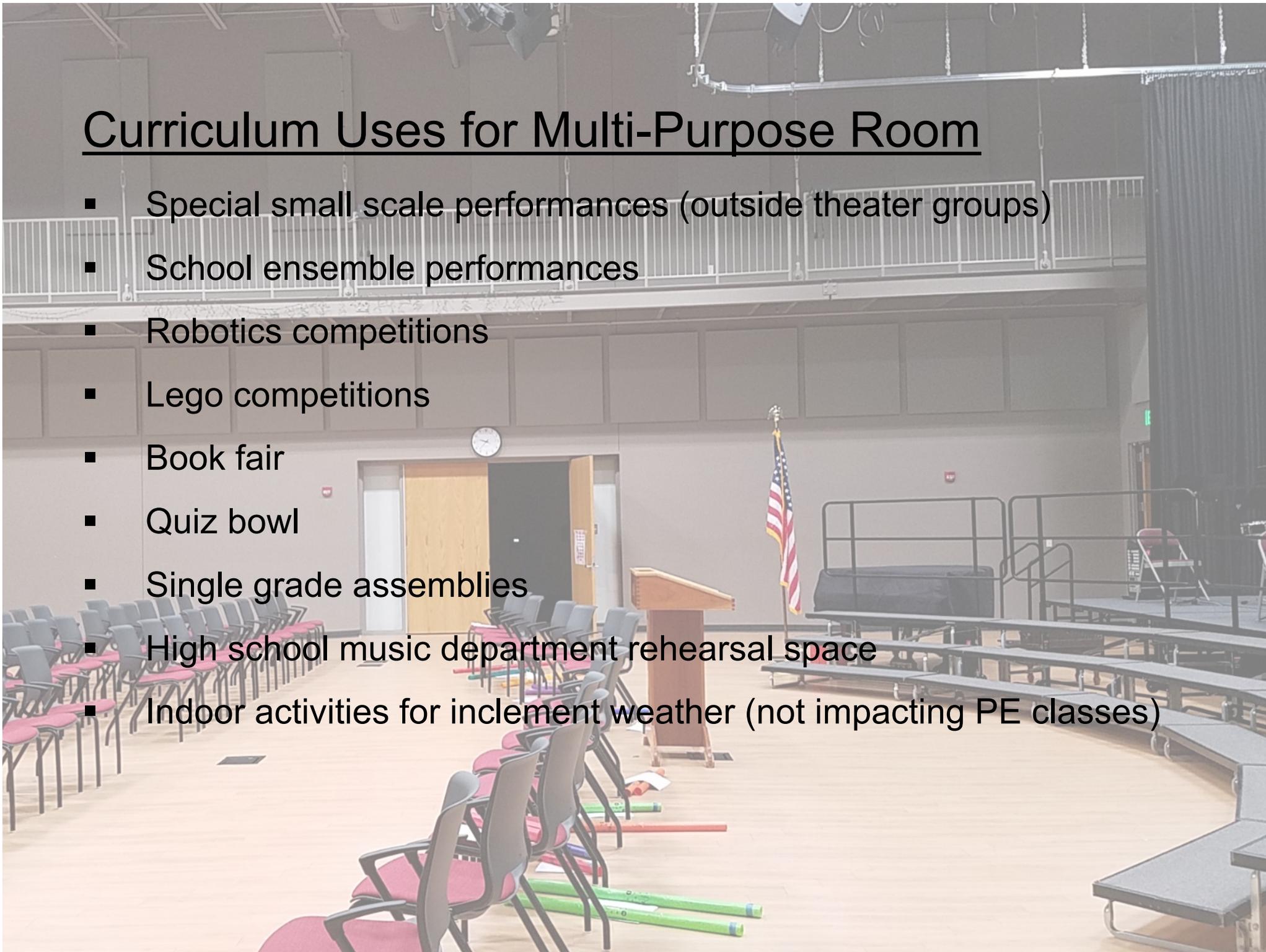
# Multi-Purpose Room

York Country Day School



# Curriculum Uses for Multi-Purpose Room

- Special small scale performances (outside theater groups)
- School ensemble performances
- Robotics competitions
- Lego competitions
- Book fair
- Quiz bowl
- Single grade assemblies
- High school music department rehearsal space
- Indoor activities for inclement weather (not impacting PE classes)



# STEM Lab

York Country Day School



# 5/6: Cafeteria/ Music Suite



**LEGEND**

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# 5/6: Art Suite/ Collaboration



**LEGEND**

- ADMINISTRATION
- CIRCULATION
- CLASSROOM
- COLLABORATION
- LEARNING SUPPORT
- SHARED AREAS
- SUPPORT AREAS

# Collaboration Rooms

York Country Day School



- **Building Capacity**

- Square Foot Comparison
- Programming



## 5/6 Intermediate School Square Footage

Square Footage	Feasibility Study 92,000sf	Current 121,072 sf*
Grossing Factor	PDE 1.58	WSSD 1.52

\* Additional Program Space:

1. 1 additional classroom per pod
2. Dedicated large group instruction for each classroom pod
3. Learning support classrooms (additional)
  - a. Emotional Support
  - b. Autistic Support
4. Learning support small group instruction rooms
  - a. Reading Support
  - b. Literacy Coach
  - c. ESL Support
  - d. OT/ PT
  - e. Speech Support
  - f. Gifted Support
  - g. Hearing/ Vision Specialists

## 5/6: Additional Program Spaces



First Floor Plan



Second Floor Plan

### FIRST FLOOR PROGRAM SPACES:

1. Large group instruction
2. Small group instruction
  - a. OT/PT
  - b. Speech support
  - c. Hearing/ Vision specialist
3. Multi-purpose room
4. Autistic support classroom
5. Music suite (orch/ band/ music)
6. Additional classrooms

### SECOND FLOOR PROGRAM SPACES:

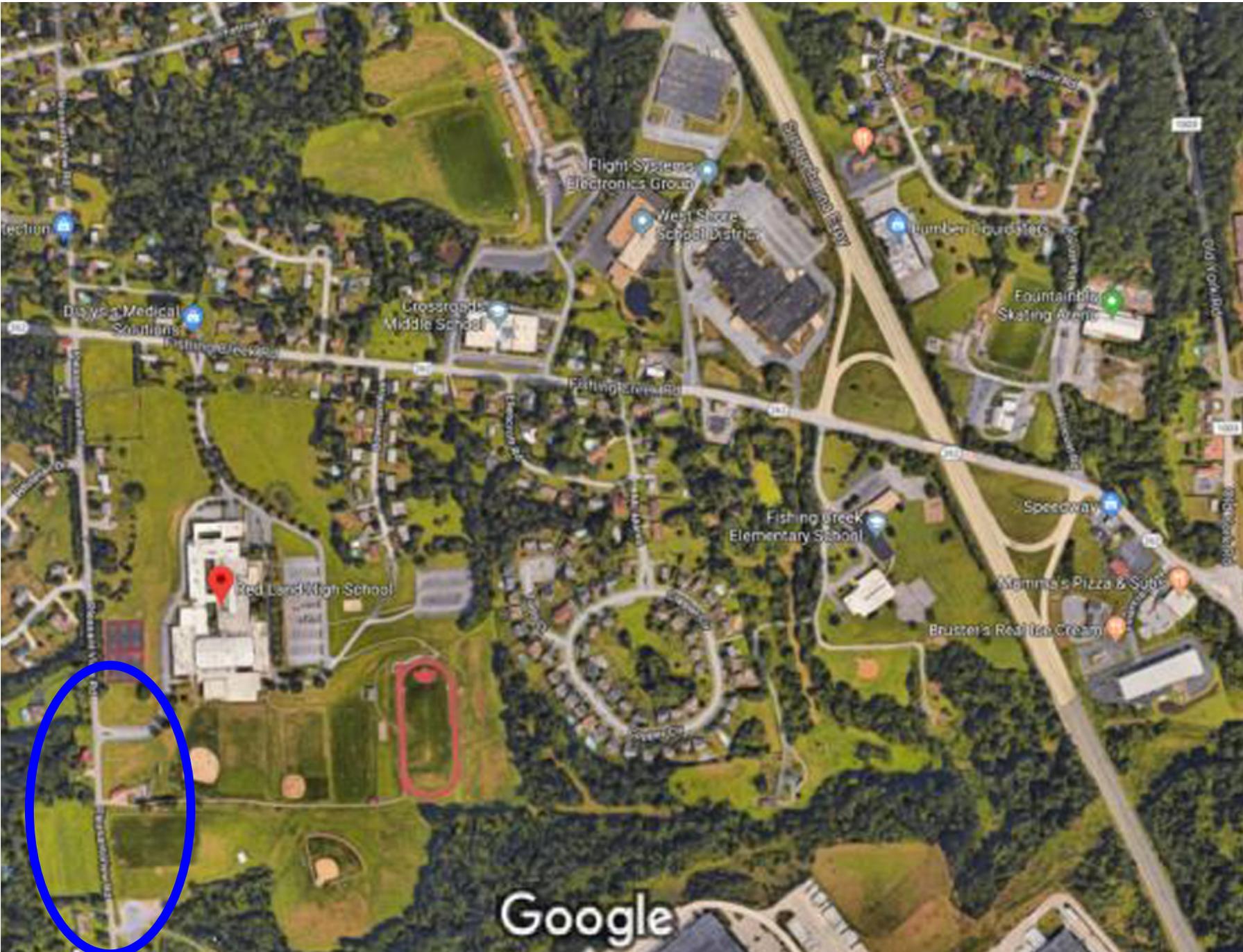
1. Large group instruction
2. Small group instruction
  - a. Literacy coach
  - b. Reading support
  - c. ESL support
  - d. Gifted support
3. Emotional support classroom
4. Additional classrooms

- **Traffic Study Impact**

- Pleasant View Drive
- Fishing Creek Road
- I-83 North Bound



# 5/6 Red Land Site Impacts: Driveway & Left Turn Lane on Pleasant View Dr.



# 5/6 Red Land Site Impacts: Intersection of Fishing Creek Rd. & Pleasant View Dr.



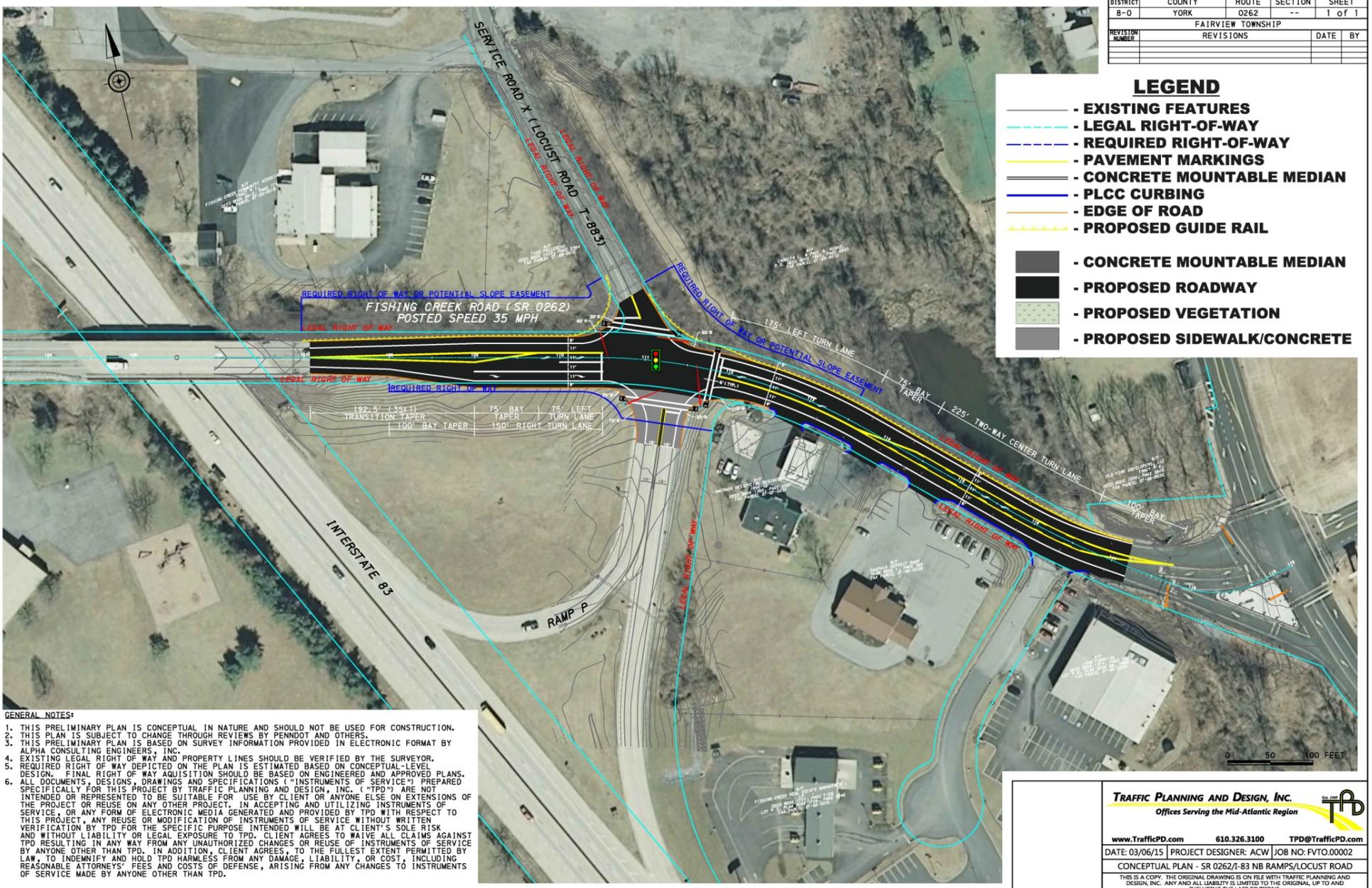
# 5/6 Red Land Site Impacts: Intersection of Fishing Creek Rd. & NB I-83 Ramp.



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	YORK	0262	--	1 of 1
FAIRVIEW TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	

### LEGEND

- EXISTING FEATURES
  - LEGAL RIGHT-OF-WAY
  - REQUIRED RIGHT-OF-WAY
  - PAVEMENT MARKINGS
  - CONCRETE MOUNTABLE MEDIAN
  - PLCC CURBING
  - EDGE OF ROAD
  - PROPOSED GUIDE RAIL
- 
- CONCRETE MOUNTABLE MEDIAN
  - PROPOSED ROADWAY
  - PROPOSED VEGETATION
  - PROPOSED SIDEWALK/CONCRETE



**GENERAL NOTES:**

1. THIS PRELIMINARY PLAN IS CONCEPTUAL IN NATURE AND SHOULD NOT BE USED FOR CONSTRUCTION.
2. THIS PLAN IS SUBJECT TO CHANGE THROUGH REVIEWS BY PENNDOT AND OTHERS.
3. THIS PRELIMINARY PLAN IS BASED ON SURVEY INFORMATION PROVIDED IN ELECTRONIC FORMAT BY ALPHA CONSULTING ENGINEERS, INC.
4. EXISTING LEGAL RIGHT OF WAY AND PROPERTY LINES SHOULD BE VERIFIED BY THE SURVEYOR.
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Offices Serving the Mid-Atlantic Region

www.TrafficPD.com    610.326.3100    TPD@TrafficPD.com

DATE: 03/06/15 | PROJECT DESIGNER: ACW | JOB NO: FVTO.00002

CONCEPTUAL PLAN - SR 0262/I-83 NB RAMP/LOCUST ROAD

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J:\V\10\00002 (1-83 NB RAMP) SR 0262 I-83 NB RAMP/LOCUST ROAD/150314-11-11-14 Concept 1 B 01.dgn  
 3/2/2015 2:24:45 PM 11550

## ■ Cost Estimates

- Traffic Impacts
- Cost Estimate
- Soft Cost Information



## 5/6 Traffic Improvement Cost Estimates:

- |  |   |
|--|---|
| 1. Driveway & Left Turn Lane on Pleasant View Dr.        | \$350,000 - \$450,000   |
| 2. Intersection of Fishing Creek Rd. & Pleasant View Dr. | Roundabout: \$1,000,00 - \$1,200,000<br>Traffic Signal: \$750,000 |
| 3. Intersection of Fishing Creek Rd. & NB I-83 Ramp      | \$1,500,000   |
- 

**Total Low Cost Estimate** **\$2,600,000\***

\*Dependent on Traffic requirements (low \$ provided in project construction estimate – Using traffic signal at Fishing Creek/ Pleasant View)

**Total High Cost Estimate** **\$3,150,000**

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### Preliminary Schedule

TIS Scoping	2 Months
TIS Prep / Review	4 Months
HOP Prep / Issuance	12 Months



**New Construction**

<b>Site</b>	<b>Variable</b>
<b>General Construction</b>	<b>\$123.50 / SF</b>
<b>Mechanical (HVAC)</b>	<b>\$28.00 / SF</b>
<b>Plumbing</b>	<b>\$ 8.50 / SF</b>
<b>Fire Protection</b>	<b>\$ 4.00 / SF</b>
<b><u>Electrical / Technology</u></b>	<b><u>\$26.00 / SF</u></b>
<b>Totals</b>	<b>\$190.00 / SF</b>

## 5/6: Cost Estimate

Construction Costs  
5/6 Square Foot

Feasibility Study  
92,000sf

Current  
121,072sf

Cost per SF

\$195/ sf

\$190/ sf

Site Costs

\$3,500,000

\$2,000,000

Inflation - 2018

\$643,200

\$500,074

2% Design Contingency

(in \$/ sf)

\$509,275

**PennDOT/ Traffic Improvement**

\$0

\$2,600,000\*

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**Construction Cost**

**\$22,083,200**

**\$28,613,029\***

Soft Costs

20%

20%

\$4,416,640

\$5,722,606

\* Traffic Improvement \$ provided is lowest potential cost for estimating purposes.



# Soft Costs

## Soft Cost Breakdown:

A.	Basic A&E Services	5.5%
B.	Construction Contingency	3.0% - 4.0%
C.	Furniture, Fixtures and Equipment	3.0%
D.	Technology (A.V. and Comm. Eq.)	2.0%
E.	Financing	0.0%
F.	Construction Manager/ Clerk	1.0% - 5.0%
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<hr/>		
	Total:	17.5% - 22.5%

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## CROSSROADS M.S.



**SKETCH PLAN**  
**535 FISHING CREEK ROAD, LEWISBERRY**  
 AT  
**CROSSROADS MIDDLE SCHOOL**

FOUR COUNTY, PA

FAIRVIEW TOWNSHIP

PROFESSIONAL SEAL  
 SCALE: AS NOTED  
 DATE: FEBRUARY 5, 2018  
 REV. PROJECT: 2370.001  
 DRAWN BY: MGS  
 CAD DRAWING:  
 229803-00-000.dwg

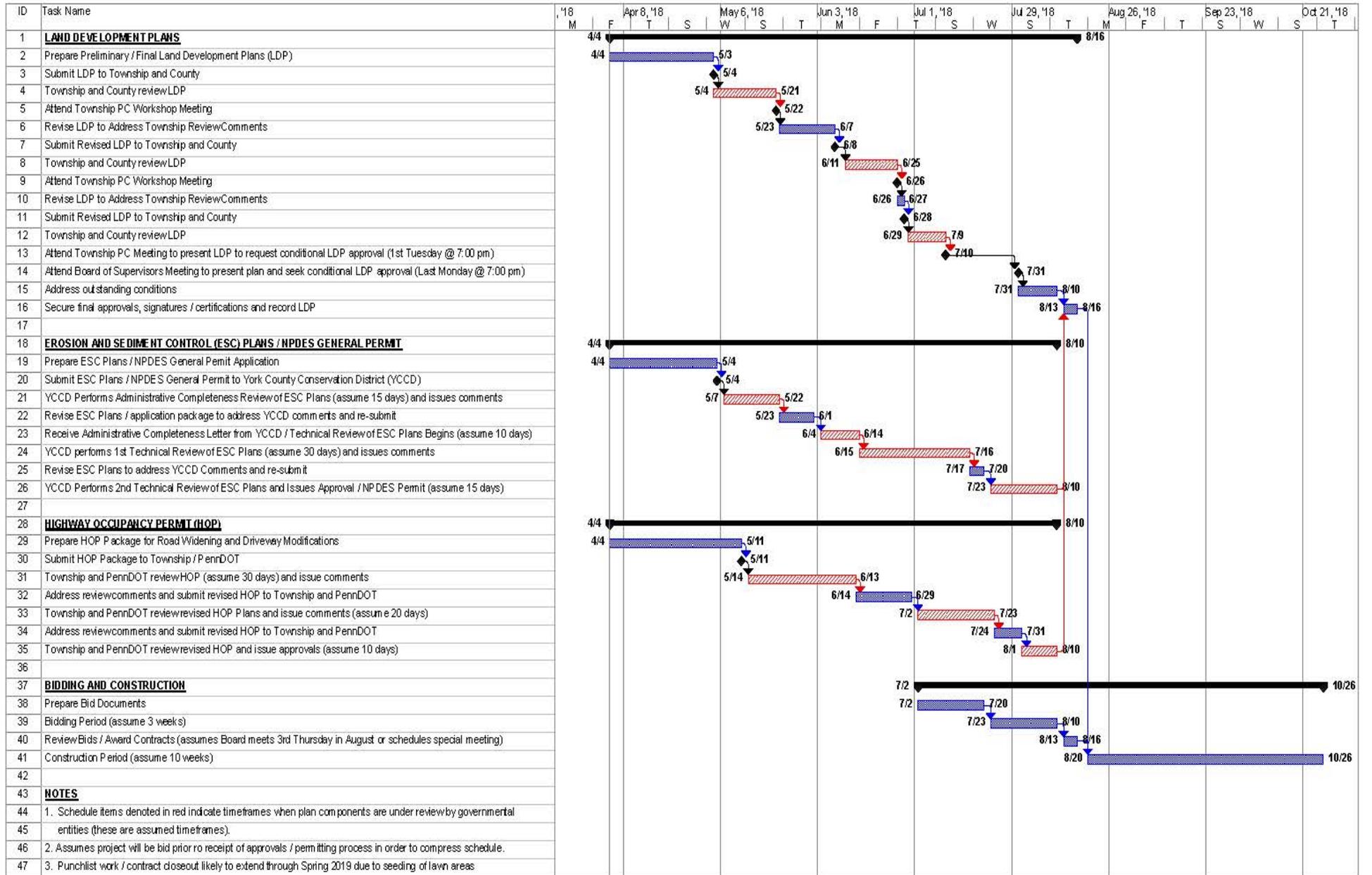
NO.	DATE	DESCRIPTION
1		
2		
3		
4		
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7		

**SKETCH PLAN**

SHEET:



**WSSD - Crossroads MS Parking and Traffic Circulation Improvements**  
 Tentative Design / Approvals Schedule  
 March 4, 2018



# IV.

## NEXT STEPS



# Inflation – Const. Analytics

The cost of new **residential construction** is up on average 6%/year over the last four years. It peaked at 8% in 2013 but dropped to 3.4% in 2015. It's been back up over 5% for 2016 and 2017 to date. **Anticipate residential construction inflation for 2017 and 2018 between 5% and 6%.**

Several indices for **nonresidential buildings** have averaged 4% to 4.5% over the last four years and all are indicating construction inflation of 4.5% to 5% or more for 2017. For the last four years, nonresidential buildings inflation has totaled nearly 18%. Input indices that do not track whole building cost would indicate inflation for those four years is only 10%, much less than real final cost. For a \$100 million project escalated over those four years, that's a difference of \$8 million, potentially underestimating.

**Don't be caught short! Anticipate construction inflation for nonresidential buildings during the next two years leaning towards the higher end rapid growth rate of **5% to 6%** rather than the long term average of 3.5%.**





## Contingency

- Accounts for Design variables & unknowns
- Buffer for market variables during bidding
- Unknown Site Conditions
- Reduces as Design progresses



## Comparable Projects

- Elementary Schools
- 64,000 – 162,000 SF
- 2014 – 2017 (year complete)
- Central PA Region
- \$165 - \$307 Construction Cost per SF (**Site Cost included**)

# Comparable Projects - BIDS

SCHOOL DISTRICT	Bid Year	S.F.	\$/S.F. (with Site)
School District of Lancaster	2014	110,900	\$191.00
Pheonixville Area S.D.	2015	152,000	\$266.45
Hatboro-Horsham S.D.	2015	94,155	\$303.00
Cumberland Valley S.D.	2016	135,000	\$165.00
Manheim Central S.D.	2016	150,000	\$180.29
Upper Marion Area S.D.	2016*	83,445	\$307.21
Upper Merion Area S.D.	2016*	91,275	\$315.05
Lehighton Area S.D.	2016	162,000	\$207.00
Manheim Area S.D.	2017	86,000	\$206.58
State College Area S.D.	2017**	64,086	\$292.47
State College Area S.D.	2017**	71,342	\$289.43
State College Area S.D.	2017**	89,038	\$285.39
Central Dauphin S.D.	2017***	87,000	\$183.00

<b>Averages</b>	<b>105,865</b>	<b>\$245.53</b>
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\* Design Development Estimate

\*\* Three buildings bid at same time

\*\*\*Pre-Schematic Estimate // SF \$ assumes 20% Soft Costs

	New
	Upgrades & New

# Comparable Projects - BIDS

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\* Design Development Estimate

\*\* Three buildings bid at same time

\*\*\*Pre-Schematic Estimate // SF \$ assumes 20% Soft Costs

	New
	Upgrades & New

## Estimate: Building + Site = \$225 per SF#

# Based on Estimated Construction Cost + Site for New Construction