QUAKERTOWN COMMUNITY SCHOOL DISTRICT



NEIDIG ELEMENTARY SCHOOL additions and renovations

FACILITY COMMITTEE PRESENTATION

April 05, 2018

ORIGINAL FACILITY STUDY REPORT



SUMMARY ESTIMATED COSTS – from Section 7

BUILDING	Orig.	Last			Est	. Soft Costs	T	OTAL COSTS
	Const	Renov.	С	onst. Costs	(@	30 %)		
Haycock Elementary School	1955	1983	\$	3,258,275	\$	977,483	\$	4,235,758
Neidig Elementary School	1959	1986	\$	8,030,119	\$	2,409,036	\$	10,439,155
Pfaff Elementary School	2005		\$	764,978	\$	229,493	\$	994,471
Quakertown Elementary School	1928	1967	\$	10,452,200	\$	3,135,660	\$	13,587,860
Richland Elementary School	1957	2009	\$	926,624	\$	277,987	\$	1,204,611
Tohickon Valley Elem School	1950	2000	\$	8,415,969	\$	2,524,791	\$	10,940,760
Trumbauersville Elem School	1998		\$	3,239,134	\$	971,740	\$	4,210,874
Milford Middle School	1974		\$	8,412,746	\$	2,523,824	\$	10,936,570
Strayer Middle School	2004		\$	935,959	\$	280,788	\$	1,216,747
Freshman Center	1965	2005	\$	4,649,032	\$	1,394,710	\$	6,043,742
High School	1954	ongoing) \$	-	\$	-		-
Alumni Field			\$	640,224	\$	192,067	\$	832,291
Garage & Utilities Building			\$	691,772	\$	207,532	\$	899,304
District Admin Building			\$	385,900	\$	115,770	\$	501,670
TOTALS			\$	50,802,932	\$	15,240,880	\$	66,043,812

RE-DISTRICTING FACILITY RECOMMENDATION

DRAFT FOR PLANNING PURPOSES

NEIDIG ELEMENTARY

Additions and Renovations

640 Student K-5 Building

Quakertown Community School District Bucks County, PA

REA Renovations

45,764 s.f.

New Construction

antity - 10)

14,400

12/6/2017

New Construction - Total

\$249.11

18,180 s.f.

1.665.000

15,929,233

Building Area 63,944 s.f.

Additions and Renovations **BUDGET COST ANALYSIS**

Project Phase: Concept Analysis

CONSTRUCTION

CITE CONTENUENTION

12

BUIL	DING CONSTRUCTION	area cost	/s.f	tota	<u></u>	
1	Total Construction Cost Estimate New Construction	18,180 s.f.	\$250.00	\$	4,545,000	
2	Renovation (2016 study costs escalated one year to 2017 referen	45,764 s.f.	\$180.73	·-	\$8,271,023	
3	(2010 slow) cosis esculated one year to 2017 Telefell	Subtotal	\$200.43	\$	12,816,023	
4	Escalation to 2	2019 @ (3% annually)	6%	\$	768,961	
5		Design Contingency	5%	\$	679,249	
6	Total Building Construction	,	\$223.07 s.	.f		\$ 14,264

TOTAL

SHE	CONSTRUCTION	area	cost/s.t.	total	<u> </u>	
7	Site construction	1 l.s.	\$1,500,000.00	\$	1,500,000	
8		Subtotal	\$23.46	\$	1,500,000	
9		Escalation to 2019 @ (annually)	6%	\$	90,000	
10		Design Contingency	5%	\$	75,000	
11	Total Site Construction Cost Estimate		\$26.04			<u>\$</u>

SCHRADERGROUP

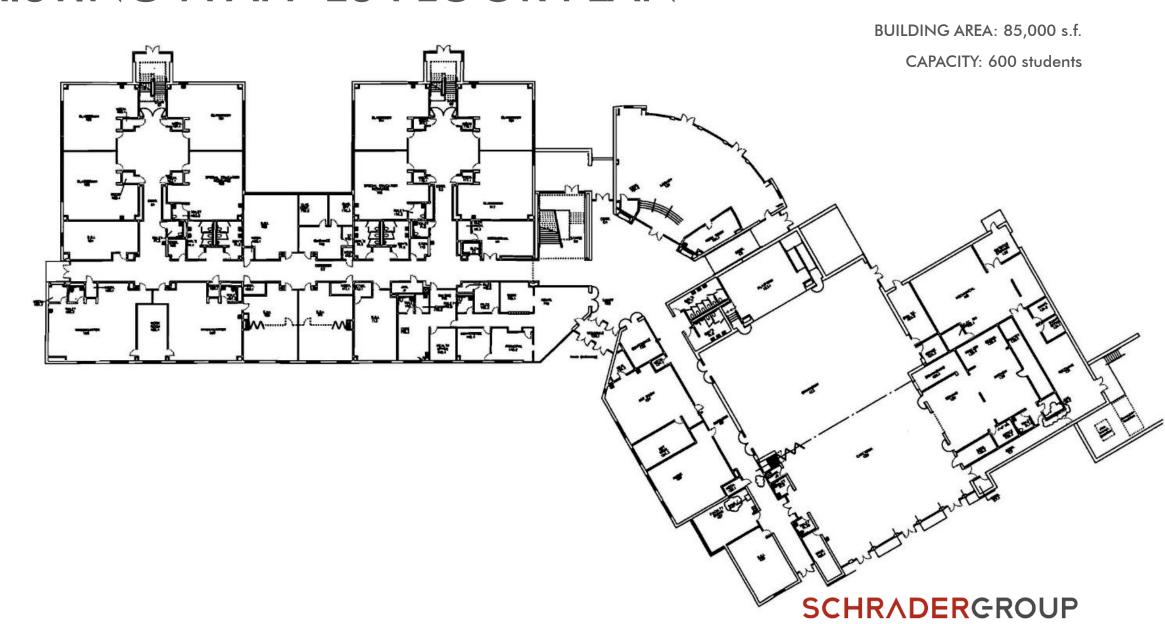
DES	GN COSTS			
13 14 15 16 17 18 19 20 21	A/E Consultant Design Fee @ Expenses Civil Engineering/ Land Development Fees Geotechnical Investigation Land Survey Services Inspection/ Testing Services Land Development Approvals Asbestos Design Services Total Design Services	6.00% 6.00%	\$ 855,854 \$ 50,000 \$ 99,900 \$ 18,000 \$ 20,000 \$ 100,000 \$ 30,000 \$ -	
MISO	CELLANEOUS COSTS			
22 23 24 25 26 27 28 29 30 31 32 33 34	County Conservation District Demolition Permit @ Building Permit @ Other Approvals FFE Technology Equipment for building Financing Costs Construction Management Legal Commissioning Insurance Move Costs Other Misc Costs	2.00% of cost 2.00% of cost 4.00%	\$ 5,000 \$ - \$ 318,585 \$ 40,000 \$ 165,000 \$ 200,000 \$ 477,877 \$ 637,169 \$ 50,000 \$ 85,000 \$ 60,000 \$ 75,000 \$ 100,000	\$ 2,213,631
PRO	JECT CONTINGENCY			
36 37	Subtotal all costs above Project Contingency		5.00%	\$ 965,831
38	Current Conceptual Estimate			\$ 20,282,449

APPLES TO ORANGE COMPARISON

PROGRAM COMPARISON - EXISTING

Pfaff Elementary		Neidig Element	ary	Comments
Existing	Existing	Existing	Difference	
Existing Total s.f. Existing Student Capacity	85,000 s.f. 600 students	45,764 s.f. 434 students	(Spaces to	
Space Type	Quantity	Quantity	be added)	
Classrooms (incl Kind)	18	16	2	
Special Ed Classrooms	4	1	3	
Large Group Instruction			0	
Small Group Instruction	12	3	9	Usually half size so equates to 5
Admin	1	1	0	
Media Center	1	1	0	
Art Classroom	1	0	1	
Music Classroom	1	0	1	
Cafeteria	1	1	0	More students means more seating
Kitchen	1	1	0	Needs more space & equip
Gymnasium	1	0	1	Need a full gym
Stage	1	1	0	
Faculty Room	0	0	0	
Faculty Dining	1	1	0	8

EXISTING PFAFF ES FLOOR PLAN



PROPOSED NEIDIG ES PROGRAM

PRC	GRAM									
			28	CAPACITY	NET SQUARE	FEET	GROSSING	GROSS SC	QUARE	FEET
				students		total	factor			total
		8								
Α.	AREA SUMMARY							91.50		
	1 Target Program Area				55,390	nsf	1.58 *	8.	7,516	gsf
	2 Existing Area in Plan								25	gsf
	Addition Area in Plan								=	gsf
	Total Area in Plan				2	nsf	TBD *		-	gsf
	Difference				55,390	nsf		8	7,516	A-50
	* Note that the PDE allowable grossi	ng factor is	1.58.							
	900	1077								
B.	CAPACITY SUMMARY									
	1 Teaching Stations	17	598	students						
	2 Utilization Factor	100%								
	3 Effective Student Capacity		59 8	students						
C.	AREA ANALYSIS									
	1 Square Feet per student: Planned		146						598	gsf
	2 Square Feet per student: actual		-					TBD		gsf
D.	AREA COMPARISON (Program)									
	1 Learning Spaces				30,150				7,637	0.07
	2 Admin & Staff				3,785				5,980	
	3 Community Spaces				7,225				1,416	4 - 83
	4 Fitness & Wellness				8,730				3,793	4500
	5 Performing Arts				2,400				3,792	
	6 Facility Support				3,100	101			4,898	
	TOTAL GSF				55,390	nsf		8.	7,516	gsf

PROGRAM COMPARISON – when complete

PFAFF ELEMENTARY SCHOOL

BUILDING AREA 85,000 s.f.

STUDENT CAPACITY 600 students

AREA PER STUDENT 141 s.f. per student

PROPOSED NEIDIG ELEMENTARY SCHOOL PROGRAM

BUILDING AREA 87,516 s.f.

STUDENT CAPACITY 600 students

AREA PER STUDENT 145 s.f. per student

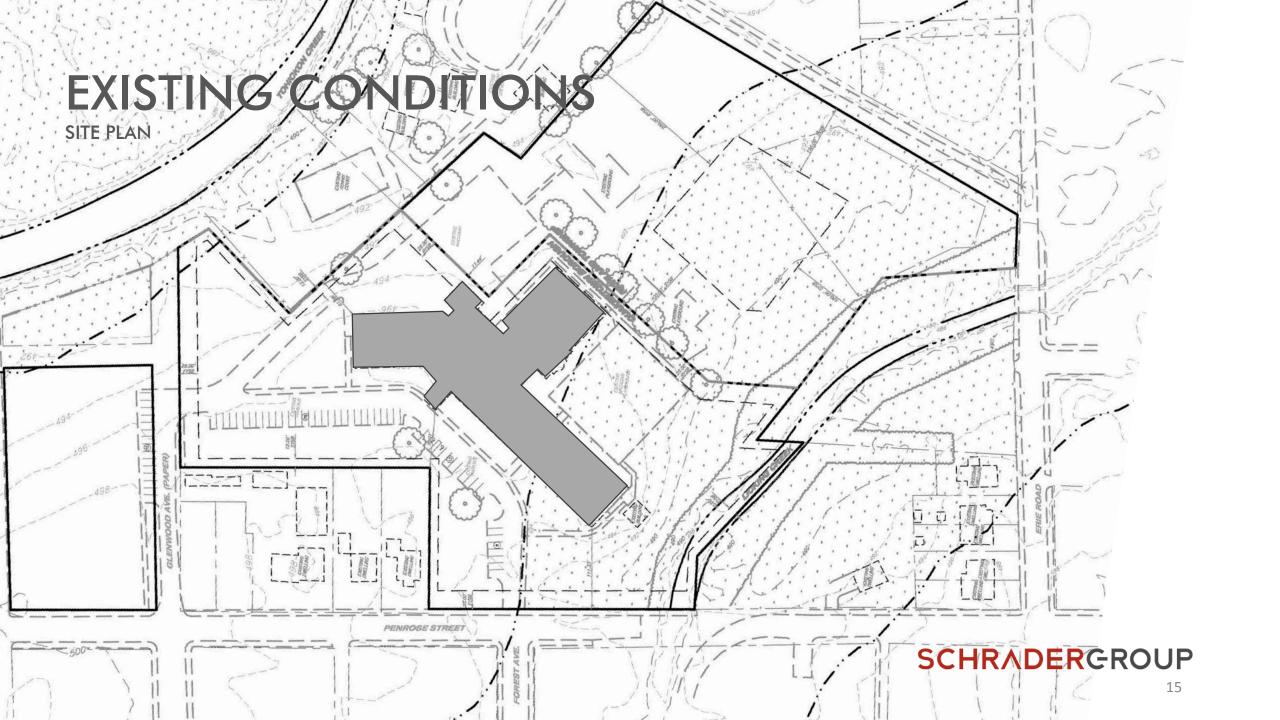
TOWNSHIP MEETINGS

RICHLAND TOWNSHIP (held March 13, 2018)

- Suggested thinking long term and looking at the project for the 40 year life cycle it will support
- In-depth discussion about bus and car circulation patterns on site (from two different sides)
- Interested in thinking strategically about the property line between Township and Borough
- Willing to cede approval process to Quakertown Borough and Borough ordinances if building development on Township side is less

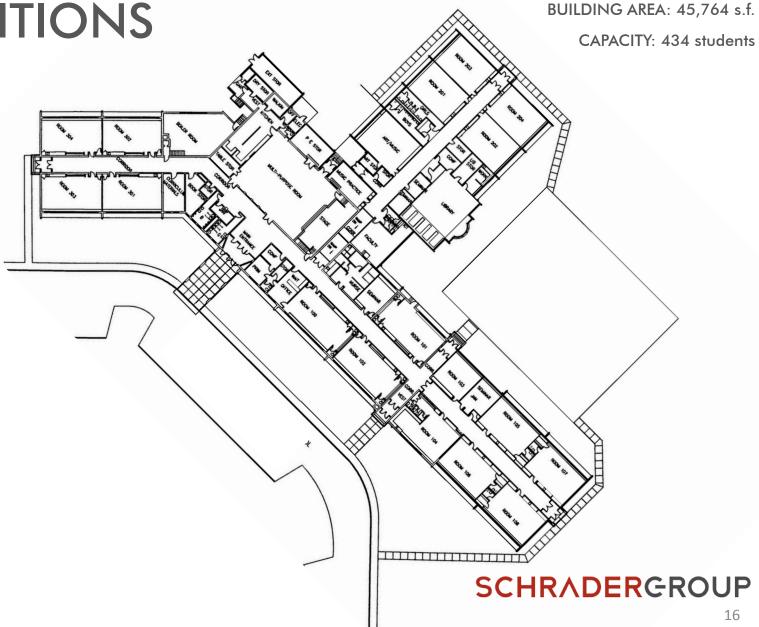
QUAKERTOWN BOROUGH (Joint meeting held March 20, 2018)

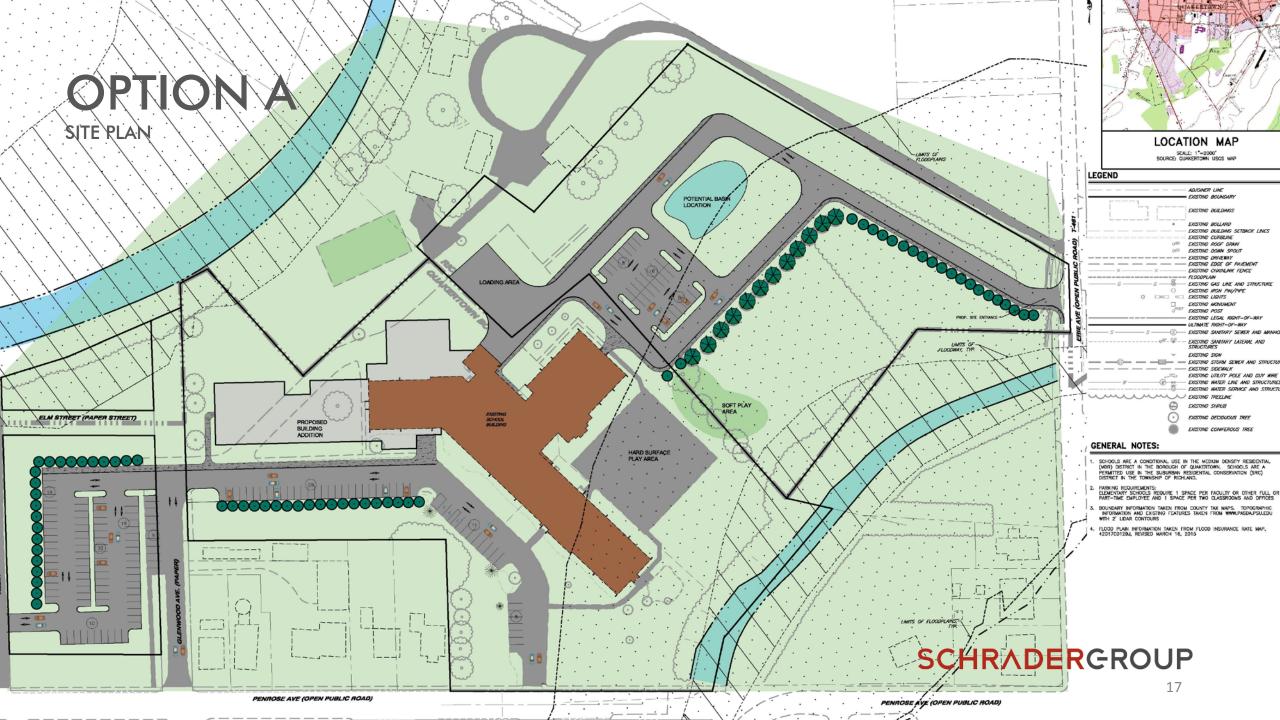
- In-depth discussion about bus and car circulation patterns on site (from two different sides)
- Interested in thinking strategically about the property line between Township and Borough
- More discussion about the process by which approval could be granted through the Borough

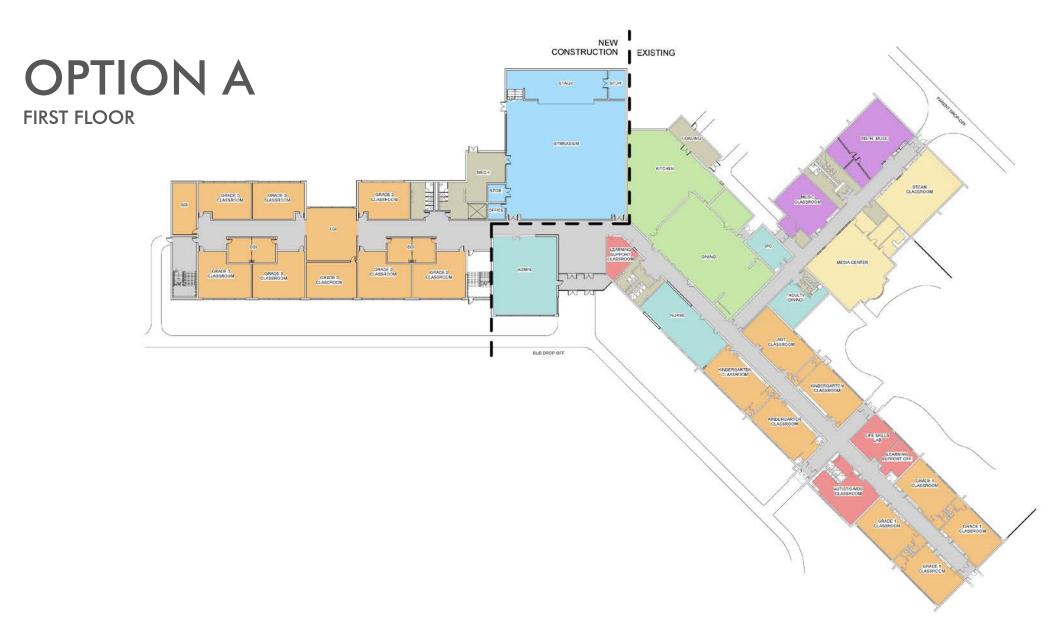


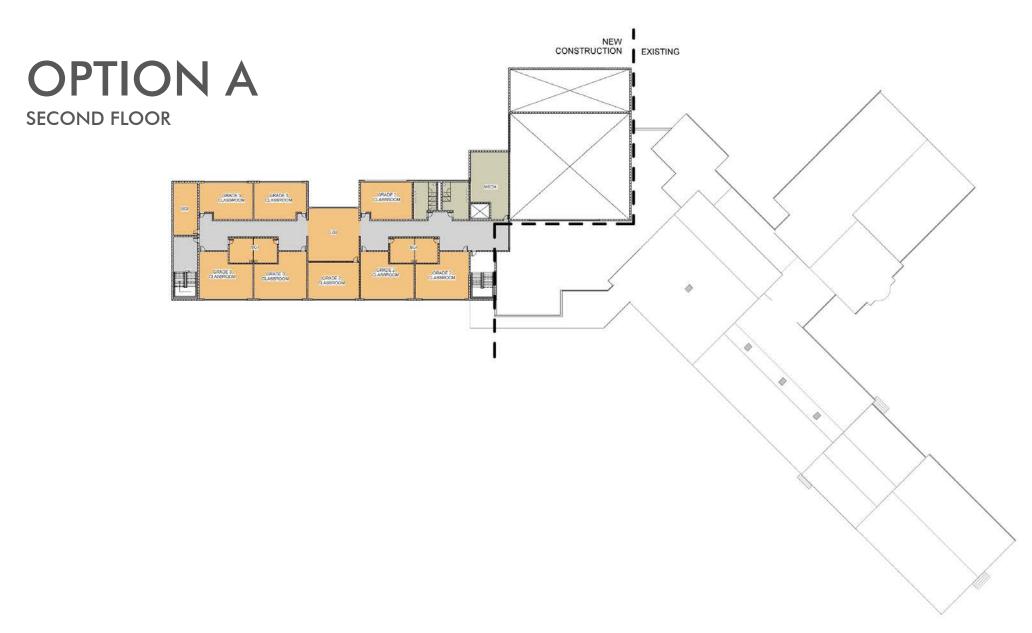
EXISTING CONDITIONS

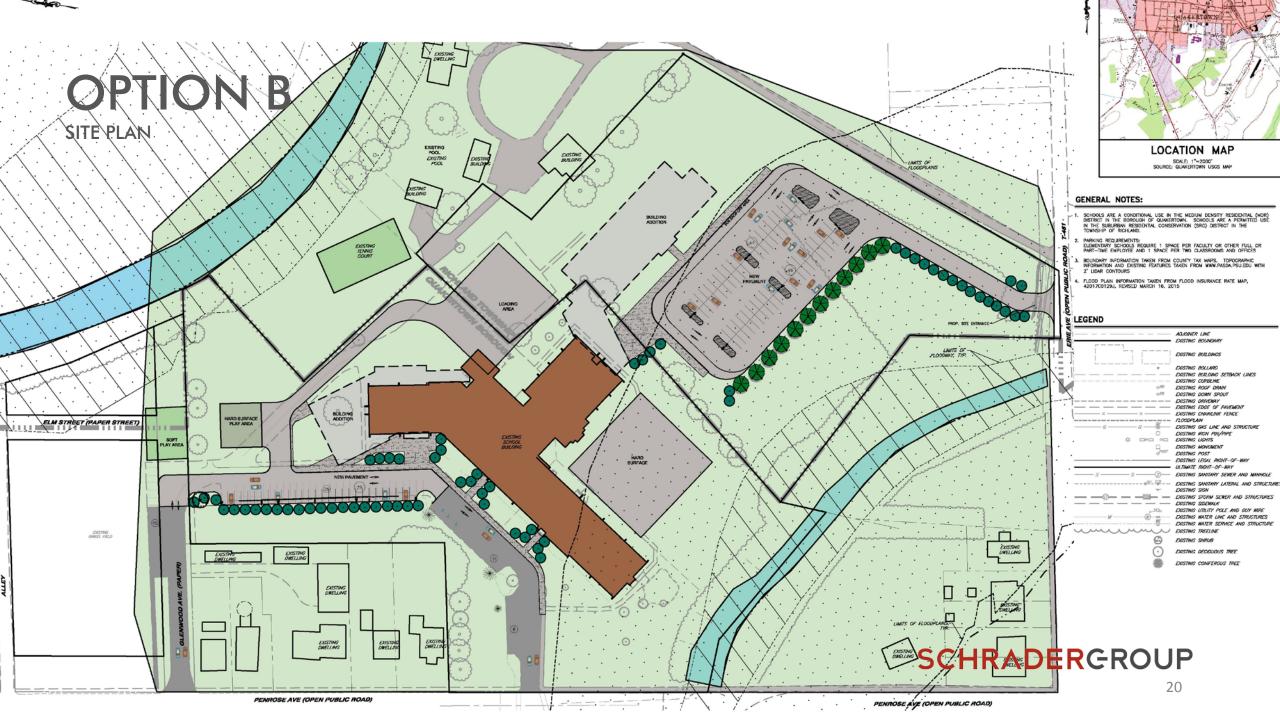
FLOOR PLAN





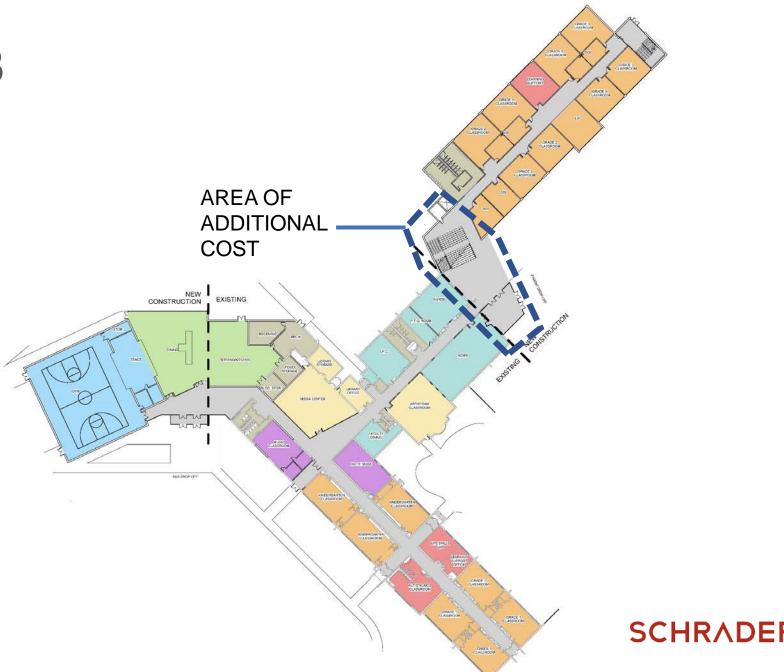






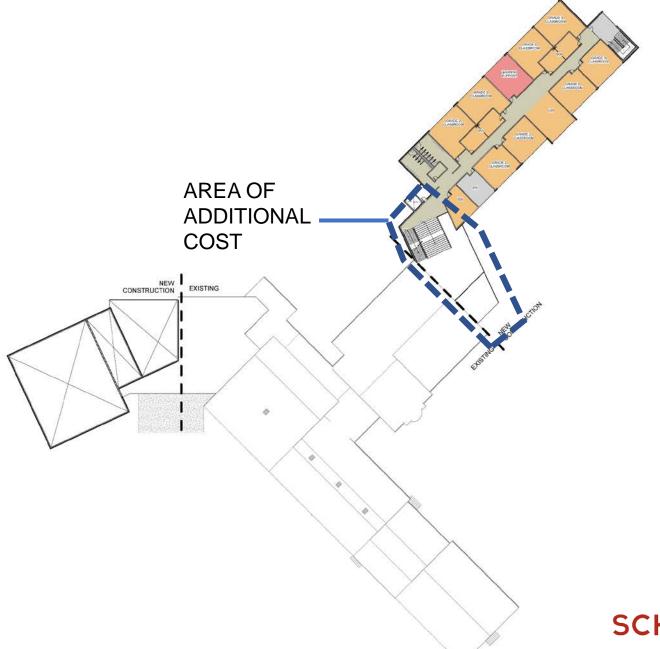
OPTION B

FIRST FLOOR



OPTION B

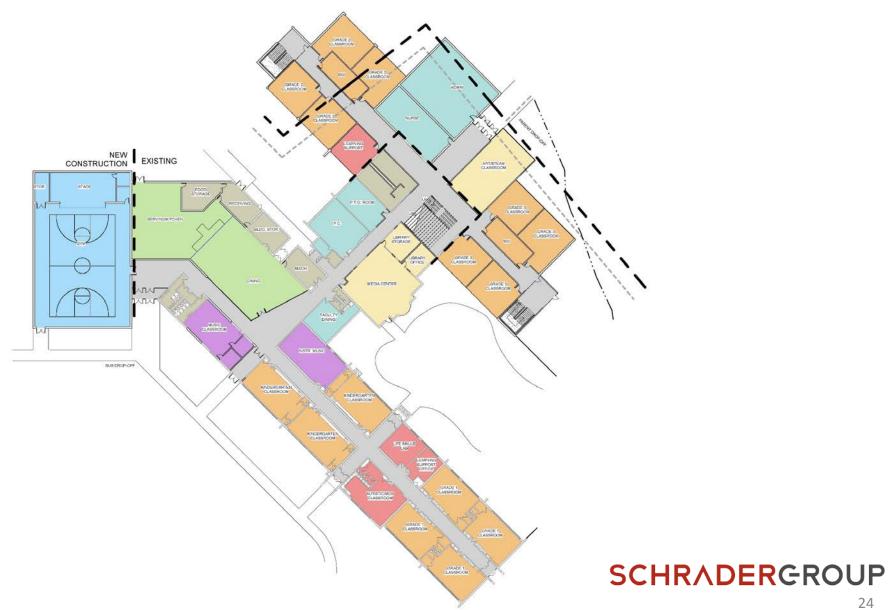
SECOND FLOOR





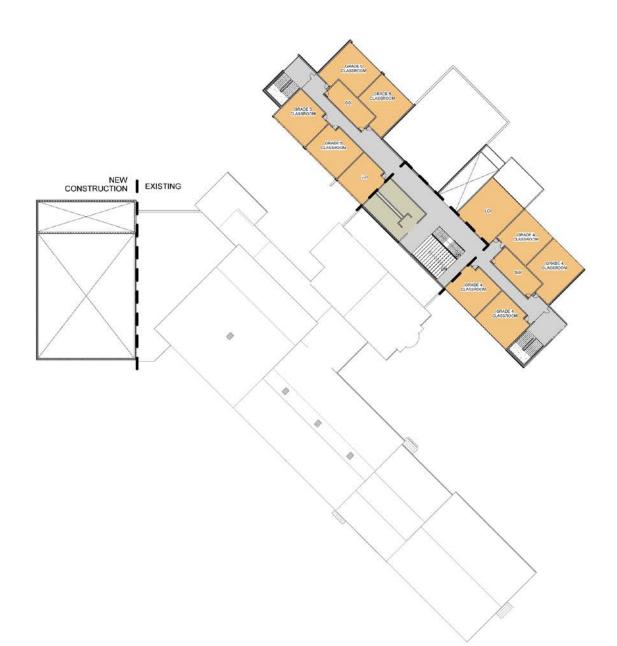
OPTION C

FIRST FLOOR



OPTION C

SECOND FLOOR



OPTION A BUDGET

OPTION A

NEIDIG ELEMENTARY

Additions and Renovations

600 Student K-5 Building

Quakertown Community School District

Bucks County, PA

04/04/2018

AREA

Renovations Demolition

New Construction

Total Building Are

43,261 s.f.

1,489

44,353 s.f.

87,614 s.f.

Additions and Renovations BUDGET COST ANALYSIS

Project Phase: Concept Analysis

CONSTRUCTION

BUII	DING CONSTRUCTION	area	cost/s.f.	9	tota	<u></u>	
	Total Construction Cost Estimate						
1	Demolition	1,489 s	f.	\$20.00	\$	29,780	
2	New Construction	44,353 s	f. \$	250.00	\$	11,088,250	
3	Renovation	43,261 s	f. \$	184.83		\$7,995,815	
	(2016 study costs escalated one year to 2	2017 reference point)					
4		Subtotal	\$	217.82	\$	19,084,065	
5	Es	calation to 2019 @ (3% annually)		4%	\$	763,363	
6		Design Contingency		5%	\$	992,371	
7	Total Building Construction		\$	237.86	s.f		\$ 20,839,799
SITE	CONSTRUCTION	area	cost/s.f.	11	tota	ĺ .	
8	Site construction	1 J.	s. \$2,000	,000.00	\$	2,000,000	
9		Subtotal		\$22.83	\$	2,000,000	
10		Escalation to 2019 @ (annually)		4%	\$	80,000	
11		Design Contingency		5%	\$	100,000	
12	Total Site Construction Cost Estimate			\$24.88			\$ 2,180,000
13		TOTAL	s	262.74			\$ 23,019,799

SCHRADERGROUP

DES	GN COSTS						
14 15 16 17 18 19 20 21 22	A/E Consultant Design Fee @ Expenses Civil Engineering/ Land Development Fees Geotechnical Investigation Land Survey Services Inspection/ Testing Services Land Development Approvals Asbestos Design Services Total Design Services	5.75% 5.75%			\$ 1,198,288 \$ 50,000 \$ 125,350 \$ 40,000 \$ 20,000 \$ 100,000 \$ 30,000 \$ 45,000	_\$	1,608,638_
MIS	CELLANEOUS COSTS						
23 24 25 26 27 28 29 30 31 32 33 34 35	County Conservation District Demolition Permit @ Building Permit @ Other Approvals FFE Technology Equipment for building Financing Costs Construction Management Legal Commissioning Insurance Move Costs (in house) Other Misc Costs	2.00% 2.00%	of cost of cost		\$ 5,000 \$ - \$ 416,796 \$ 40,000 \$ 350,000 \$ 200,000 \$ - \$ 600,000 \$ 50,000 \$ 85,000 \$ - \$ -	\$	1,746,796
PRC	JECT CONTINGENCY						
37 38	Subtotal all costs above Project Contingency			4.00%	\$ 26,375,233	\$	1,055,009
39	Current Conceptual Estimate					\$	27,430,242

OPTION B BUDGET

OPTION B

NEIDIG ELEMENTARY

Additions and Renovations

600 Student K-5 Building

Quakertown Community School District

04/04/2018

REA Renovations
Demolition
New Construction

41,000 s.f. 3,750 50,000 s.f. 91,000 s.f.

Additions and Renovations **BUDGET COST ANALYSIS**

Project Phase: Concept Analysis

CONSTRUCTION

BUII	LDING CONSTRUCTION	area	cost/s.f.	total	
	Total Construction Cost Estimate				
1	Demolition	3,750 s.	f. \$20.00	\$ 75,000	
2	New Construction	50,000 s.	f. \$250.00	\$ 12,500,000	
3	Renovation	41,000 s.	f. \$184.83	\$7,577,920	
	(2016 study costs escalated one year t	o 2017 reference point)			
4		Subtotal	\$220.64	\$ 20,077,920	
5		Escalation to 2019 @ (3% annually)	4%	\$ 803,117	
6		Design Contingency	5%	\$ 1,044,052	
7	Total Building Construction	, ,	\$240.94	s.f.	\$ 21,925,089
SITE	CONSTRUCTION	area	cost/s.f.	total	
8	Site construction	1 1.	\$2,000,000.00	\$ 2,000,000	
9		Subtotal	\$21.98	\$ 2,000,000	
10		Escalation to 2019 @ (annually)	4%		
11		Design Contingency	5%	and the second of the second o	
12	Total Site Construction Cost Estimate		\$23.96		\$ 2,180,000
13		TOTAL	\$264.89		\$ 24,105,089

SCHRADERGROUP

DESI	GN COSTS						
14 15 16	A/E Consultant Design Fee @ Expenses Civil Engineering/ Land Development Fees	5.75% 5.75%			\$ 1,260,693 \$ 50,000 \$ 125,350 \$ 40,000 \$ 20,000 \$ 100,000 \$ 30,000 \$ 45,000		
17	Geotechnical Investigation	5./5/6			\$ 40,000		
18	Land Survey Services				\$ 20,000		
19	Inspection/ Testing Services				\$ 100,000		
20	Land Development Approvals				\$ 30,000		
21 22	Asbestos Design Services Total Design Services				\$ 45,000	\$	1,671,043
	Toldi Design Services						1,071,040
MISC	CELLANEOUS COSTS						
23	County Conservation District				\$ 5,000		
24	Demolition Permit @	2.00%	of cost		\$ 5,000 \$ -		
25	Building Permit @	2.00%	of cost		\$ 438,502		
26 27	Other Approvals FFE				\$ 40,000 \$ 350,000		
28	Technology Equipment for building				\$ 200,000		
29	Financing Costs				\$ -		
30	Construction Management				\$ 600,000		
31	Legal				\$ 50,000		
32 33	Commissioning Insurance				\$ 85,000		
33 34	Move Costs (internal)				\$ -		
35	Other Misc Costs				\$ 438,502 \$ 40,000 \$ 350,000 \$ 200,000 \$ - \$ 600,000 \$ 50,000 \$ 85,000 \$ - \$ -		
36	Total Other Costs					\$	1,768,502
DDA	JECT CONTINGENCY						
37	Subtotal all costs above			4.000/	\$ 27,544,633	¢	1 101 705
38	Project Contingency			4.00%		_\$	1,101,785
20	C 15 1 15 1					•	20 / / / / / /
39	Current Conceptual Estimate					· •	28,646,418

OPTION C BUDGET

OPTION C

NEIDIG ELEMENTARY

Additions and Renovations

600 Student K-5 Building

Quakertown Community School District

Bucks County, PA

04/04/2018

REA Renovation Demolition

New Construction

Total Building Are

39,675 s.f.

3,073

46,550 s.f.

86,225 s.f.

Additions and Renovations **BUDGET COST ANALYSIS**

Project Phase: Concept Analysis

CONSTRUCTION

BUIL	DING CONSTRUCTION	area		cost/s.f.	tota	<u>[</u>	
1 2	Total Construction Cost Estimate Demolition New Construction	5,075 46,550		\$20.00 \$250.00	\$ \$	101,500 11,637,500	
3	Renovation (2016 study costs escalated one year	39,675 to 2017 reference point)	s.f.	\$184.83	1	\$7,333,024	
4	Towns and the first the fi	Subtotal		\$220.01	\$	18,970,524	
5		Escalation to 2019 @ (3% annually)		4%	\$	758,821	
6		Design Contingency		5%	\$	986,467	
7	Total Building Construction			\$240.25 s	.f		\$ 20,715,812
SITE	CONSTRUCTION	area		cost/s.f.	_tota	ľ	
8	Site construction	1	l.s.	\$2,000,000.00	\$	2,000,000	
9		Subtotal		\$23.20	\$	2,000,000	
10		Escalation to 2019 @ (annually)		4%	\$	80,000	
11		Design Contingency		5%	\$	100,000	
12	Total Site Construction Cost Estima			\$25.28		,	\$ 2,180,000
13		TOTAL		\$265.54			\$ 22,895,812

SCHRADERGROUP

DES	GN COSTS						
14 15 16 17 18 19 20 21 22	A/E Consultant Design Fee @ Expenses Civil Engineering/ Land Development Fees Geotechnical Investigation Land Survey Services Inspection/ Testing Services Land Development Approvals Asbestos Design Services Total Design Services	5.75% 5.75%			\$ 1,191,159 \$ 50,000 \$ 125,350 \$ 40,000 \$ 20,000 \$ 100,000 \$ 30,000 \$ 45,000	_\$	1,601,509
MISC	DELLANEOUS COSTS						
23 24 25 26 27 28 29 30 31 32 33 34 35	County Conservation District Demolition Permit @ Building Permit @ Other Approvals FFE Technology Equipment for building Financing Costs Construction Management Legal Commissioning Insurance Move Costs (internal) Other Misc Costs	2.00% 2.00%	of cost of cost		\$ 5,000 \$ - \$ 414,316 \$ 40,000 \$ 350,000 \$ 200,000 \$ - \$ 600,000 \$ 50,000 \$ 85,000 \$ - \$ -	\$	1,744,316_
PRO	JECT CONTINGENCY						
37 38	Subtotal all costs above Project Contingency			4.00%	\$ 26,241,638	\$	1,049,666
39	Current Conceptual Estimate					\$	27,291,303

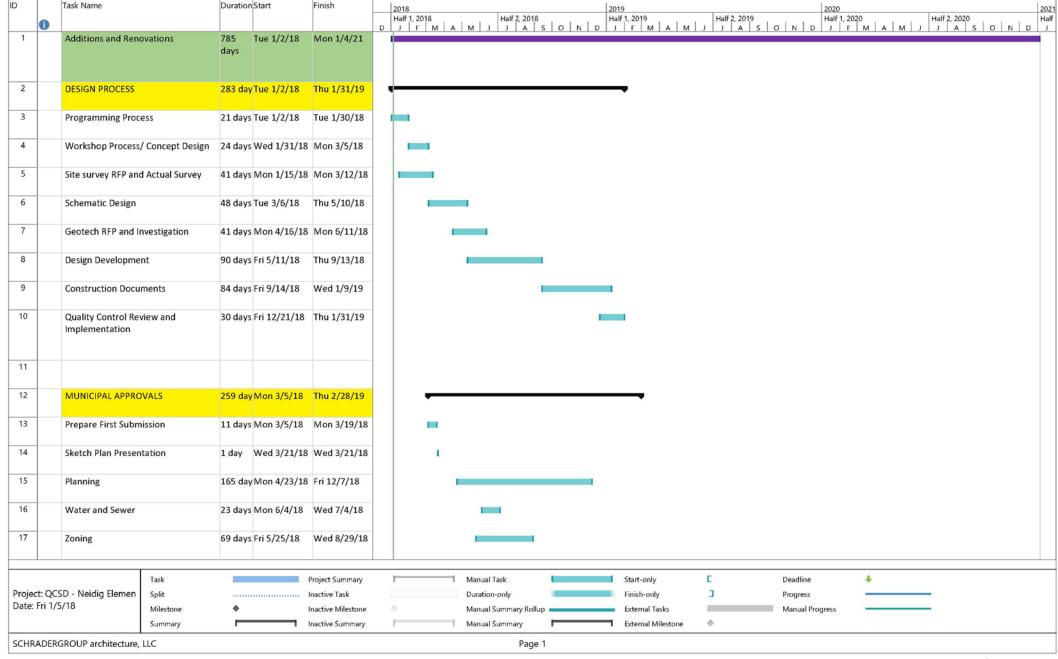
OPTION COMPARISONS

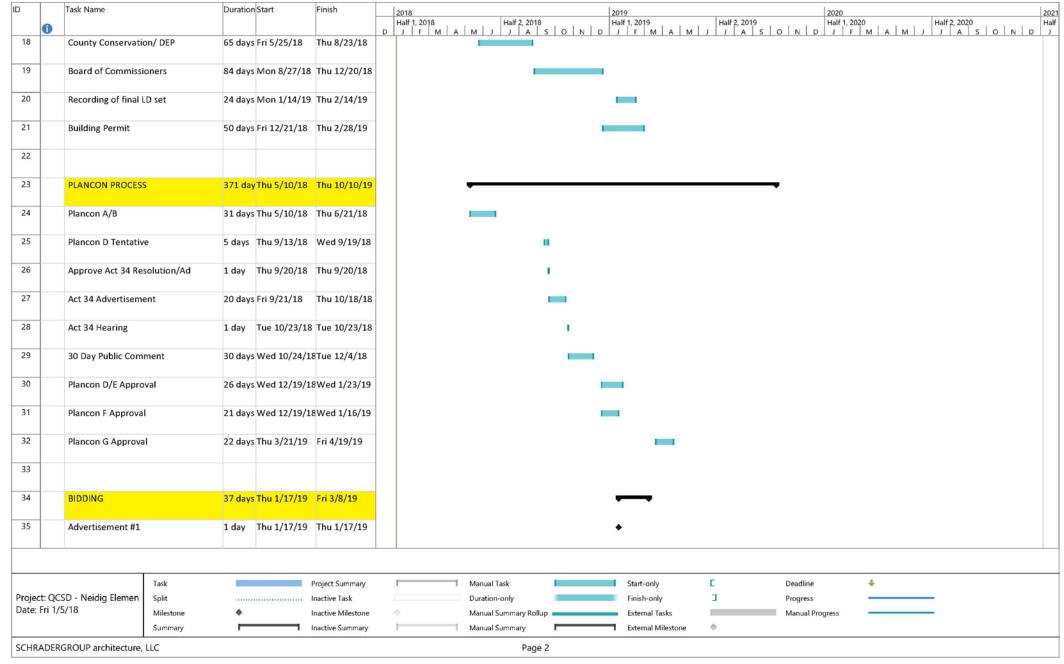
1	STAFF FEEDBACK
2	MORE URBAN "FEEL"
3	MORE SUBURBAN "FEEL"
4	GREATER VOLUME OF PARENT DROP-OFF FROM ERIE AVENUE
5	GREATER VOLUME OF PARENT DROP-OFF FROM PENROSE AVENUE
6	IMPACT ON FLOOD PLAIN
7	VARIANCE/APPROVAL RISK
8	IMPACT ON SCHEDULE
9	COST
10	PLAYGROUND SAFETY

OPTION A	OPTION B	OPTION C
Ś	Ś	Ś
YES	NO	EITHER/NO
NO	YES	EITHER/YES
NO	YES	EITHER/YES
YES	NO	EITHER/NO
LOW	MEDIUM	HIGH
LOW	MEDIUM	MEDIUM
LOW	MEDIUM	HIGH
MIDDLE	HIGH	MEDIUM
TBD	TBD	TBD

NEXT STEPS

- 1. DECIDE ON A SOLUTION TO PURSUE
- 2. DESIGN SCHEDULE PROCESS SHOWN ON THE FOLLOWING SLIDES WILL VARY DEPENDING ON DECISION TIME AND BASED ON APPROVAL PROCESS FOR SELECTED OPTION
- 3. APPROVAL PROCESS
 - a. Site/Land Development Approval Process
 - i. Township/Borough Planning
 - ii. Township/Borough Zoning
 - iii.Township/ Borough Supervisors/Commissioners
 - iv.County Conservation District
 - v. County Planning
 - b. Plancon Process
 - c. Code Review and Approval





	Task Name		Duration	Start	Finish	20	2018		20	19		2020			20
0						l H	Half 1, 2018	Half 2, 201	S O N D	alf 1, 2019	Half 2, 2019	Half 1, 20	020 M A M	Half 2, 2020	O N D .
36	Drawings available	!	1 day	Thu 1/17/19	Thu 1/17/19		<u> </u>	, m, 3, 3, A,	•	•	1717171	0 10 5 1		, , , , , , , , , , , , , , , , , , ,	J O I N I D I .
37	Advertisement #2		1 day	Thu 1/24/19	Thu 1/24/19					•					
38	Advertisement #3		1 day	Thu 1/31/19	Thu 1/31/19					•					
39	Pre-Bid Meeting		1 day	Thu 1/31/19	Thu 1/31/19					•					
40	Bid Due Date		1 day	Thu 2/21/19	Thu 2/21/19					•					
41	Bid Award		11 days	Thu 3/7/19	Thu 3/21/19					•					
42															
43	CONSTRUCTION		352 day	Fri 3/1/19	Mon 7/6/20									—	
44	Shop Drawings		46 days	Fri 3/29/19	Fri 5/31/19						i				
45	Site Mobilization		22 days	Mon 4/15/19	Tue 5/14/19					_					
46	Site prep work		22 days	Mon 6/3/19	Tue 7/2/19										
47	Site Work Phase 1		36 days	Tue 7/2/19	Tue 8/20/19										
48	Phase 1 Renovatio	ns	48 days	Sat 6/15/19	Tue 8/20/19										
49	New Construction		284 day	Sat 6/15/19	Wed 7/15/20										
50	Phase 2 Renovatio	ns	49 days	Mon 6/15/20	Thu 8/20/20										
51	Final Site Work		46 days	Mon 6/15/20	Sat 8/15/20										
52	Phase 3 Renovatio	ns	132 day	Mon 6/15/20	Tue 12/15/20										
53	Substantial Comple	etion	1 day	Tue 12/15/20	Tue 12/15/20										1
		Task			Project Summary	1		Manual Task		Start-only	С	Deadline	+		
Project: C Date: Fri	QCSD - Neidig Elemen	Split			Inactive Task			Duration-only		Finish-only	3	Progress			
vale. FII	1/5/10	Milestone	*		Inactive Milestone	0		Manual Summary Rol	up	External Tasks	÷	Manual Progress			
		Summary		1	Inactive Summary	.0		Manual Summary		External Milestone					

ID		Task Name	Duration	Start	Finish		2018 2019	2020	202
	0					D	Half 1, 2018	Half 2, 2019 Half 1, 2020 Half 2, 2020 J A S O N D J F M A M J J A S O N D	Hal
54		New Furniture and Technology -	357	Tue 8/20/19	Wed				
		Phased - Each Move-in	days		12/30/20				
55		Final Completion	1 day	Wed 12/30/20	Wed 12/30/20				1
56		Building Opens	1 day	Mon 1/4/21	Mon 1/4/21				1

Note: If a decision about the option to pursue is longer than shown in this schedule, the project schedule will extend. Also, each option has the potential for different approval lengths which can also alter the completion date.

	Task		Project Summary		Manual Task		Start-only	Е	Deadline	+
Project: QCSD - Neidig Elemen	Split		Inactive Task		Duration-only		Finish-only	3	Progress	
Date: Fri 1/5/18	Milestone	•	Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone	*		
SCHRADERGROUP architecture, LLC Page 4										