



**Aquatics Feasibility Study
Borough of Chambersburg, PA
January 25, 2016**

Agenda



- § Project Goals
- § Feasibility Process
- § Audit Findings
- § Options for Consideration
- § Summary

Project Goals



- § Inventory existing aquatic facility and programs
- § Analyze current and projected demand for aquatic services in the area
- § Evaluation the Existing Community Pool and recommend improvements or additions
- § If a new facility is warranted, explore options and costs for location, construction and operations



Types of Obsolescence

- Physical Obsolescence
 - Aging Facility
 - Codes and Standards
- Functional Obsolescence
 - Definition of Aquatics
 - User Expectations

Aquatic Systems Audit



- Pool structure and finishes
- Recirculating system, piping, fittings, and valves
- Filtration system, mechanical and overflow recovery system
- Water chemistry treatment system
- Pump, flow meters, gauges, and controls, etc.
- Deck equipment



Feasibility Process



§ Needs Assessment

- § Common Vocabulary, Vision
- § Evaluate Existing Area Providers
- § Research Area Demographics
- § Identify Potential User Groups

§ Program Requirements

- § Develop Options for Programming
- § Develop Project Cost Estimates
- § Site Requirements

§ Financial Performance

- § Estimate Revenue Potential
- § Estimate Operating Expenses
- § Determine Cashflow



Audit Findings



- Skimmers
- Diving
- Pool Mechanical System
- Water Slide
- Tot Pool

Main Pool



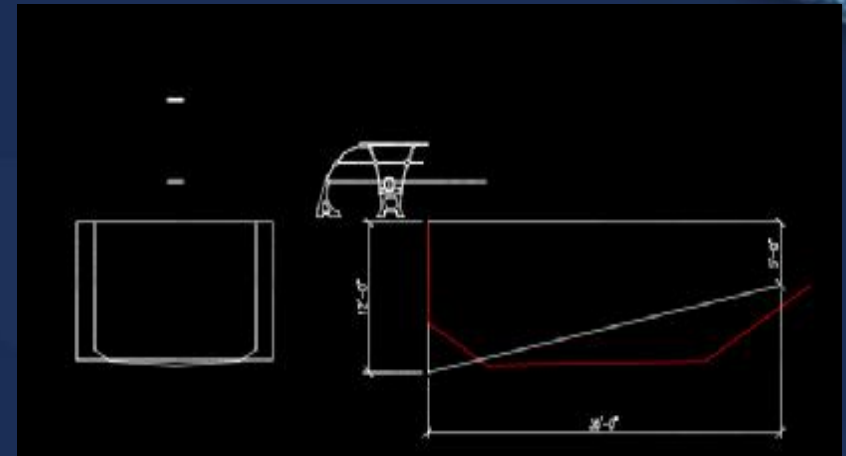
- § Skimmer replacement necessary
- § Underwater lights need constant attention



Main Pool



- § Diving board not compliant with current industry standards
- § Removal of diving board is recommended



Main Pool



- § Mechanical system can no longer keep up with required 8-hour turnover rate
- § Filters are at the end of their useful life
- § Complete mechanical renovation necessary



Main Pool



- § Slide pump shows significant signs of corrosion
- § Slide stairs starting to show signs of corrosion
- § Slide tower and slide are at the end of their useful life



Tot Pool



- § Pool is good condition after 2010 renovation
- § Mechanical room needs equipment upgrade to include right-sized pump and UV system



Options For Consideration



- Repair Pool – Update pool systems to address physical obsolescence
- Renovate Pool – Provide pool repairs, and renovate pool to enhance usage and address functional obsolescence
- Replace Pool – Replace pool and systems with a modern Family Aquatic Center

Repair



Repair



Repair Existing Pools		
Unit	Sq. Ft.	Opinion of Cost
BUILDING / SUPPORT -- REPAIR		\$832,720
Repair bathhouse	7,109	
Provide mechanical building	1,200	
Replace overhead lighting	40,000	
ALL POOLS -- REPAIR		\$1,018,190
Replace skimmer system with deck level gutters	790	
Replace Main Drain Covers	7	
Install ADA Accessible Entrance to Main Pool	1	
Install ADA Accessible Entrance to Tot Pool	1	
Replace Main Pool Mechanical/Filtration Equipment	1	
Replace Tot Pool Pump/Motor	1	
Install UV System on Tot Pool	1	
Replace Water Slide/Tower	1	
Repair Construction Costs		1,850,910
Site Construction Costs		\$200,000
Subtotal		\$2,050,910
Inflation (1 year)	5%	\$102,546
Contingency	20%	\$430,691
Indirect Costs	12%	\$310,098
Opinion of Project Costs		\$2,894,244

Repair



Entry Fee: \$2-\$5
Total Revenue: \$152,000
Total Expenses: \$244,000
Estimated Profit (Loss): (\$92,000)

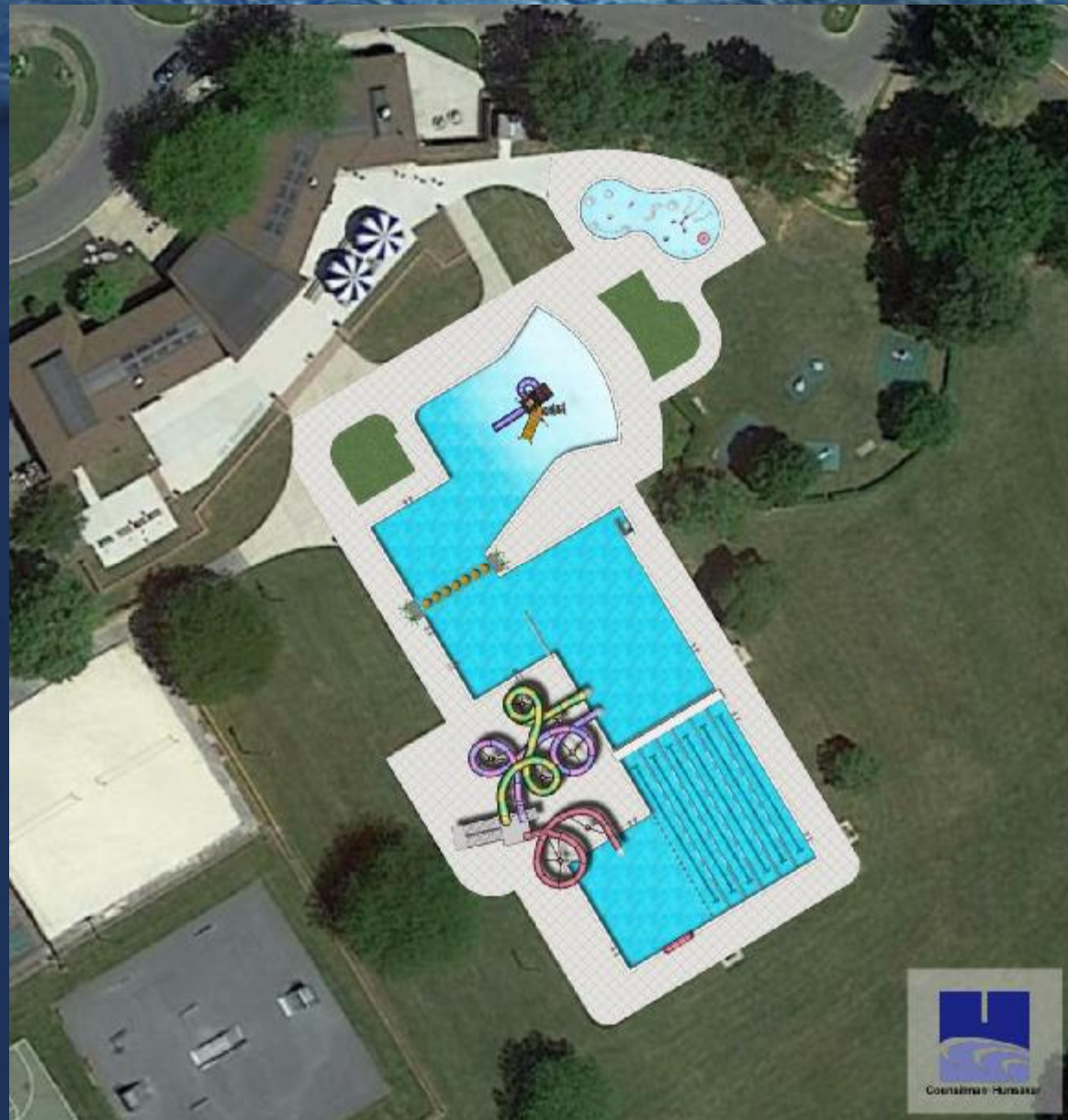
Pros

- New Mechanical System
- Repair leaks (underwater lights)
- ADA Compliant
- Code Compliant (no grandfathering)
- Improved filtration and sanitation
- Least capital cost
- Improved efficiency over current pool

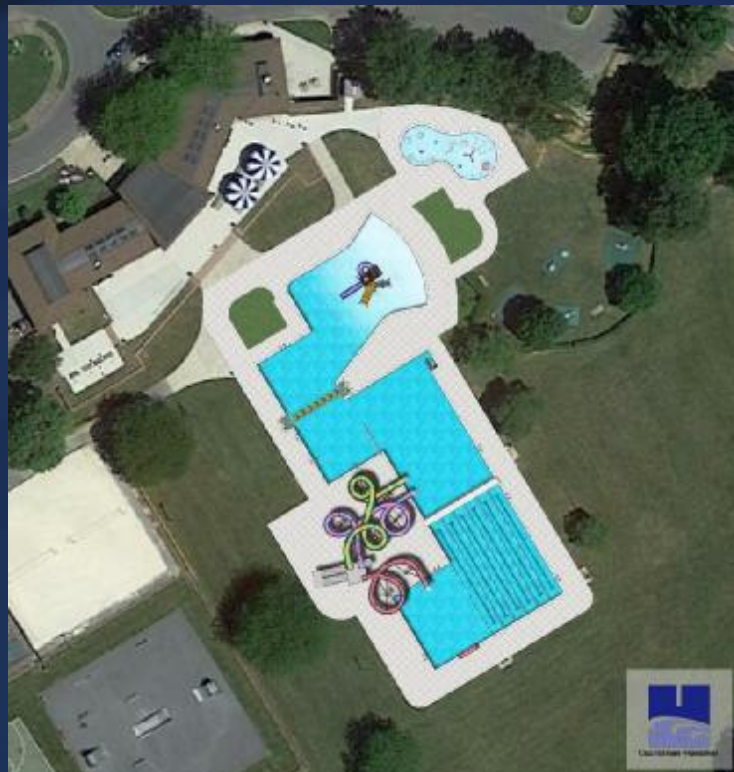
Cons

- Eliminates diving
- 46 year old pool shell
- Does not address functional obsolescence
- Unused capacity (too large)
- Highest subsidy

Renovate



Renovate



OPINION OF PROBABLE COST: Renovate			
Description	Unit	Amount	Opinion of Cost
BUILDING / SUPPORT		7,100	\$854,900
Renovate bathhouse	Sq. Ft.	7,109	
Provide mechanical building	Sq. Ft.	1,200	
REPAIR POOL		21,000	\$613,190
Replace skimmer system with deck level gutters	Ln. Ft.	790	
Replace Main Drain Covers	Quantity	7	
Replace Main Pool Mechanical/Filtration Equipment	Allowance	1	
RENOVATIONS		9,677	\$2,039,212
Add zero depth entry	Sq. Ft.	5,618	
Play Feature w/ bucket	Quantity	1	
Tot features	Allowance	1	
Crossing Activity	Quantity	1	
Waterslide w/Tower	Quantity	1	
2nd flume	Quantity	1	
Drop slide	Quantity	1	
Modify Pool Floor	Sq. Ft.	3,500	
Add Climbing wall	Quantity	1	
Add Sprayground	Sq. Ft.	559	
Mechanical	Add Cost	1	
Spraypad Equipment	Allowance	1	
UV Sanitation	Add Cost	1	
Outdoor Support		47,454	\$496,500
Outdoor Deck	Sq. Ft.	19,354	
Fence	Linear Ft.	871	
Overhead Lighting	Sq. Ft.	47,454	
Shade Structures	Quantity	7	
Unit		Sq. Ft.	Opinion of Cost
Site Construction Costs (parking lot, landscaping, utilities, walks)			\$927,418
Total Construction Costs		Sq. Ft. 54,554	4,931,219
Furniture, Fixtures, Equipment			\$45,000
Subtotal			\$4,976,219
Inflation		5.0%	\$248,811
Contingency		10.0%	\$497,622
Indirect Costs		10.0%	\$522,503
Total Estimated Project Costs:			\$6,245,155
Say			\$6,300,000

Renovate



Entry Fee: \$5-\$10
Total Revenue: \$312,000
Total Expenses: \$310,000
Estimated Profit (Loss): \$2,000

Pros

- New Mechanical System
- Repair leaks (underwater lights)
- ADA Compliant
- Code Compliant (no grandfathering)
- Improved filtration and sanitation
- Improved efficiency over current pool
- Enhance recreational offerings
- Break-even operations

Cons

- Only a 15 year solution
- Eliminates diving
- 46 year old pool shell
- Unused capacity (too large)
- \$6.3 million investment that is not a 50 year solution

Replace



Replace



OPINION OF PROBABLE COST: Replace			
Description	Unit	Amount	Opinion of Cost
Renovate Bathhouse		7,100	\$887,500
Aquatics		11,559	\$3,441,012
Leisure Pool	Sq. Ft.	11,000	
Play Feature w/ bucket	Quantity	1	
Waterslide w/ Tower	Quantity	1	
Current Channel	Add Cost	1	
Tot Pool	Sq. Ft.	559	
Mechanical	Add Cost	1	
Play Equipment	Allowance	1	
UV Sanitation	Add Cost	1	
New Pool Mechanical	Sq. Ft.	1,500	
Outdoor Support		34,677	
Outdoor Deck	Sq. Ft.	23,118	
Fence	Linear Ft.	745	
Overhead Lighting	Sq. Ft.	34,677	
Shade Structures	Quantity	7	
Unit		Sq. Ft.	Opinion of Cost
Site Construction Costs (parking lot, landscaping, utilities, walks)			\$649,155
Total Construction Costs	Sq. Ft.	43,277	5,440,636
Furniture, Fixtures, Equipment			\$45,000
Subtotal			\$5,485,636
Inflation		5.0%	\$274,282
Contingency		10.0%	\$548,564
Indirect Costs		10.0%	\$575,992
Total Estimated Project Costs:			\$6,884,473
Say			\$6,900,000

Replace



Entry Fee: \$5-\$10
Total Revenue: \$369,000
Total Expenses: \$292,000
Estimated Profit (Loss): \$77,000

Pros

- Complete new facility (50 year solution)
- Designed for efficiency
- Meets community and market needs
- Increased draw of outside visitors
- More features with less water
- Enhanced program offerings (current channel)

Cons

- Most expensive capital cost
- Increased features will increase maintenance and utilities
- More expensive admission pricing

Summary



	2016	2017	2018	2019	2020
Repair					
Project Cost	\$2,894,244				
Attendance	25,132				
Revenue	\$152,454	\$157,109	\$165,164	\$170,160	\$179,463
Expense	\$243,585	\$249,157	\$257,009	\$262,864	\$271,225
Operating Cashflow	(\$91,131)	(\$92,048)	(\$91,845)	(\$92,704)	(\$91,762)
Recapture Rate	63%	63%	64%	65%	66%
Capital Replacement Fund	\$14,500	\$14,500	\$14,500	\$14,500	\$14,500
Renovate					
Project Cost	\$6,250,000				
Attendance	35,625				
Revenue	\$312,026	\$329,430	\$349,840	\$364,160	\$383,819
Expense	\$307,823	\$318,554	\$331,140	\$340,209	\$351,911
Operating Cashflow	\$4,203	\$10,876	\$18,700	\$23,951	\$31,908
Recapture Rate	101%	103%	106%	107%	109%
Capital Replacement Fund	\$31,300	\$31,300	\$31,300	\$31,300	\$31,300
Replace					
Project Cost	\$6,890,000				
Attendance	38,859				
Revenue	\$368,897	\$390,611	\$417,811	\$435,235	\$460,575
Expense	\$292,080	\$302,652	\$315,288	\$324,060	\$335,681
Operating Cashflow	\$76,817	\$87,959	\$102,523	\$111,175	\$124,894
Recapture Rate	126%	129%	133%	134%	137%
Capital Replacement Fund	\$34,500	\$34,500	\$34,500	\$34,500	\$34,500

Summary



- Option 1 – Repair
 - Least expensive capital cost
 - Highest Subsidy
 - New 1960s pool



- Option 2 – Renovate
 - Addresses physical and functional obsolescence
 - Spending money on old structure
 - Only 15 year solution

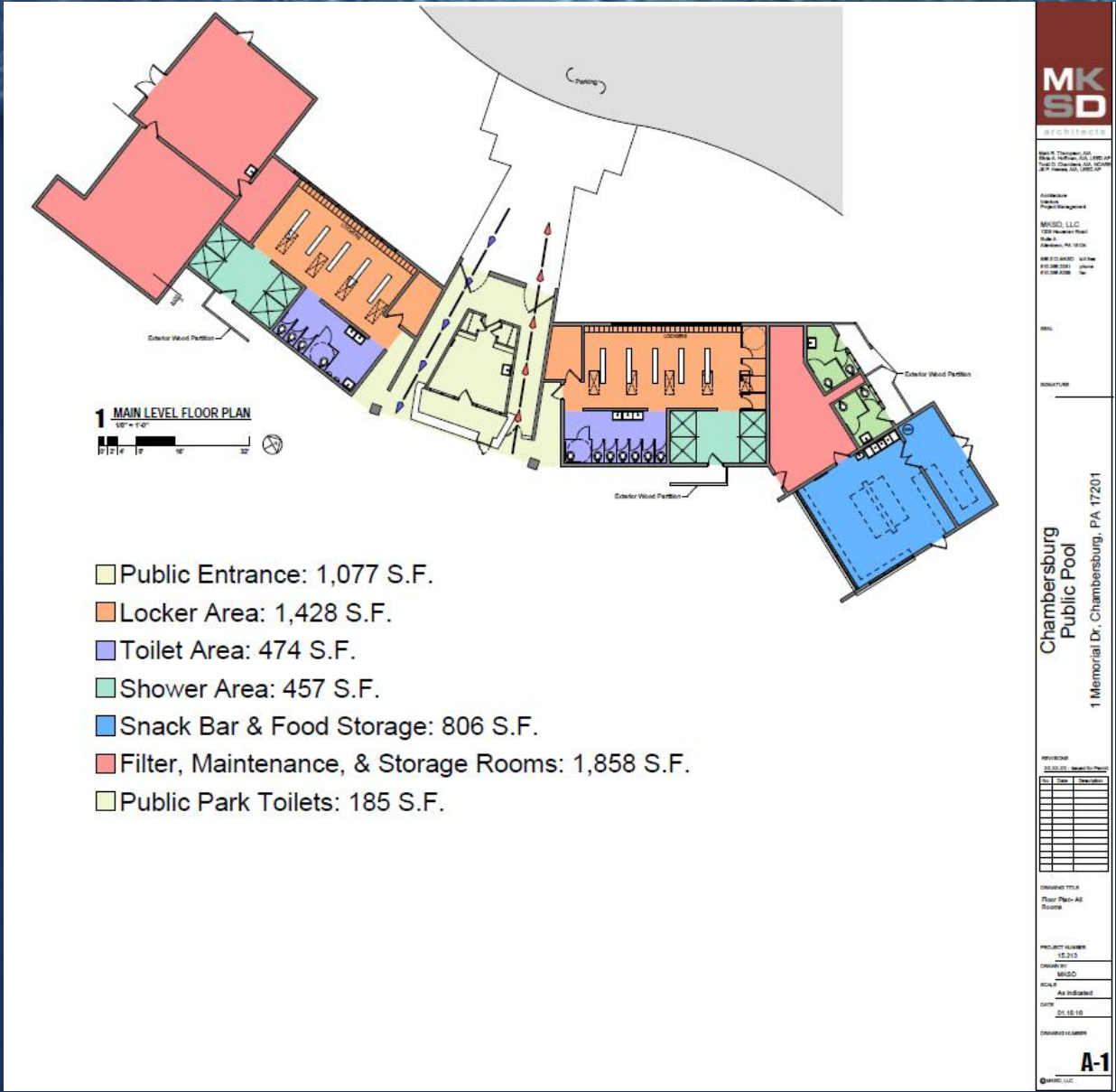


- Option 3 – Replace
 - Most expensive
 - 50 years solution
 - Self-sustaining

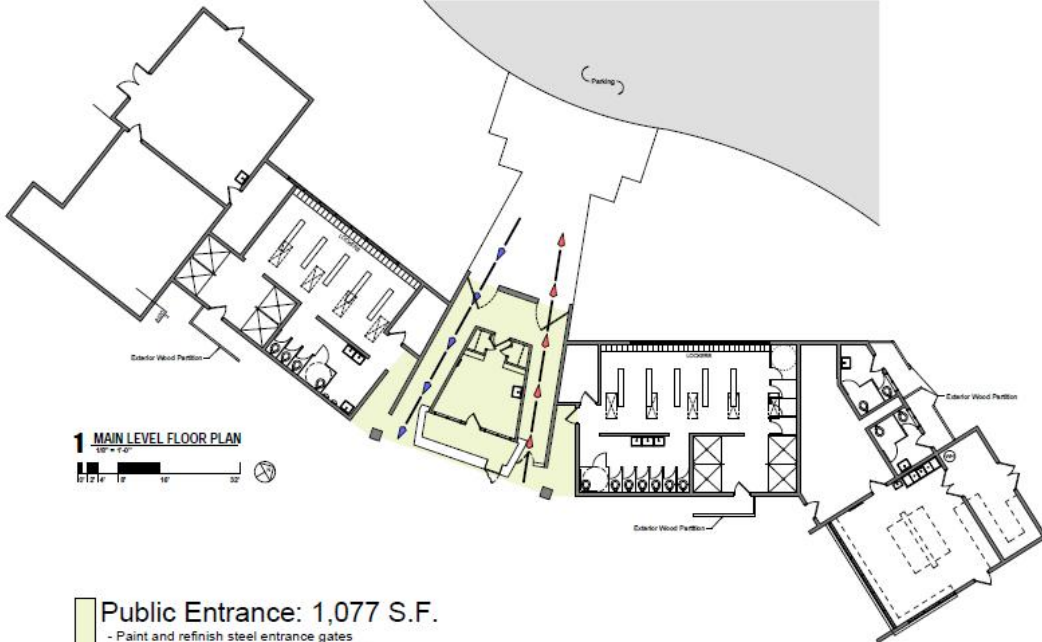


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Bathhouse



Public Entrance



1 MAIN LEVEL FLOOR PLAN
1/8" = 1'-0"

- Public Entrance: 1,077 S.F.**
- Paint and refinish steel entrance gates
 - Replace front desk counter and casework
 - Replace existing window system
 - Replace existing low gates
 - Install new floor pattern at public walkways
 - Upgrade existing lights

MKSD
ARCHITECTS

2424 N. Thompson Ave.
Suite 200, Chambersburg, PA 17201
P: 717.326.3333
F: 717.326.3334

Address:
Chambersburg
Public Pool
1 Memorial Dr.
Chambersburg, PA 17201

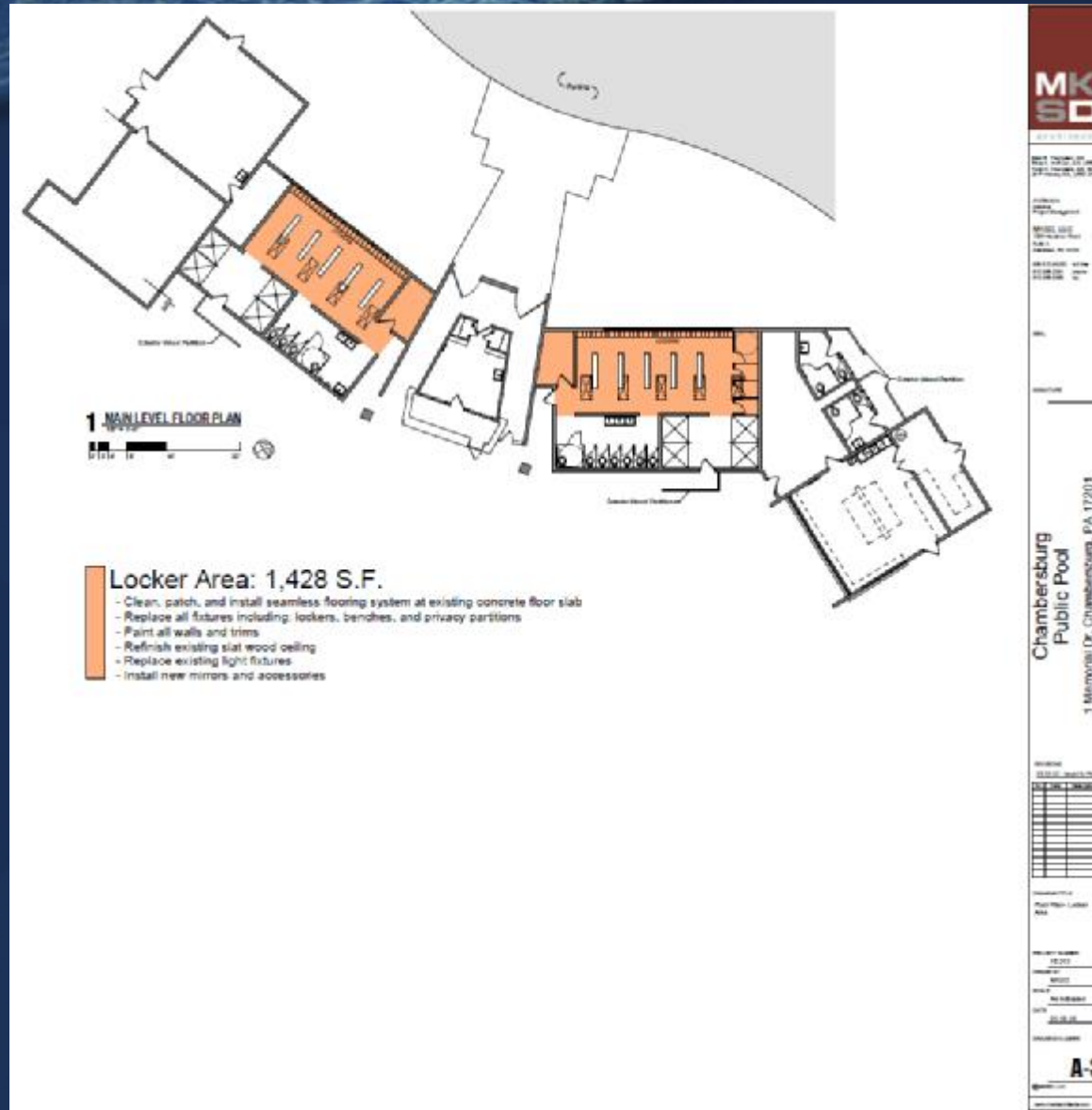
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Chambersburg Public Pool
1 Memorial Dr., Chambersburg, PA 17201

PROJECT NUMBER:
17-013

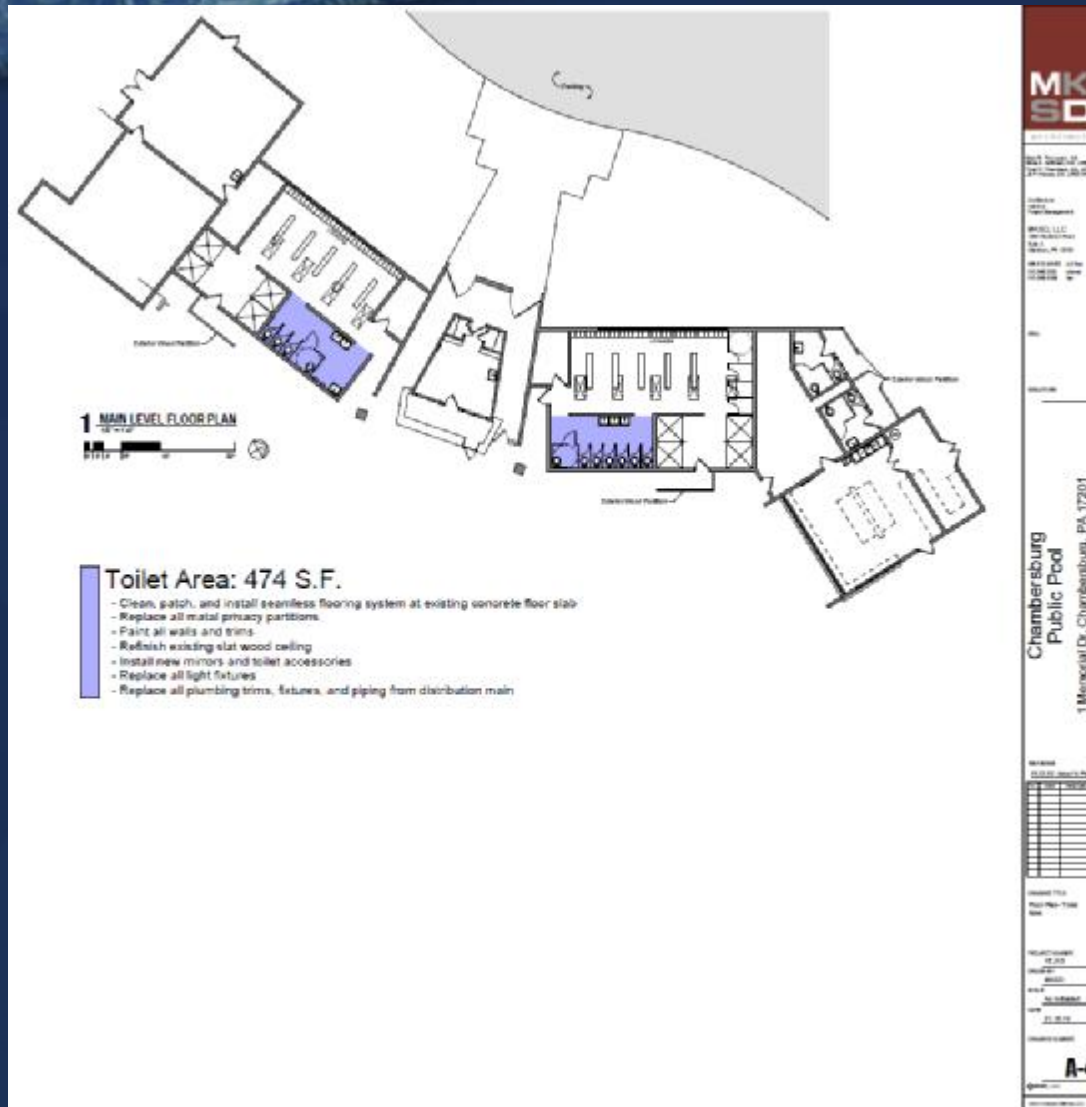
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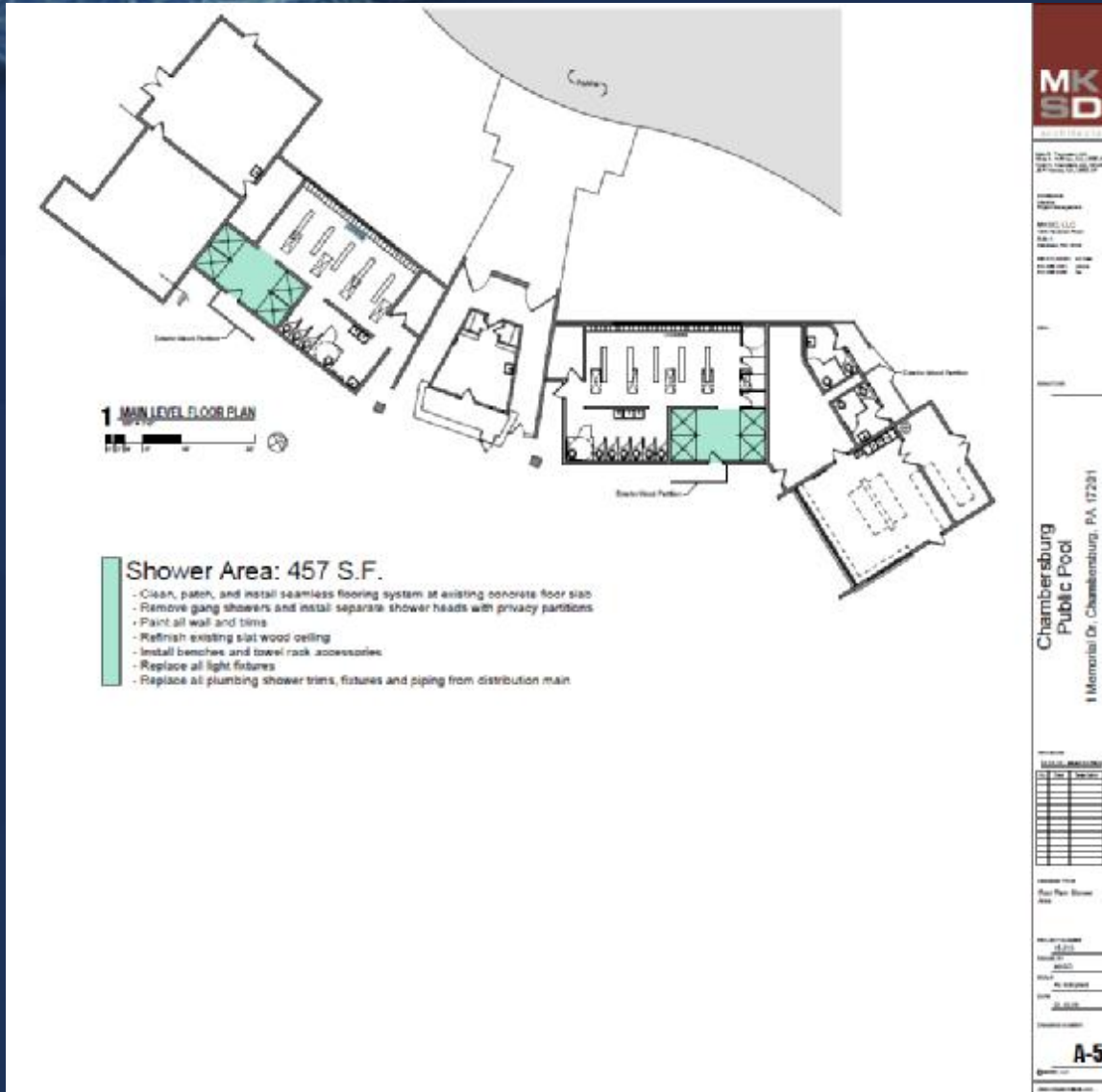
Locker Area



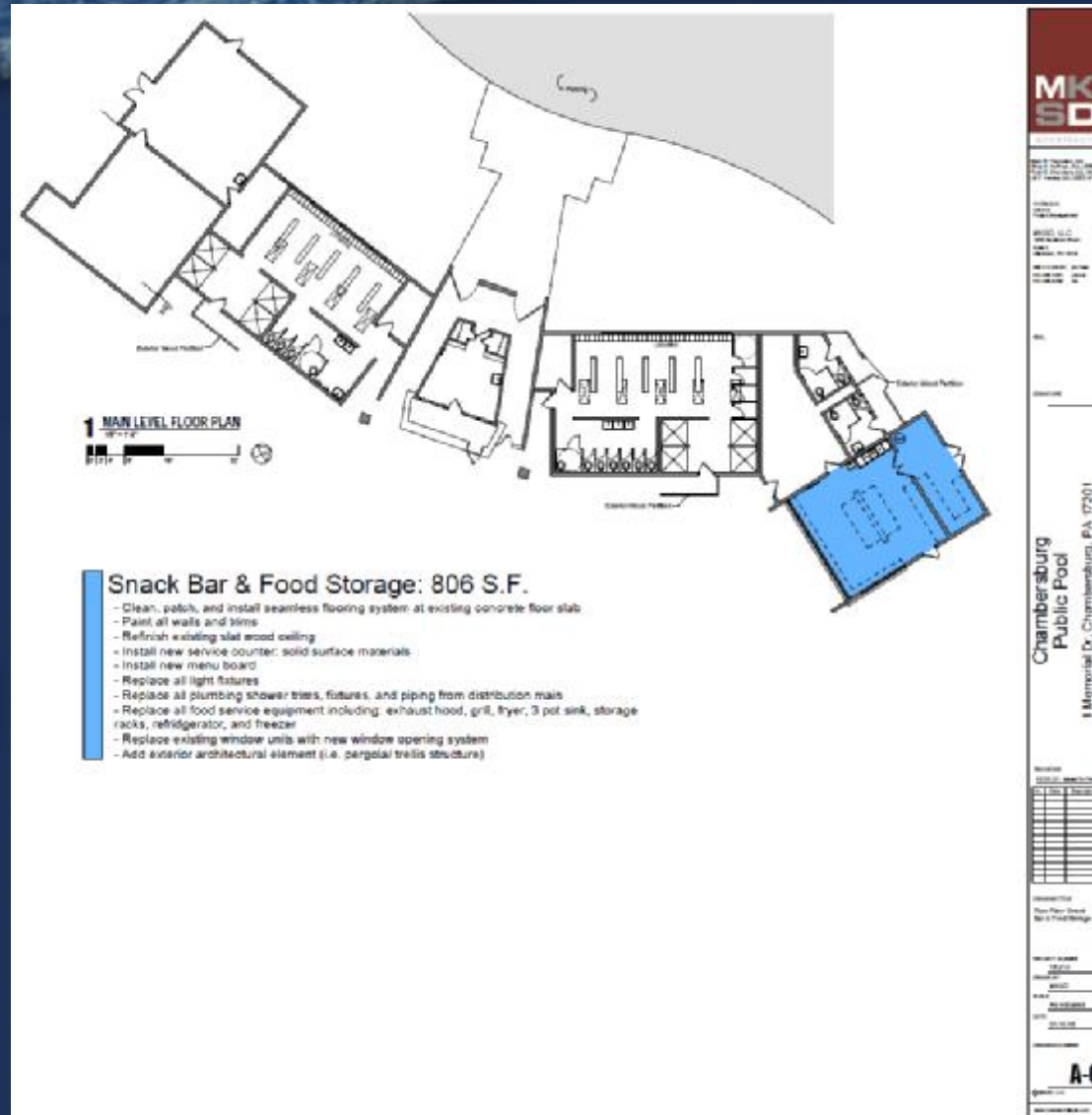
Toilet Area



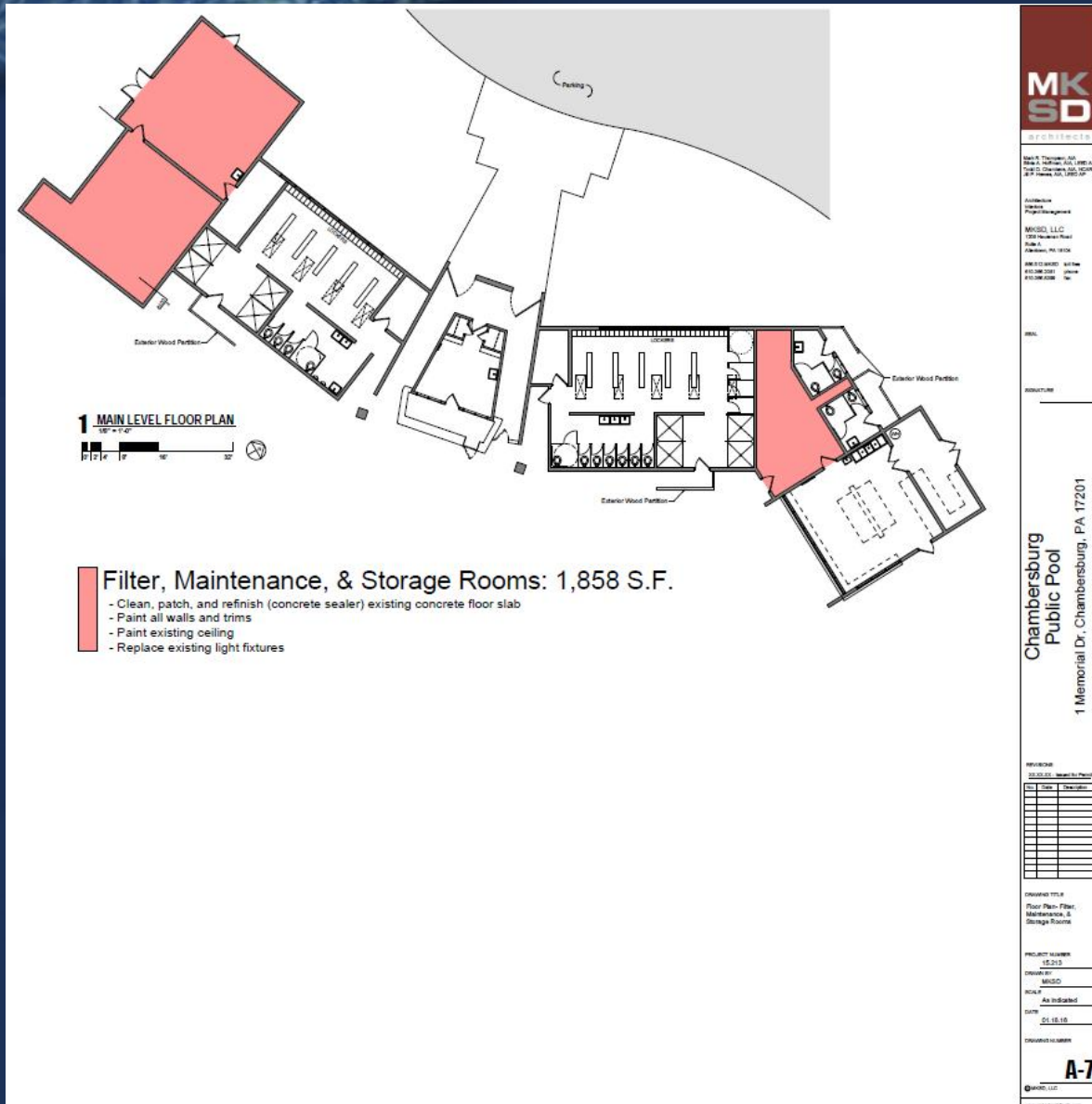
Shower Area



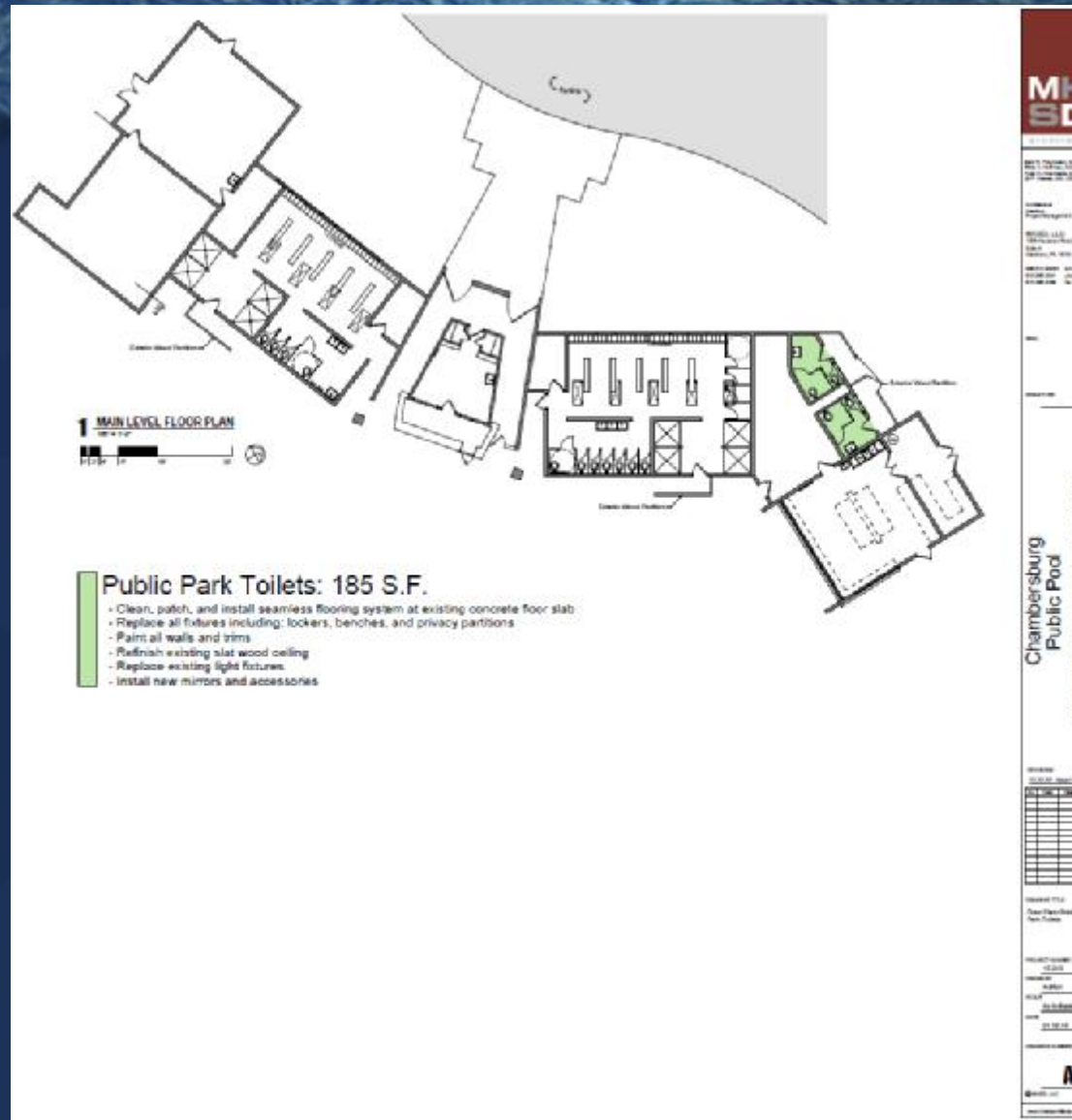
Snack Bar and Food Storage



Filter, Maintenance, and Storage



Public Park Toilets

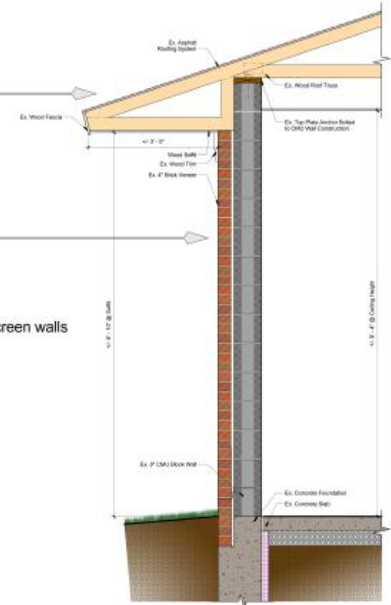


Roof and Building



- Roof System**
- Existing asphalt shingles to remain
 - Repair existing gutter and downspouts

- Exterior of Building**
- Clean exterior masonry
 - Replace doors, frames, and hardware
 - Replace sealants
 - Refinish existing wood facade
 - Replace existing wood screen walls with new wood screen walls



1 Existing Wall Detail
1" = 1'-0"



MKSD
ARCHITECTS

Mark R. Thompson, AIA
David R. Williams, AIA, LEED AP
Trent L. Conroy, AIA, LEED AP
Jill P. Moore, AIA, LEED AP

Architecture
Interior
Project Management

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Shrewsbury, PA 17086

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717.684.2041 Office
717.684.6588 Fax

SEAL

SIGNATURE

Chambersburg
Public Pool
1 Memorial Dr., Chambersburg, PA 17201

REVISIONS

EX-13.03 - Issued for Permit

No.	Date	Description

DRAWING TITLE
Wall Section Detail

PROJECT NUMBER
18-213

DRAWN BY
MKSD

SCALE
As Indicated

DATE
01.18.18

DRAWING NUMBER
A-9

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