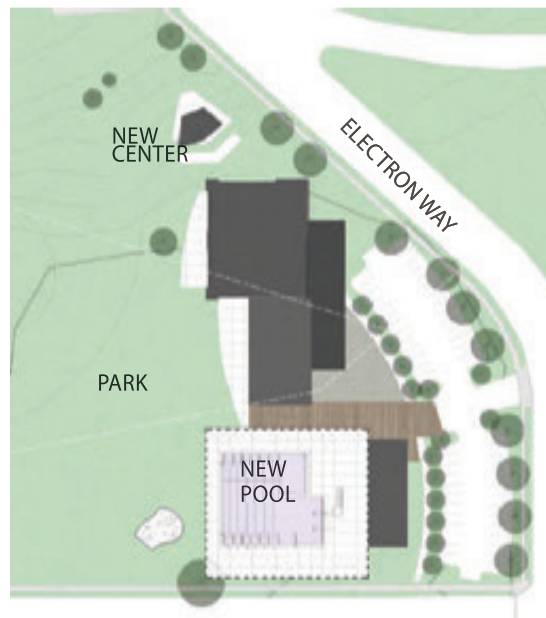


CITY OF FIRCREST  
**FIRCREST COMMUNITY CENTER**  
ADDITION CONCEPT  
MARCH 17 2016



CITY OF FIRCREST  
**FIRCREST COMMUNITY CENTER**  
RENOVATION CONCEPT  
MARCH 17 2016



## GOALS OF STUDY

- Feasibility Study – Strategies and Guidance for Future Design
- Three Options – Renovation, Addition, New
- Improved Functioning and Use
- Costs
- Analysis and Design
  - Soils
  - Architecture
  - Structural
  - Mechanical
  - Electrical
  - Aquatics
  - Landscape
  - Civil
  - Estimating

## PRESENTATION

- Aquatics – Spray Park and Overview of Existing Pool
- Three Options – Renovation, Addition, New
- Cost Overview of Three Options
- Strategies and Discussion

## ROY H. MURPHY COMMUNITY CENTER AND POOL

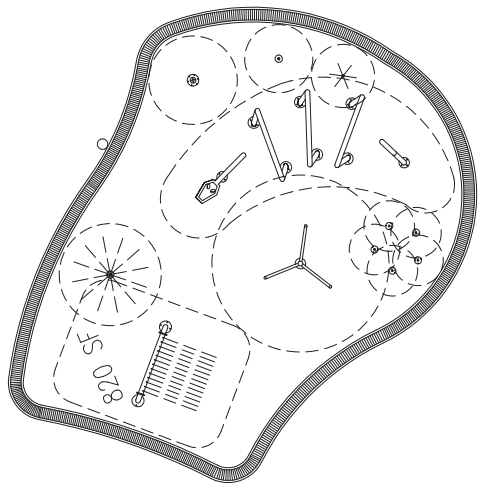
# OVERVIEW

May 2016

## EXISTING POOL

- Sloped deck– remove and replace
- Uneven skimmers – sawcut and replace at water level
- Losing water
- Old pool mechanical– may be able to re-use boiler
- Hydrostatic conditions will still exist – new deck and skimmers could be out of alignment again
- Cost for updates approximately 75% of new; could be more depending on structural capability of tank

## SPLASH PAD



ROY H. MURPHY COMMUNITY CENTER AND POOL

# EXISTING POOL & SPLASH PAD

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RENOVATION CONCEPT  
MAY 10, 2016



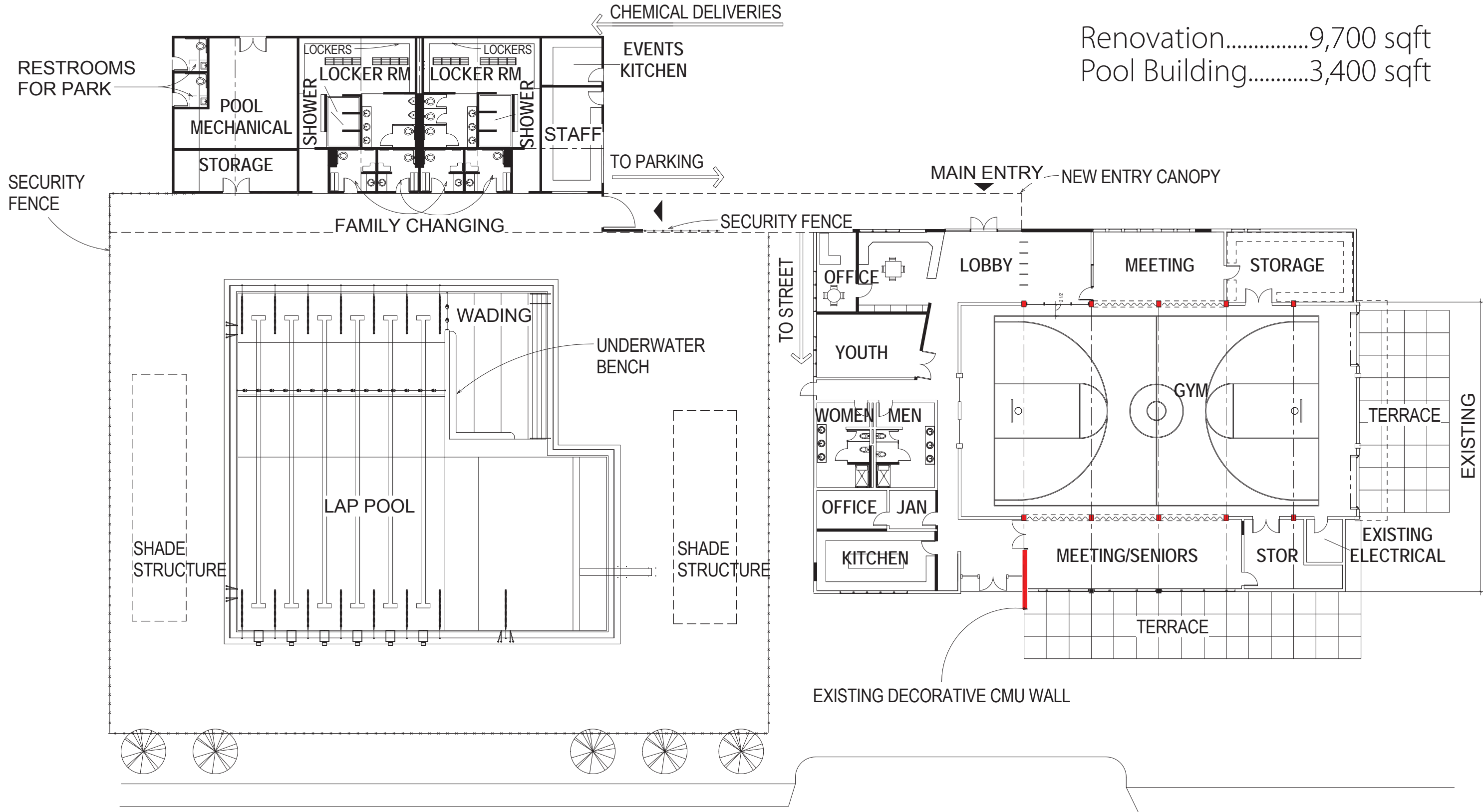
**ROY H. MURPHY COMMUNITY CENTER AND POOL**  
**RENOVATION - LANDSCAPE**

**STRATEGY 1**

May 2016



Renovation.....9,700 sqft  
 Pool Building.....3,400 sqft



**ROY H. MURPHY COMMUNITY CENTER AND POOL**  
**RENOVATION: ARCHITECTURAL**

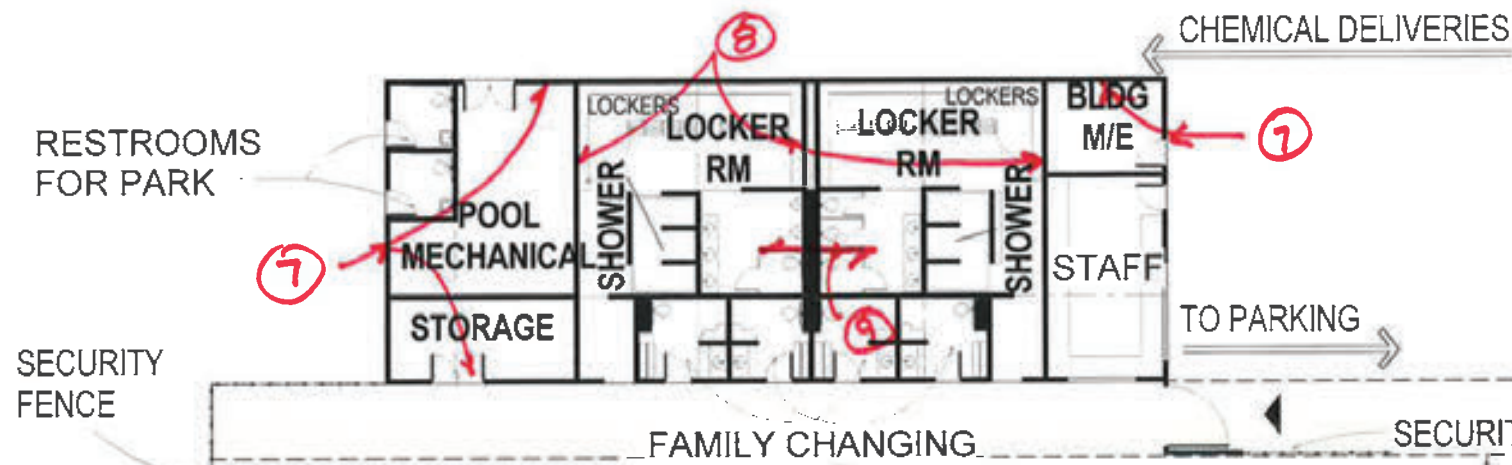
**STRATEGY 1**



May 2016





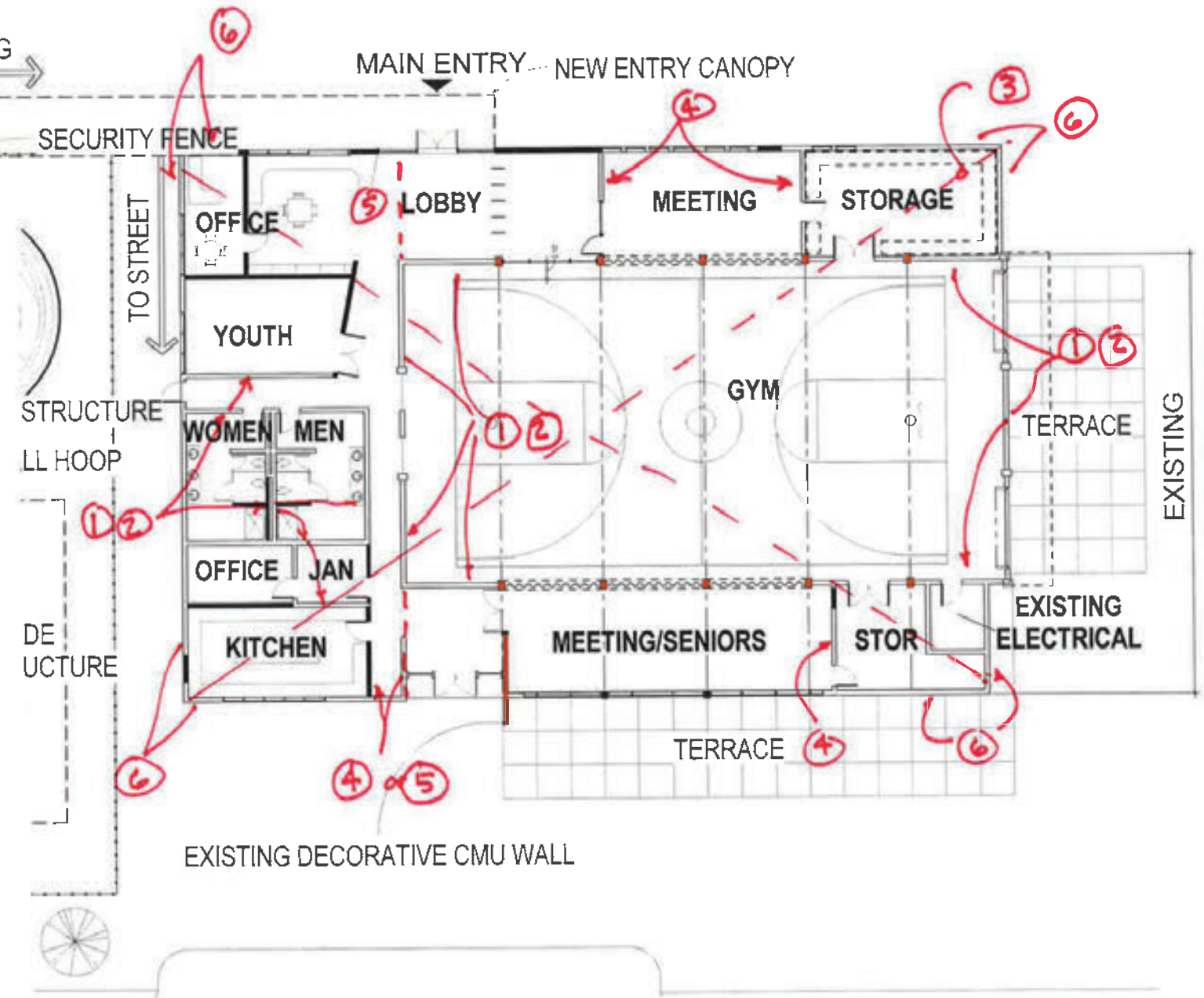


**Renovation Anticipated Scope of Work**

We are showing two levels of structural work for this option. Option 1 is not providing a seismic/structural upgrade. Only item 1 would be included. The balance of the structural work described is to upgrade the building to current existing building standards assuming a 2015 International Existing Building Code (IEBC) reduced level seismic forces.

1. Anchor the CMU gymnasium and restroom walls into the wood roof structure above.
2. Strong back the CMU walls with steel columns at approximately 8 feet on center. This can be done in conjunction with item 1 above. At the tall gymnasium walls we estimate 6-8 inch tube or wide flange columns anchored to the walls and roof that can be located on either side of the wall. At the restroom walls we estimate 3-4 inch tube columns.
3. Improve roof diaphragm. This would include verifying existing plywood construction. Assuming it is there providing blocking at panel edges for 30% of the roof, renailling 50% of the roof plywood, providing tension straps to develop wall anchorage for 20% of the roof and provide more positive diaphragm connection between the roof plywood and CMU or plywood shear walls most likely consisting of blocking at Simpson clips.
4. Provide additional interior plywood shear wall as noted on plan. This would include a concrete foundation assuming none exist at the wall location.
5. Diaphragm collector or plywood shear wall adjacent to north end of gymnasium.
6. Verify nailing and presence of plywood sheathing. We are assuming as a minimum shear wall hold downs will be required at each end or adjacent to wall openings.
7. Exterior 2x6 wood stud walls at 16 inches on center with 1/2 inch plywood.
8. Interior 2x6 wood stud walls at 16 inches on center with plywood shear wall near center of building.
9. 11 7/8 inch I joist at 32 inches on center with 3/4 inch T&G plywood roof sheathing.

in estimate

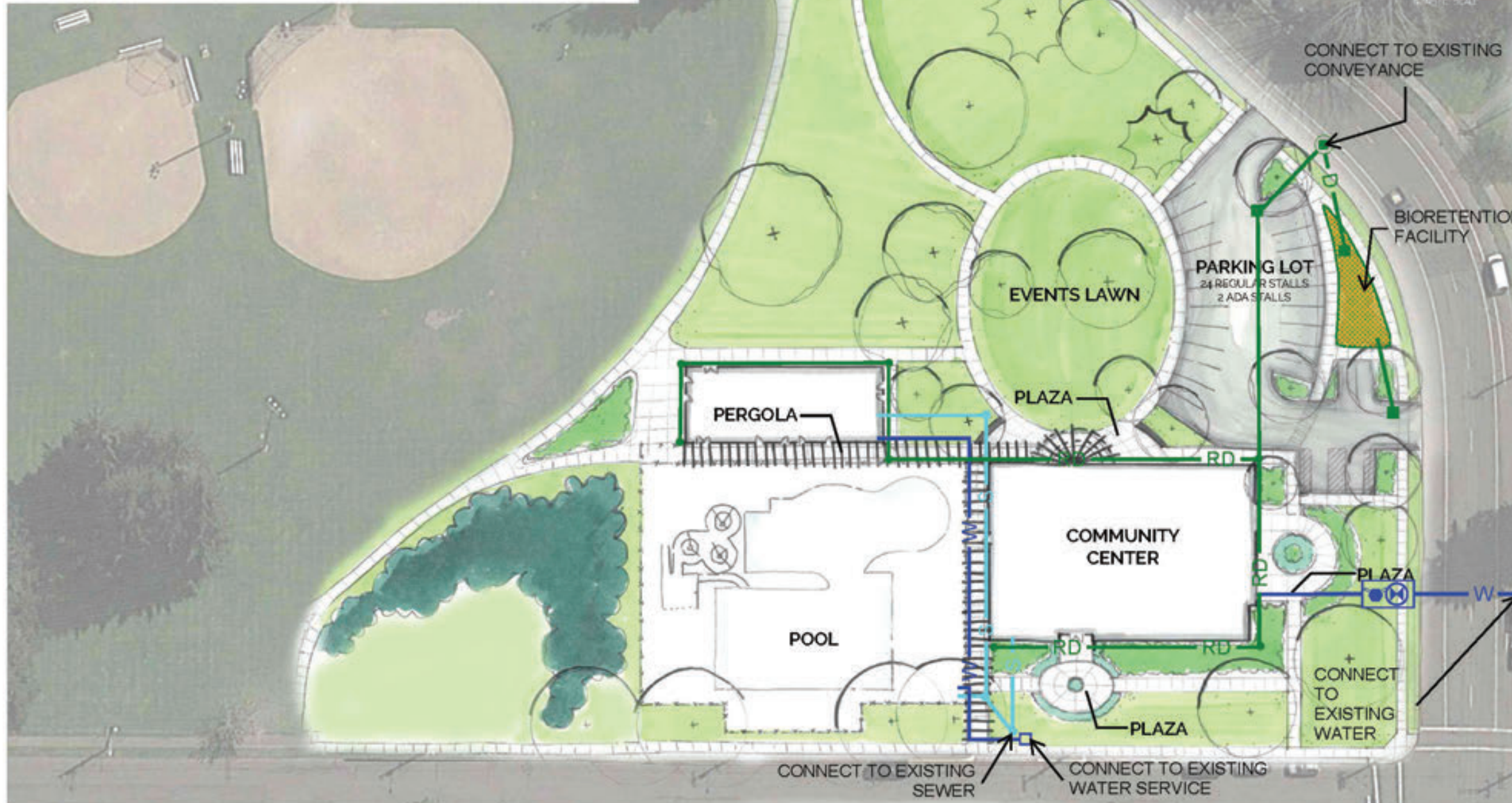


**ROY H. MURPHY COMMUNITY CENTER AND POOL  
RENOVATION: STRUCTURAL  
STRATEGY 1**

May 2016



CITY OF FIRCREST  
**FIRCREST COMMUNITY CENTER**  
 RENOVATION CONCEPT  
 MARCH 17 2016



**PREDEVELOPED**

PGIS	11140 SF
NPGIS	47944 SF
TOTAL IMPERVIOUS	59084 SF
TOTAL PERVIOUS	82195 SF

**DEVELOPED**

PGIS	10339 SF
NPGIS	52916 SF
TOTAL IMPERVIOUS	63255 SF
PERVIOUS	78024 SF

**LEGEND**

BIORETENTION FACILITY	
BACKFLOW PREVENTER	
CATCH BASIN	
FIRE DEPARTMENT CONNECTOR	
MANHOLE	
POST INDICATOR VALVE	
ROOF DRAIN/ FOOTING DRAIN	
SEWER	
SEWER CLEAN OUT	
STORM CLEAN OUT	
STORM DRAIN	
WATER	

**ROY H. MURPHY COMMUNITY CENTER AND POOL**  
 RENOVATION: CIVIL

**STRATEGY ①**

May 2016



CITY OF FIRCREST  
**FIRCREST COMMUNITY CENTER**

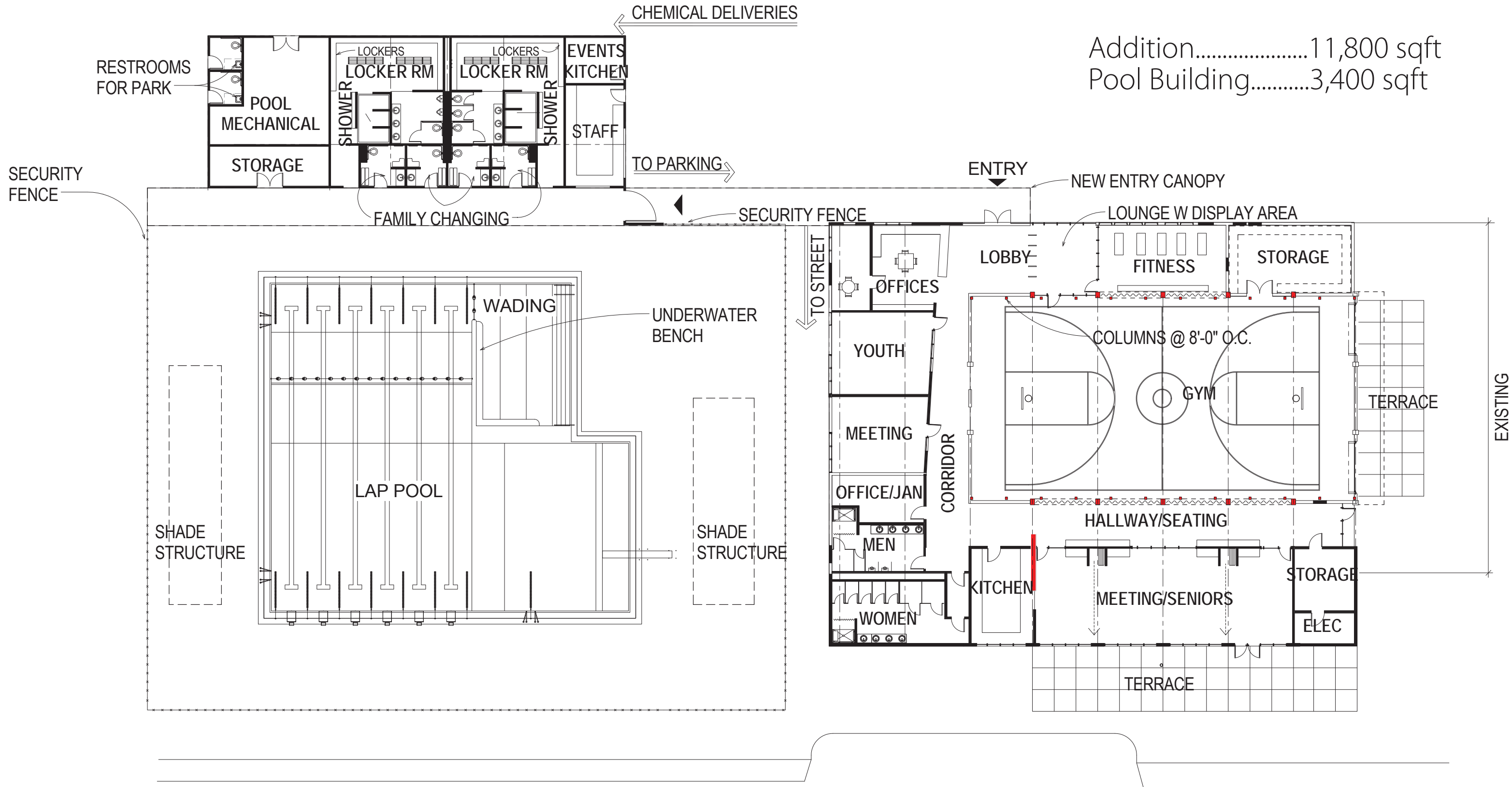
ADDITION CONCEPT  
MAY 10, 2016



ROY H. MURPHY COMMUNITY CENTER AND POOL  
**ADDITION - LANDSCAPE**

**STRATEGY ②**

May 2016



Addition.....11,800 sqft  
 Pool Building.....3,400 sqft

ROY H. MURPHY COMMUNITY CENTER AND POOL  
 ADDITION: ARCHITECTURAL

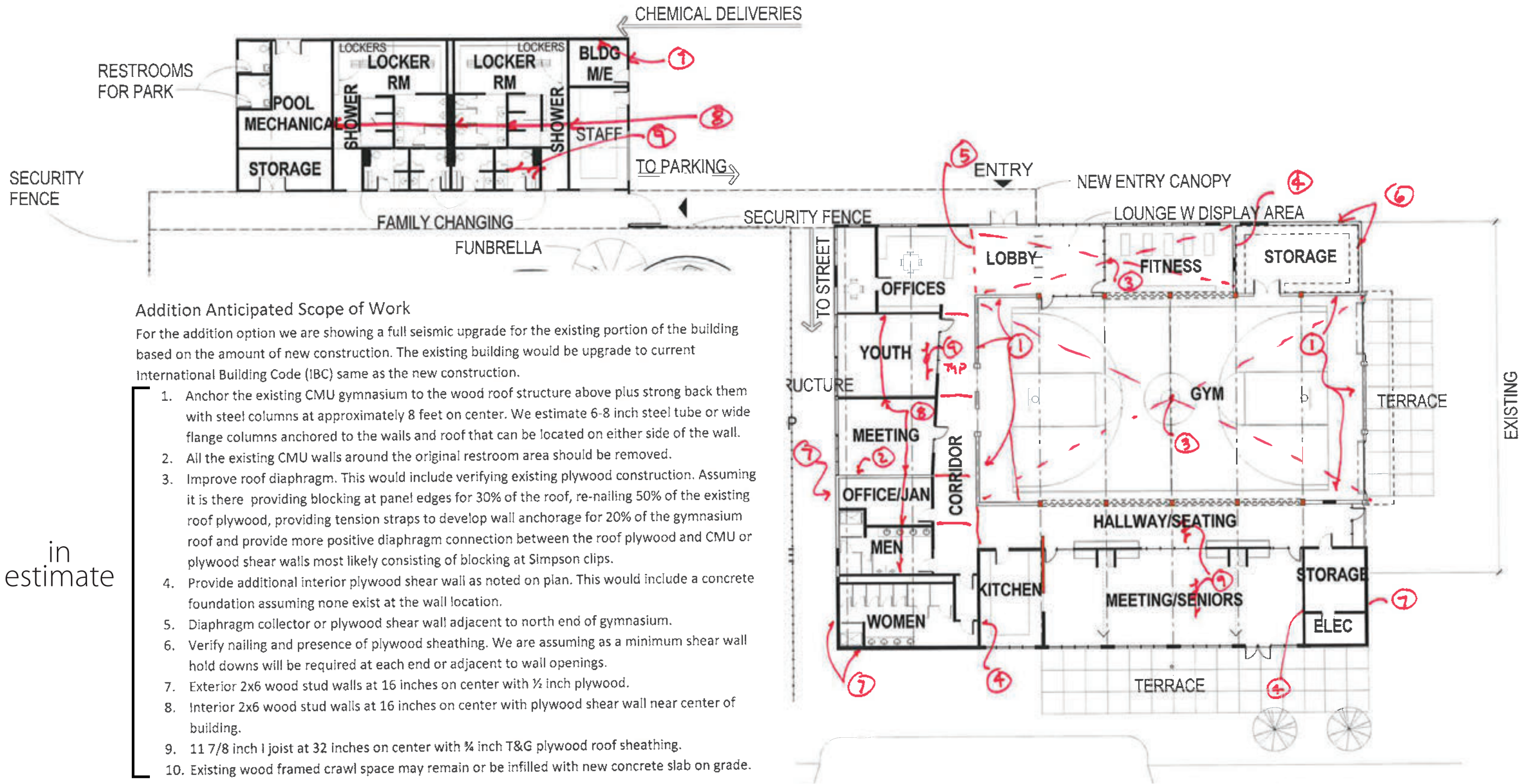
STRATEGY 2



May 2016







**Addition Anticipated Scope of Work**

For the addition option we are showing a full seismic upgrade for the existing portion of the building based on the amount of new construction. The existing building would be upgraded to current International Building Code (IBC) same as the new construction.

1. Anchor the existing CMU gymnasium to the wood roof structure above plus strong back them with steel columns at approximately 8 feet on center. We estimate 6-8 inch steel tube or wide flange columns anchored to the walls and roof that can be located on either side of the wall.
2. All the existing CMU walls around the original restroom area should be removed.
3. Improve roof diaphragm. This would include verifying existing plywood construction. Assuming it is there providing blocking at panel edges for 30% of the roof, re-nailing 50% of the existing roof plywood, providing tension straps to develop wall anchorage for 20% of the gymnasium roof and provide more positive diaphragm connection between the roof plywood and CMU or plywood shear walls most likely consisting of blocking at Simpson clips.
4. Provide additional interior plywood shear wall as noted on plan. This would include a concrete foundation assuming none exist at the wall location.
5. Diaphragm collector or plywood shear wall adjacent to north end of gymnasium.
6. Verify nailing and presence of plywood sheathing. We are assuming as a minimum shear wall hold downs will be required at each end or adjacent to wall openings.
7. Exterior 2x6 wood stud walls at 16 inches on center with 1/2 inch plywood.
8. Interior 2x6 wood stud walls at 16 inches on center with plywood shear wall near center of building.
9. 11 7/8 inch I joist at 32 inches on center with 3/4 inch T&G plywood roof sheathing.
10. Existing wood framed crawl space may remain or be infilled with new concrete slab on grade.

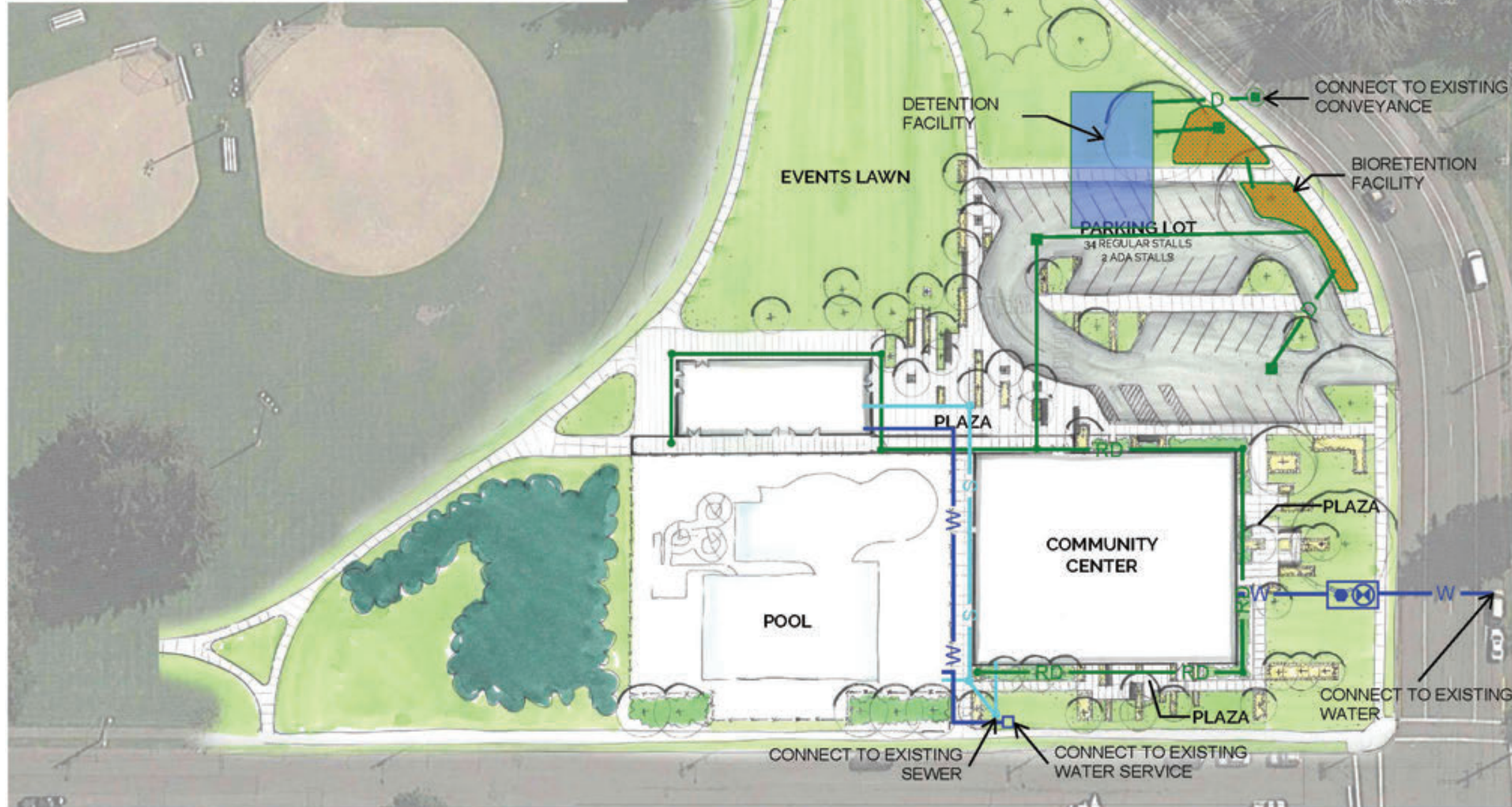
in estimate

**ROY H. MURPHY COMMUNITY CENTER AND POOL  
ADDITION: STRUCTURAL  
STRATEGY ②**

May 2016



CITY OF FIRCREST  
**FIRCREST COMMUNITY CENTER**  
 ADDITION CONCEPT  
 MARCH 17 2016



**PREDEVELOPED**

PGIS	11140 SF
NPGIS	47944 SF
TOTAL IMPERVIOUS	59084 SF
TOTAL PERVIOUS	82195 SF

**DEVELOPED**

PGIS	13979 SF
NPGIS	57443 SF
TOTAL IMPERVIOUS	71422 SF
PERVIOUS	69857 SF

**LEGEND**

BIORETENTION FACILITY	
BACKFLOW PREVENTER	
CATCH BASIN	
FIRE DEPARTMENT CONNECTOR	
MANHOLE	
POST INDICATOR VALVE	
ROOF DRAIN/ FOOTING DRAIN	
SEWER	
SEWER CLEAN OUT	
STORM CLEAN OUT	
STORM DRAIN	
WATER	

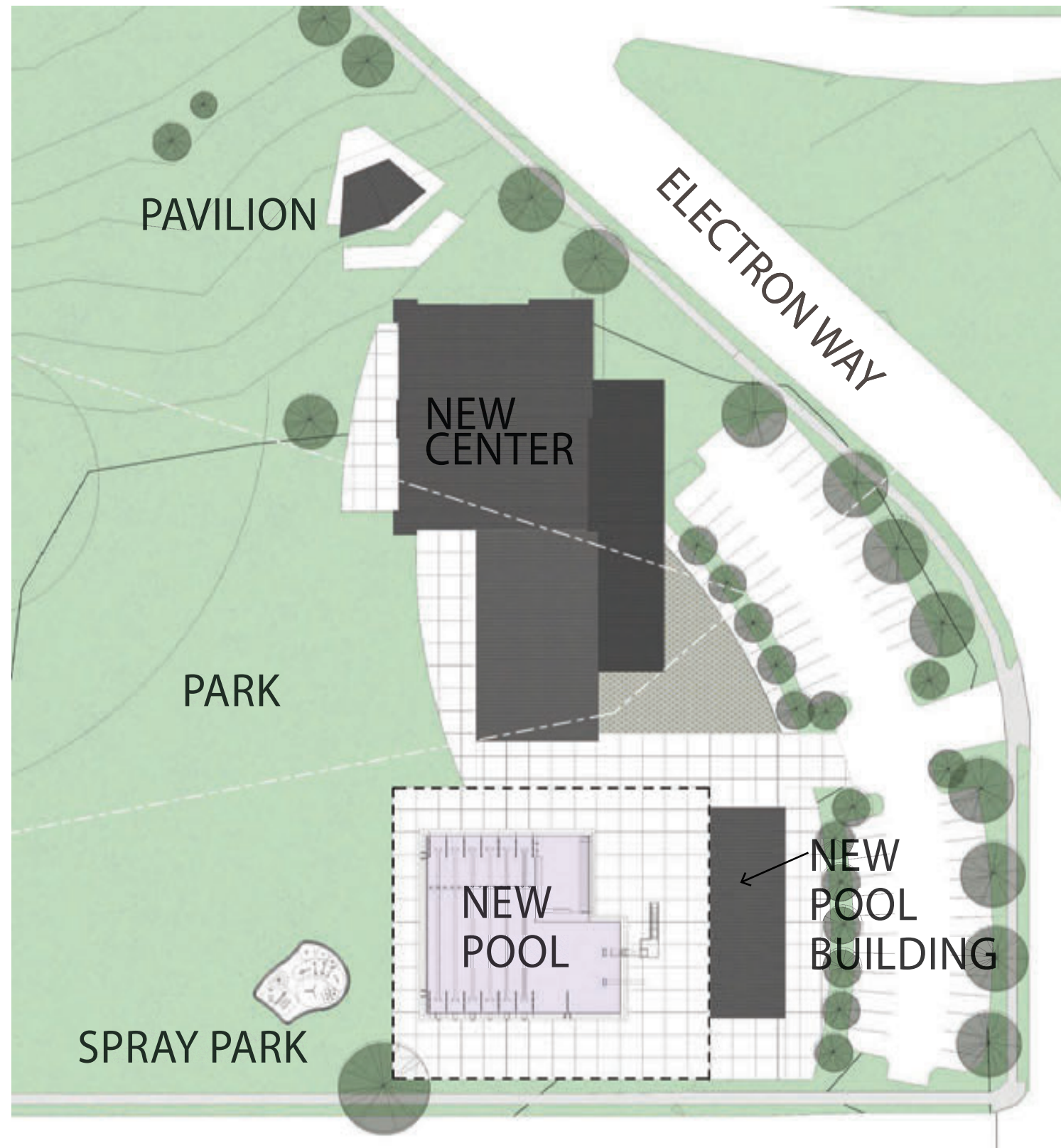
**ROY H. MURPHY COMMUNITY CENTER AND POOL**  
 ADDITION: CIVIL

**STRATEGY 2**

May 2016







ROY H. MURPHY COMMUNITY CENTER AND POOL

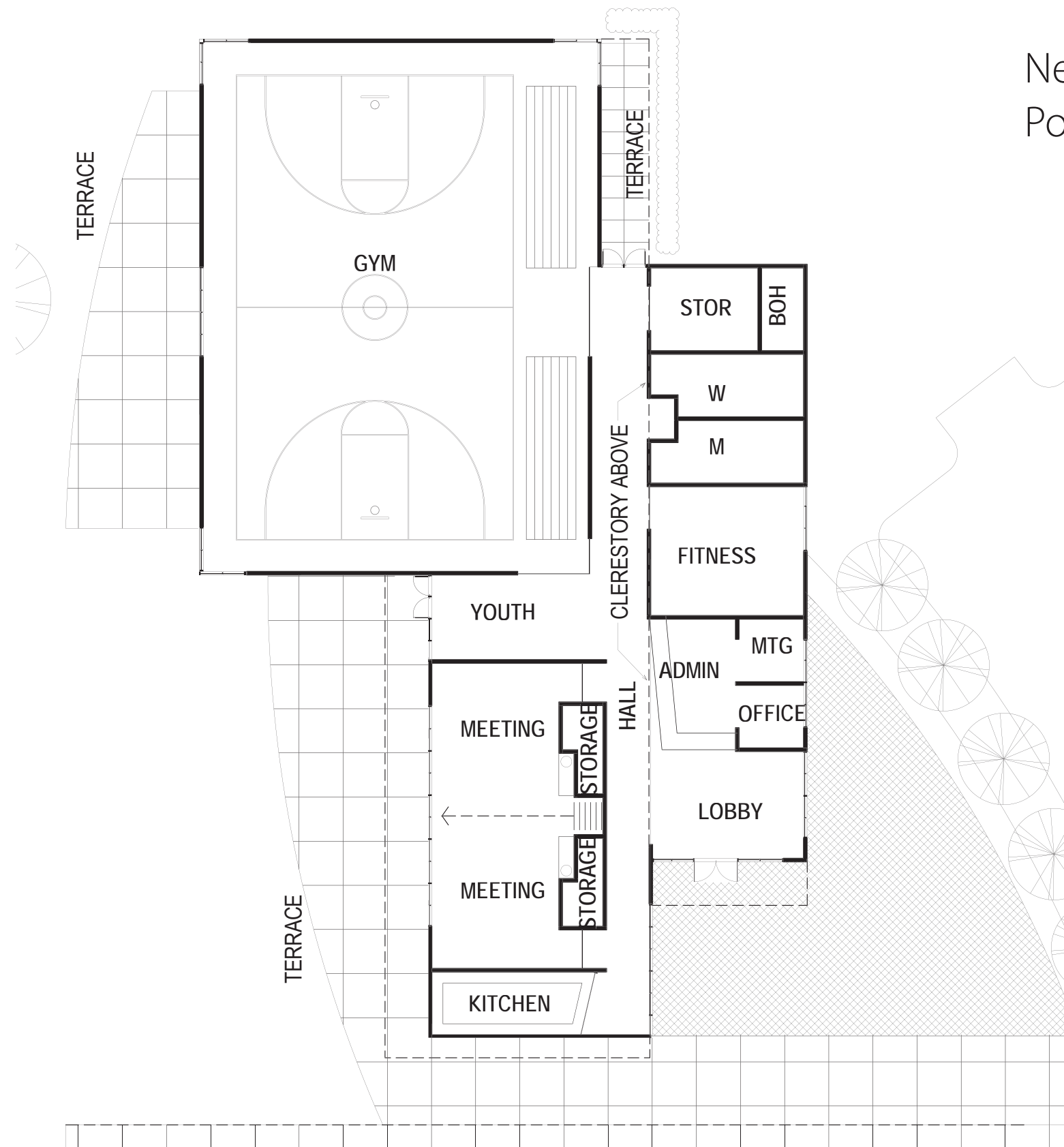
NEW A: SITE

STRATEGY ③

May 2016



New Construction...13,000 sqft  
Pool Building.....3,400 sqft

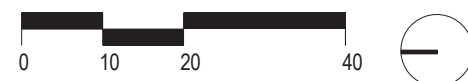


ROY H. MURPHY COMMUNITY CENTER AND POOL

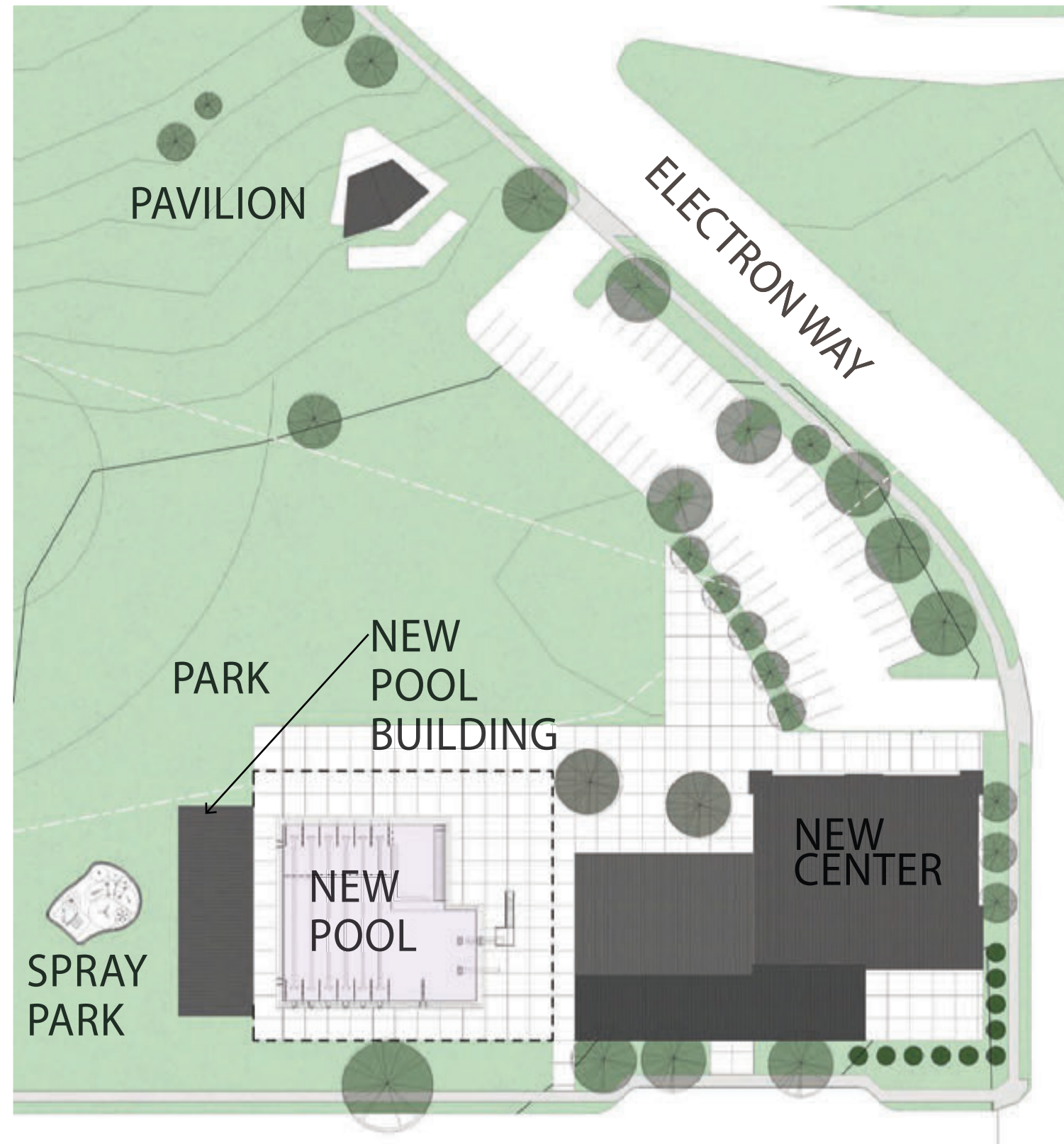
NEW A: PLAN

STRATEGY ③

May 2016







**ROY H. MURPHY COMMUNITY CENTER AND POOL**

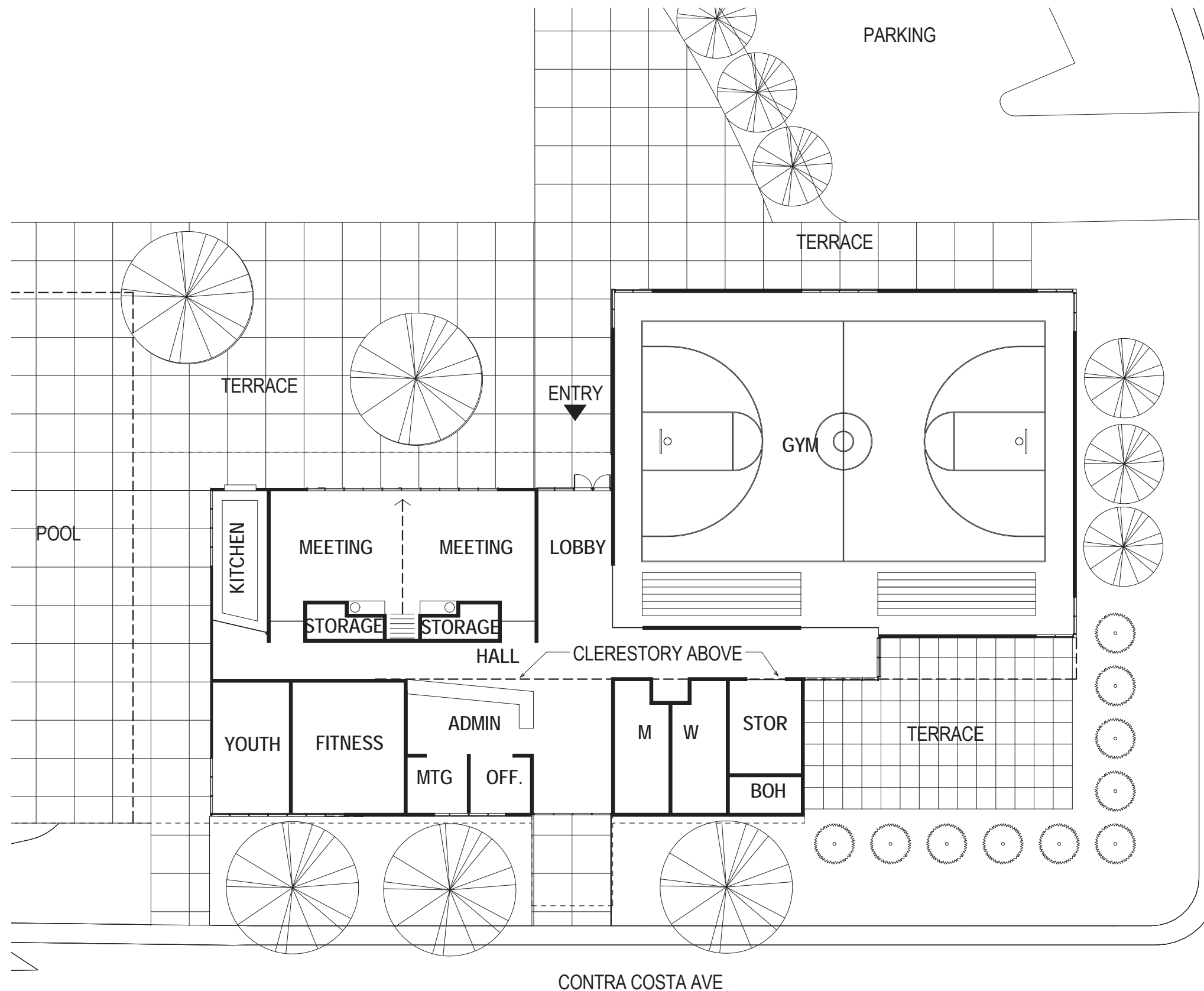
**NEW B: SITE**

**STRATEGY 4**

May 2016



New Construction...13,000 sqft  
Pool Building.....3,400 sqft

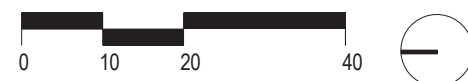


ROY H. MURPHY COMMUNITY CENTER AND POOL

NEW B: PLAN

STRATEGY 4

May 2016





## **STRATEGY ①**

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### **New Pool and Renovated Center**

- Estimated project budget - \$9,500,000
- Could be phased to spread out costs
- Significant investment in a 50-year building

## **STRATEGY ③**

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### **New Pool and New Center**

- Estimated project budget - \$13,000,000
- Can be phased to avoid shutdown of either pool or center
- New facilities with a new 50-year life

## **STRATEGY ②**

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### **New Pool and Addition to Center**

- Estimated project budget - \$12,000,000
- Could be phased to spread out costs
- Very significant investment in a 50-year building

## **STRATEGY ④**

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### **New Pool and Delayed New 13,000 sf Center at Current Location**

- Estimated project budget Pool & Splash Pad - \$3,500,000
- Estimated project budget Site & Center \$9,000,00
- Get a new pool soon
- No significant investment in the existing center
- New facilities with a new 50-year life

# **ROY H. MURPHY COMMUNITY CENTER AND POOL STRATEGIES**

May 2016