

# TOWN OF PRINCETON

## Needs Assessment & Four Buildings Master Plan



Preferred  
Phasing  
Approach

Jan. 9, 2018

JWA

# Agenda

- Proposed Phasing
- Bagg Hall
  - Phase I Scope
  - Phase II Options
- Annex Phase I Scope
- Public Safety
- Phasing Discussion
- Next Steps



# PROPOSED PHASING

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**2018**

- Request funding for Bagg Hall Phase I Scope
- Request funding for Annex Phase I Scope
- Request funding for OPM & Design Services for Public Safety

~ \$ 1.4 M  
~ \$ 600 K  
~ \$ 500 K

**2019**

- Request Funding for Public Safety Complex Project Costs

~ \$ 9 M

**2028?**

- Request Funding for OPM & Design Services for Bagg Hall Expansion

~ \$ 300 k +  
escalation  
(\$600k?)

**2029?**

- Request Funding for Bagg Hall Expansion Project Costs

~ \$ 5 M +  
escalation  
(\$10M?)

# ALL AT ONCE?

**2018**

- Request funding for OPM & Design Services for Bagg Hall Expansion
- Request funding for OPM & Design Services for Public Safety

~ \$ 100 k  
~ \$ 500 k

**2019**

- Request Funding for Bagg Hall Project Costs
- Request Funding for Public Safety Complex Project Costs

~ \$ 5 M  
~ \$ 9 M

## Pros:

- No funds spent on Annex
- Funds spent on Bagg Hall are more efficient (not broken up into phases)
- Could potentially carry one designer and one contractor for Bagg Hall and Public Safety
- Save significantly on escalation costs

## Cons:

- A substantially larger request in 2019

# BAGG HALL

- Phase I  
Scope
- Phase II  
Options

# PHASE I SCOPE

## PRIORITY “A” ITEMS

(TO BE COMPLETED IN NEXT 0-3 YEARS)

### EXTERIOR SITE IMPROVEMENTS:

- Regrade exterior paving at east side
- Test Well Water, and inspect to determine quality of water.

### EXTERIOR REPAIRS:

- Repair damaged foundation walls on east and west side
- Underpinning and new foundation work required at NW corner and west wall
- Replace OR Restore windows
- Masonry repointing: 15%.
- Wash exterior walls, including stone trim components

### INTERIOR REPAIRS:

- Adjust first floor structure to repaired foundation walls, raising beams to the extent possible.
- Patch and repair plaster ceiling on second floor.
- Add more baseboard heating to first floor
- Insulate attic and install air barrier at openings to exterior.
- Coverplates for junction boxes to be closed.
- Replace Fire Alarm System, means of egress lighting and signage and add initiating devices: smoke, heat, CO and pull stations per code.
- Replace relay panel with radio master box.

## PRIORITY “B” ITEMS

(TO BE COMPLETED IN NEXT 4-10 YEARS)

### EXTERIOR SITE IMPROVEMENTS:

- Rework grades and replace ramp to East door
- Replace concrete pavers on sidewalks
- Evaluate status of well if Public Safety remains on site and improvements/ additions are added.

### EXTERIOR REPAIRS:

- Refinish and repair exterior doors
- Replace designated brownstone pieces at front porch
- Replace 25% of the brick corbel at the eaves
- Touch up paint at trim, eaves, cupola, etc.
- Re-set loose brick masonry at safe addition

### INTERIOR REPAIRS:

- Insulate basement / first floor
- Add HVAC system to second floor if used for other than storage.
- Replace antiquated plumbing fixtures.

# PHASE I COSTS

## PRIORITY "A" ITEMS (TO BE COMPLETED IN NEXT 0-3 YEARS)

PRIORITY A ITEMS SUMMARY	\$379,975
GENERAL REQUIREMENTS (5%)	\$18,999
GENERAL CONDITIONS (3 MONS)	\$90,000
DESIGN & PRICING CONTINGENCY (15%)	\$59,846
ESCALATION (12.08%)	\$48,196
PERMIT (ASSUME WAIVED)	\$0
INSURANCE (1.00%)	\$5,970
OVERHEAD + PROFIT (10.0%)	\$60,299
BONDS (1.00%)	\$2,643
OWNER CONTINGENCY (BY OWNER)	TBD
	<b>\$665,928</b>

**Project Costs (x 1.25)                      \$850,000**

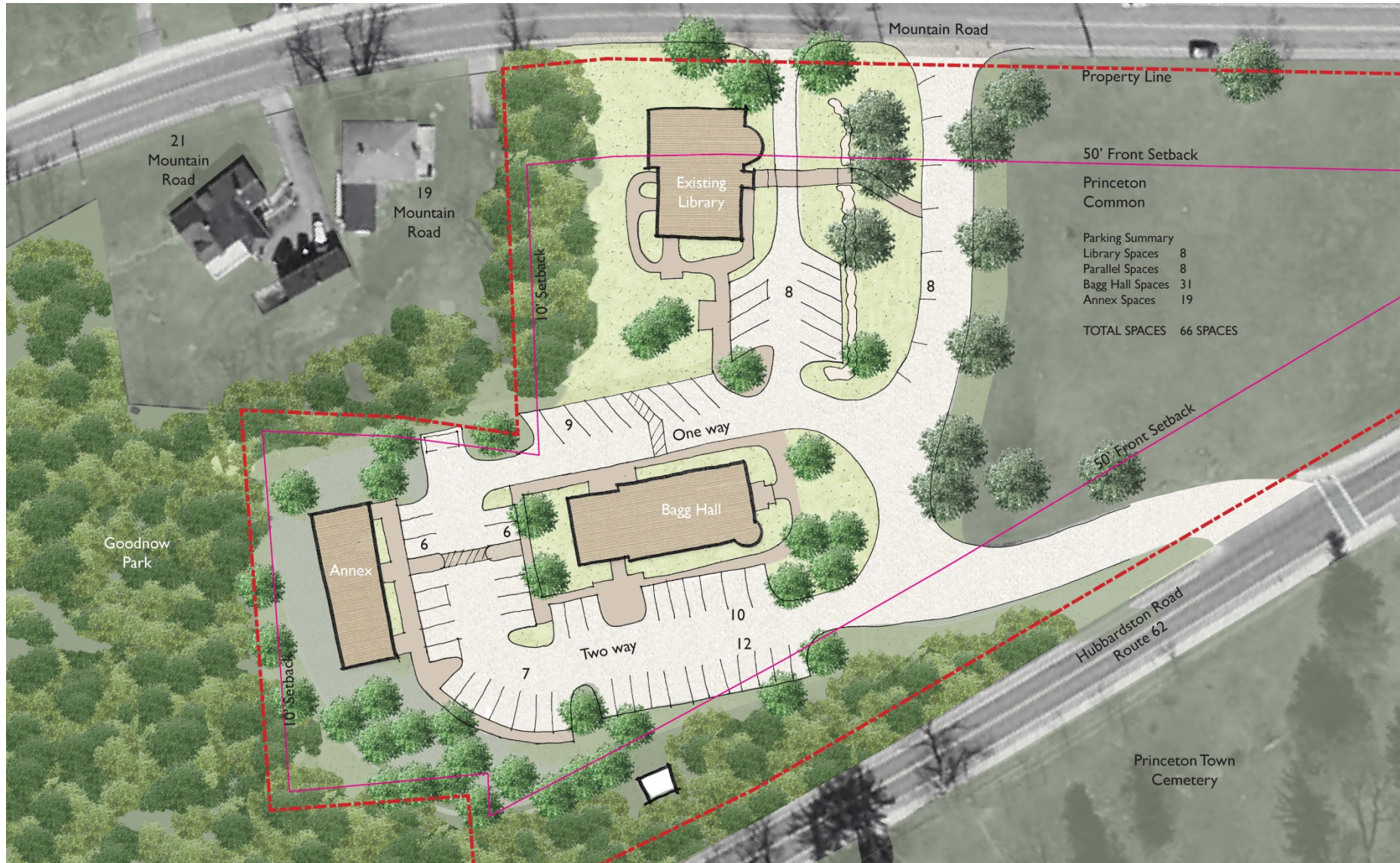
## PRIORITY "B" ITEMS (TO BE COMPLETED IN NEXT 4-10 YEARS)

PRIORITY B ITEMS SUMMARY	\$228,906
GENERAL REQUIREMENTS	\$11,445
GENERAL CONDITIONS (2 MONS)	\$60,000
DESIGN & PRICING CONTINGENCY (15%)	\$36,053
ESCALATION (22.08%)	\$53,070
PERMIT (ASSUME WAIVED)	\$0
INSURANCE (1.00%)	\$3,895
OVERHEAD + PROFIT (10.0%)	\$39,337
BONDS (1.00%)	\$1,924
OWNER CONTINGENCY (BY OWNER)	TBD
	<b>\$434,630</b>

**Project Costs (x 1.25)                      \$540,000**



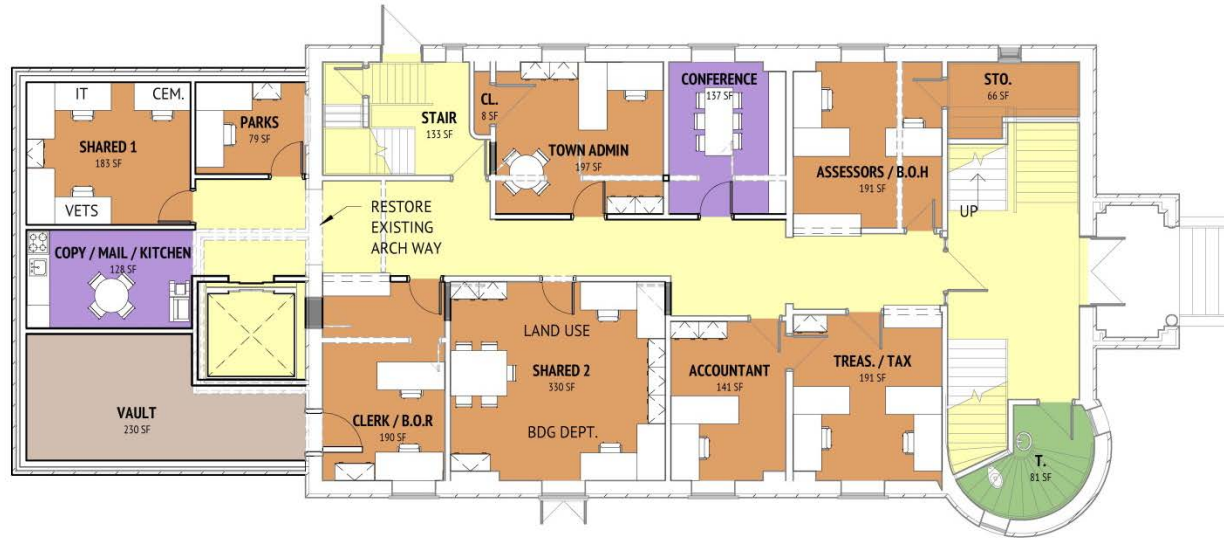
# OPTION 1 - SITE



**PRINCETON COMMON SITE**  
OPTION 1D- BAGG HALL ADDITION; TOWN ANNEX RENOVATION

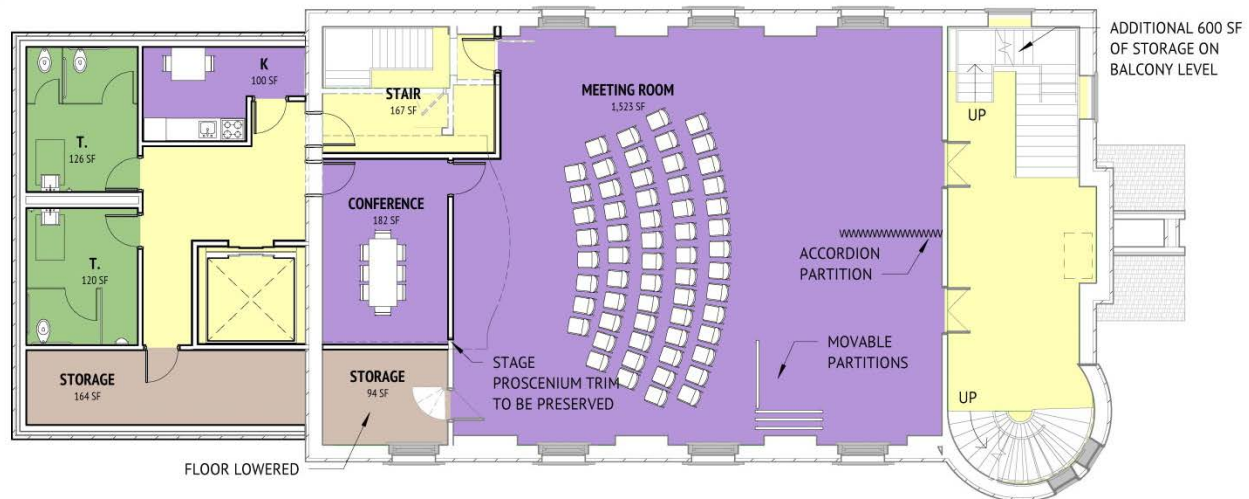


# OPTION 1 – FLOOR PLANS – CURRENT



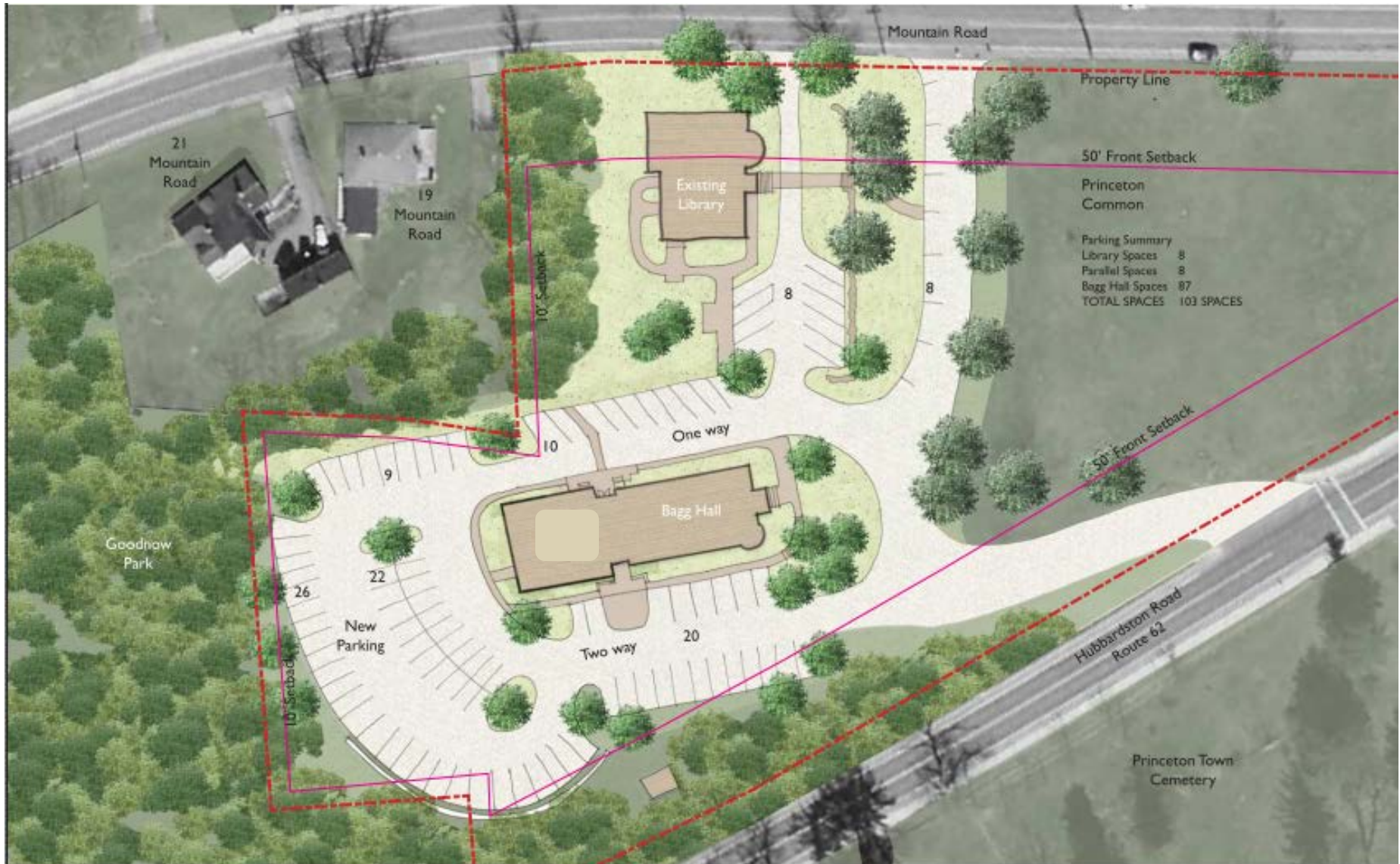
1 Level 1 - Option 1  
3/32" = 1'-0"

OPTION 1 TOTALS		
	AREA	LEVEL
NEW	936 SF	LEVEL 1
NEW	933 SF	LEVEL 2
RENOVATION	2,768 SF	LEVEL 1
RENOVATION	2,768 SF	LEVEL 2
	7,405 SF	



2 Level 2 - Option 1  
3/32" = 1'-0"

# OPTION 2 - SITE

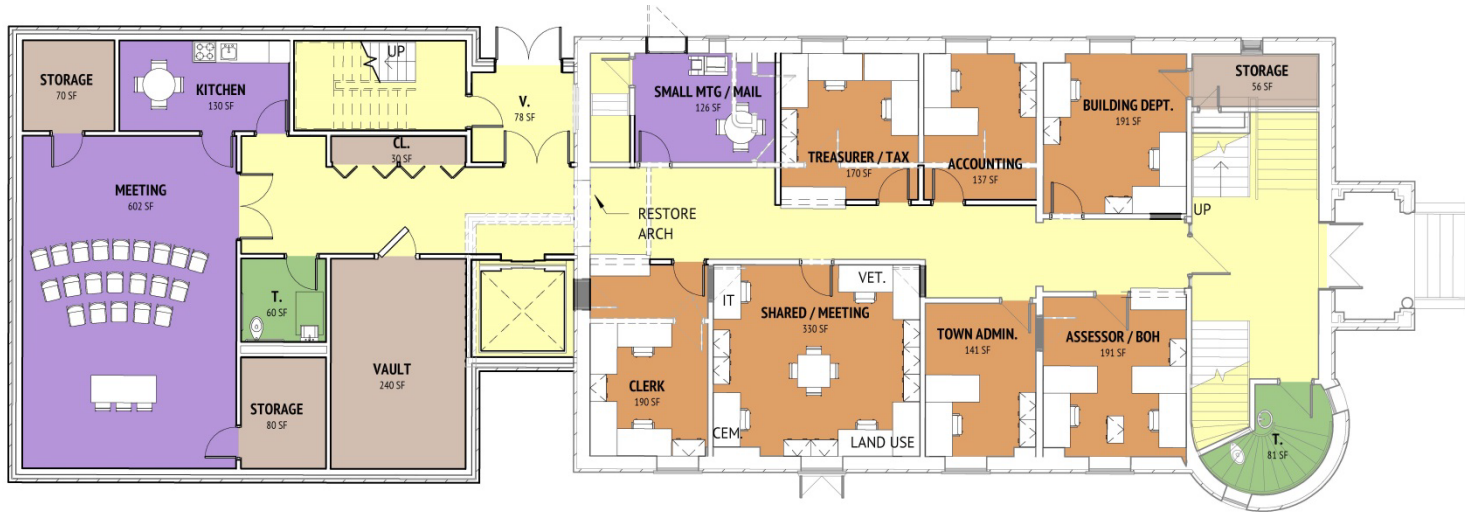


## PRINCETON COMMON SITE

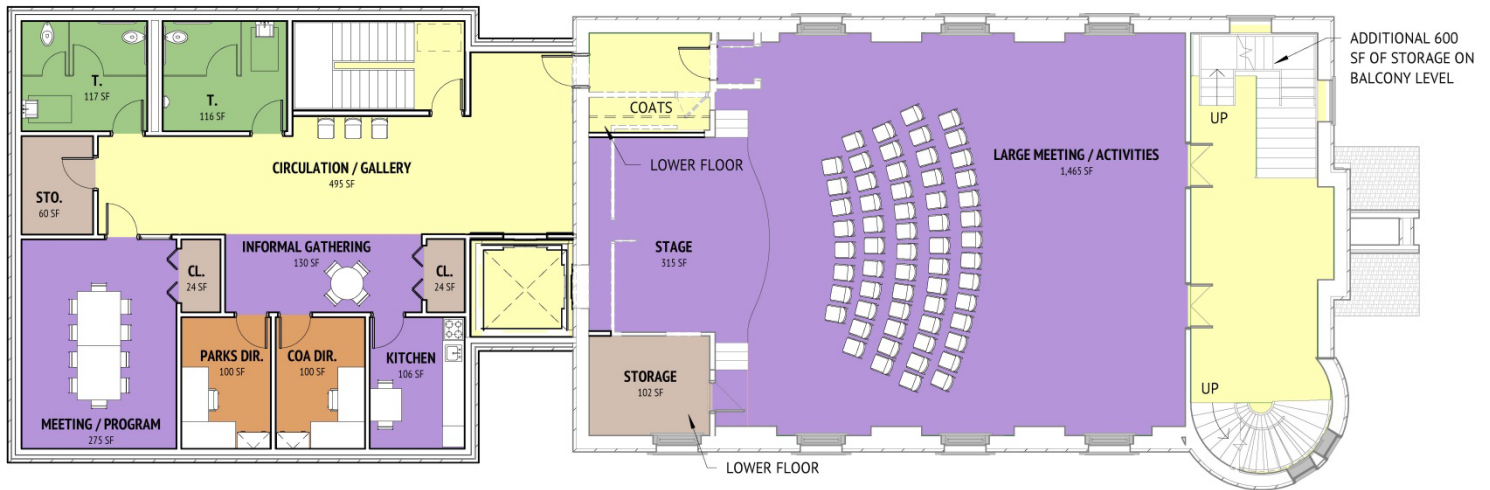
OPTION 1B- ADD SENIOR CENTER TO BAGG HALL, REPLACE TOWN ANNEX AND PUBLIC SAFETY WITH PARKING



# OPTION 2 – FLOOR PLANS – CURRENT



1 Level 1 - Option 2  
3/32" = 1'-0"

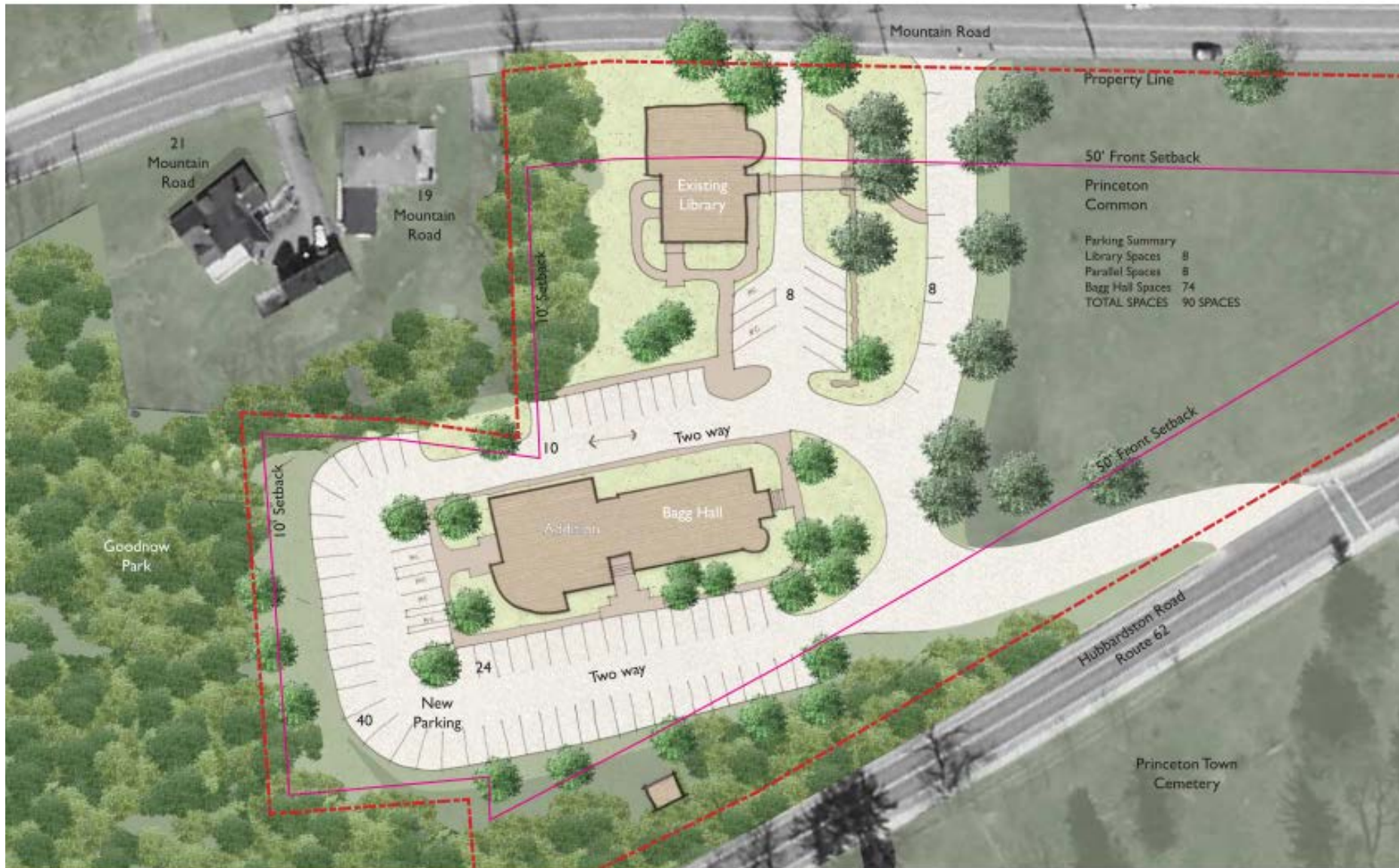


2 Level 2 - Option 2  
3/32" = 1'-0"

## OPTION 2 TOTALS

	AREA	LEVEL
NEW	2,063 SF	LEVEL 1
NEW	2,065 SF	LEVEL 2
RENOVATION	2,768 SF	LEVEL 1
RENOVATION	2,768 SF	LEVEL 2
	9,664 SF	

# OPTION 3 - SITE



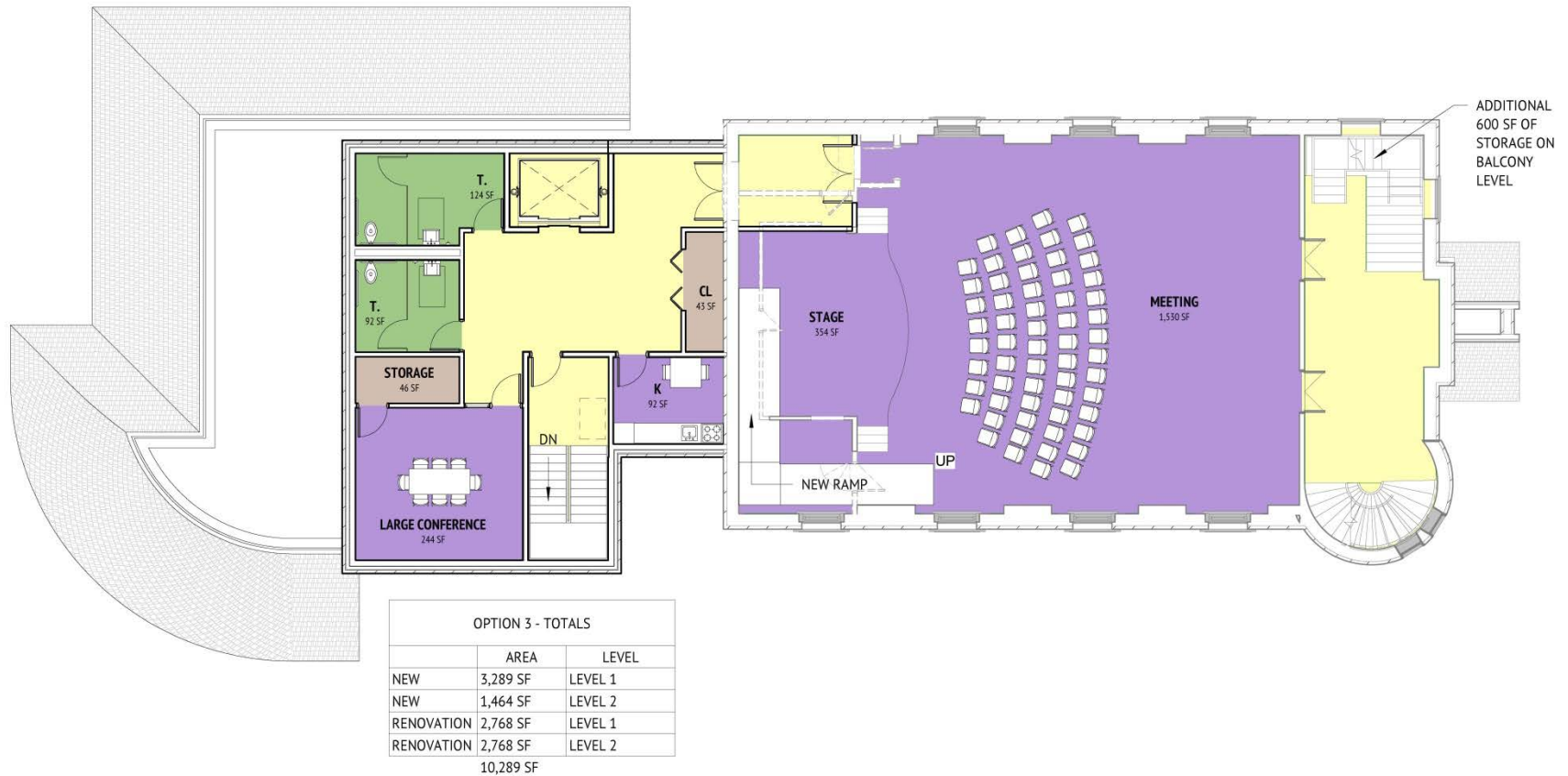
**PRINCETON COMMON SITE**  
OPTION 1C- LARGER ADDITION WITH SENIOR CENTER, REPLACE TOWN ANNEX AND PUBLIC SAFETY WITH PARKING

# OPTION 3 – FIRST FLOOR PLAN

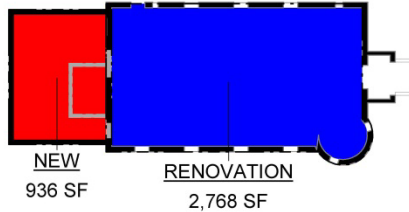




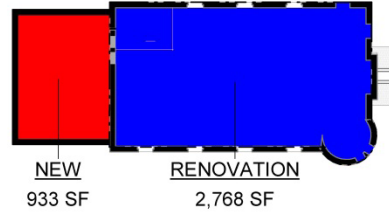
# OPTION 3 - SECOND FLOOR PLANS



# OPTIONS SUMMARY

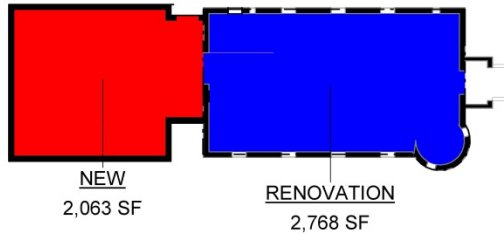


1 OPTION 1 - LEVEL 1  
1" = 30'-0"

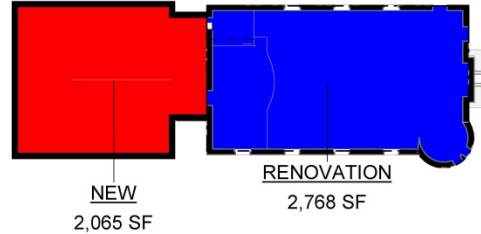


2 OPTION 1 - LEVEL 2  
1" = 30'-0"

OPTION 1 - GSF		
Name	Area	Level
NEW	936 SF	LEVEL 1
RENOVATION	2,768 SF	LEVEL 1
NEW	933 SF	LEVEL 2
RENOVATION	2,768 SF	LEVEL 2

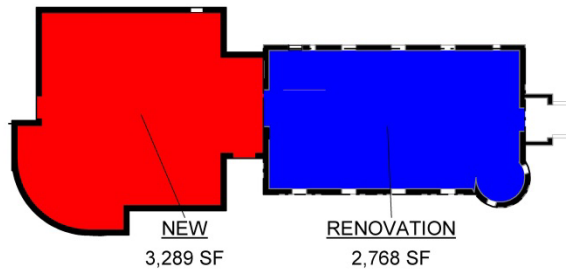


3 LEVEL 1  
1" = 30'-0"

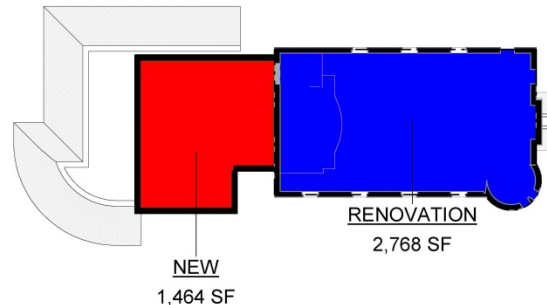


4 LEVEL 2  
1" = 30'-0"

OPTION 2 - GSF		
Name	Area	Level
NEW	2,063 SF	LEVEL 1
RENOVATION	2,768 SF	LEVEL 1
NEW	2,065 SF	LEVEL 2
RENOVATION	2,768 SF	LEVEL 2



5 LEVEL 1  
1" = 30'-0"



6 LEVEL 2  
1" = 30'-0"

OPTION 3 - GSF		
Name	Area	Level
NEW	3,289 SF	LEVEL 1
RENOVATION	2,768 SF	LEVEL 1
NEW	1,464 SF	LEVEL 2
RENOVATION	2,768 SF	LEVEL 2



# BAGG HALL OPTIONS COMPARISON

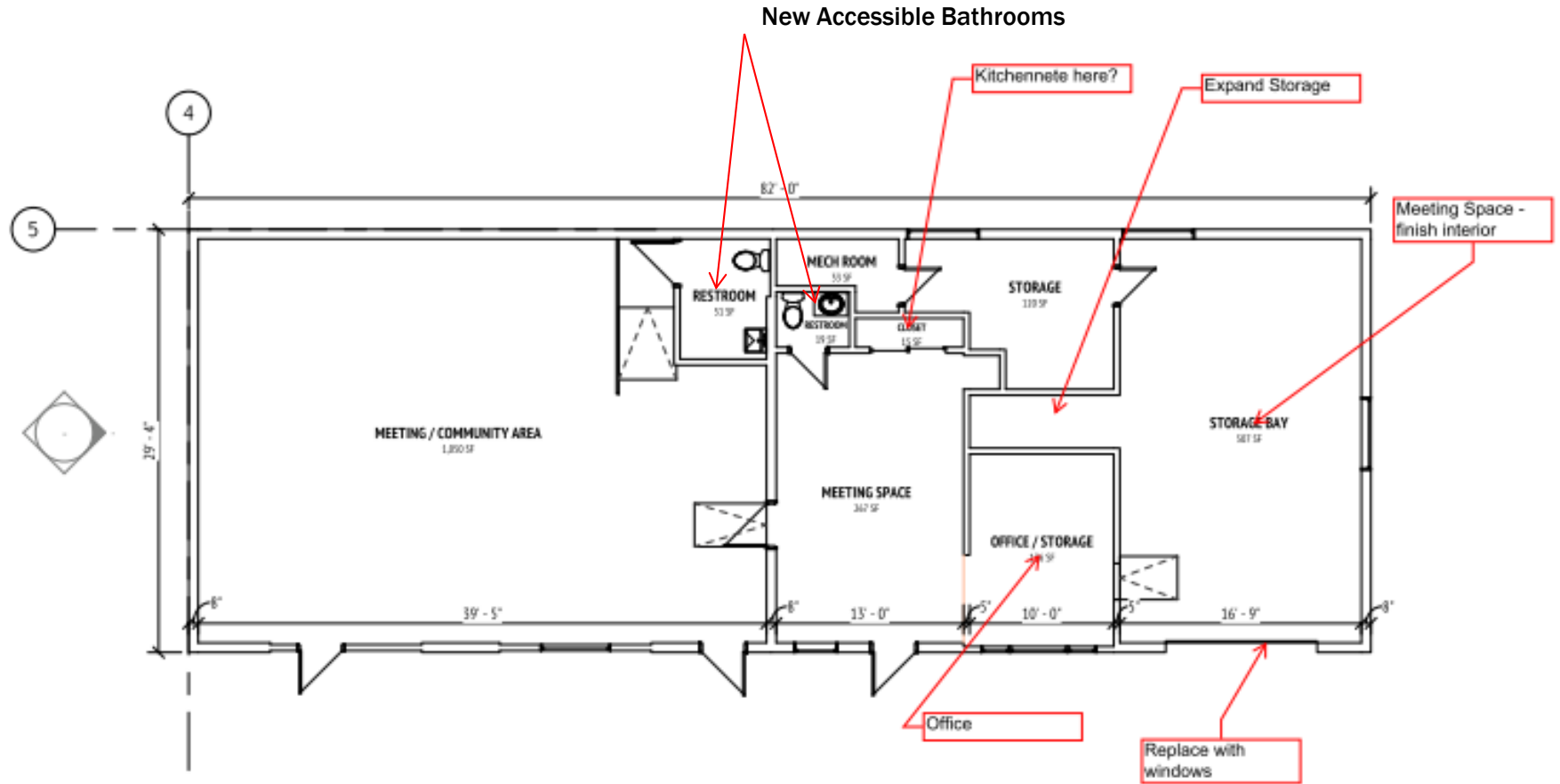
	EXISTING	PROPOSED AREA / NET SQUARE FEET	OPTION 1	OPTION 2	OPTION 3
NET USED SQUARE FEET (Bagg Hall + Annex)	4,518	5,458	4,746	5,719	5,864
Gross SF Bagg Hall Only	6,355				
TOTAL Gross Square Feet*	7,425	7,641	7,405	9,664	10,289
* Includes Annex spaces w/o storage bay					

# BAGG HALL – ALL OPTIONS

ROUGH PRICING	Option 1	Option 2	Option 3
ADDITION	\$ 545,000	\$ 1,200,000	\$ 1,500,000
PREMIUM FOR ELEVATOR	\$ 350,000	\$ 350,000	\$ 350,000
RENOVATION	\$ 1,080,000	\$ 1,135,000	\$ 1,135,000
DEMOLITION	\$ 50,000	\$ 50,000	\$ 50,000
HAZARDOUS MATERIALS (Allowance)	\$ 90,000	\$ 90,000	\$ 90,000
SITework	\$ 600,000	\$ 600,000	\$ 600,000
GC MARKUPS, ESCALATION, ETC	<u>\$ 550,000</u>	<u>\$ 700,000</u>	<u>\$ 760,000</u>
APPROX. TOTAL CONSTRUCTION COSTS	\$ 3,265,000	\$ 4,125,000	\$ 4,485,000
APPROX. TOTAL PROJECT COSTS	\$ 4,100,000	\$ 5,150,000	\$ 5,600,000

# ANNEX PHASE I SCOPE

# ANNEX PROPOSED PLAN



# PHASE I SCOPE - DESCRIPTION

## ITEMS TO BE COMPLETED FOR 0-10 YEARS OF ADDITIONAL USE:

### EXTERIOR SITE IMPROVEMENTS:

- Place ADA space in close proximity to Annex
- Stripe pedestrian zone in front of the Annex for pedestrian use

### EXTERIOR REPAIRS:

- Replace North side of asphalt shingle roof
- Install gutters throughout roof
- Repaint all surfaces - including trim
- Add exterior building mounted lighting

### INTERIOR REPAIRS:

- Replace water stained carpet
- Make sure that slab-on-grade has water-proofing applied
- Insulate inside of exterior walls with 2" spray foam and furr out interior walls
- Fit out existing garage bay to convert to useable meeting space
- Add Kitchenette
- Provide separate accessible Men's and Women's bathrooms.
- Provide drinking fountain and mop sink.
- Add additional HVAC system if Garage Bay is fitted out as meeting space.
- Replace all electrical panels – including existing main distribution and load center panel. Shows signs of corrosion, all circuits are full, and the load center needs a cover.
- Replace relay panel with radio master box
- Replace Fire Alarm System, means of egress lighting and signage and add initiating devices: smoke, heat, CO and pull stations per code

# PHASE I SCOPE – COST BY ITEM

	<b>EXTERIOR - SITE</b>	
ES-1	Place ADA space in close proximity to Annex	\$2,000
ES-2	Stripe pedestrian zone in front of the Annex for pedestrian use	\$500
	<b>EXTERIOR - BUILDING</b>	
EB-1	Replace North side of asphalt shingle roof	\$34,632
EB-2	Install gutters throughout roof	\$5,740
EB-3	Repaint all surfaces - including trim	\$15,000
EB-3	Add exterior building mounted lighting	\$2,000
	<b>INTERIOR REPAIRS</b>	
INT-1	Replace water stained carpet	\$9,961
INT-2	Make sure that slab-on-grade has water-proofing applied	\$14,268
INT-3	Insulate inside of exterior walls with 2" spray foam and furr out interior walls	\$38,850
INT-4	Fit out existing garage bay to convert to useable meeting space	\$50,000
INT-5	Add Kitchenette	\$10,750
INT-6	Provide separate accessible Men's and Women's bathrooms.	\$60,000
INT-7	Provide drinking fountain and mop sink.	\$7,000
INT-8	Add additional HVAC system if Garage Bay is fitted out as meeting space.	INC ABOVE
INT-9	Replace all electrical panels – including existing main distribution and load center panel. Shows signs of corrosion, all circuits are full, and the load center needs a cover.	\$14,268
INT-10	Replace relay panel with radio master box	\$1,000
INT-11	Replace Fire Alarm System, means of egress lighting and signage and add initiating devices: smoke, heat, CO and pull stations per code	\$11,890

# PHASE I SCOPE

CONSTRUCTION COST SUMMARY	
ANNEX SHORT-TERM IMPROVEMENTS	\$277,859
GENERAL REQUIREMENTS	\$13,893
GENERAL CONDITIONS	\$60,000
DESIGN AND PRICING CONTINGENCY (2 MONTHS)	\$43,763
ESCALATION (12.08%)	\$35,244
PERMIT (ASSUME WAIVED)	\$0
INSURANCE (1.00%)	\$4,308
OVERHEAD + PROFIT (10.0%)	\$43,507
BONDS (1.00%)	\$1,868
OWNER CONTINGENCY (BY OWNER)	NIC
	<b>\$480,442</b>

<b>Project Cost (x 1.25)</b>	<b>\$600,000</b>
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**PUBLIC SAFETY**



# PUBLIC SAFETY– OPTIONS

	Add/Reno	All New
ADDITION	\$ 3,960,000	\$ 5,280,000
RENOVATION	\$ 1,200,000	--
DEMOLITION	\$ 40,000	\$ 80,000
HAZARDOUS MATERIALS (Allowance)	\$ 128,000	\$ 128,000
SITework	\$ 500,000	\$ 500,000
GC MARKUPS, ESCALATION, ETC	<u>\$ 1,187,000</u>	<u>\$ 1,212,000</u>
APPROX. TOTAL CONSTRUCTION COSTS	\$ 7,015,000	\$ 7,200,000
APPROX. TOTAL PROJECT COSTS	\$ 9,100,000	\$ 9,000,000

# Public Safety Existing Conditions Notes

## FUNCTIONAL DEFICIENCIES - POLICE

Issue	Safety?	Function?	Explanation
No Holding Cell	X	X	Lock-up occurs in open office space – dangerous for Administrative Assistant who is not a trained police officer.
No Holding Cell	X	X	Officers issue citations in lieu of making arrests due to the fact that there is not a good solution for holding someone
No Holding Cell		X	Officers must find alternate location for arrestees in other towns which is time intensive first to find a town willing to accept a prisoner and as an officer must perform prisoner watch off-site
Insufficient Covered Parking		X	Shortage of covered parking for 4 police vehicles; currently only 1 garage space. Need for covered space to improve response time in winter conditions as officers must currently spend time clearing off vehicles
No Booking Space	X	X	No space to process an arrestee safely
No Interview Space		X	Police need the ability to have a safe, quiet space for interviews which are confidential conversations
Unwelcoming Entry	X	X	As an entity serving the public, it is difficult to find the way into the station; for a person reporting a crime may be a safety/response time issue
Inadequate Firearm Storage	X	X	Secure firearm storage area is currently insufficient
No Training Room		X	No ability to have on site trainings; must go off site
Inadequate File Storage		X	Evidence and file storage is inadequate; currently occupy space in Annex
Inadequate Separation of Genders		X	Female officers do not have separated locker space
No Bunk Space	X	X	No overnight space for major emergencies or overnight calls.

# Public Safety Existing Conditions Notes

FUNCTIONAL DEFICIENCIES - FIRE			
Issue	Safety?	Function?	Explanation
No Decontamination System	X	X	Required for removal of carcinogens from firefighters and gear
No Gear Washer/Dryer	X	X	Required for removal of carcinogens from firefighter's gear
No Vehicle Exhaust Removal	X	X	Negatively impacts air quality in the station
Insufficient Gear Storage	X	X	Need for separation between fire turnout gear and improperly vented vehicle spaces and work spaces
Truss Deformation	X	X	Extreme deformation and overstress of truss spanning over garage bays
Lack of Secure Storage	X	X	Lack of secure climate controlled EMS storage space for narcotics and other supplies
Lack of Secure File Storage		X	Securable office space required for HIPPA information and is currently insufficient
Inadequate Office Space	X	X	Currently desks and computers are located in garage bays exposed to chemicals, carcinogens and vehicle exhaust
Inadequate Separation of Genders		X	No space for female firefighters
No Training Room		X	No ability to have on site trainings; must go off site to Station #2
No Bunk Space	X	X	No overnight space for major emergencies or overnight calls. Firefighters forced to sleep on cots or in trucks.
No Real Public Entry	X	X	Lack of separation between public and private spaces/functions
No Hose Drying Facility		X	Lack of system or means to properly dry hoses causes functional issues with hose and early degradation
Truck Bay Doors Low		X	Doors to truck bays are too low to accommodate modern fire trucks; it's a very tight fit to get apparatus safely into the station
Inadequate Day Room		X	Lack of an adequate dayroom with cooking facility
Inadequate Storage		X	Overall lack of storage for vehicles, gear, and supplies leads to early replacement of vehicles and gear

# Public Safety Existing Conditions Notes

## FACILITY DEFICIENCIES – PUBLIC SAFETY

Issue	Safety?	Function?	Explanation
Tight Site	X	X	Potential for vehicular conflicts with other uses at this location especially if a major emergency
Tight Site		X	No room for expansion to add equipment or apparatus and potential for conflicts with other uses in Princeton Common
Insufficient Parking	X	X	An issue when a major emergency occurs requiring many responders
Site Topography	X	X	Grades challenging for equipment; fire trucks filled with water = 50,000 lbs. as well as for snow removal
Water Infiltration Problem	X	X	Severe chloride related damage within concrete vault space below police garage bay where expensive radio equipment is currently stored
Exterior Envelope - Walls		X	Wood clapboards, soffits and fascia in poor shape
Exterior Envelope – Roof		X	Asphalt roof is in poor shape

## Public Safety Existing Conditions Notes

### SHORT TERM REPAIRS TO PUBLIC SAFETY FACILITY (TO ALLOW FOR 2-3 MORE YEARS OF USE):

- Install temporary shoring posts during winter months for roof truss support
- Raise oil tank vent pipe
- Add a motorized damper on the combustion air duct to save energy
- In the police station, replace the utility closet ceiling exhaust fan and other inoperable ceiling exhaust fans.
- Add an exhaust fan to the fire station bathroom.
- Provide new plumbing fixtures. Provide accessible public and staff facilities. Provide mixing valves at lavatories to limit hot water temperature to 110 deg. F. Provide new service sink and drinking fountain.
- Provide backflow preventer on supply to sprinkler heads.
- Provide backflow preventer on supply to hose valves in Apparatus Bays.
- Recommend video inspection to confirm integrity and pitch of existing piping. Replace all poor draining sanitary piping.
- Provide floor drains in garage areas. Drains to discharge to an exterior industrial waste holding tank.

# PHASING DISCUSSION

# PROPOSED PHASING

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- Request funding for Bagg Hall Phase I Scope
- Request funding for Annex Phase I Scope
- Request funding for OPM & Design Services for Public Safety

~ \$ 1.4 M  
~ \$ 600 K  
~ \$ 500 K

**2019**

- Request Funding for Public Safety Complex Project Costs

~ \$ 9 M

**2028?**

- Request Funding for OPM & Design Services for Bagg Hall Expansion

~ \$ 300 k +  
escalation  
(\$600k?)

**2029?**

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(\$10M?)

# PHASING DISCUSSION

2018

- Request funding for Bagg Hall Phase I Scope
- ~~Request funding for Annex Phase I Scope~~
- Request funding for OPM & Design Services for Public Safety (through Const Docs?)

~ \$ 1.4 M  
~ ~~\$ 600 K~~  
~ \$ 500 K

2019

- Request Funding for Public Safety Complex Project Costs

~ \$ 9 M

2022?

- Design & build new 3,500 SF Community Center

\$ ~ 1.5 M

2028?

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~ \$ 300 k +  
escalation  
(\$600k?)

2029?

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# ALL AT ONCE?

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~ \$ 100 k  
~ \$ 500 k

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- Request Funding for Public Safety Complex Project Costs

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~ \$ 9 M

## Pros:

- No funds spent on Annex
- Funds spent on Bagg Hall are more efficient (not broken up into phases)
- Could potentially carry one designer and one contractor for Bagg Hall and Public Safety
- Save significantly on escalation costs

## Cons:

- A substantially larger request in 2019

## Next Steps

- **Develop 3D Renderings**
- **Draft Report Due January 31<sup>st</sup>**
- **Public Meetings in February**
- **Final Report Due February 28<sup>th</sup>**
- **Town Meeting in May**

# THANK YOU



**Jones Whitsett  
Architects, Inc.**

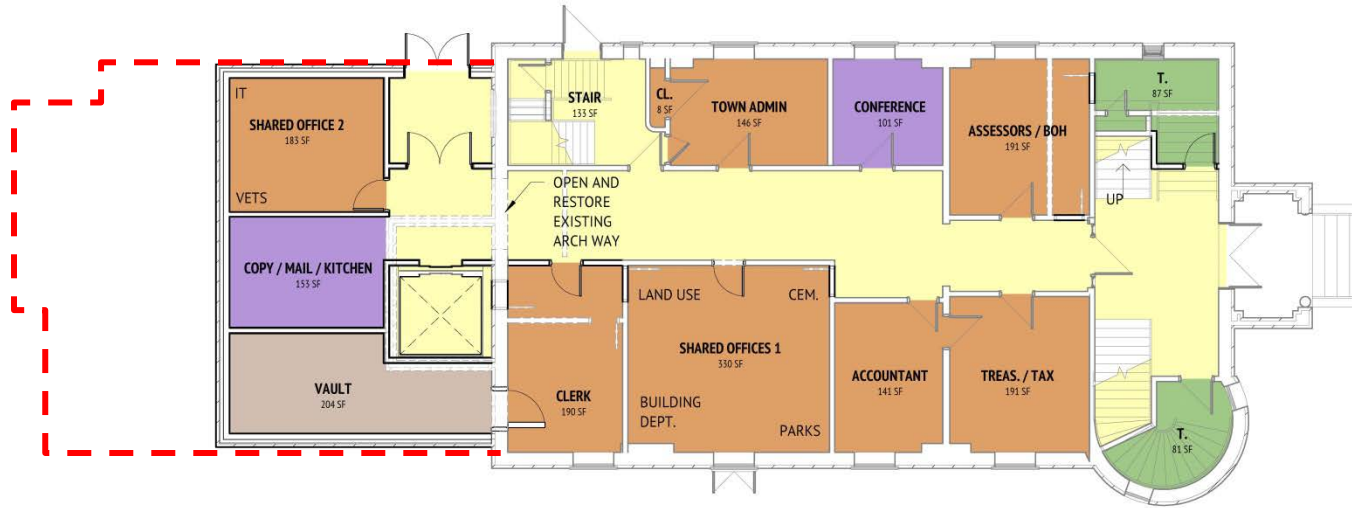
308 Main Street  
Greenfield, MA 01301

413.773.5551  
[www.joneswhitsett.com](http://www.joneswhitsett.com)

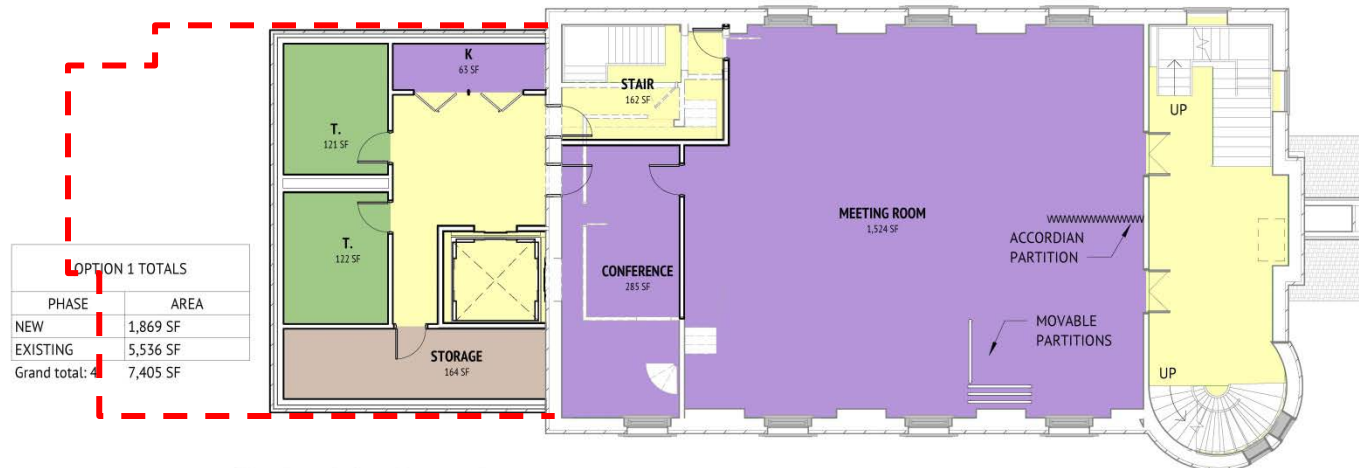
JWA



# OPTION 1 – FLOOR PLANS – LAST MEETING



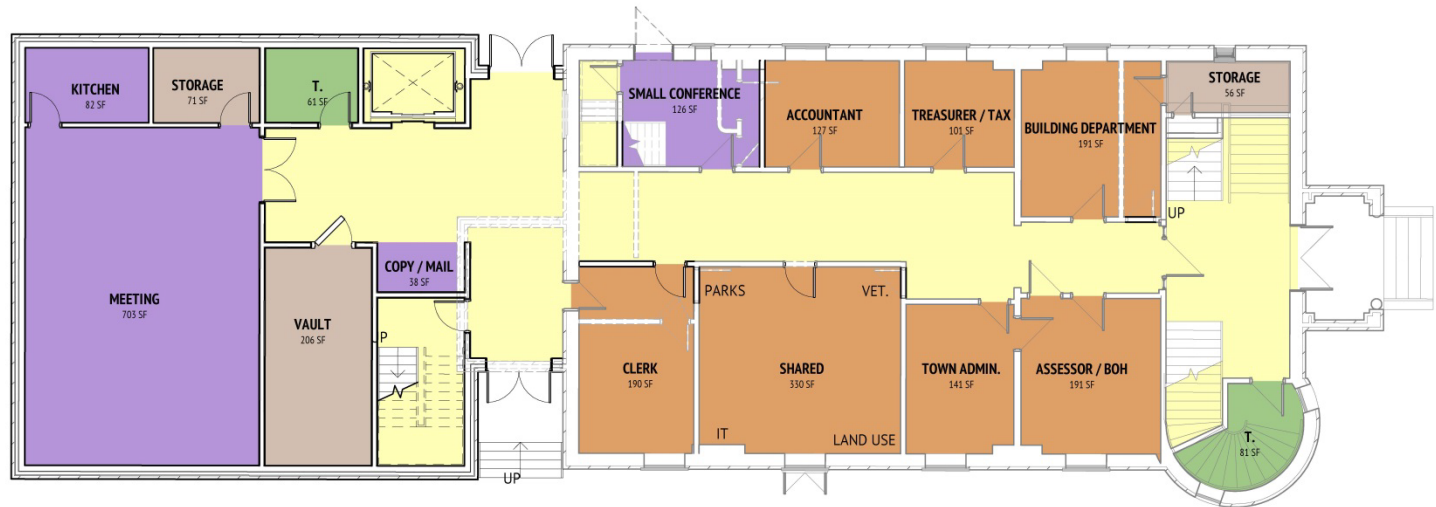
1 Level 1 - Option 1  
3/32" = 1'-0"



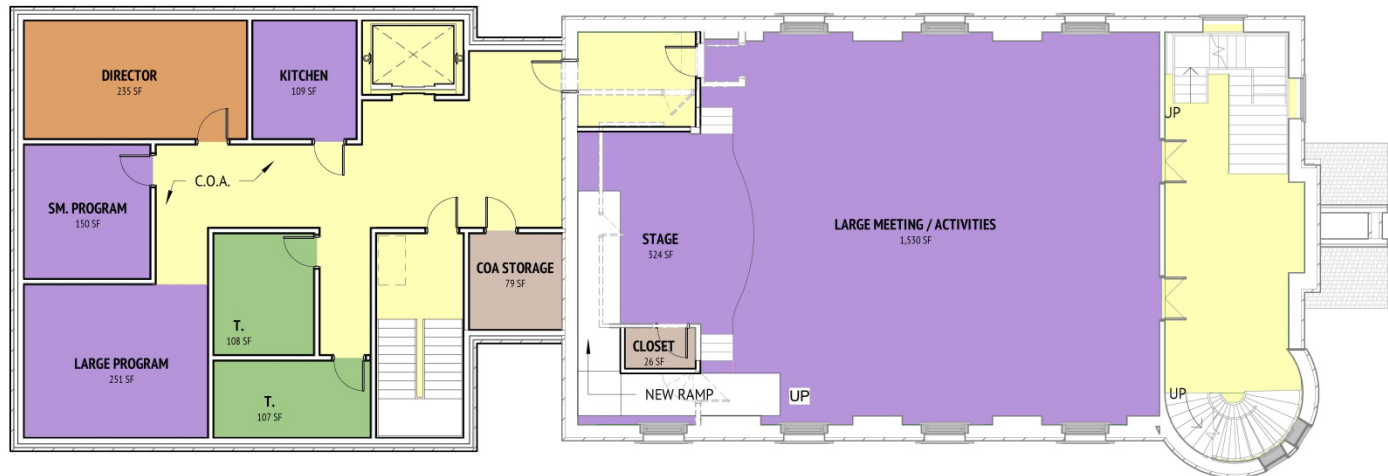
2 Level 2 - Option 1  
3/32" = 1'-0"

OPTION 1 TOTALS	
PHASE	AREA
NEW	1,869 SF
EXISTING	5,536 SF
Grand total:	7,405 SF

# OPTION 2 – FLOOR PLANS – LAST MEETING



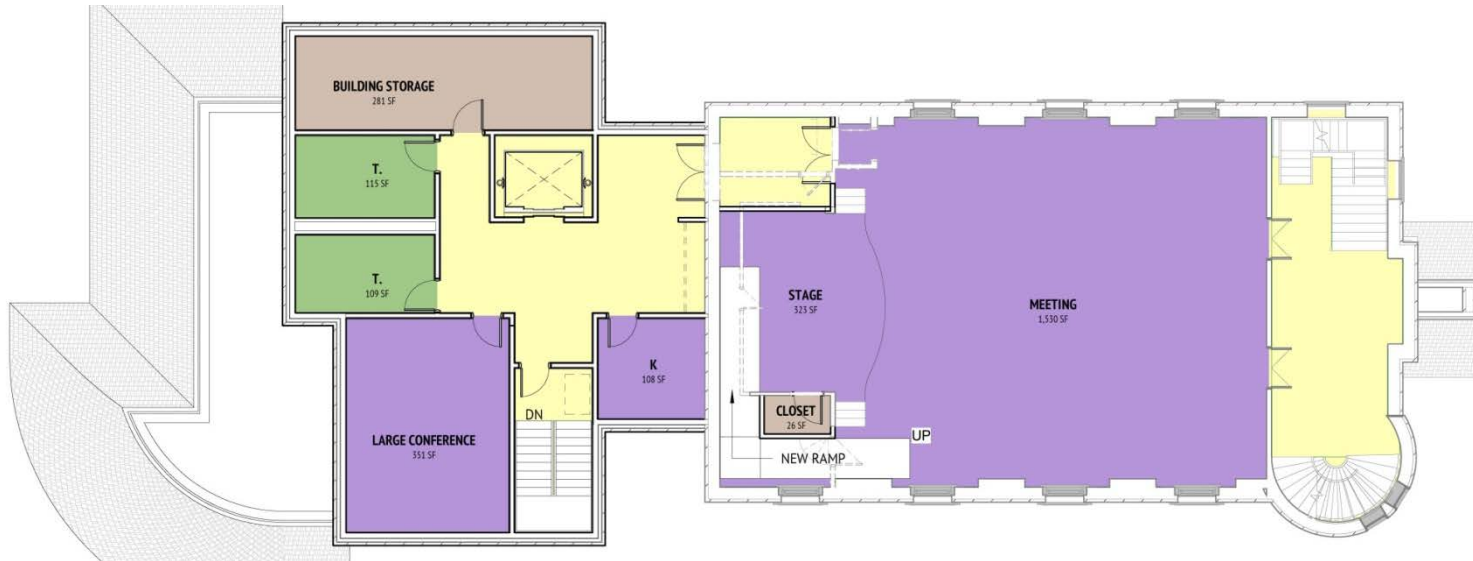
1 Level 1 - Option 2  
3/32" = 1'-0"



OPTION 2 TOTALS	
PHASE	AREA
NEW	4,145 SF
EXISTING	5,536 SF
Grand total: 4	9,681 SF

2 Level 2 - Option 2  
3/32" = 1'-0"

# OPTION 3 – FLOOR PLANS – LAST MEETING



# BAGG HALL – PROGRAMMING SUMMARY

PROGRAM	Option 1	Option 2	Option 3
SQ FT ADDED	1,689	4,145	5,297
DEDICATED COA SPACE	0	715	1,185
COA LOCATED ON FIRST FLOOR	N/A	No	Yes
RETAINS STAGE	No	Yes	Yes
SPACE FOR OTHER BOARDS	Yes	No	No
PRIVATE OFFICES FOR DEPT. HEADS	Yes	Yes	Yes