



# Princeton Fire Department

Staff, Operations, Facilities

Needs assessment



STATION 2  
EAST PRINCETON  
CURRENTLY  
KNOWN AS KWIK STOP/TOWN LINE  
GARAGE



# Officers

- Chief John Bennett
  - Over 38 years with Princeton Fire.
  - Director Emergency Management.
  - Responsible for all operations of the fire department and EMS services.
  - Extensive experience in budgeting.
  - Extensive fire fighting experience in highly volatile environments.
  - Executive, Commercial Helicopter Pilot, 100 Ton ship captain
- Deputy Chief Tim Kelly
  - Over 20 years with the department
  - EMS Coordinator
  - Chief Inspector and enforcement certified.
  - Chief officer certified
  - Public Education Coordinator
  - EMT- Intermediate
  - Confined Space, Rope Rescue Tech
  - Full Time – Professional Firefighter / Deputy Chief

# Officers

- Chaplain Peter Rotando
  - EMT
  - Over 45 years in the Fire Service
  - Chaplain
  - Critical Incident Stress Counselor
  - Member Mass. Association of Fire Chaplains
  - Retired – Mass Highway
- Deputy Chief Richard Hawkins
  - Over 40 years with Department
  - Firefighter / EMT
  - In Charge of
    - Fleet maintenance
    - Building maintenance
    - Training
    - Driver Training

# Officers

- EMS Captain Bill Dino
  - Paramedic
  - ALS Coordinator
    - Runs Paramedic On-call Program
    - Oversees all ALS personnel
  - Full Time
    - Ambulance Director – Barre Ambulance
    - Air Medical transportation business
- Lieutenant Brian Long
  - Over 20 years in the fire service
  - Firefighter EMT
  - Training officer
  - Massachusetts Firefighting Academy Training Officer
  - Retired Massport Transportation Authority

# Officers

- Lieutenant Phil Connors
  - Firefighter EMT
  - Over 20 years in the fire service
  - Training Officer
  - Certified carpenter
- Lieutenant Steve Giamo
  - Firefighter EMT
  - Over 10 years in the fire service
  - Training officer
  - Full time certified electrician

# Princeton Fire Dept.

## Membership      Total (36)

- **Princeton Residents**

- Officers – 4
- Paramedics – 4
- EMTs - 3
- Firefighters – 1
- Firefighter/EMTs - 2
- Recruit FF – 2
- Total - 16

- **Non-Residents**

- Officers – 3
- Paramedics – 2
- EMTs - 4
- Firefighters – 1
- Firefighter/EMTs - 8
- Recruit FF – 2
- Total - 20

We must accept that this is not a hobby or a club. Firefighting and Emergency Medicine are professions done by professionals. In our case ... part time.

IN 1979 there were 50 members and most training was done in-house. Members were volunteers or received small stipends. Much of their equipment they bought themselves.

Today the Princeton Fire Dept. is ½ that size with more jobs, more costs and more training requirements.

# The Economy & It's Affect

- Personnel response at night is limited due to fears of being tired at work and job risk.
- Alternative Energy Use (wood, Coal, Solar etc.) is up and increases chimney fires and CO calls.
- Vehicle Accidents. Tire replacement is down along with regular maintenance.
- Less Dr's visits due to Co-Pays. We see more calls but also increased refusals. We can't bill if we don't transport but we still must respond.
- Stress! We have more chest pain calls and services provided related to emotional stress.



# EMS Staffing Issues

- Massachusetts requires 2 EMTs to transport a patient.
- We have one Paramedic on-call 24 hours a day 70% of the time with our on-call program.
- During the day the only other EMT that is regularly available is on the building department & the highway dept. and cannot always leave work.
- Evening calls: EMTs must balance response vs. needs for full time work the next day. Calls from 3 a.m. to 6 a.m. will have limited response. Studies show that most heart attacks happen at 4 a.m.
- Our primary challenge is getting the 2<sup>nd</sup> EMT....
- Critical Response time is 4 to 6 minutes.

# Fire Staffing Issues

- National Fire Protection Agency (NFPA) standards consider 4 personnel a company.
- Each fire apparatus needs a minimum of 4 personnel to complete a task on the fire ground.
- In order to make any entry to a fire we need to have “At a Minimum”.
  - 2 Firefighters to make entry, 2 Firefighters outside in case the first in crew requires rescue and one Officer to run the incident.
- A room and contents fire needs 3 companies (3 trucks, 12 Firefighters to be handled safely.
- Ceiling temperatures can exceed 1,200°F in less than 12 minutes in a one room Christmas Tree fire.

# Jobs on the Fire ground

- 1<sup>st</sup> Engine – first hose line to fire
- 2<sup>nd</sup> Engine – back up line in case 1<sup>st</sup> line fails
- Ladder – ventilation and rescue duties
- Officers – Command and safety rolls
- 12 firefighters and 3 Officers at a minimum.
- Problem – During the day we have 2-4 men respond and 6-8 at night. Not enough to do the job.....

# Mutual Aid is only part of the answer

- Short staffing at all fire departments means towns support each other to fill out the assignments.
- What have we done to get by ?? Send the people we have and hope that we can manage. Call mutual aid if needed.
- A real working fire in Princeton will always require mutual aid as it does in all towns.
- Neighboring towns knowingly limit their requests to Princeton due to our lack of personnel.
- In other words we ask for their help but can't return the favor.. The basis for Mutual Aid agreements....

# What prevents us from getting new people?.....TIME!!

- Firefighter 1-2 One Year Minimum Training
  - Recruit class is 2 nights and alternating Saturdays for 6 months. Over 300 hours of basic training and then in-house training going forward.
  - Cost = \$3,000 in gear and \$3,000 in payroll.
- EMT requires 6 months of training
  - EMT Classes are 2 nights and every other Saturday for 4 months.
  - Cost = \$1,000 for class and \$1,800 in payroll.

# Budget issues

- The Fire budget was written based on the needs of the department 10 years ago.
- P.F.D. has been level funded for 10 years. We experience an 3% cost increase in services annually therefore all estimates are that we are underfunded by 34% today.
- Capital purchases are 17 years in the rears. Equipment is older and in need of more repair.
- We have requested State and Federal grants with success. This is a very timely process but we secured over \$227,000 in grants in calendar 2017.
- New requirements mean higher costs.
  - Ex. All turnout gear is to be inspected annually and replaced after 10 years. Cost of \$3,000 each set.

# Payroll Costs

- Massachusetts Fire Information System Data Entry & Payroll = 10-15 hours a month. Cost is only \$200.00 vs. \$900.00 for payroll company.
- Fire Officer weekend on-call – 20 hours per weekend but we only pay for 6 hours.
- Building/Vehicle Maintenance – 30+ hours a month
- EMS Coordinator – 30+ hours monthly admin
  - EMS Training, ordering supplies, maintaining license and certifications for ambulance, all FD emails and FD communications.
- ALS Coordinator – 10 hours monthly admin – scheduling medics for on-call program
- Training Officers- Planning 10+ hours a month
- During Burning Season – Sometimes 4-6 hours a weekend checking permits.

# What have we done to address our issues

- Do more with less. Example. Federal Excess property has provided us 2 trucks that we had to retrofit for brush fire service duty.
- Members voted to set an \$8.00 per hour pay for outside programs including initial EMT and Fire training.
- We brought in people from out of town to fill our ranks, unfortunately this does not help us in the first 10 minutes as it takes time for them to arrive.
- Aggressive training so that the members we have are better prepared to respond and can multi-task at the scene of a fire or EMS call.



# 10 Alarm Card

Scene Location	1st Alarm	2nd Alarm	3rd Alarm	4th Alarm	5th Alarm,	6th Alarm	7th Alarm	8th Alarm	9th Alarm	10th Alarm
<b>East of Center</b>										
Cover to Headquarters	Holden	Holden	Rutland Ladder	Hubbardston	Fitchburg	Barre	Leominster	West Boylston	Gardner	Paxton Ladder
Cover to Station #2	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston	Fitchburg	Barre	Leominster	West Boylston	Gardner
Respond to Scene	Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston	Fitchburg	Barre	Leominster	West Boylston
Respond to Scene		Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston	Fitchburg	Barre	Leominster
Respond to Scene			Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston	Fitchburg	Barre
Respond to Scene				Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston	Fitchburg
Respond to Scene					Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder	Hubbardston
Respond to Scene						Sterling Ladder	Sterling	Westminister	Holden	Rutland Ladder
Respond to Scene							Sterling Ladder	Sterling	Westminister	Holden
Respond to Scene								Sterling Ladder	Sterling	Westminister
Respond to Scene									Sterling Ladder	Sterling
Respond to Scene										Sterling Ladder
<b>West of Center</b>										
Cover to Station #2	Sterling	Westminister	Westminister	West Boylston	Fitchburg	Leominster	Lancaster	Gardner	Sterling	Boylston
Cover to Headquarters	Hubbardston	Sterling	Holden Ladder	Westminister	West Boylston	Fitchburg	Leominster	Lancaster	Gardner	Sterling
Respond to Scene	Rutland Ladder	Hubbardston	Sterling	Holden Ladder	Westminister	West Boylston	Fitchburg	Leominster	Lancaster	Gardner
Respond to Scene		Rutland Ladder	Hubbardston	Sterling	Holden Ladder	Westminister	West Boylston	Fitchburg	Leominster	Lancaster
Respond to Scene			Rutland Ladder	Hubbardston	Sterling	Holden Ladder	Westminister	West Boylston	Fitchburg	Leominster
Respond to Scene				Hubbardston	Hubbardston	Sterling	Westminister	West Boylston	Fitchburg	Fitchburg
Respond to Scene				Rutland Ladder	Rutland Ladder	Hubbardston	Sterling	Holden Ladder	Westminister	West Boylston
Respond to Scene						Rutland Ladder	Hubbardston	Sterling	Holden Ladder	Westminister
Respond to Scene							Rutland Ladder	Hubbardston	Sterling	Holden Ladder
Respond to Scene								Rutland Ladder	Hubbardston	Sterling
Respond to Scene									Rutland Ladder	Hubbardston
Respond to Scene										Rutland Ladder
<b>South of Center</b>										
Cover to Station #2	Sterling Ladder	Sterling Ladder	Westminister	Fitchburg	West Boylston	Leominster	Lancaster	Lancaster	Boylston	Boylston
Cover to Headquarters	Rutland	Hubbardston	Sterling Ladder	Westminister	Fitchburg	West Boylston	Leominster	Barre	Lancaster	Gardner
Respond to Scene	Holden Ladder	Rutland	Hubbardston	Sterling Ladder	Westminister	Fitchburg	West Boylston	Leominster	Barre	Lancaster
Respond to Scene		Holden Ladder	Rutland	Sterling Ladder	Sterling Ladder	Westminister	Fitchburg	West Boylston	Leominster	Barre
Respond to Scene			Holden Ladder	Rutland	Hubbardston	Sterling Ladder	Westminister	Fitchburg	West Boylston	Leominster
Respond to Scene				Holden Ladder	Rutland	Hubbardston	Sterling Ladder	Westminister	Fitchburg	West Boylston
Respond to Scene					Holden Ladder	Rutland	Hubbardston	Sterling Ladder	Westminister	Fitchburg
Respond to Scene						Holden Ladder	Rutland	Hubbardston	Sterling Ladder	Westminister
Respond to Scene							Holden Ladder	Rutland	Hubbardston	Sterling Ladder
Respond to Scene								Holden Ladder	Rutland	Hubbardston
Respond to Scene									Holden Ladder	Rutland
Respond to Scene										Holden Ladder
<b>North of Center</b>										
Cover to Station #2	Sterling	Sterling	Sterling	Fitchburg	West Boylston	West Boylston	Leominster	Lancaster	Boylston	Gardner
Cover to Headquarters	Rutland	Hubbarston	Holden Ladder	Sterling	Fitchburg	Barre	West Boylston	Leominster	Lancaster	Boylston
Respond to Scene	Westminister Ladder	Hubbardston	Hubbardston	Fitchburg	Sterling	Fitchburg	West Boylston	Leominster	Lancaster	Lancaster
Respond to Scene		Westminister Ladder	Rutland	Hubbardston	Holden Ladder	Sterling	Fitchburg	Barre	West Boylston	Leominster
Respond to Scene			Westminister Ladder	Rutland	Hubbardston	Holden Ladder	Sterling	Fitchburg	Barre	West Boylston
Respond to Scene				Westminister Ladder	Rutland	Hubbardston	Sterling	Fitchburg	Barre	West Boylston
Respond to Scene					Westminister Ladder	Rutland	Hubbardston	Sterling	Fitchburg	Barre
Respond to Scene						Rutland	Hubbardston	Holden Ladder	Sterling	Fitchburg
Respond to Scene						Westminister Ladder	Rutland	Hubbardston	Holden Ladder	Sterling
Respond to Scene							Westminister Ladder	Rutland	Hubbardston	Holden Ladder

# Princeton Fire Department

## ALARM ASSIGNMENT

Community:		PRINCETON					DISTRICT: EAST		
Local Alarm Level			TO FIRE					COVER	
		ENGINES		LADDERS	SPECIALS	CHIEFS	ENGINE HQ	ENGINE STA 2	LADDER HQ
Still	ENGINE 2			LADDER1	EA				
1st	ENGINE 2	ENGINE 1		LADDER 1	PRIMARY EA				
Wrk Fire	ENGINE 5	STERLING	HOLDEN (RIT)	STERLING			HUBBARDSTON	WESTMINSTER	RUTLAND
2nd	HUBBARDSTON	WESTMINSTER		RUTLAND			BARRE	W BOYLSTON	WESTMINSTER
3rd	BARRE	W BOYLSTON		WESTMINSTER			PAXTON	BOYLSTON	WEST BOYL.
4th	PAXTON	BOYLSTON					HUBBARDSTON	LEOMINSTER	
5th	HUBBARDSTON	LEOMINSTER					OAKHAM	FITCHBURG	
6th			STATEWIDE FIRE MOBILIZATION PLAN						
	STERLING	978-422-7331		PAXTON	508-793-3106		DFS REHAB	800-831-0569	
MUTUAL AID	HOLDEN	978-		HUBBARDSTON	508-886-4033		MEMA	800-831-0569	
PHONE #'S	WEST BOYLSTON	508-832-3233		BOYLSTON	508-869-2113		DCR CONTROL	800-831-0569	
	RUTLAND/OAKHAM	508-886-4033		LEOMINSTER	978-534-7541		WACH FIRE TOWER	978-464-2987	
additional available equipment	Working Fire: Red Cross			WESTMINSTER	978-874-2313		WORC. CANTINE	508-735-7478	508-560-1504
	WORKING FIRE: TANKERS TO SCENE						RED CROSS	508-756-5711	
	3rd Alarm: DFS Rehab								
Specialized Equipment	TANKERS:	HOLDEN	RUTLAND	STERRLING	OAKHAM	BOYL.	HUBBARDSTON	WESTMINSTER	
	DIVE TEAM:	STERLING	MIDSTATE FOR	REGIONAL	DIVE TEAM				
	FOAM:	HOLDEN							

MUTUAL AID AMBULANCES STERLING, WEST BOYLSTON

AFTER 3RD ALARM LADDERS ARE SPECIAL CALL

7/31/2014

# Princeton Fire Department

## ALARM ASSIGNMENT

Community:		PRINCETON					DISTRICT: SOUTH		
Local Alarm Level			TO FIRE					COVER	
		ENGINES		LADDERS	SPECIALS	CHIEFS	ENGINE HQ	ENGINE STA 2	LADDER HQ
Still	ENGINE 2			LADDER1	EA				
1st	ENGINE 2	ENGINE 1		LADDER 1	PRIMARY EA				
Wrk Fire	ENGINE 5	HOLDEN	STERLING (RIT)	RUTLAND			HUBBARDSTON	W BOYLSTON	WESTMINSTER
2nd	HUBBARDSTON	W BOYLSTON		WESTMINSTER			BARRE	FITCHBURG	WEST BOYL.
3rd	BARRE	FITCHBURG		WEST BOYL.			PAXTON	BOYLSTON	CLINTON
4th	PAXTON	BOYLSTON					GARDNER	LEOMINSTER	
5th	GARDNER	LEOMINSTER					ASHBURNHAM	LANCASTER	
6th	STATEWIDE FIRE MOBILIZATION PLAN								
	STERLING	978-422-7331		PAXTON	508-793-3106		DFS REHAB	800-831-0569	
MUTUAL AID	HOLDEN	978-		HUBBARDSTON	508-886-4033		MEMA	800-831-0569	
PHONE #S	WEST BOYLSTON	508-832-3233		BOYLSTON	508-869-2113		DCR CONTROL	800-831-0569	
	RUTLAND/OAKHAM	508-886-4033		LEOMINSTER	978-534-7541		WACH FIRE TOWER	978-464-2987	
additional available equipment	Working Fire: Red Cross			WESTMINSTER	978-874-2313		WORC. CANTINE	508-735-7478	508-560-1504
	WORKING FIRE: TANKERS TO SCENE						RED CROSS	508-756-5711	
	3rd Alarm: DFS Rehab								
Specialized Equipment	TANKERS:	HOLDEN	RUTLAND	PAXTON	OAKHAM	BOYL.	HUBBARDSTON	WESTMINSTER	
	DIVE TEAM:	STERLING	MIDSTATE FOR	REGIONAL	DIVE TEAM				
	FOAM:	HOLDEN							

MUTUAL AID AMBULANCES HOLDEN , RUTLAND

AFTER 3RD ALARM LADDERS ARE SPECIAL CALL

7/31/2014

# PRINCETON FIRE DEPARTMENT

## ALARM ASSIGNMENT

Community:		PRINCETON					DISTRICT: WEST		
Local Alarm Level			TO FIRE					COVER	
		ENGINES		LADDERS	SPECIALS	CHIEFS	ENGINE HQ	ENGINE STA 2	LADDER HQ
Still	ENGINE 2			LADDER1	EA				
1st	ENGINE 2	ENGINE 1		LADDER 1	PRIMARY EA				
Wrk Fire	ENGINE 5	HUBBARDSTON	STERLING (RIT)	RUTLAND			HOLDEN	FITCHBURG	WESTMINSTER
2nd	HOLDEN	FITCHBURG		WESTMINSTER			WEST BOYLSTON	LEOMINSTER	CLINTON
3rd	WEST BOYLSTON	LEOMINSTER		CLINTON			PAXTON	BOYLSTON	HOLDEN
4th	PAXTON	BOYLSTON					GARDNER	LANCASTER	
5th	GARDNER	LANCASTER					ASHBURNHAM	BERLIN	
6th	STATEWIDE FIRE MOBILIZATION PLAN								
	STERLING	978-422-7331		PAXTON	508-793-3106		DFS REHAB	800-831-0569	
MUTUAL AID	HOLDEN	978-		HUBBARDSTON	508-886-4033		MEMA	800-831-0569	
PHONE #'S	WEST BOYLSTON	508-832-3233		BOYLSTON	508-869-2113		DCR CONTROL	800-831-0569	
	RUTLAND/OAKHAM	508-886-4033		LEOMINSTER	978-534-7541		WACH FIRE TOWER	978-464-2987	
additional available equipment	Working Fire: Red Cross			WESTMINSTER	978-874-2313		WORC. CANTINE	508-735-7478	508-560-1504
	WORKING FIRE: TANKERS TO SCENE						RED CROSS	508-756-5711	
	3rd Alarm: DFS Rehab								
Specialized Equipment	TANKERS:	HOLDEN	RUTLAND	PAXTON	OAKHAM	BOYL.	HUBBARDSTON	WESTMINSTER	
	DIVE TEAM:	STERLING	MIDSTATE FOR	REGIONAL	DIVE TEAM				
	FOAM:	HOLDEN							

MUTUAL AID AMBULANCES RUTLAND, HUBBARSTON

AFTER 3RD ALARM LADDERS ARE SPECIAL CALL

7/31/2014

# Princeton Fire Department

## ALARM ASSIGNMENT

Community:		Princeton					DISTRICT: NORTH		
Local Alarm Level			TO FIRE					COVER	
		ENGINES		LADDERS	SPECIALS	CHIEFS	ENGINE HQ	ENGINE STA 2	LADDER HQ
Still	ENGINE 2			LADDER1	EA				
1st	ENGINE 2	ENGINE 1		LADDER 1	PRIMARY EA				
Wrk Fire	ENGINE 5	WESTMINSTER	HOLDEN (RIT)	STERLING			HUBBARDSTON	W BOYLSTON	RUTLAND
2nd	HUBBARDSTON	W BOYLSTON		RUTLAND			BARRE	STERLING	WESTMINSTER
3rd	BARRE	STERLING		WESTMINSTER			PAXTON	BOYLSTON	WEST BOYL.
4th	PAXTON	BOYLSTON					CLINTON	LEOMINSTER	
5th	HUBBARDSTON	LEOMINSTER					OAKHAM	FITCHBURG	
6th			STATEWIDE FIRE MOBILIZATION PLAN						
	STERLING	978-422-7331		PAXTON	508-793-3106		DFS REHAB	800-831-0569	
MUTUAL AID	HOLDEN	978-		HUBBARDSTON	508-886-4033		MEMA	800-831-0569	
PHONE #'S	WEST BOYLSTON	508-832-3233		BOYLSTON	508-869-2113		DCR CONTROL	800-831-0569	
	RUTLAND/OAKHAM	508-886-4033		LEOMINSTER	978-534-7541		WACH FIRE TOWER	978-464-2987	
additional available equipment	Working Fire: Red Cross			WESTMINSTER	978-874-2313		WORC. CANTINE	508-735-7478	508-560-1504
	WORKING FIRE: TANKERS TO SCENE						RED CROSS	508-756-5711	
	3rd Alarm: DFS Rehab								
Specialized Equipment	TANKERS:	HOLDEN	RUTLAND	STERLING	OAKHAM	BOYL.	HUBBARDSTON	WESTMINSTER	
	DIVE TEAM:	STERLING	MIDSTATE FOR	REGIONAL	DIVE TEAM				
	FOAM:	HOLDEN							

MUTUAL AID AMBULANCES WESTMINSTER, STERLING



AFTER 3RD ALARM LADDERS ARE SPECIAL CALL

7/31/2014



# Why is response time so important? Why do we need two fire stations in Princeton?

- The critical time window to rescue a person suffering from oxygen depletion is 4 to 6 minutes. Brain damage will set in after 4 minutes.

## Response Drill

- Senior firefighter Dave Richard's home to Station #2  15 minutes
- Engine #1 Station #2 to 500 Hubbardston Rd  11 minutes

**Total response time 26 minutes**

- Deputy Chief Tim Kelly's home to Headquarters  7 minutes
- Engine #5 Headquarters to 500 Hubbardston Rd.  8 minutes

**Total response time 15 minutes**

- <https://www.youtube.com/watch?v=IKel2MdPn58>
- <https://www.youtube.com/watch?v=aDNPhq5ggoE>

So...What about Water??  
What about My House? What  
are these ISO Standards?  
How will it affect me?

*We are trained professionals*  
*with a personal calling to*  
*protect YOU so here are the*  
*FACTS !!!*



# 2017 Statistics

- 351 Calls for Service
- 139 Fire Calls = 40 %
- 211 EMS Calls = 60 %
- 36 Members, 16 Live in Princeton, 20 come from other towns.
- Members performed 18 Public Education programs
- Inspectors performed over 250 Inspections for Smoke and CO Alarms, Propane installations, Oil burner and Oil tank installations as well as mandatory fire safety inspections.

We work extremely hard to save Princeton Residents \$\$\$

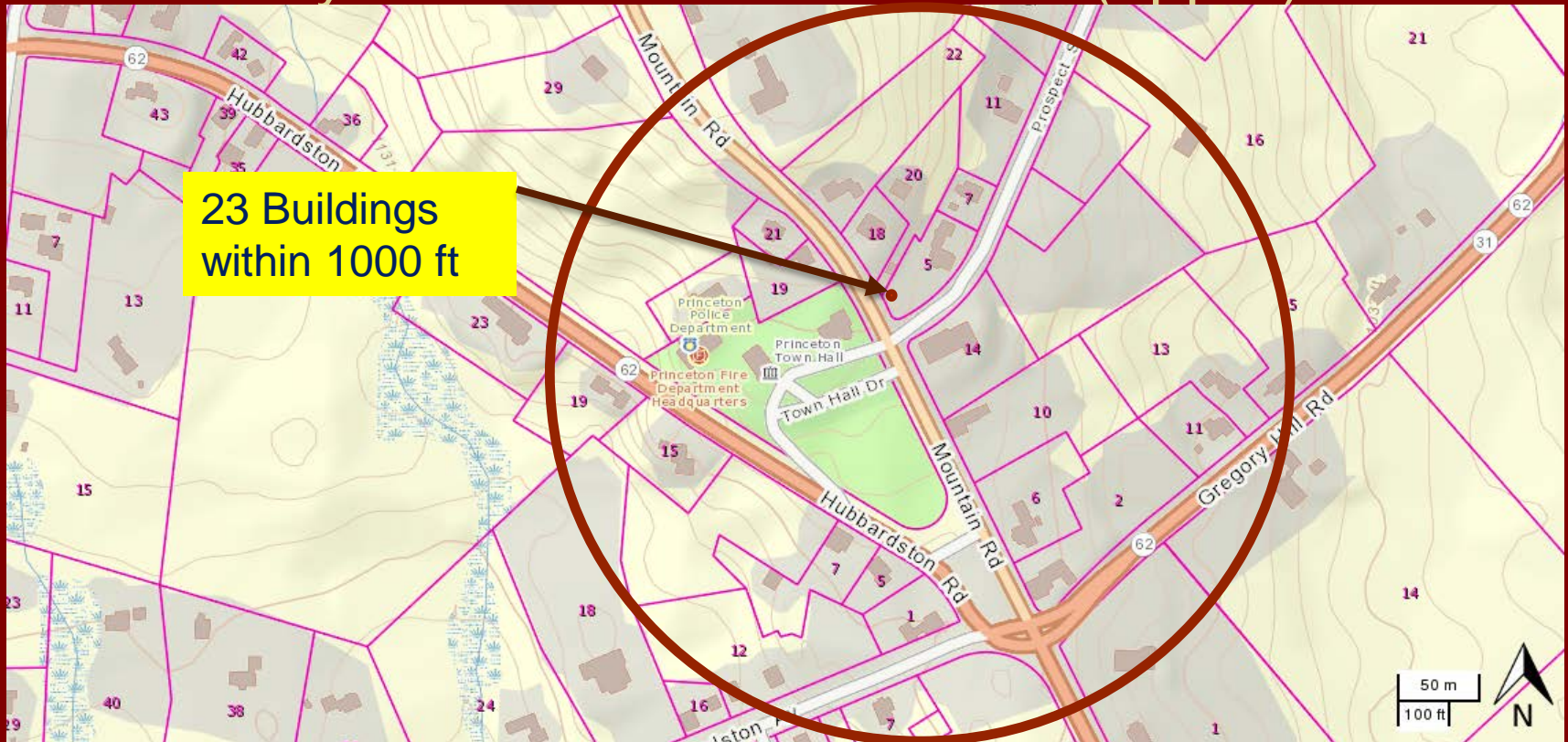
- **3 Grants received in 2017**
  - FEMA Assistance to Firefighters Grant - \$220,000 (\$11,000 Town Match)
  - MEMA Emergency Management Program Grant - \$2,460.00
  - Student Awareness of Fire Education (SAFE) Grant \$ 5,358.00 for the education of youth and senior citizens in Fire Safety. This grant is used to give free Smoke Alarms and Co Alarms to our Senior residents.

# Homes within 1000 Ft of waterholes

These distance are along the  
roads the fire apparatus will travel  
to reach hydrants.



## Hydrant # 1 Town Common (upper)

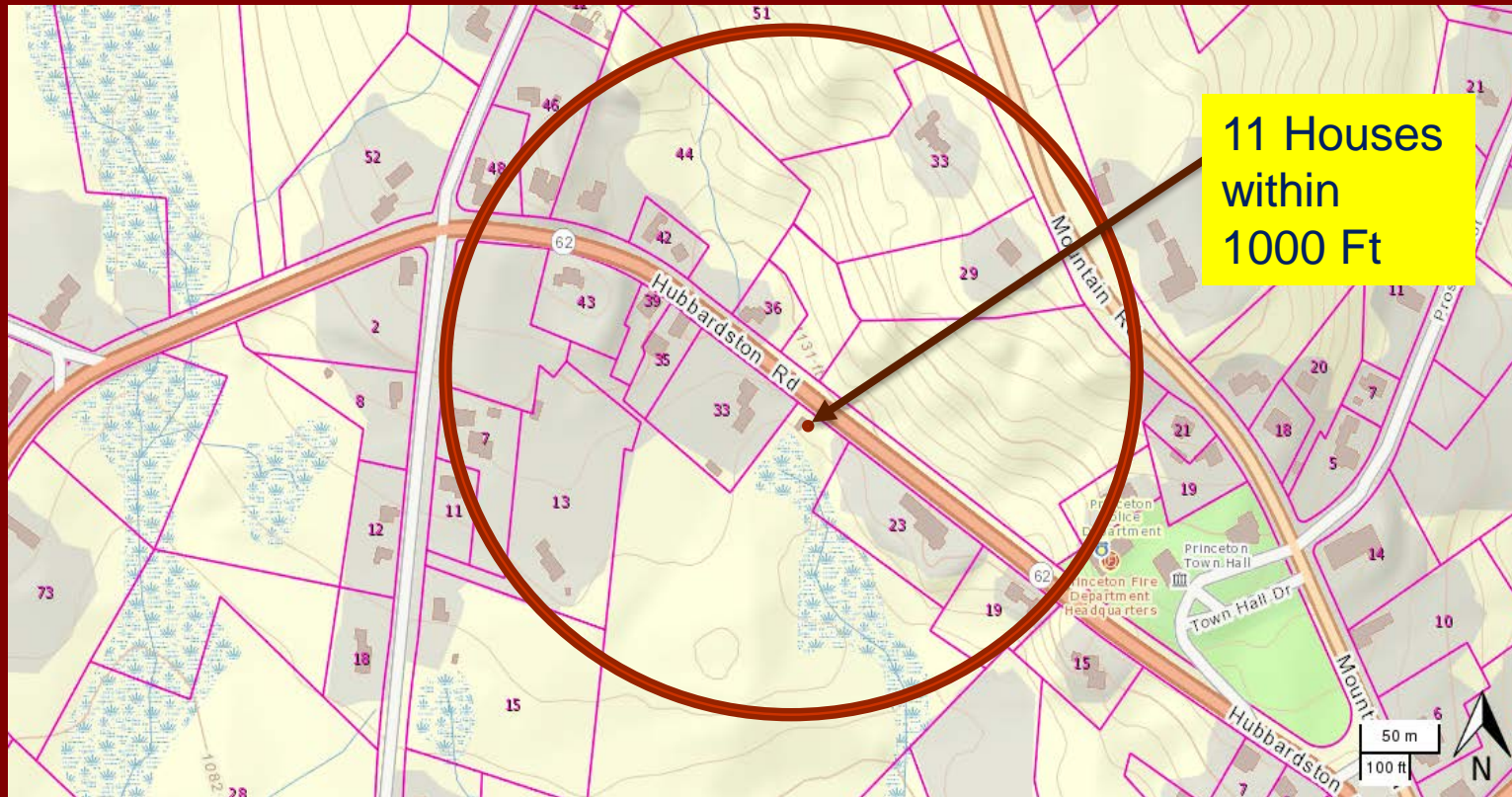




# Hydrant #2 Boylston Ave

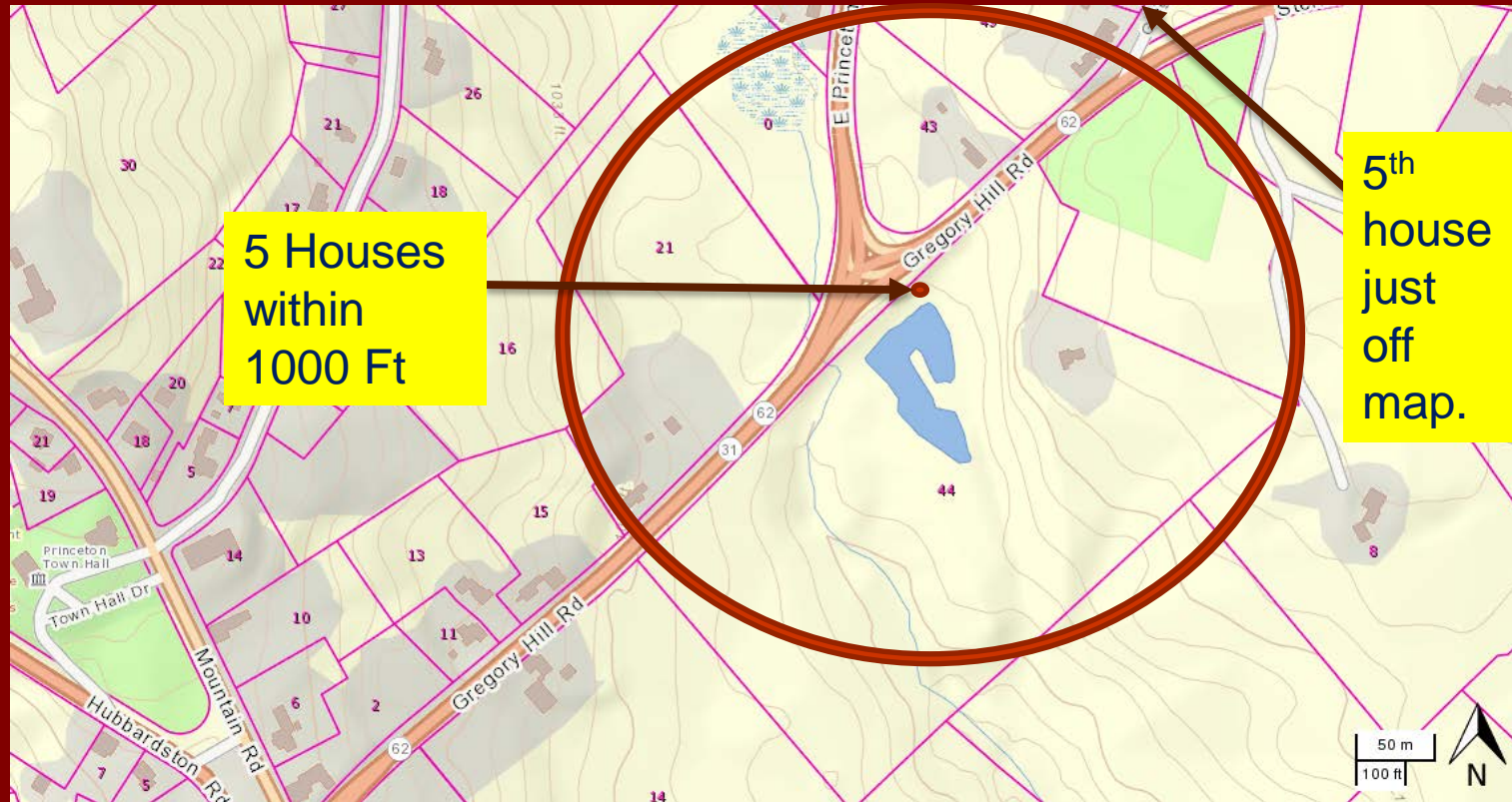


# Hydrant # 3 Hubbardston Rd

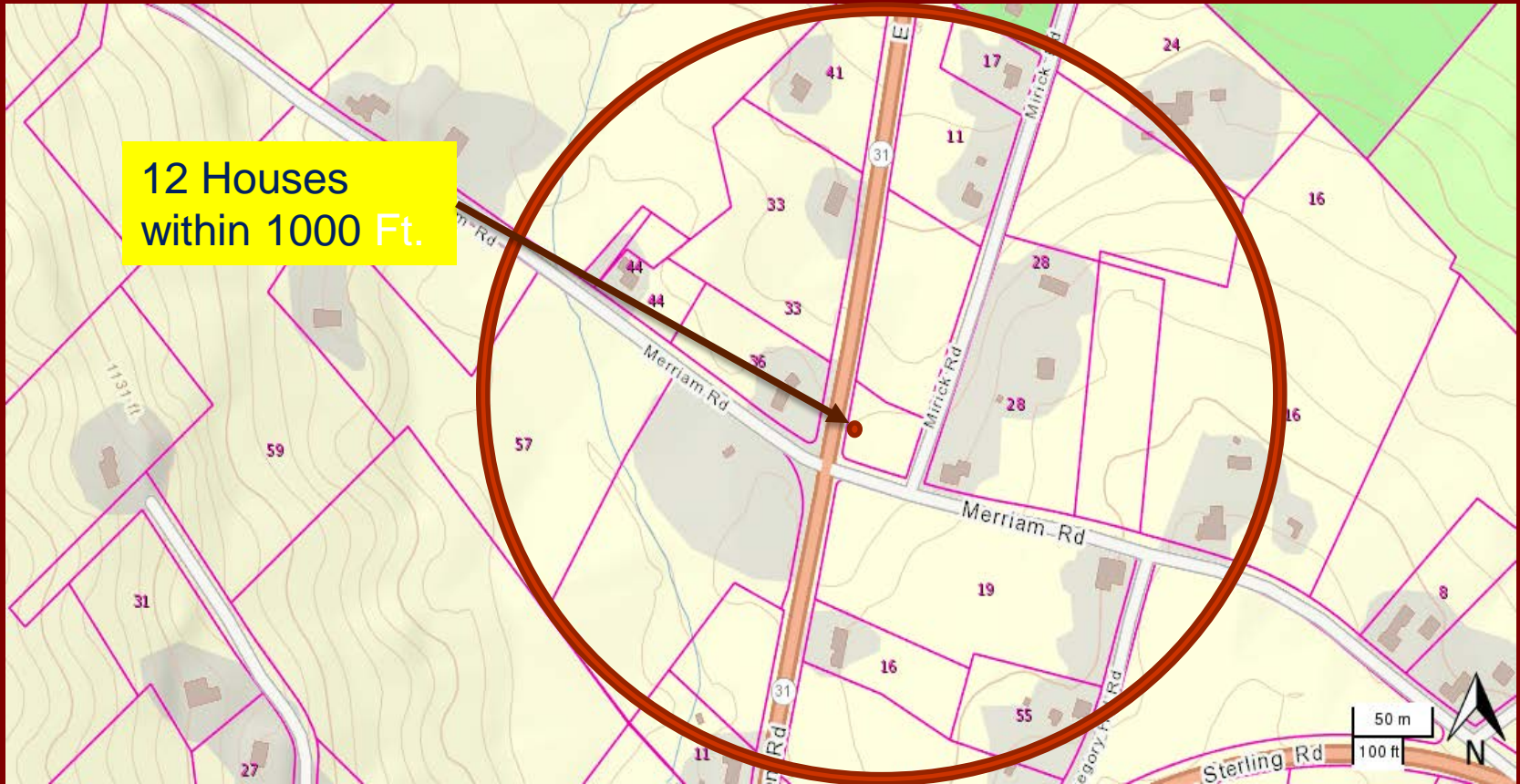




# Hydrant # 4 Sterling & Gregory Hill Rd

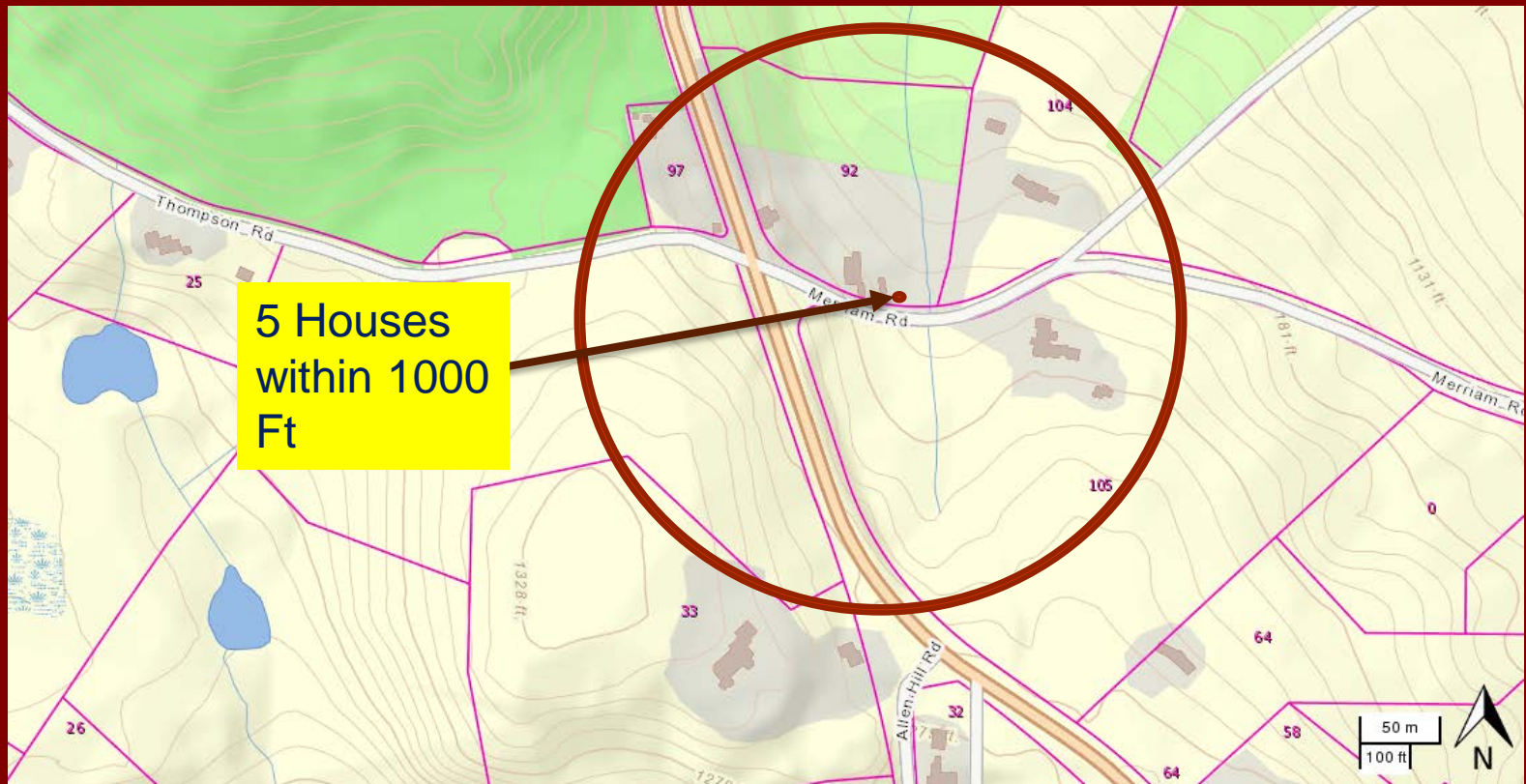


# Hydrant # 5 E.Princeton & Merriam Rd

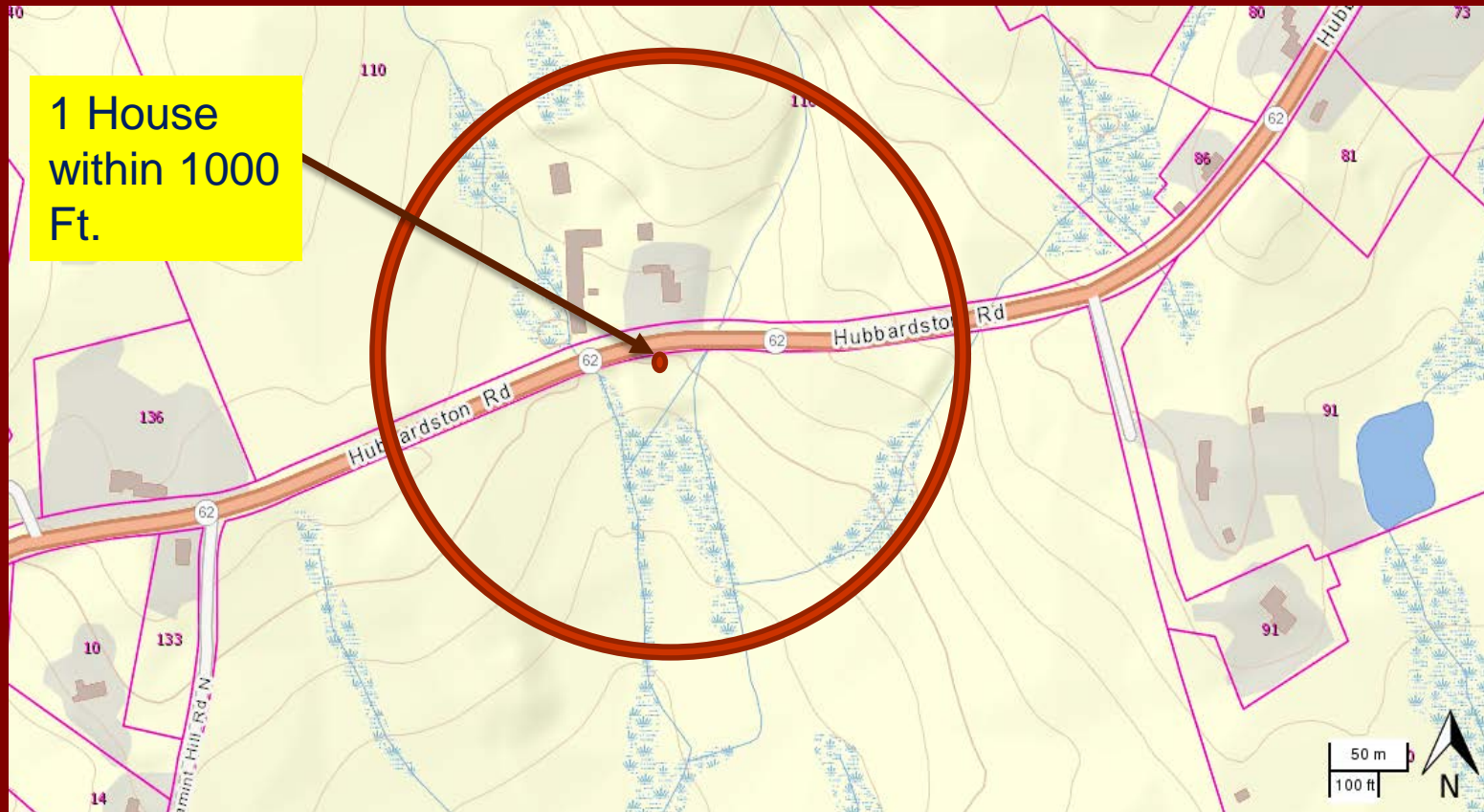




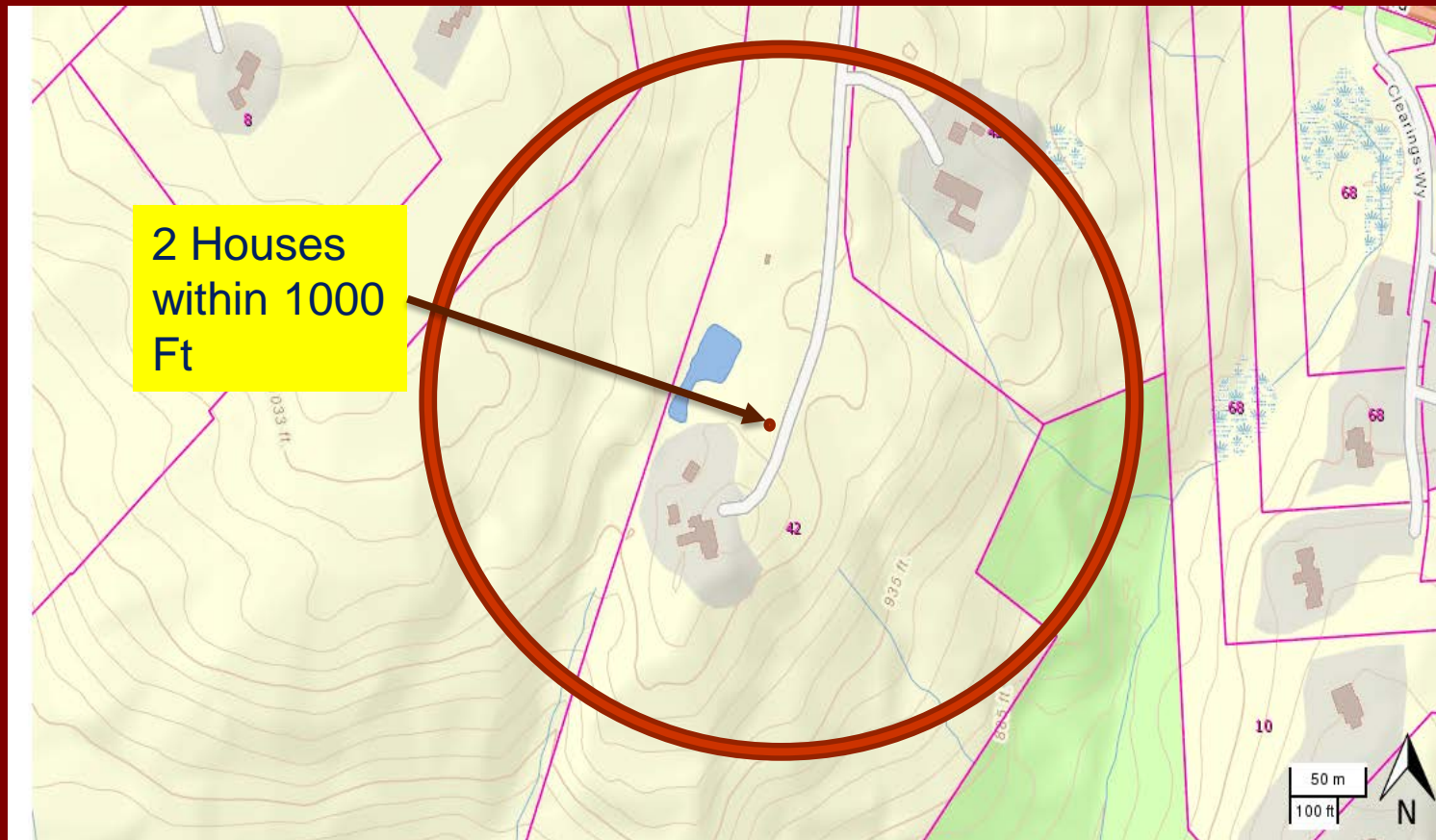
# Hydrant # 6 Merriam Rd (Mt. road end)



# Hydrant # 7 111 Hubbardston Rd.

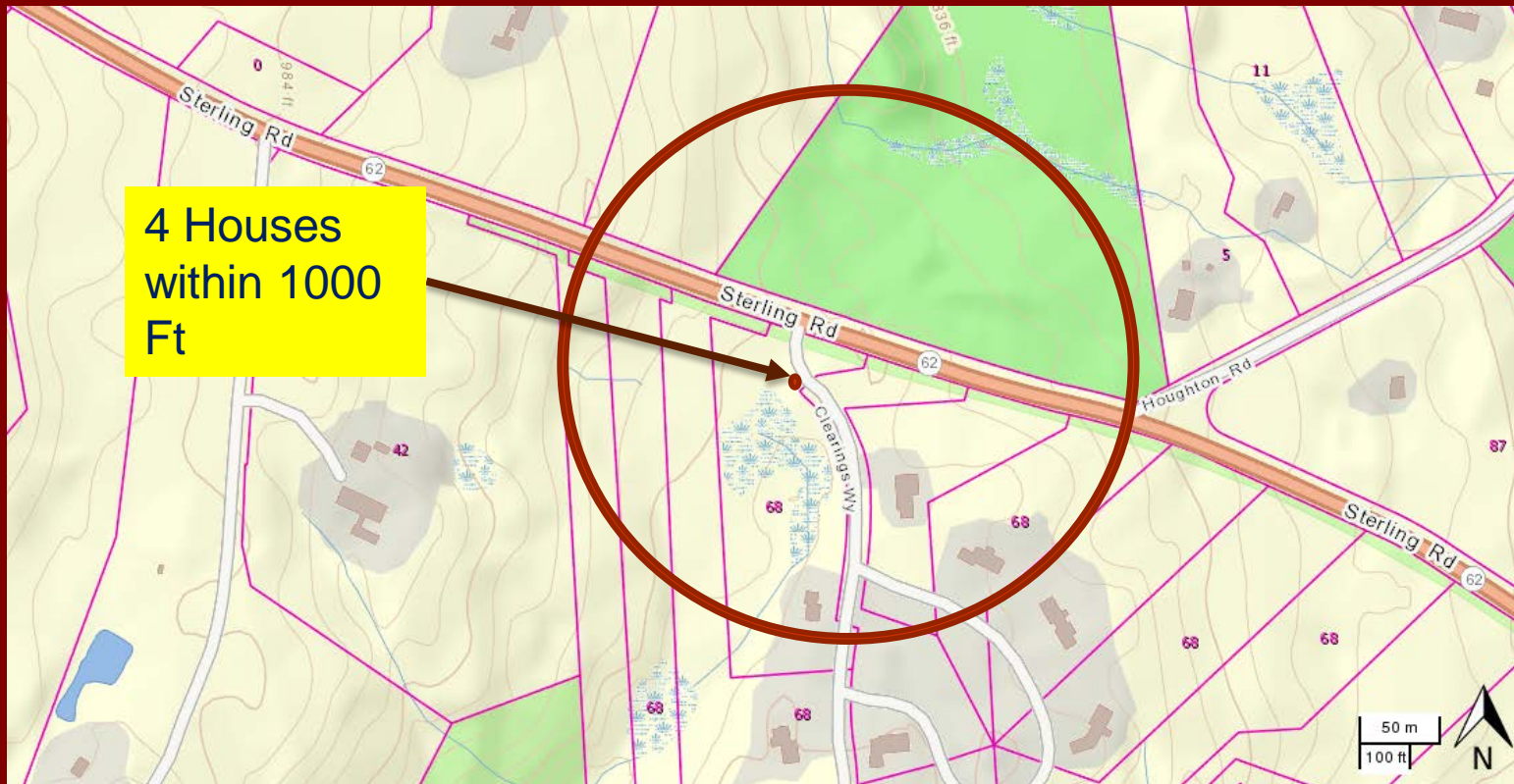


# Hydrant # 8 42 Sterling Rd.

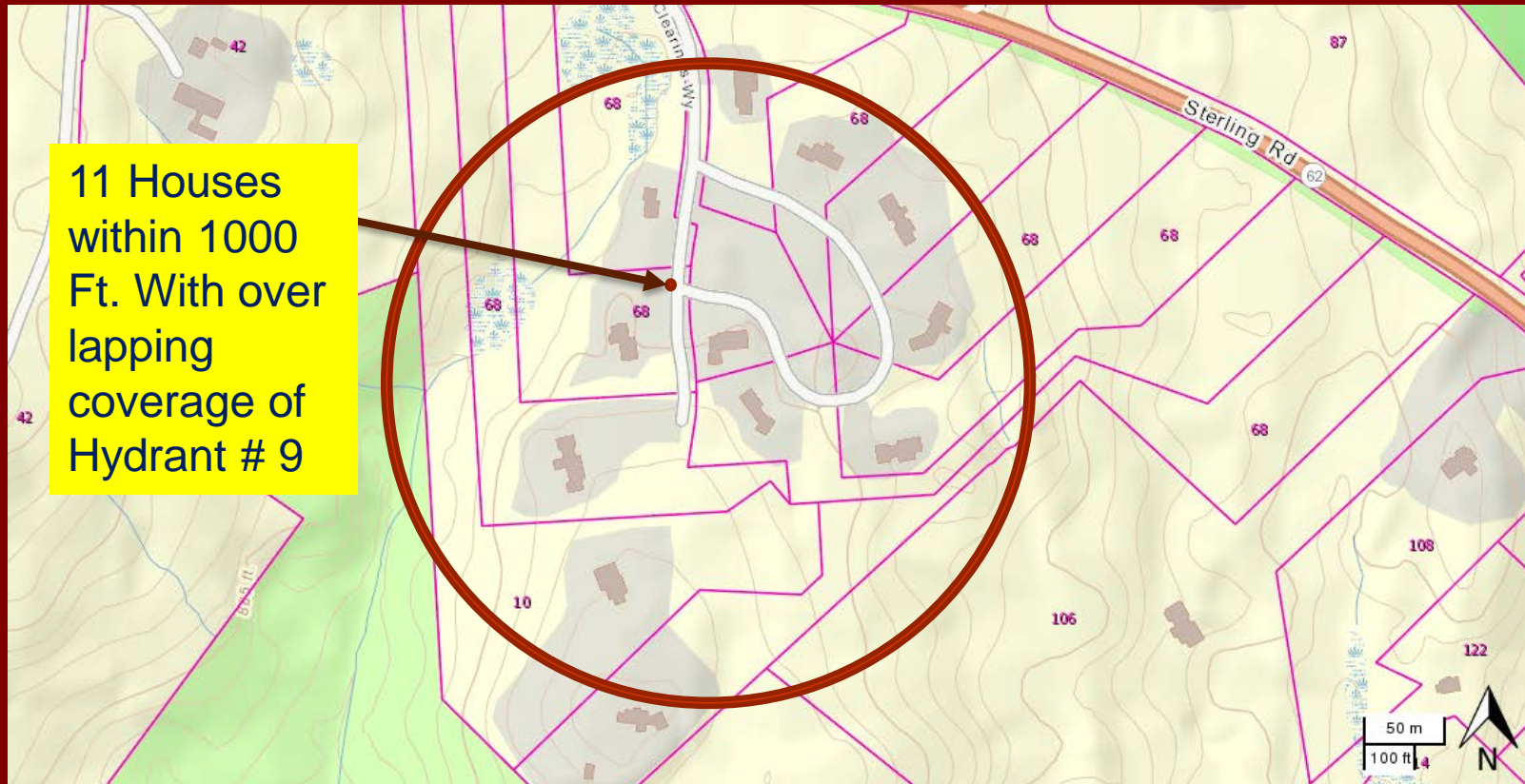




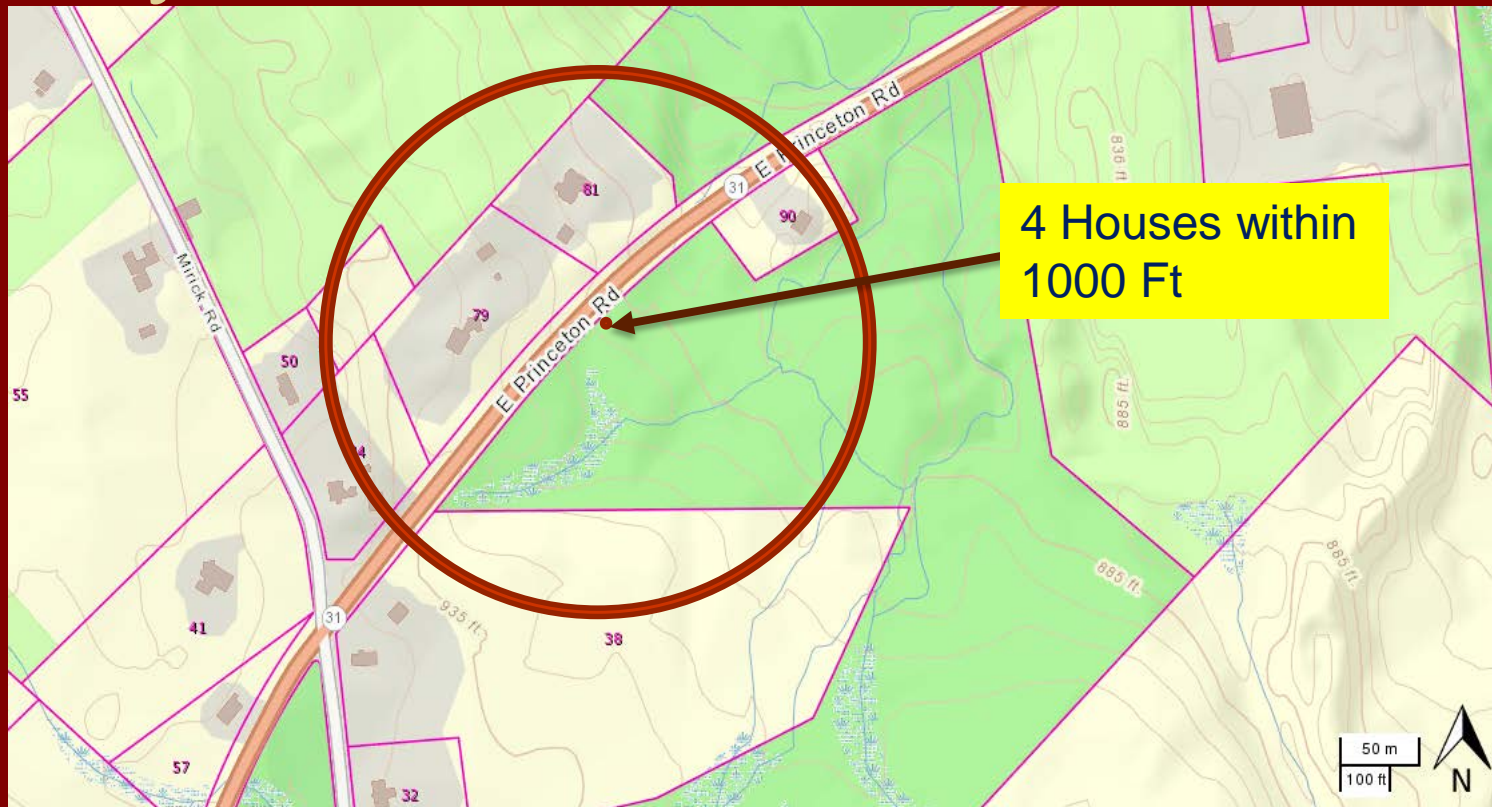
# Hydrant # 9    69 Sterling Rd (Clearings)



# Hydrant # 10 68 Sterling Rd (Cul-de-sac)

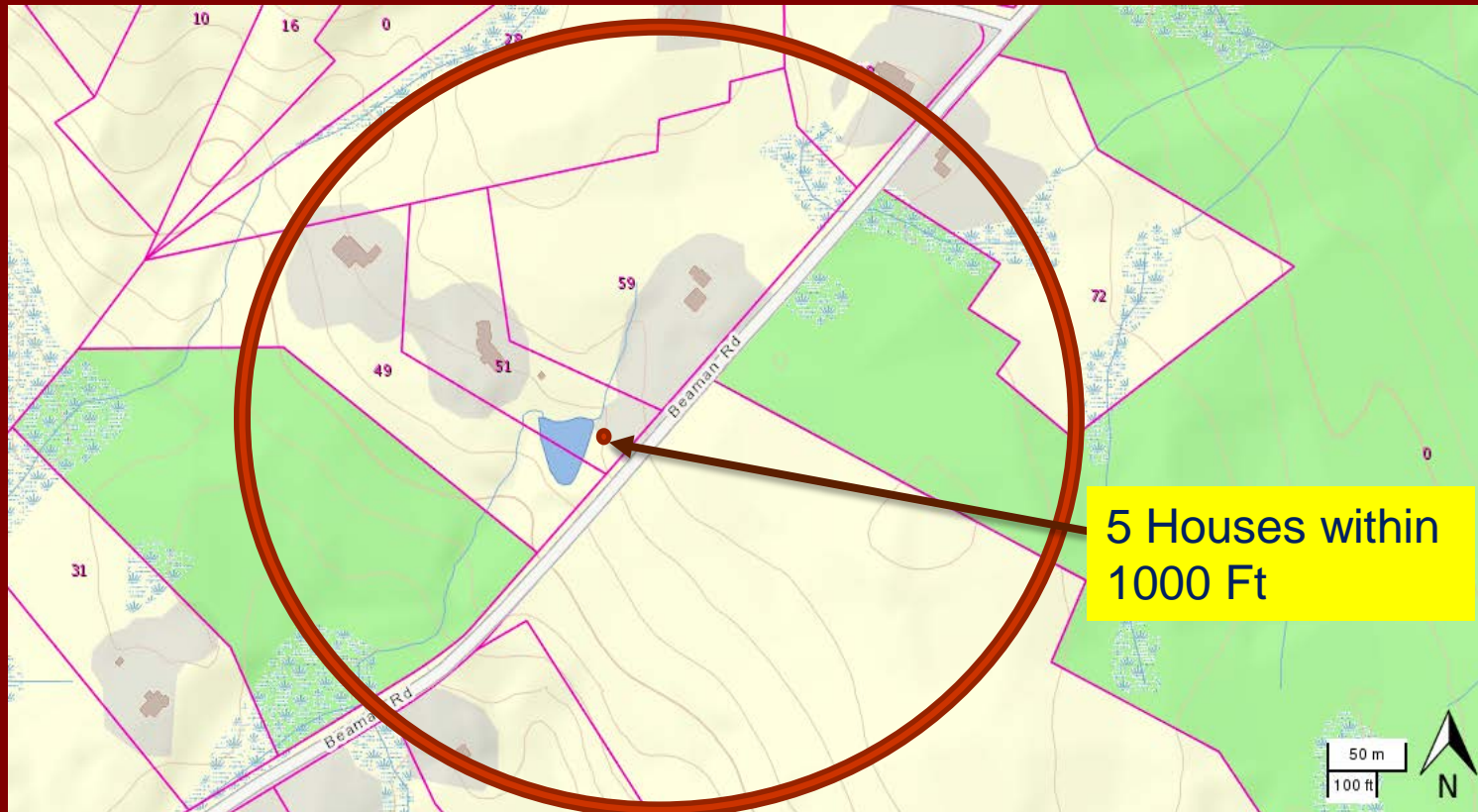


# Hydrant # 11 80 E.Princeton Rd

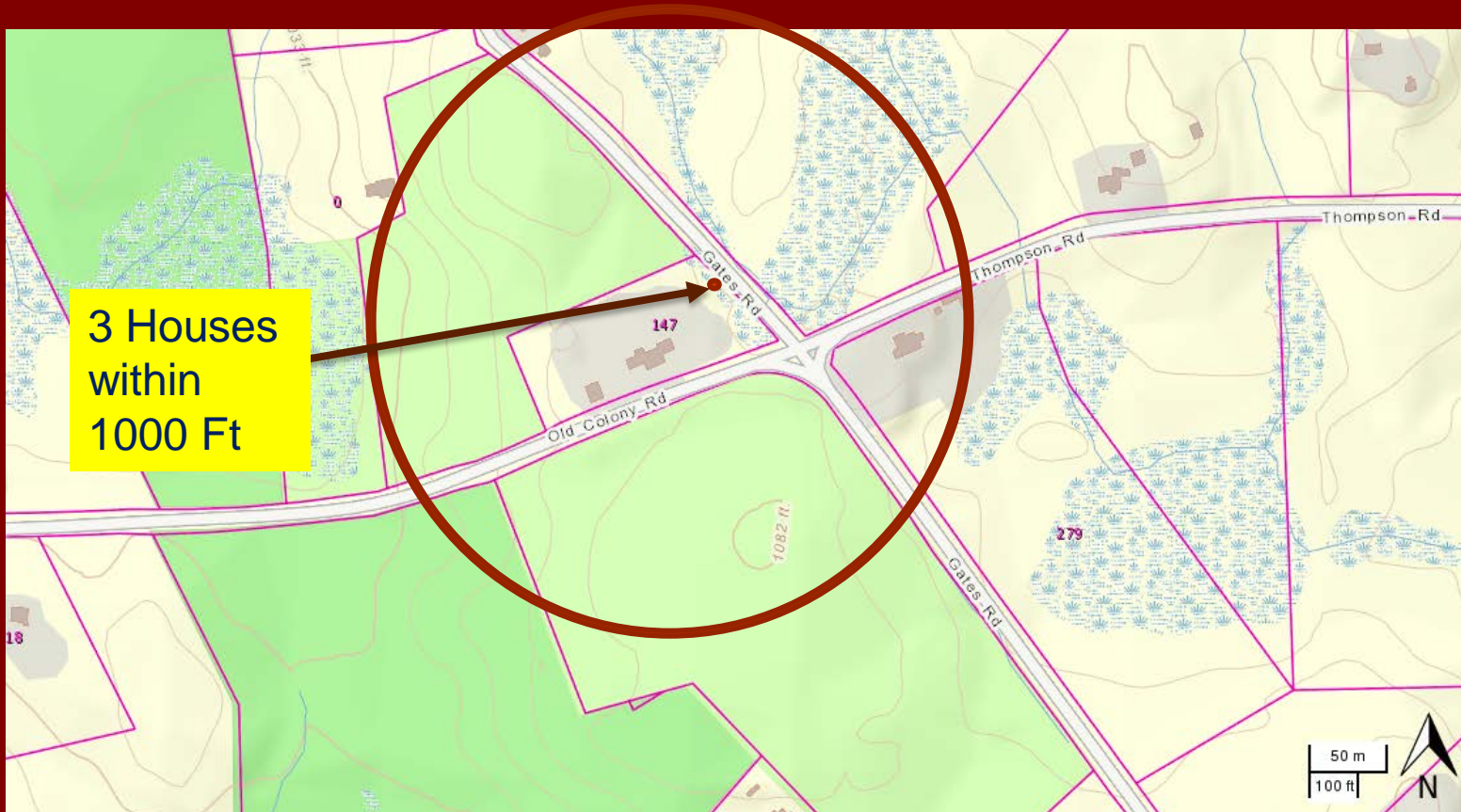




# Hydrant #12 59 Beaman Rd

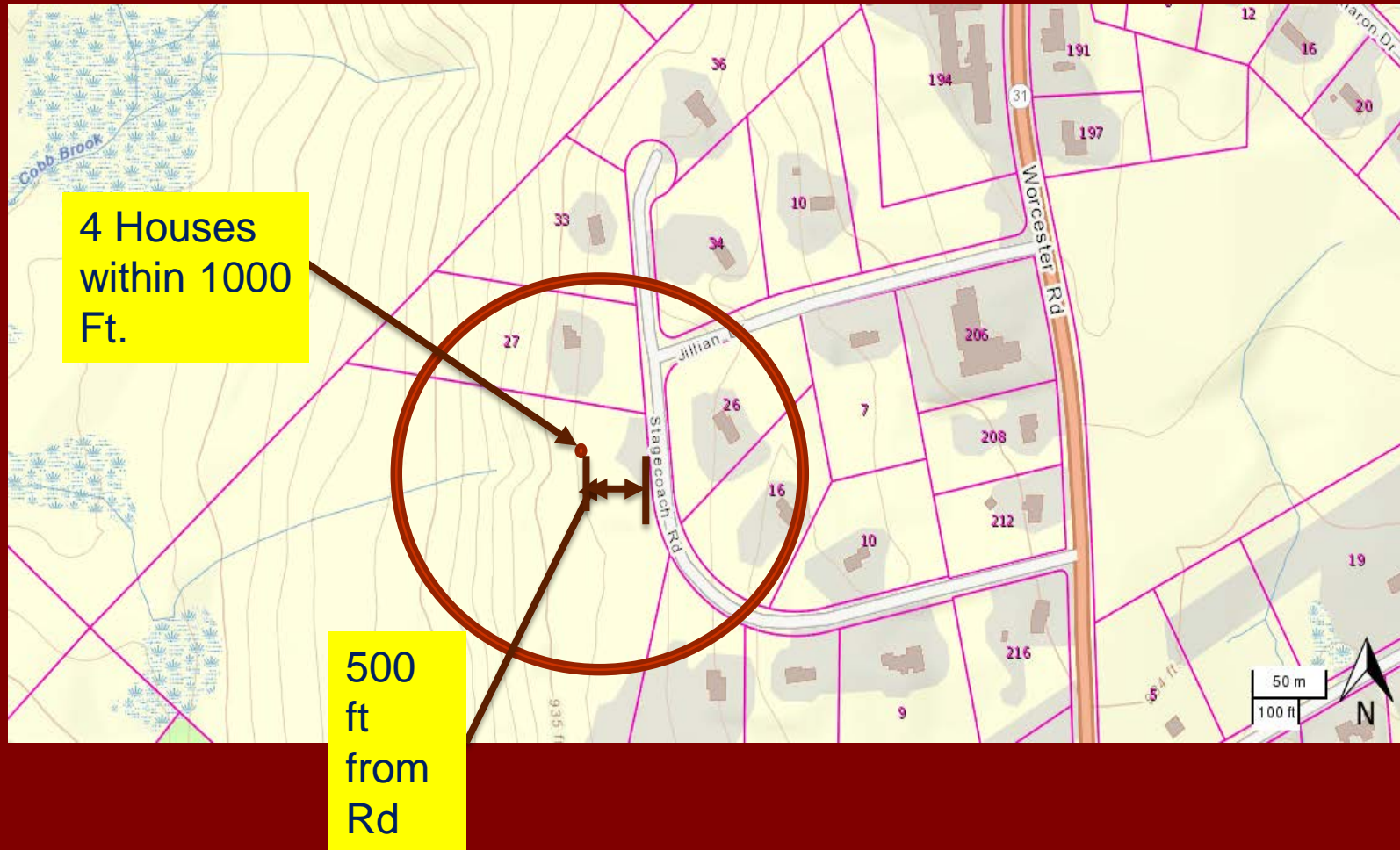


# Waterhole #14 Gates Rd (After Thompson)

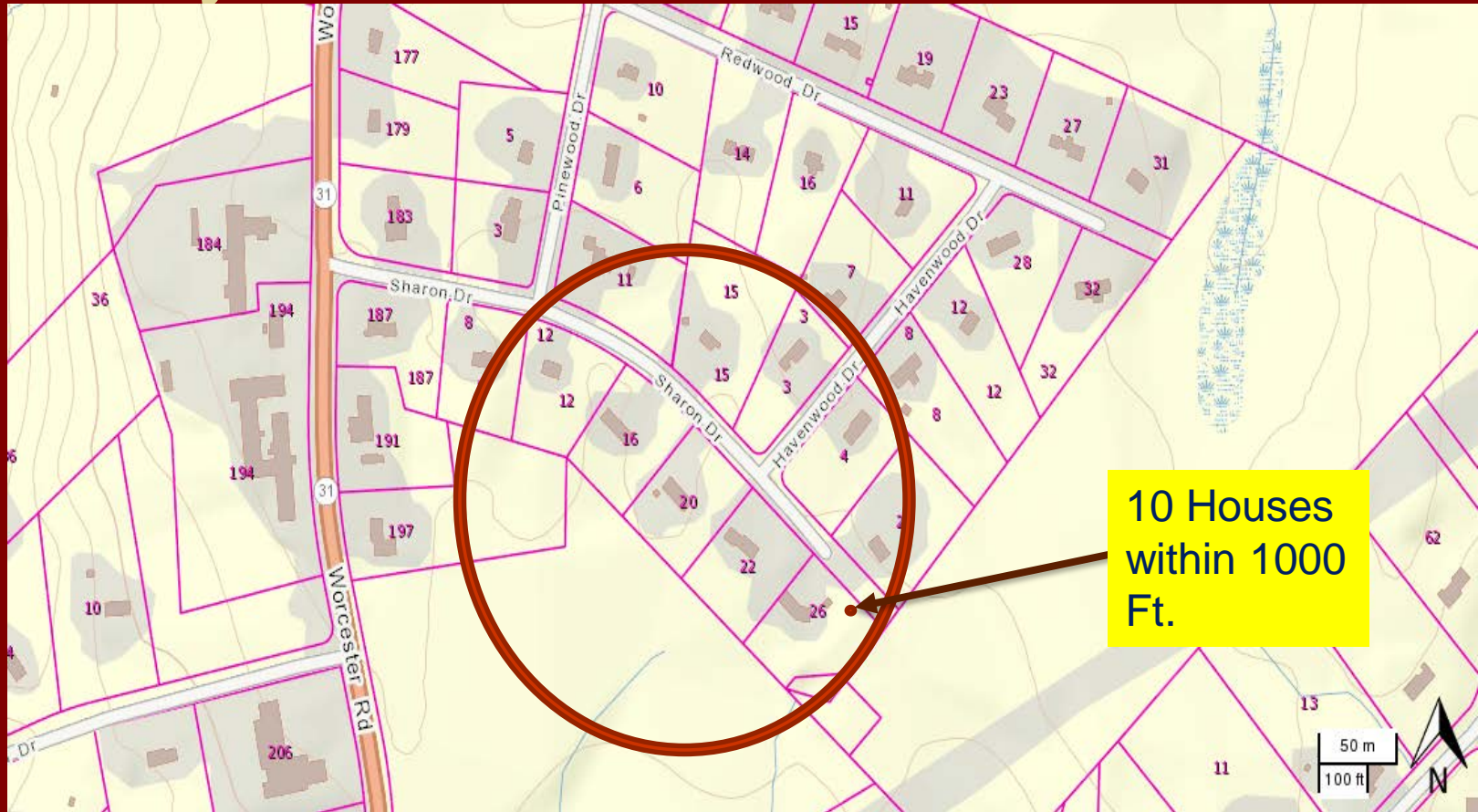




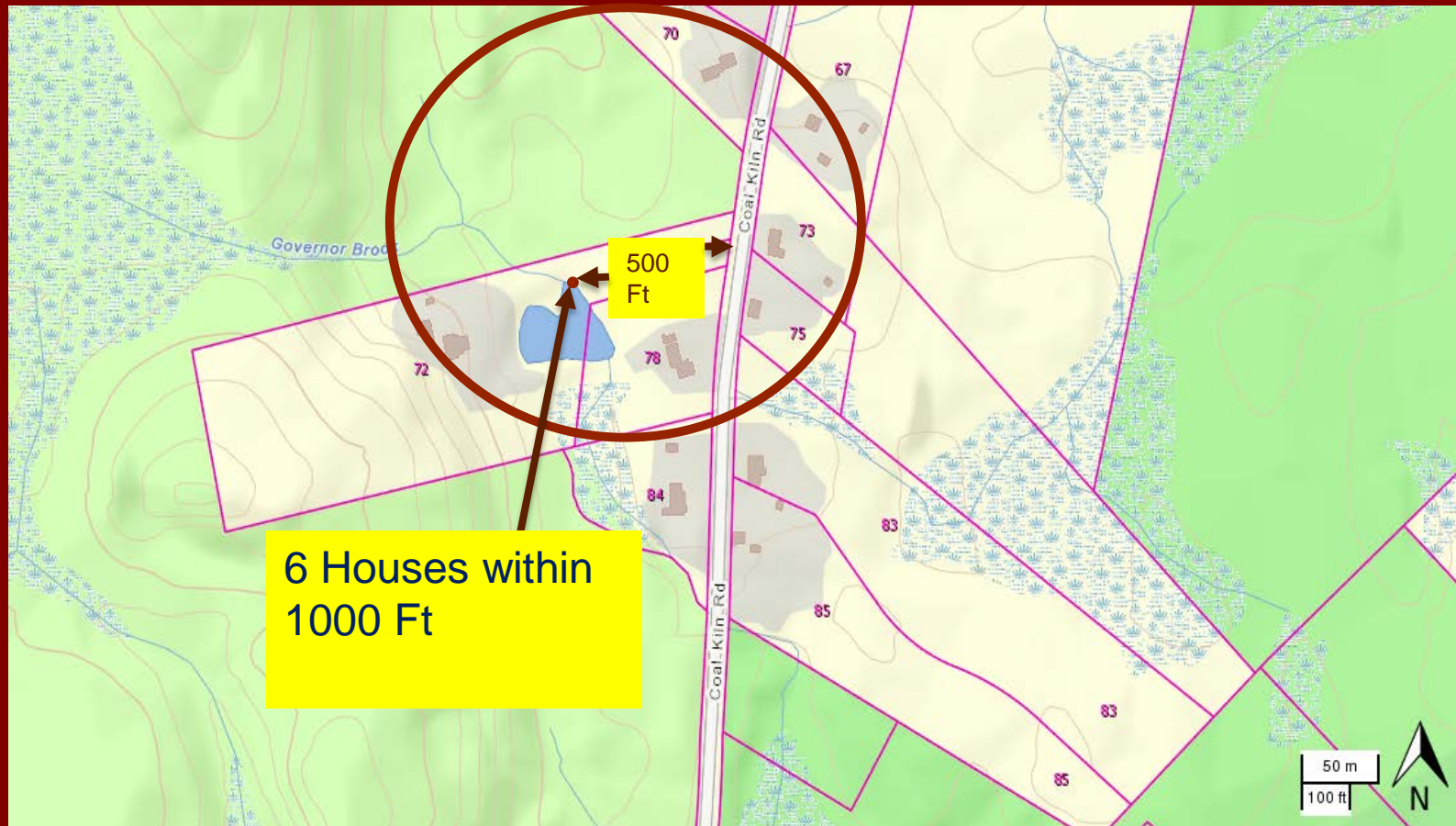
# Hydrant #17 16 Stage Coach Rd



# Hydrant #18      28 Sharon Dr.

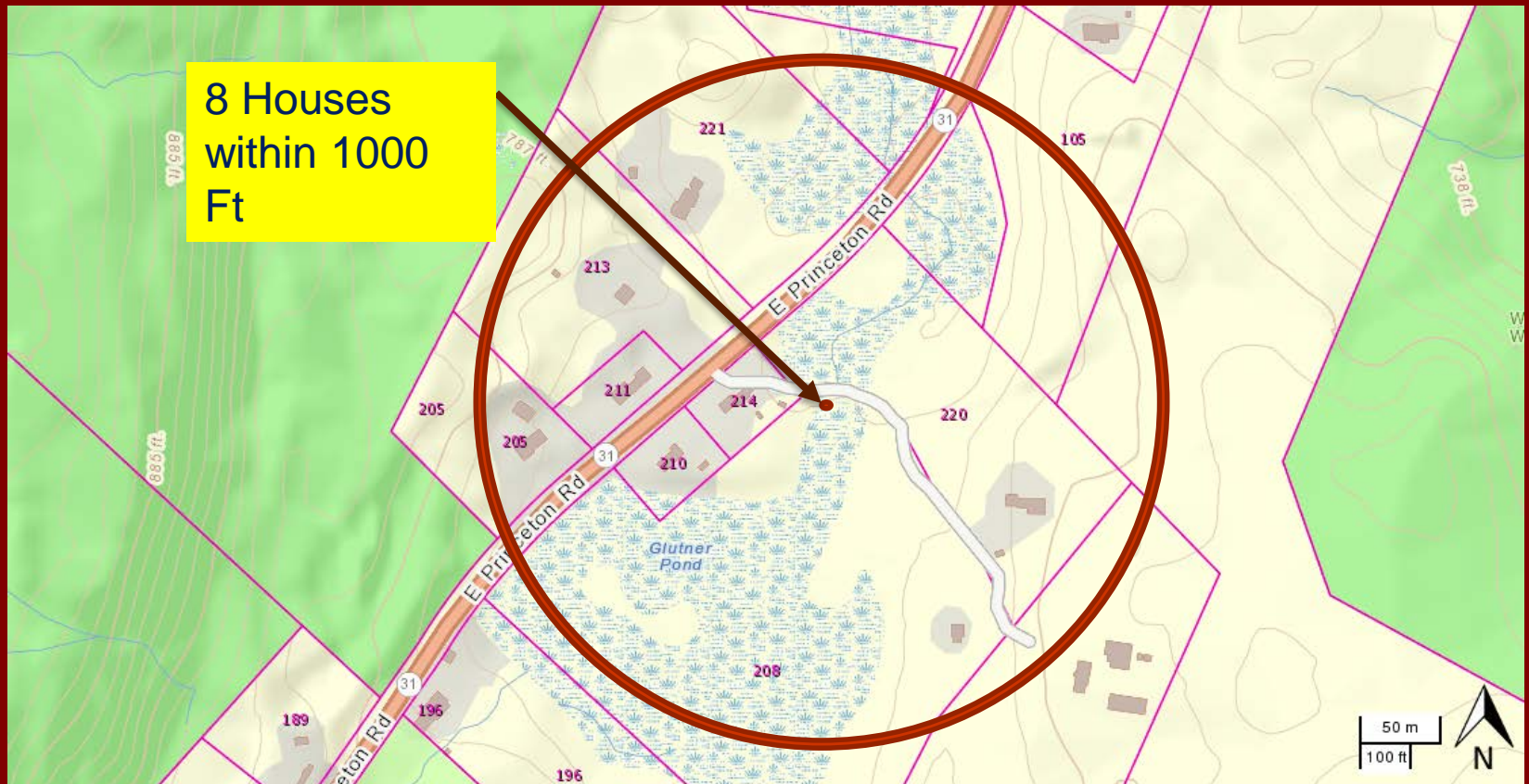


# Hydrant #19 72 Coal Kiln Rd

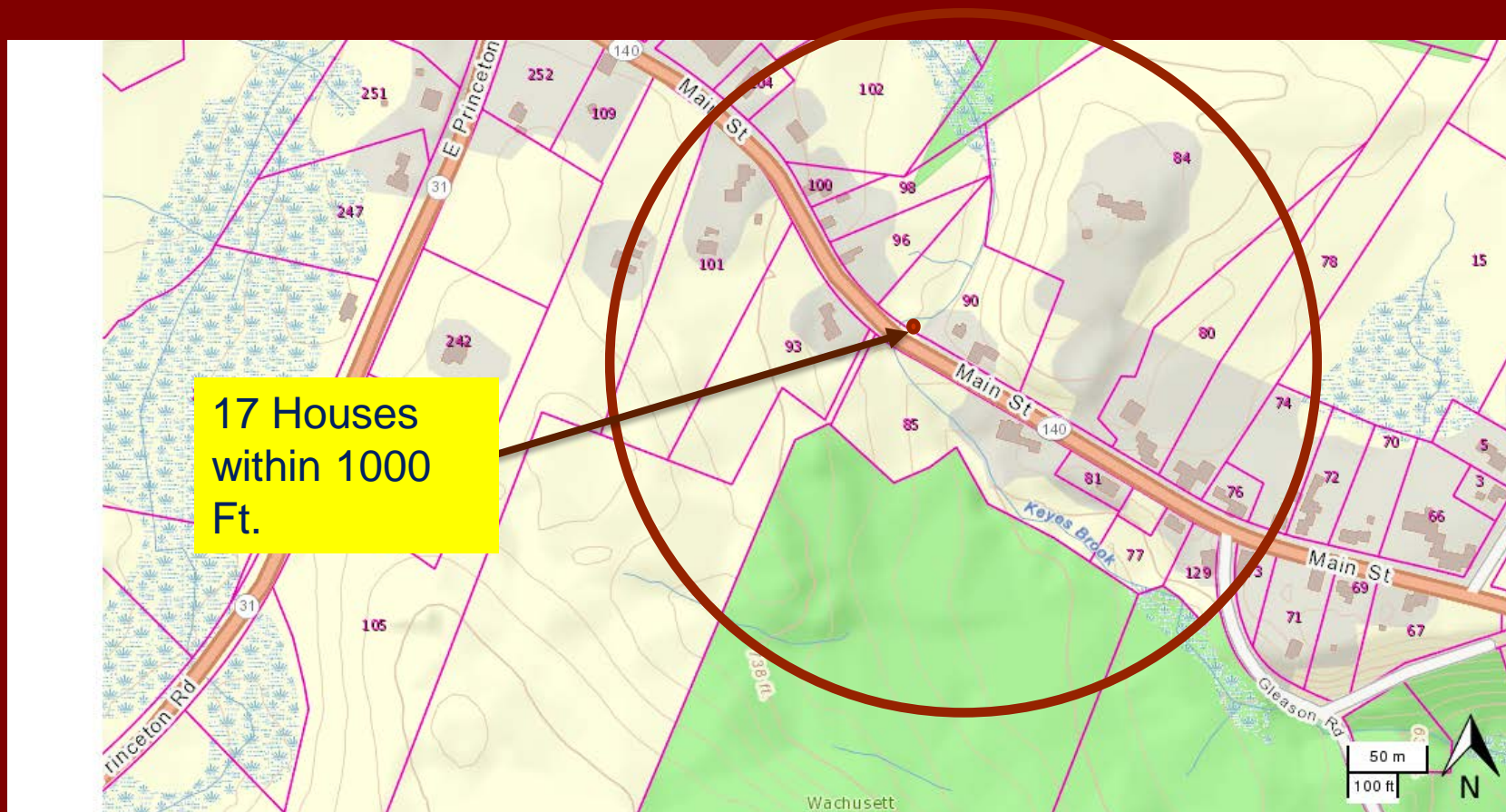




# Hydrant #22 214 E.Princeton Rd (behind house)

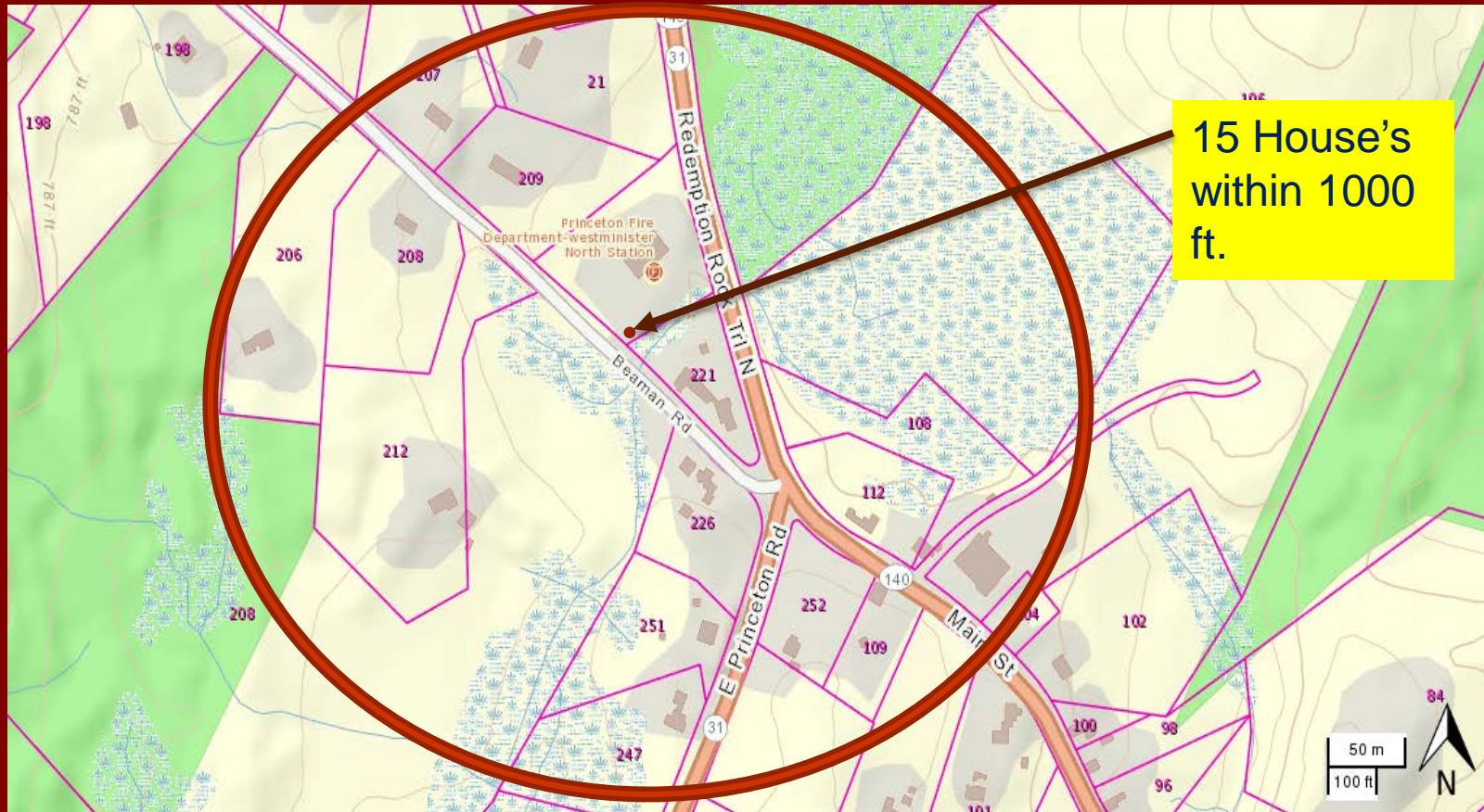


# Hydrant #23 Main St (At the bridge)

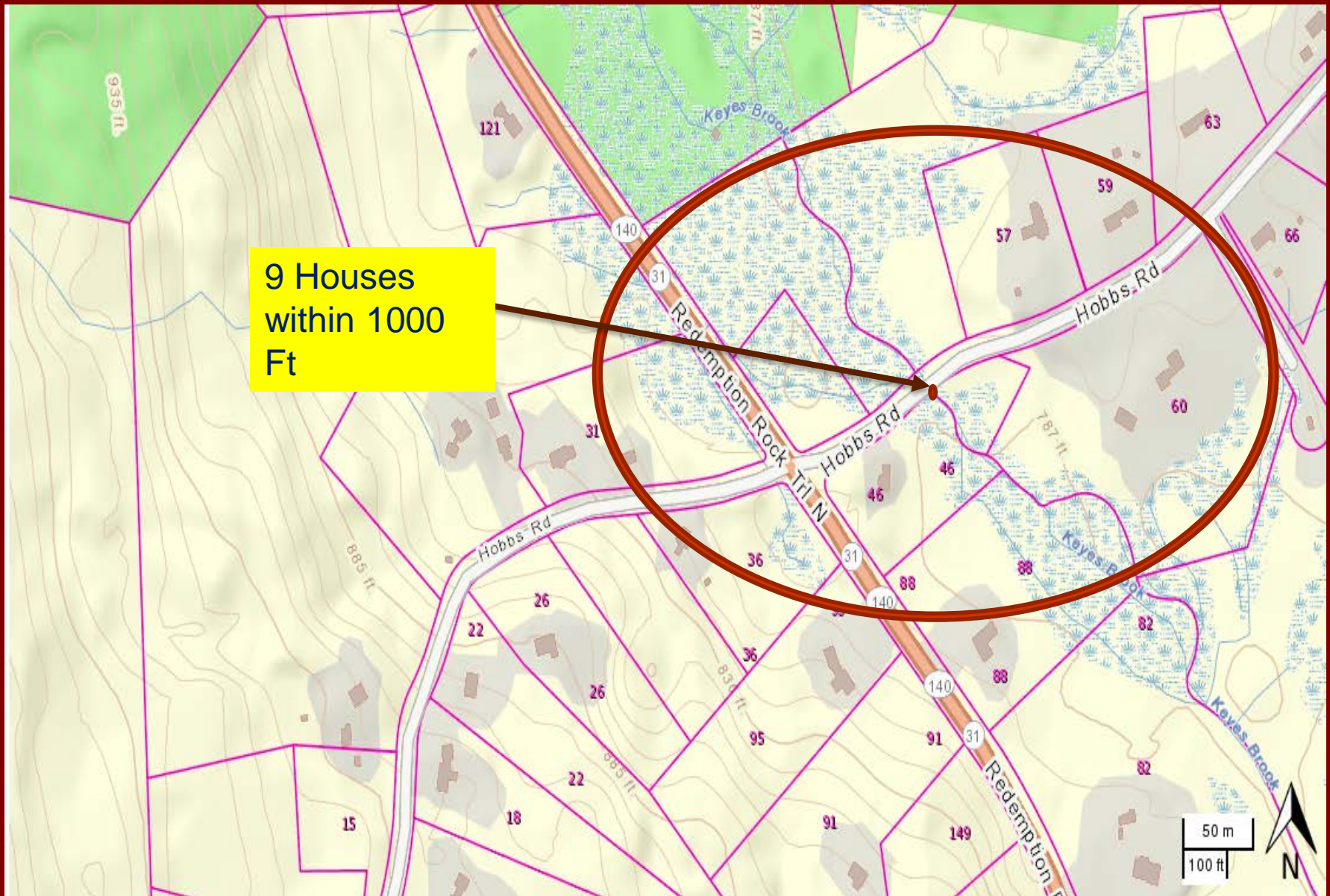




# Station 2 Hydrant #24

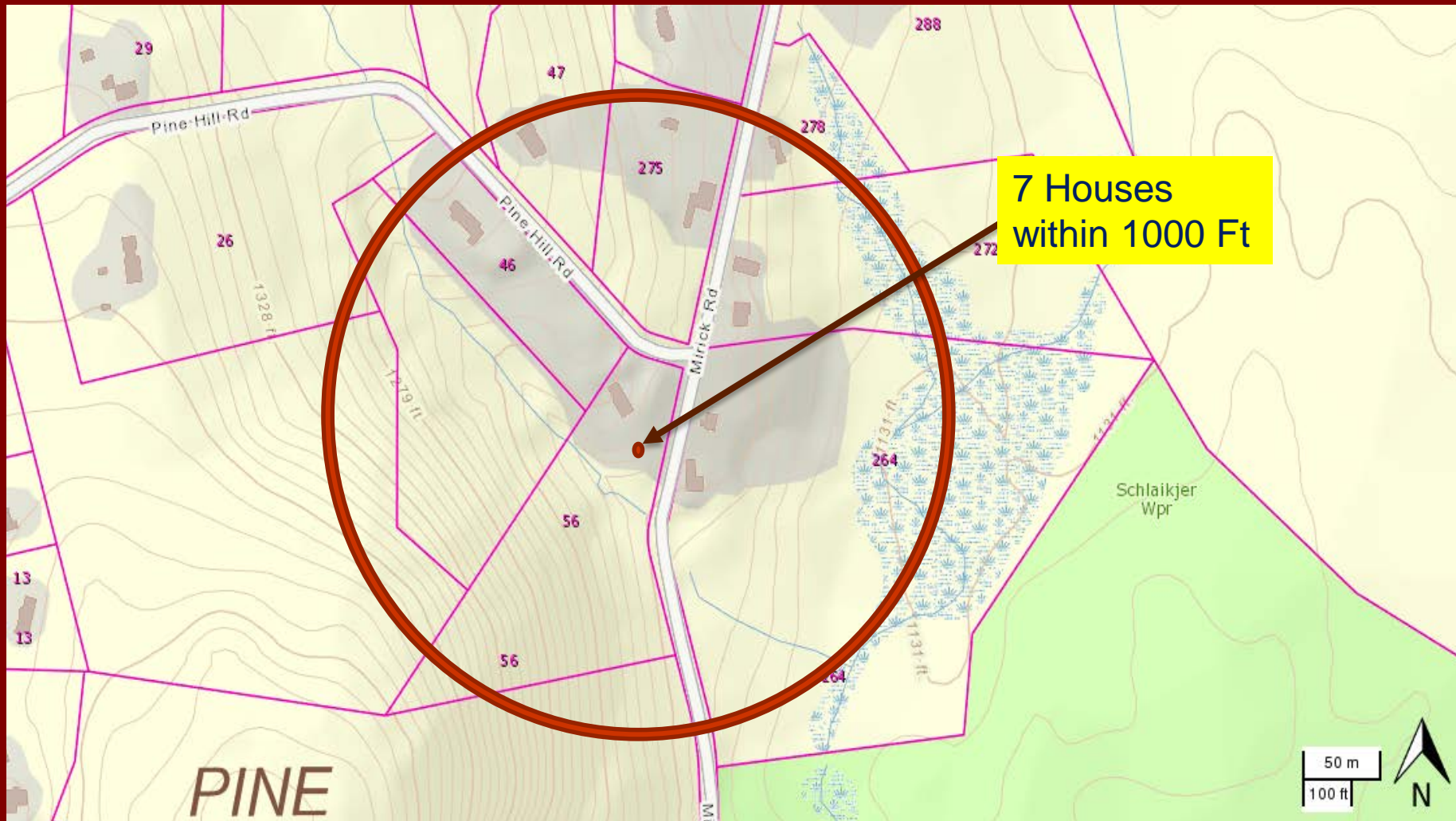


# Hydrant #25 Hobbs Rd



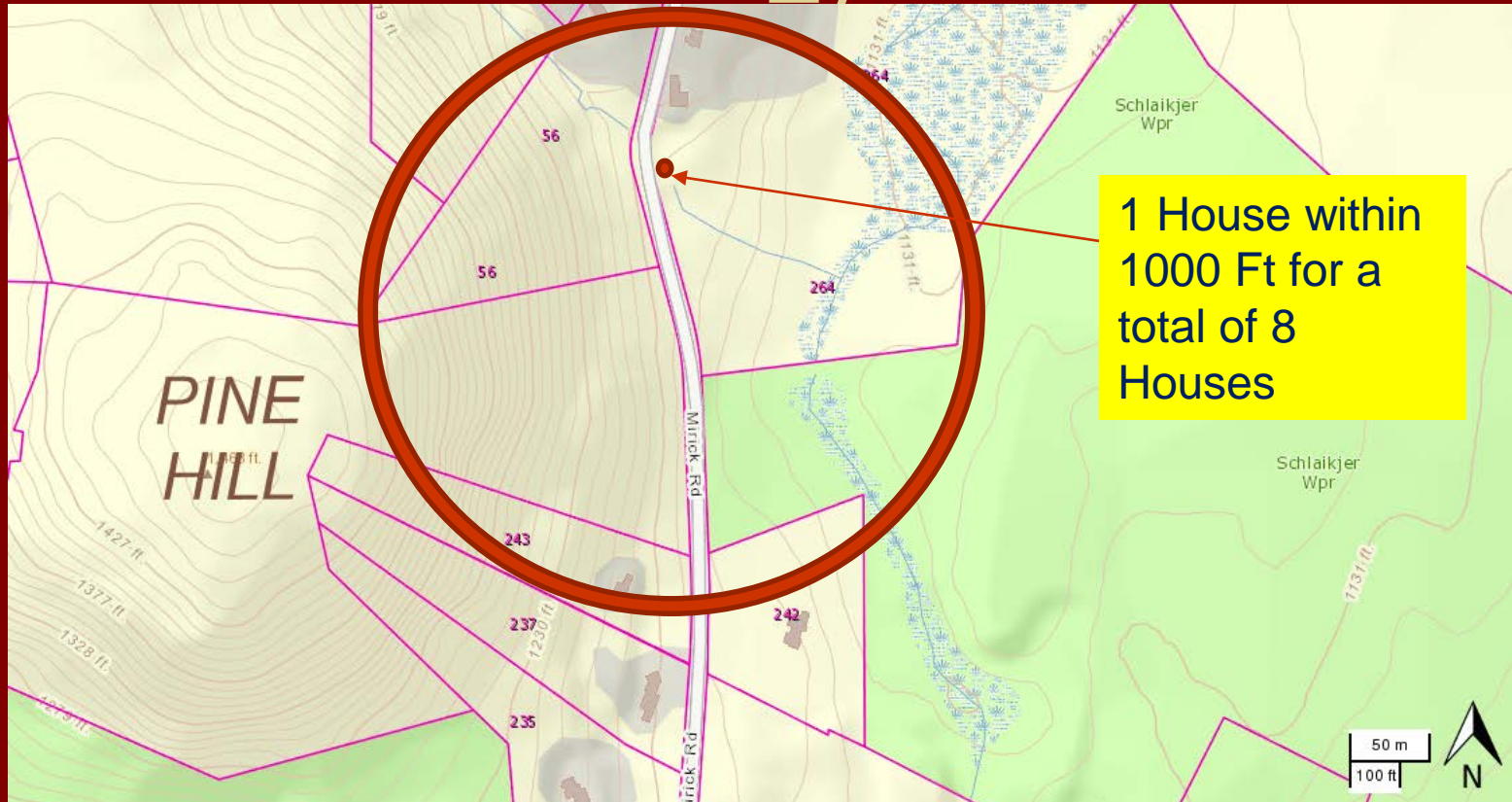


# Hydrant #26 264 Mirick Rd (part 1)

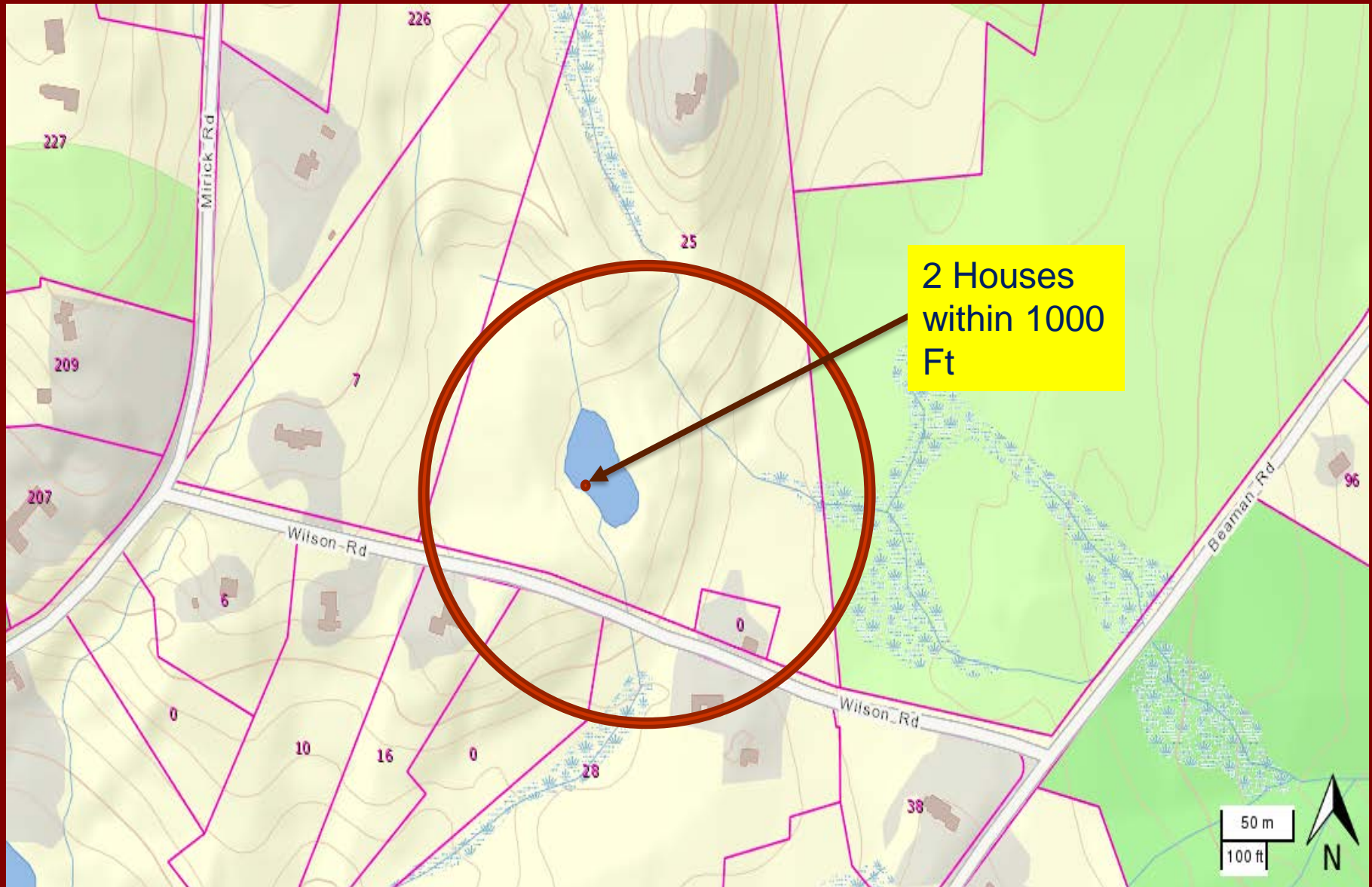




# Hydrant #26 264 Mirick Rd (part 2)

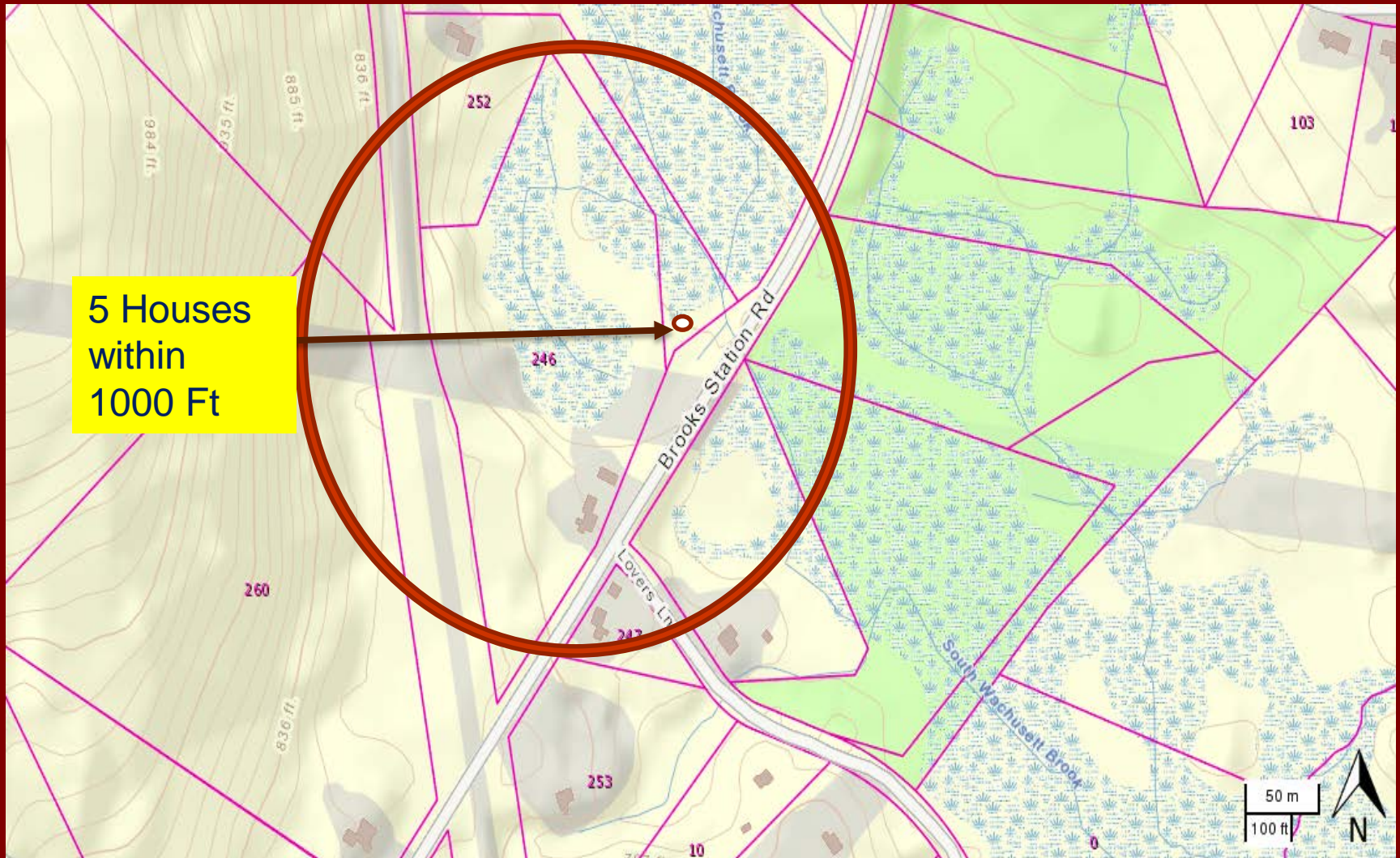


# Waterhole #27 27 Wilson Rd

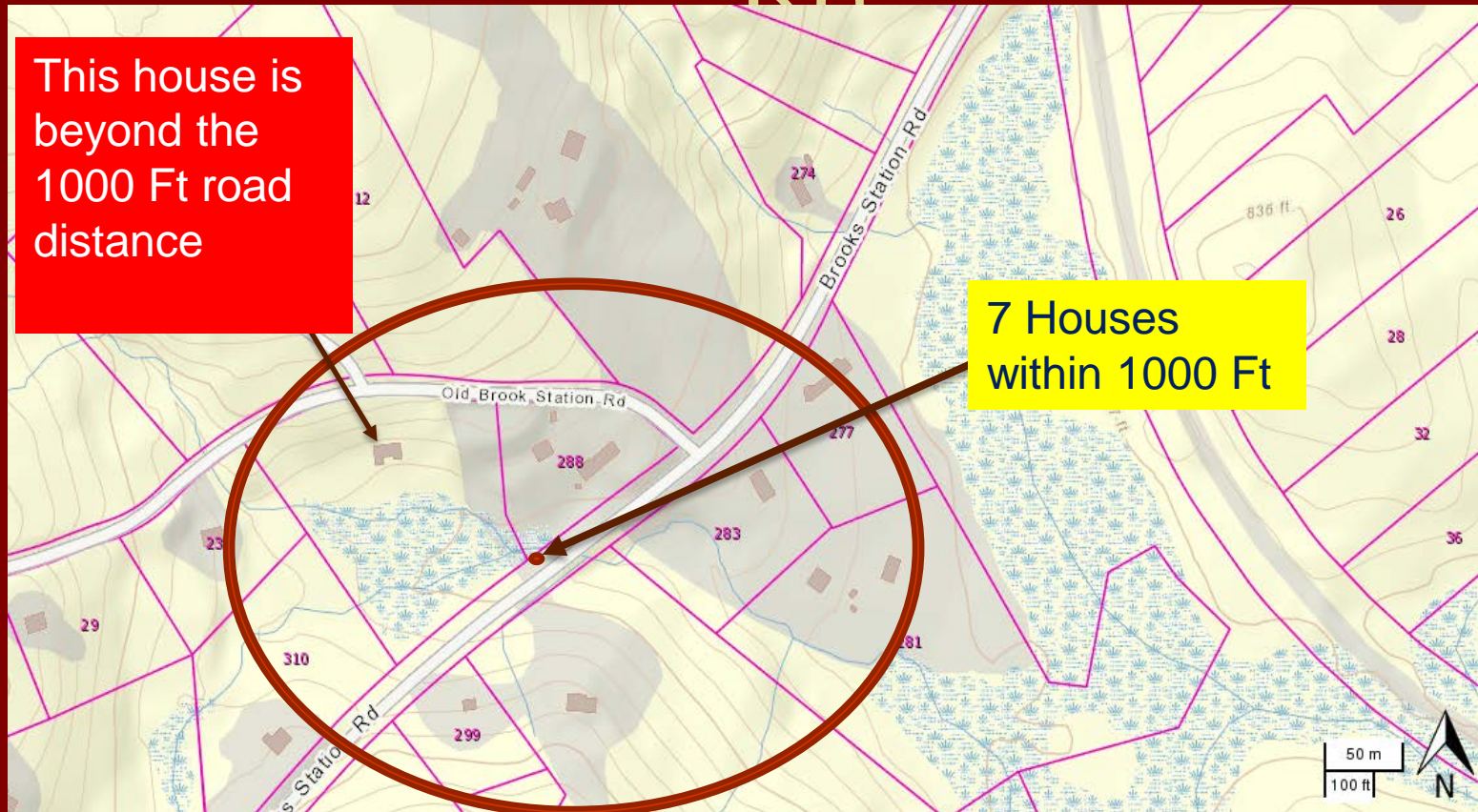




# Waterhole #30 Brook Station Rd.(south of Ball Hill)

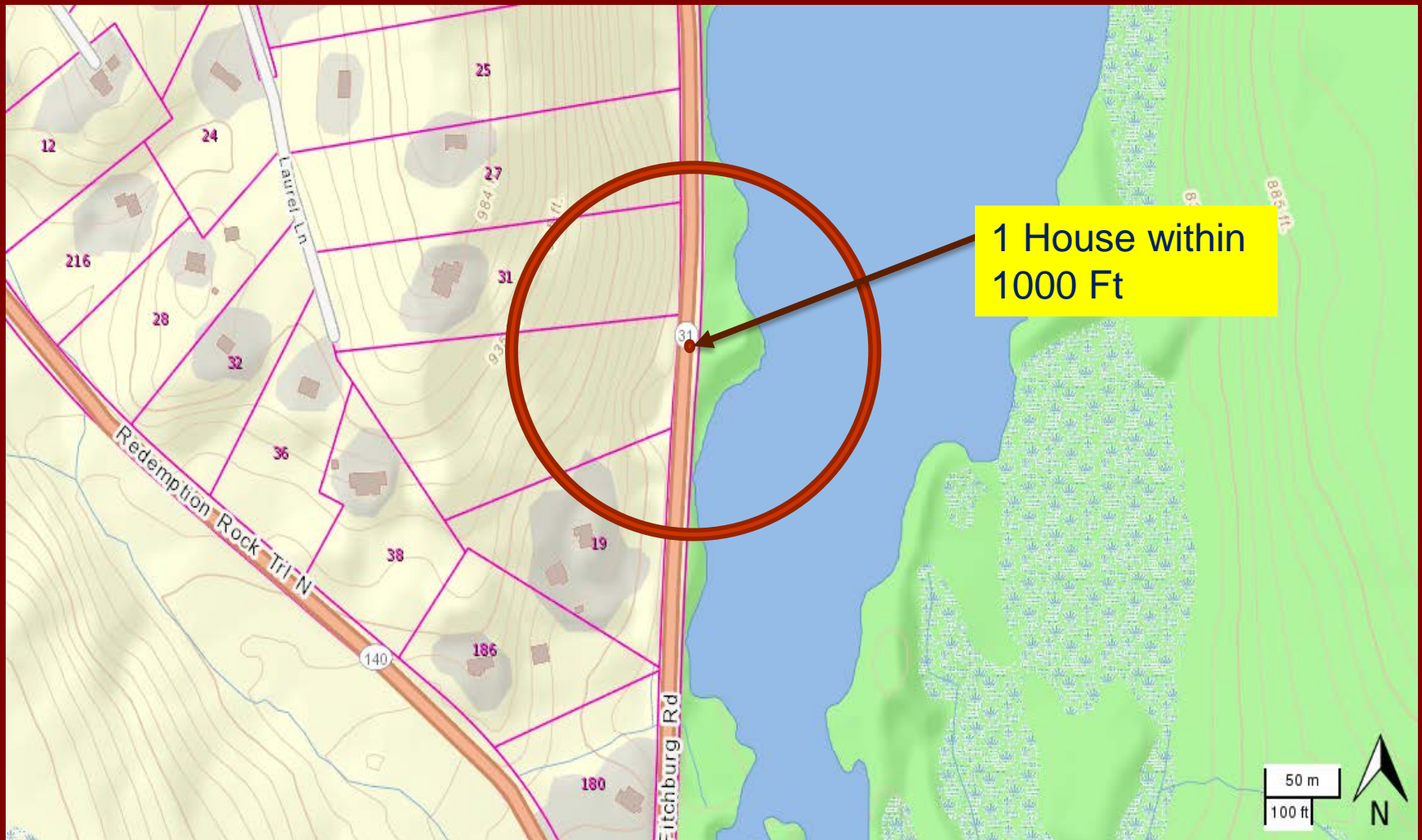


# Hydrant #31 288 Brook Station Rd

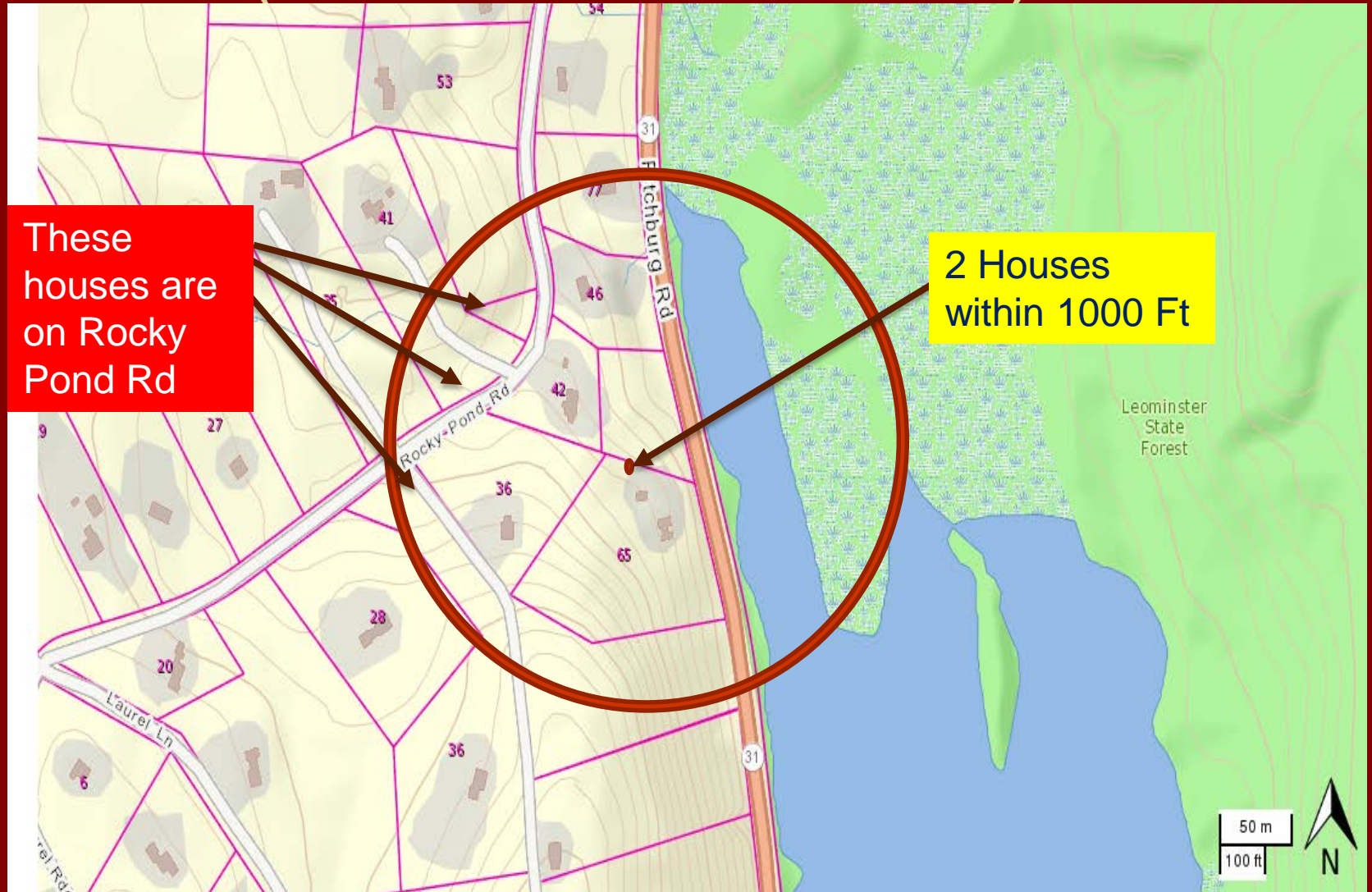




# Waterhole #35 Fitchburg Rd (Rte. 140 end)



# Waterhole #36 Fitchburg Rd (Rock Pond Rd end)



## Hydrants & Waterholes Omitted

The reason for their omission, is that there is no house within 1000 Ft of them:

13 – Thompson Rd (Black Pond)

15 – 337 Hubbardston Rd (Steadman's pond)

20 – Bullard Rd (at the bridge – Tenni's Pond)

21 – 41 Esty Rd

28 – Old Colony Rd (from Gate's rd. – Scout Land Bridge)

29 – Hubbardston Rd (across from Wheeler Rd – Dump rd. bridge)

33 – 305 Redemp. Rock Trail S. (Sterling Fire Dept. Hydrant)

34 – Gleason Rd (Mill Hill)

continued on next slide

# Hydrants & Waterholes Omitted

The following were omitted for being out of service:

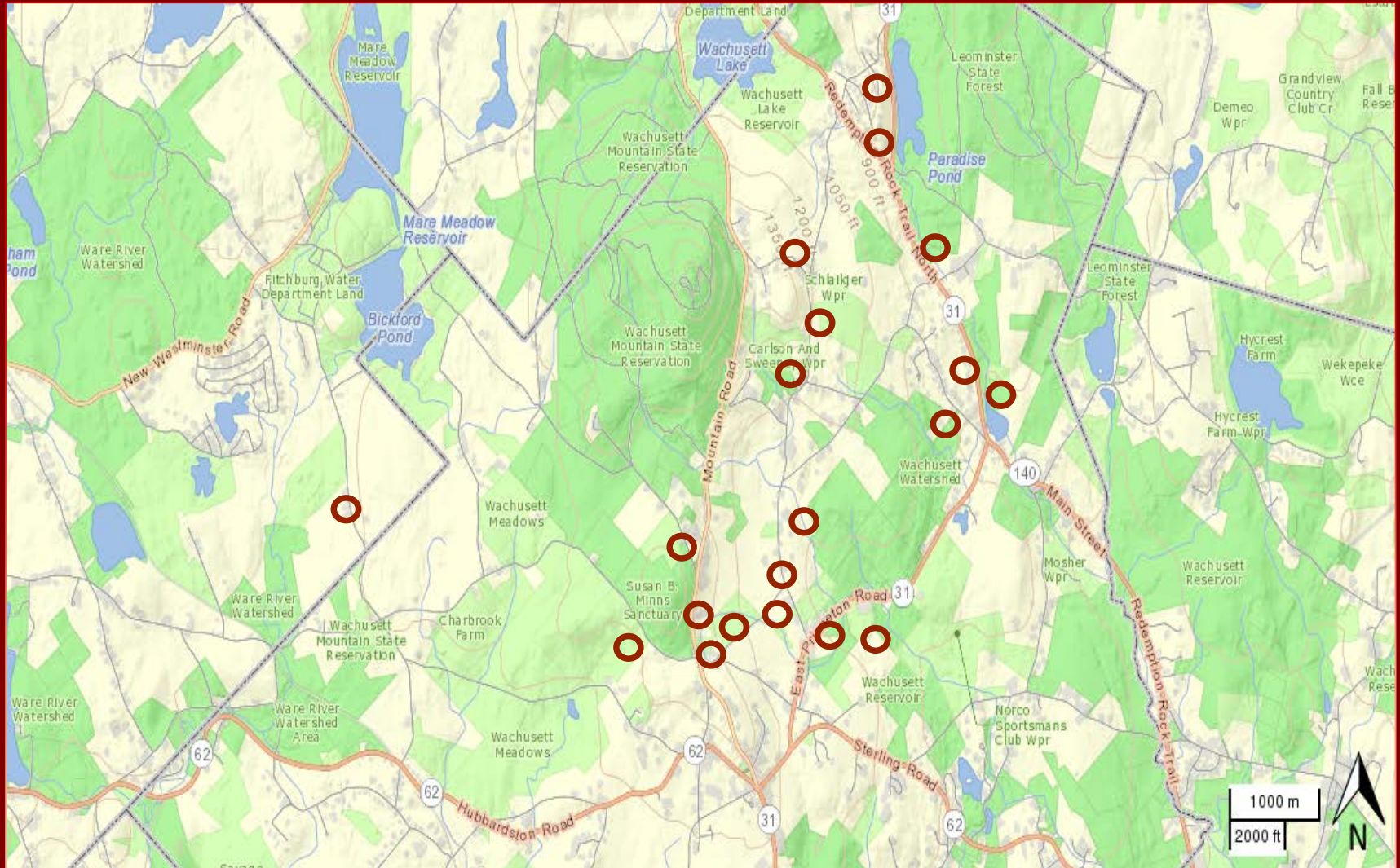
37 – 70 Hickory Drive

38 – 263 Hubbardston Rd (the old gas plant at railroad crossing)

24 – 24 Wheeler Rd

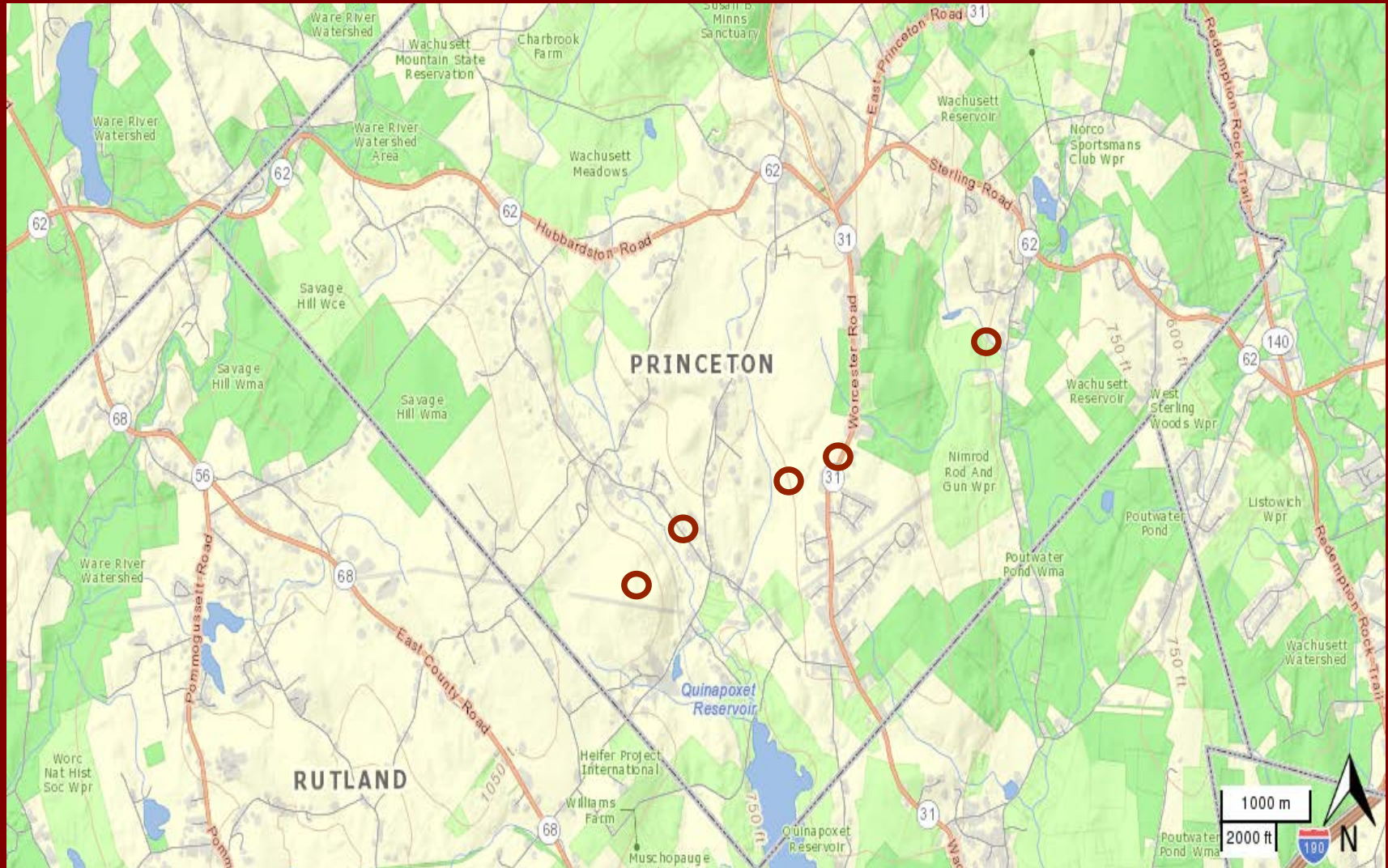


# Town Hydrant & Waterhole Coverage (Pt.1)



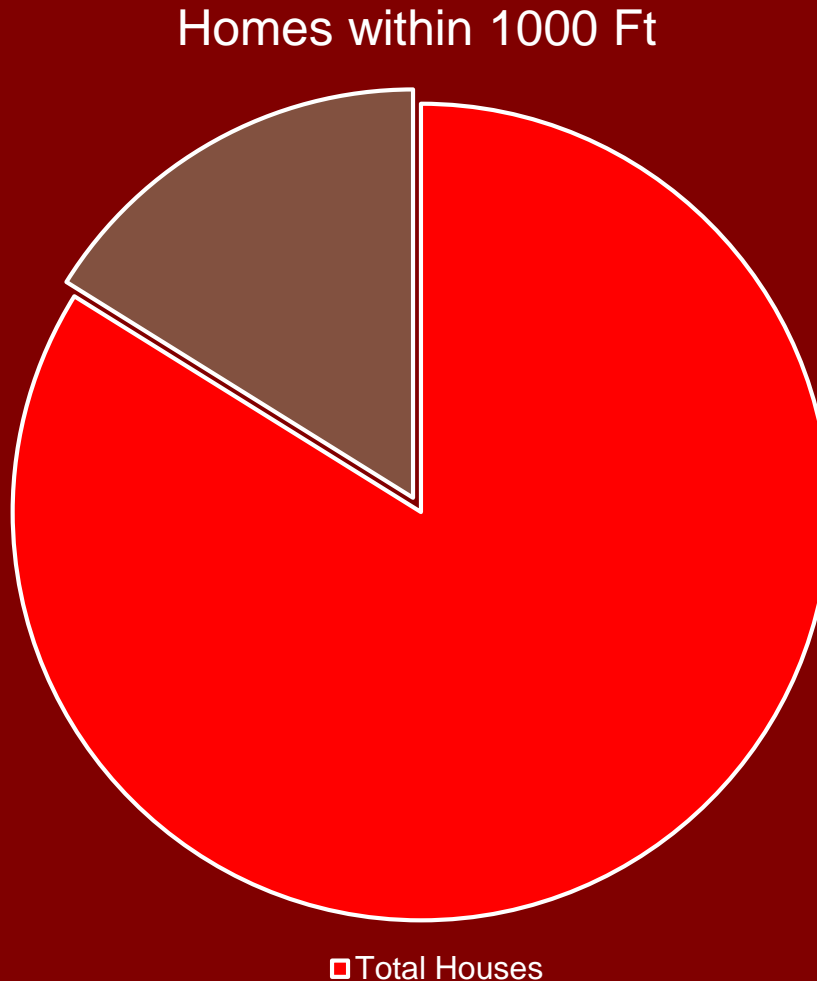


# Town Hydrant & Waterhole Coverage (Pt.2)



# Town Hydrant & Waterhole Coverage (Pt.3)

Of the 1,242 homes in Princeton. Only 239 homes are within 1000 Ft of a hydrant or waterhole



# Current Fleet

Current Equipment 2017						
<u>Year</u>	<u>Unit ID</u>	<u>Tank Capacity</u>	<u>Pump Type</u>	<u>5" Hose</u>	<u>Staff</u>	<u>Status</u>
1998	Engine #1	2,500 Gal	1500 GPM	2,000 Ft.	2	Just went through Major repair
1992	Engine #5	1,000 Gal	1250 GPM	2,000 Ft.	5	Just went through Major repair
1998	Engine #2	750 Gal	1500 GPM	2,000 Ft.	6	Purchased in 2013 repo truck extensive problems purchase was \$68K and have invested \$70K
1983	Engine #3	1,2000 Gal	500 GPM	0	3	Home built forestry
1974	Engine #4	600 Gal	350 GPM	0	2	Home built forestry
1991	Rescue #1	0	0	0	3	Rescue purchased on Gov Deals \$15,000
2006	Ladder 75'	400 Gal	1,500 GPM	2,000 Ft.	6	Just went through ladder testing. Good Cond

# ISO Standards

- ISO is the National Auditing Standard for Homeowners where the protection class is used by insurance adjustors to estimate cost and coverage.
- Princeton is currently rated at Class 6/6X. From a 1980 audit.  
Example: My cost is \$1,200 Annual. Estimated value \$375,000
- **Changes in Protection class due to ISO audit:**

## Annual increase

- |                                                                    |          |
|--------------------------------------------------------------------|----------|
| – Protection class 7 & 8 would result in an increase of around 12% | \$144.00 |
| – Protection class 9 would result in an increase of around 20%     | \$240.00 |
| – Protection class 10 would result in an increase of around 30%    | \$360.00 |

*\*keep in mind that a 9 or 10 classification carries the risk of being refused for insurance.*

# ISO Standards

- So how can we reduce our chance of having a dramatic protection class change?
1. Certified Waterholes within 1,000' of 75% of current residencies.
    - Our current coverage is only 19.2% of the homes. Digging waterholes is not feasible for more than 80% of Princeton due to watershed. Water tanks are the answer at a cost of \$50,000 per 35,000 gallon tank. The number of tanks we would need exceed 50 tanks at a total cost of \$2.5 million.
  2. The ISO standard for water flow is the ability to flow 200 gallons per minute for the first 20 minutes of a fire. This standard is for the first due apparatus covering 5 miles from the fire station. Princeton's current stations cover the majority of our population with a few exceptions.
    - It takes 4,000 gallons of water to accomplish this task.
    - Current capacity is 1,750 gallons at Headquarters and 2,900 gallons at station #2.
    - The Answer: Purchase a 3,000 gallon class a tanker.
      - Move Engine #2 to station #2.
      - Headquarters would have 4,000 gallons and Station #2 would have 3,650 gallons of water but the majority of our population is in the Central and Western hemisphere of Princeton therefore we have much better coverage.



# In conclusion

- We don't have all the answers.
- We are trying to provide the best service we can with our current personnel and equipment.
- We have done extensive research on our current provider level in both EMS and Fire:
  - We do not suggest purchasing used vehicles; it has not worked out for fire departments in the area. We must meet NFPA standards when it comes to fire apparatus therefore we will no longer be building trucks.
  - We can install water tanks but the current situation for the town's water coverage makes this a longer term plan and we suggest a minimum of 2 tanks per year in high density population areas.
  - We are concerned about the overall financial burden for Princeton residents and the most feasible answer is to put water on wheels.
  - We can't stress enough the need for a new public safety complex in the center of Princeton. We do not meet any of the minimum standards for both Police and Fire and our community needs to invest in education and public safety first. The vision must be to invest for future needs and not short term fixes. It's time.