

Dear Wellesley Residents,

In December 2023, The Town of Wellesley retained Weston & Sampson to complete this Townwide Pickleball Study. This study was borne out of the escalating demand for the recreational game by the citizens of Wellesley as well as opposing concerns of noise pollution associated with the sounds of the game and its impacts to nearby residents. As the demand for available courts continues to increase in Town, pressures mount to provide viable locations that will accommodate the noise pollution concerns.

As the citizens of Wellesley looked for feasible locations to either relocate courts or install new pickleball facilities, it became unclear which town-owned properties were best suited to meet unclear criteria. This study is intended to provide site evaluation criteria, developed through a community driven process, to guide decision makers in determining if a town-owned property is viable for consideration of pickleball courts. Through a community driven process to develop site evaluation criteria, Weston & Sampson with the Town, engaged the citizens of Wellesley in the form of an online public survey, two (2) community engagement meetings, and a working group comprised of key stakeholders, whom all contributed to the findings of this study. We thank all persons of Wellesley for their contributions.

The desired outcomes of this study are as follows:

- Engage the citizens of Wellesley through a public meeting process to identify a general town-wide sentiment about the state of pickleball in Wellesley.
- Develop site assessment criteria that reflect community input, national and regional recreation pickleball standards, best practices, and industry trends
- Complete an inventory of existing outdoor pickleball courts and assess them against the developed site assessment criteria.
- Complete a feasibility study of all town-owned properties to determine optimal locations.
- Identify up to three new locations on town-owned properties that may be suitable for outdoor pickleball courts.

We thank you for this opportunity to serve your great community.

Sincerely,

Weston & Sampson Engineers, Inc

## ***ACKNOWLEDGMENTS***

We gratefully acknowledge the residents of the Town of Wellesley, Town staff members, and the Town Recreation Commission & Working Group for their ability to understand the Town's most critical recreational needs, create solutions that address those needs, and develop realistic strategies for implementing the actual improvements that will help yield positive benefits for all future users, as key parts of this study may be implemented in the years to come. The recommendations and criteria established within this document are intended to address the pickleball court needs in the Wellesley community. Recommendations are intended to be pragmatic and recognize that municipal governments like Wellesley must continue to provide an elevated level of service, even in times of financial uncertainty.

Pickleball is one of the fastest growing sports in the United States and courts are and will continue to be an important asset to the recreation community. This study intends to strike the right balance by identifying and recommending renovated or new facility location criteria that will meet the needs of the Town.

We thank the members of the Town Recreation Commission for their assistance in providing key background data and mapping for the individual properties, and for their sage advice during the development of all aspects of this Study.

Many residents and members of the Wellesley community attended the public meetings and expressed their likes, dislikes, and wishes regarding the past, present, and future use of the various facilities/properties. We thank them. In addition, we extend our appreciation to the many representatives of the Natural Resources Commission (NRC) for their critical advice and insight. The recommendations contained in this Study represent our best professional judgments and expertise, tempered by the unique perspectives of each of the participants in the process.

## ***SPECIAL THANKS TO:***

### **Town Recreation Commission:**

Paul Cramer – Chairperson  
Mark Wolfson – Commissioner

### **Town Recreation Department:**

Matthew Chin – Director

### **Natural Resource Commission:**

Brandon Schmitt  
Beatrice Bezmalinovic

## EXECUTIVE SUMMARY

This study represents a unique opportunity for the Town of Wellesley to assess its current town-owned properties and develop a series of thoughtful and achievable site assessment criteria for these spaces that would include the implementation of one or more proposed pickleball courts that would provide benefits to all members of the community. It provides a comprehensive Site Inventory of existing locations currently fitted with Pickleball Courts as well as a series of recommendations for potential new courts located within these existing facilities throughout town.

This document provides recommended feasible study plans at specific properties that, if accepted by the Town, will relieve the demand currently being experienced and provide a solution to the noise pollution concerns. Some of the plans involve major renovations while others are more surgical in their approach.

An on-line survey was distributed across all town social media, the town website, and posted at local municipal buildings on January 26<sup>th</sup>, 2024, and remained live for two weeks. The survey was derived from information gathered during a series of public meetings and interviews with staff, key user groups, and stakeholders to garner feedback from the community. As information became available, the following views became clear:

- Availability of current pickleball courts is insufficient to meet current and future demands of the Wellesley community.
- Due to heavy and often excessive use during the outdoor season residents responded with not enough courts are available during the preferred time of use in town to accommodate the need.
- Scheduling conflicts between tennis and pickleball players on overlay courts.
- Courts currently situated too close to existing abutters have proven to be a nuisance based on the time of day and duration of time they are used throughout the day.
- Courts currently situated on school properties are at or near capacity with scholastic use only.
- Court lighting is not an option in Town.
- Wellesley may consider acquisition of properties and public/private partnerships to expand available court space and appropriately budget and staff maintenance operations accordingly.
- Parking at most Town facilities can be improved.

Wellesley sees continued pressure for expansion in the number of programs offered and the number of individuals participating through requests from private organizations and other town leagues.

The most important goal of this study is to help the town set and manage user expectations while maintaining and operating quality site and recreation opportunities regardless of the level of play. Making improvements to current court configurations, in addition to efforts in providing potential new court locations are critical for Wellesley to provide the quality facilities that residents expressly desired.

We invite you to review the Appendix for additional information and findings.

## ***ASSESSMENT CRITERIA***

With this study, Weston & Sampson assisted the Town of Wellesley in establishing site selection criteria for determining if pickleball court(s) are viable and best suited at town-owned properties. Weston & Sampson collaborated with SH Acoustics, LLC who used measured pickleball noise data along with industry-standard outdoor noise modeling techniques and calculation methods, to develop evaluation standards necessary to mitigate pickleball paddle to ball contact noise pollution for the residents and businesses. In collaboration with the municipal noise ordinance, the noise standards considered in this study address the specific nature of pickleball noise including the distinct frequency content and pickleball's repeated impulsivity. The criteria included the following:

- Distances to the closest residential property line
- Elevations of the courts in relation to the elevation of the closest residential property
- Number of courts that are practical.

These factors determine if a sound barrier or buffer would be required, the height and quality of sound barrier or buffer needed, or if courts should be considered at a potential site given the acoustic constraints.

The town believed it to be imperative to assess their current town-owned properties that provide critical recreational enjoyment for residents of all ages throughout the community. It is important to note that outdoor recreation needs relate not just to the active sport programs that make use of them, but also to less formal recreational pursuits by individuals not aligned with a specific organization, like the neighborhood kids who seek a pickup game, or the parents who would like to stroll in the park with their children. In addition, the study recommends other site selection parameters to be considered as part of the feasibility study. They are:

- Site Access / Accessibility
- Earthwork
- Tree Clearing
- Permitting / 3<sup>rd</sup> Party Permissions
- Brownfield Site
- Room for Expansion
- Traffic Congestion
- Restricted School hours
- Parking

## ***FEASIBILITY STUDY***

The next steps of the town-wide site selection process described herein; Weston & Sampson will conduct a more in-depth feasibility study at the preferred town site(s). This feasibility study will take a closer look at potential court locations at Morses Pond utilizing the following elements to find the optimal court locations at each site,

- Environmental Resource maps
- GIS data
- Proximity of adjacent properties
- Proximity of adjacent recreational (passive and active) amenities

- Sound mitigation
- Land development impacts
- Site and court development construction costs

Each recommended location will include a conceptual plan, estimate of probable cost, site parameters and an independent consideration with the goal of providing the Town with viable options that future court locations at the above listed properties.

We invite you to review the attached documents for additional information and findings:

**Appendix A – Community Engagement Presentations**

- Meeting #1- January 26, 2024
- Meeting #2- February 28, 2024
- Recreation Commission Meeting – March 6, 2024

**Appendix B – SH Acoustics: Pickleball Noise Guidelines**

**Appendix C – Precedent Projects with Successful Sound Mitigation**





TOWN  
OF WELLESLEY  
Pickleball Court Study  
1-25-2024

# ZOOM MEETING

## VIRTUAL MEETING ETIQUETTE

We want to ensure this conversation feels accessible to everyone and each one of you feels comfortable sharing your questions and comments.

Please be respectful and mindful of other's time when asking questions/ providing comments, so that all attendees are able to participate in the meeting.

Keep questions/ comments project-specific and not personal to yield a solution driven discussion.

### DURING THE PRESENTATION:



#### VIA WEB:

Turn video on / off.

### ZOOM TIPS

Here is how you can participate during the questions and answers part of the presentation.

#### DURING THE Q&A:



#### JOINING VIA PHONE?

Use \*9 to raise hand to ask for audio / video permission to ask questions or provide comments.



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Chat to ask questions / comments or provide responses to poll questions



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# INDEX



# BASIC PROJECT GOALS / NEXT STEPS

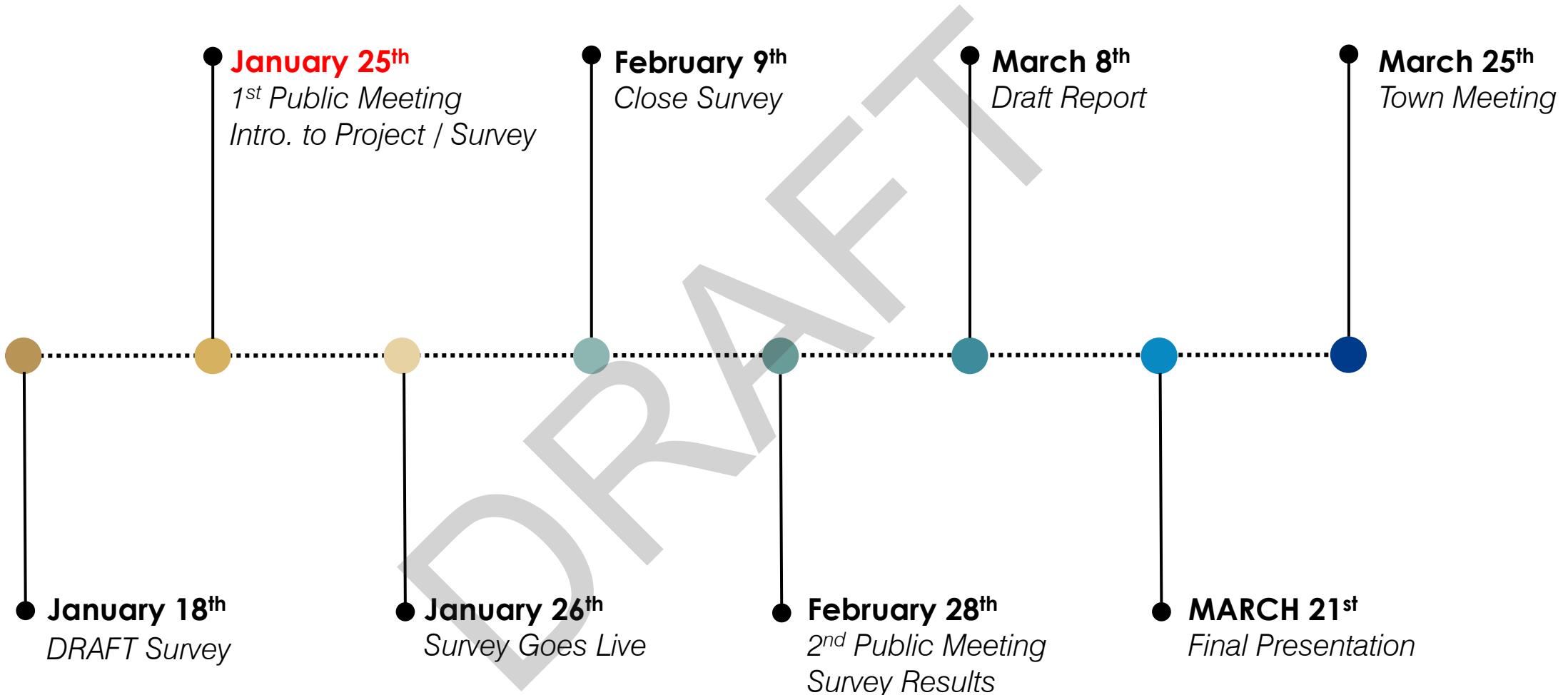


Hunnewell Courts

- Complete a **public outreach** process to identify current and future pickleball needs / concerns.
- Develop site **assessment criteria** that reflect community interests based on input collected through public outreach.
- Utilizing current industry standards, **best practices** and emerging standards to identify current and future needs.
- Complete an **inventory** of existing outdoor Pickleball courts and assess against optimal court criteria.
- Using the proposed assessment criteria, **identify** 3 possible locations that may be suitable for pickleball in Wellesley.
- **Next Steps:** Develop a Feasibility Study of the properties to determine optimal locations.



# PROJECT SCHEDULE



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

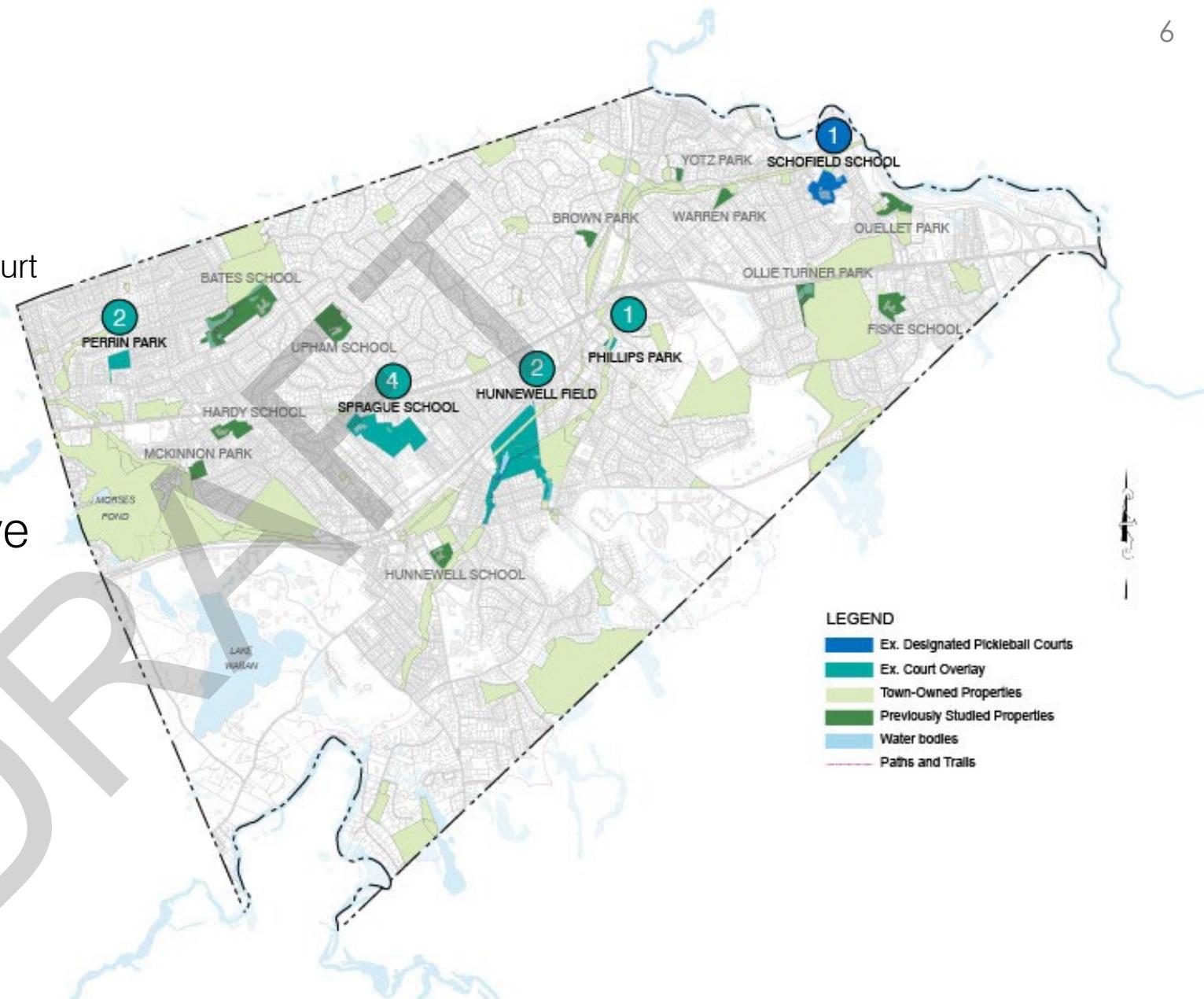
# SITE INVENTORY

## Existing Pickleball Courts

- Hunnewell Fields – (2) Temp. on Tennis Court
- Perrin Park – (2) on Basketball Court
- Phillips Park – (1) on Basketball Court
- Schofield School – (1) Court
- Sprague School – (4) on 2 Tennis Courts

## Previously Studied Sites with Active Field & Court Use

- Bates School
- Brown Park
- Fiske School
- Hardy School
- Hunnewell School
- Ouellet Playground
- Upham School
- Warren Park



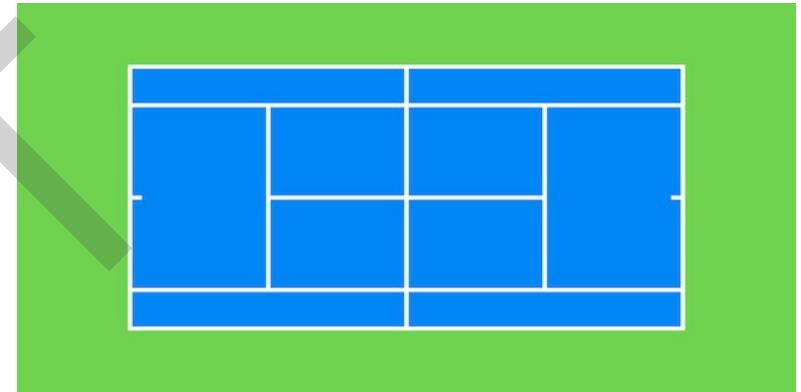
# COURT INVENTORY

How many courts does Wellesley have?

## TENNIS

- 3 Overlap with Pickleball

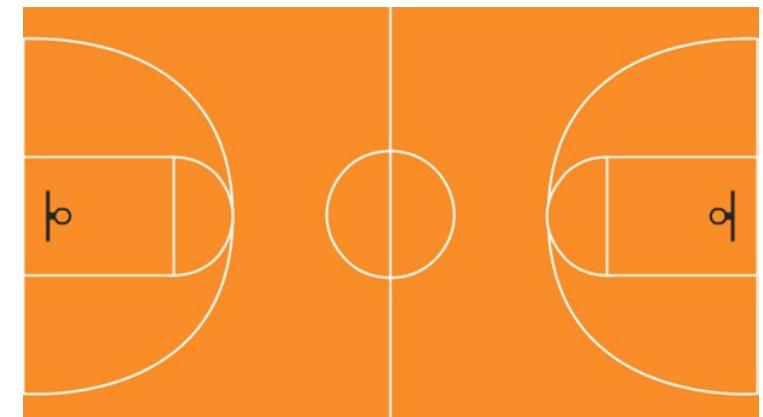
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## BASKETBALL

- 11 full courts (2 overlaps with pickleball)
- 2 half courts

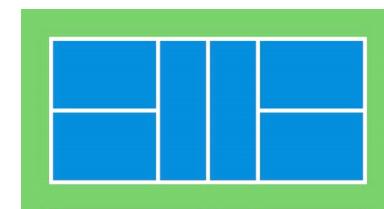
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## PICKLEBALL

- 3 overlap with basketball
- 6 overlap with tennis
- 1 designated court

10



# COMMUNITY SURVEY

## Wellesley Town-Wide Pickleball Study

### Introduction

The Town of Wellesley is conducting a survey of residents to get a better understanding of the community concerns about pickleball courts. Concerns include pickleball players' desire for more courts in Wellesley, existing courts too close to homes creating unwanted sound, lessening tennis court capacity to provide for pickleball, and environmental concerns to the extent pickleball affects the enjoyment of passive areas, natural habitat and wildlife.

We are asking for input to help us understand all concerns from both proponents and opponents of outdoor pickleball courts in Wellesley.

### Topics include:

- What criteria do you think should drive the selection of a site for Pickleball in Wellesley?
- Overall concerns regarding Pickleball courts in Wellesley?
- How often do you play Pickleball?
- Player demographics.
- Where is your preferred location of play, and why?
- What is important to you, etc.
- **Make sure you note anything else you want us to include.**

*In your words...*

*"I'd like to see dedicated Pickleball courts with permanent nets."*

*"Let's improve the outdoor high school basketball courts to make them a gathering spot. Good quality court, lights, seating, water fountains."*

*"More pickleball and tennis would be awesome!"*

*"Upgrades to Schofield Tennis Courts and Pickleball Courts is much needed and would be welcomed by the neighborhood."*



# Sound Considerations

- Using measured pickleball noise data and **industry data** to develop standards necessary to ensure the peace and quiet of residents and businesses nearby
- These standards will address the specific nature of pickleball noise and adhere to the State & National **noise guidelines** the Town follows.
- Standards will not be written as site specific, but rather a **set of criteria** for all town owned lands.
- Consider potential **noise mitigation** requirements based on site specific factors. (Some examples being barrier height, material and extents and/or the use of noise reducing paddles)

## Identified Pros & Cons

- ✓ Music and cheering at sports events can be a pleasant sound.
- ✓ With proper guidelines (time of day, volume), announcers and music would add fun and excitement to youth sporting events.

*"We need quiet to work from home, for our kids to do our homework, for little kids to go to bed early, to relax and read books in our backyards."*

*"Town needs a balanced sound policy for all playing fields providing both guidelines and opportunities for our community to enjoy the physical, social and emotional benefits of musically inspired active recreation."*

- ✗ Potentially disruptive to neighboring residences.
- ✗ Potentially blocks out sounds of nature such as nearby brooks and birds.
- ✗ Not essential to sporting events.



# ASSOCIATED COSTS

The following represent typical costs associated with recreational level (30' x 60') full scale court construction. All costs are related to the court only. Additional costs may be required for surrounding site accommodations and should be assessed during initial design phases.

| ITEM            | COST                  | DESCRIPTION   |
|-----------------|-----------------------|---|
| Court Surfacing | \$10 - \$12 per SF    | Hot mix asphalt paving, gravel base, color seal coat      |
| Court Fencing   | \$120 per linear foot | 10' height black vinyl chain link perimeter fencing only  |
| Court Amenities | \$3k - \$5k per court | Pickleball nets & Posts                                   |
| Sound Proofing  | TBD                   | Sound barriers, additional noise mitigation.              |
| Site Work       | TBD                   | Landscaping, permitter pathways, grading, earthwork, etc. |

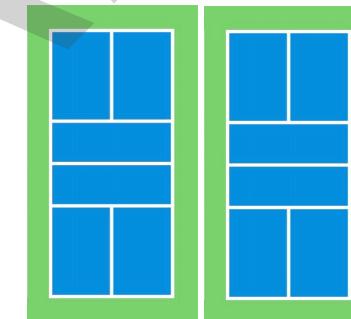
1,800 sf  
180 lf  
fencing



(1) Pickleball Court

\$44k - \$48k

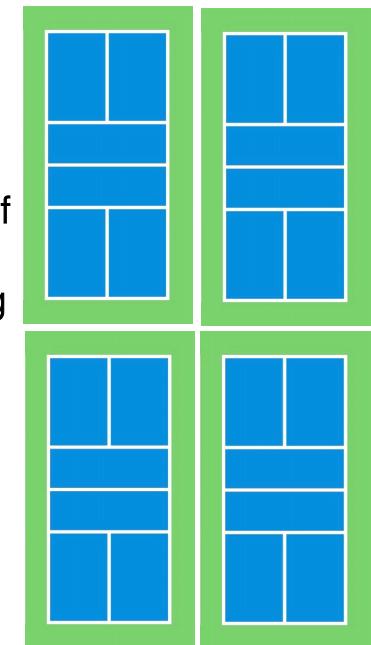
3,480 sf  
240 lf  
fencing



(2) Pickleball Courts

\$70k - \$82k

6,840 sf  
360 lf  
fencing



(4) Pickleball Courts

\$124k - \$145k



**THANK YOU**

*Questions*

**DRAFT**



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson<sup>SM</sup>



TOWN  
OF WELLESLEY  
Pickleball Court Study  
2-28-2024

# ZOOM MEETING

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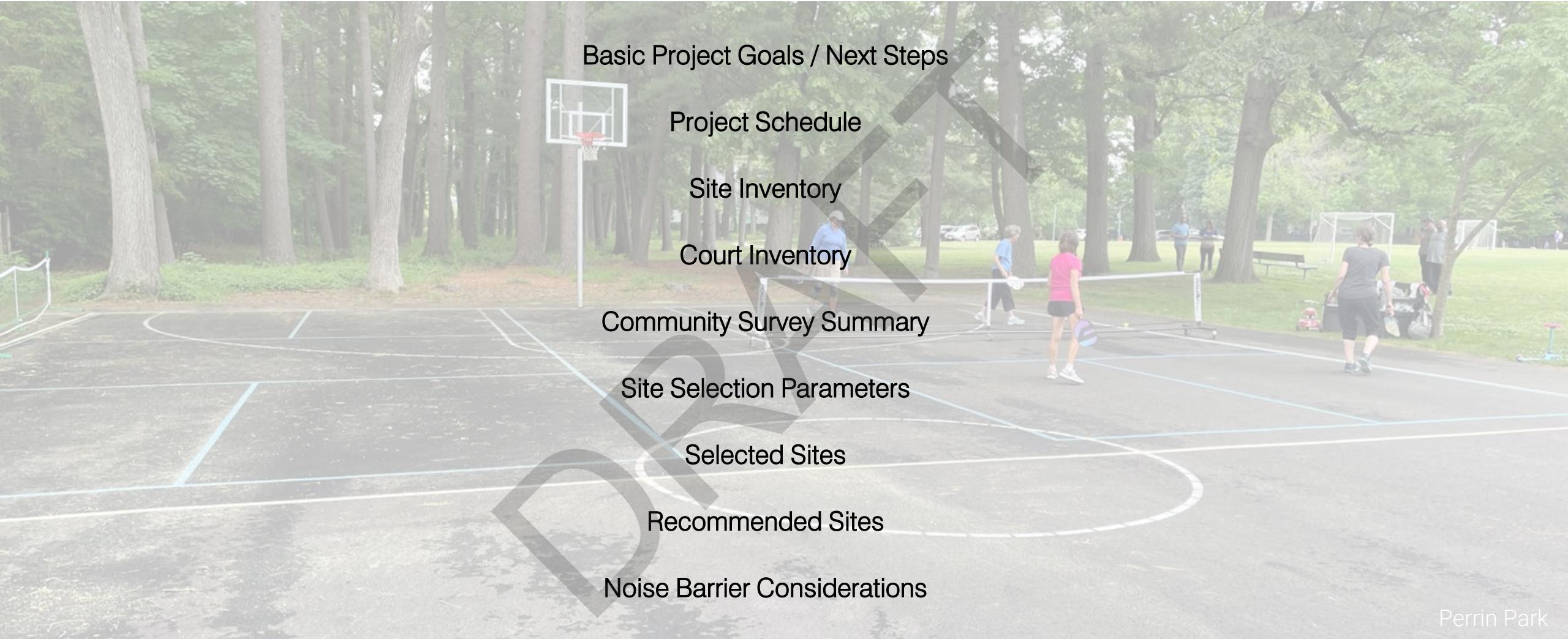
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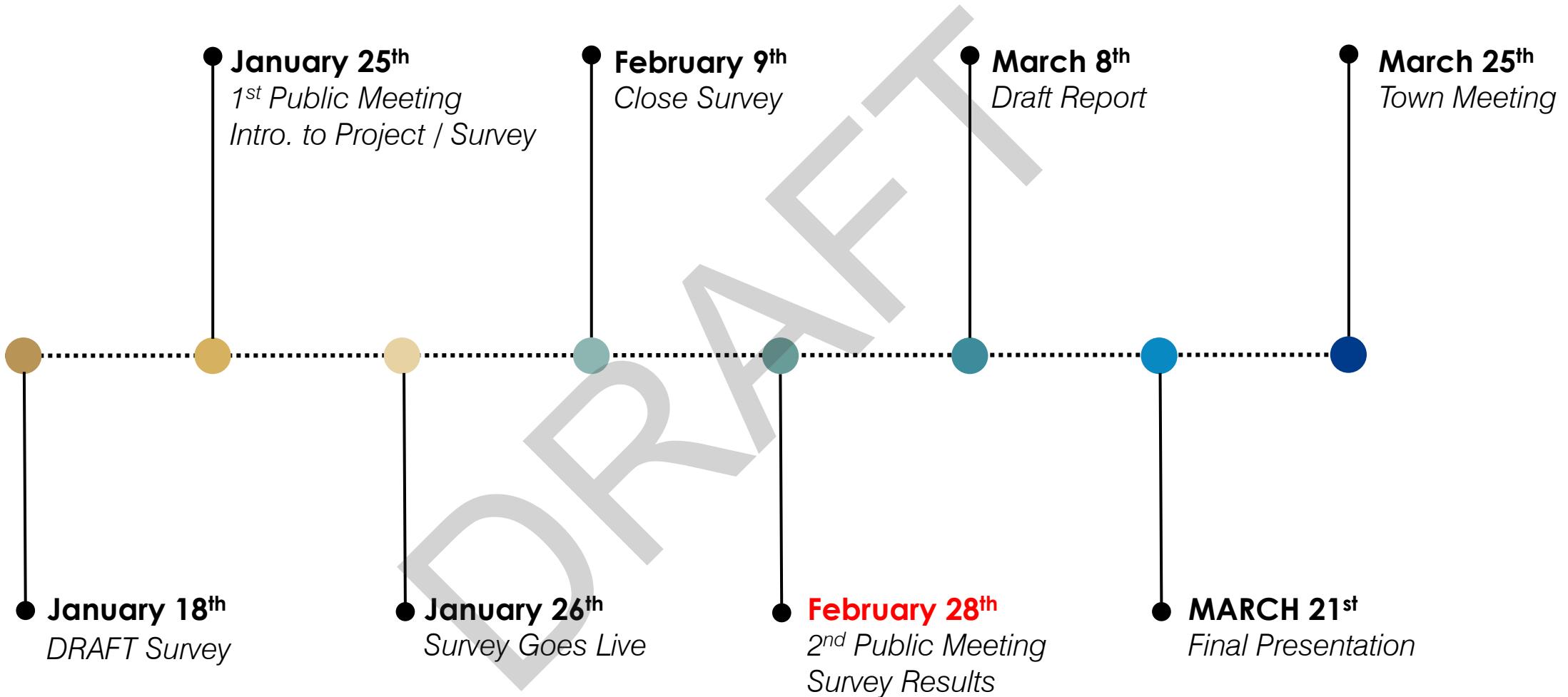


Hunnewell Courts

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- Using the proposed assessment criteria, **identify** 3 possible locations that may be suitable for pickleball in Wellesley.
- **Next Steps:** Develop a Draft Feasibility Study Report based on findings.



# PROJECT SCHEDULE



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

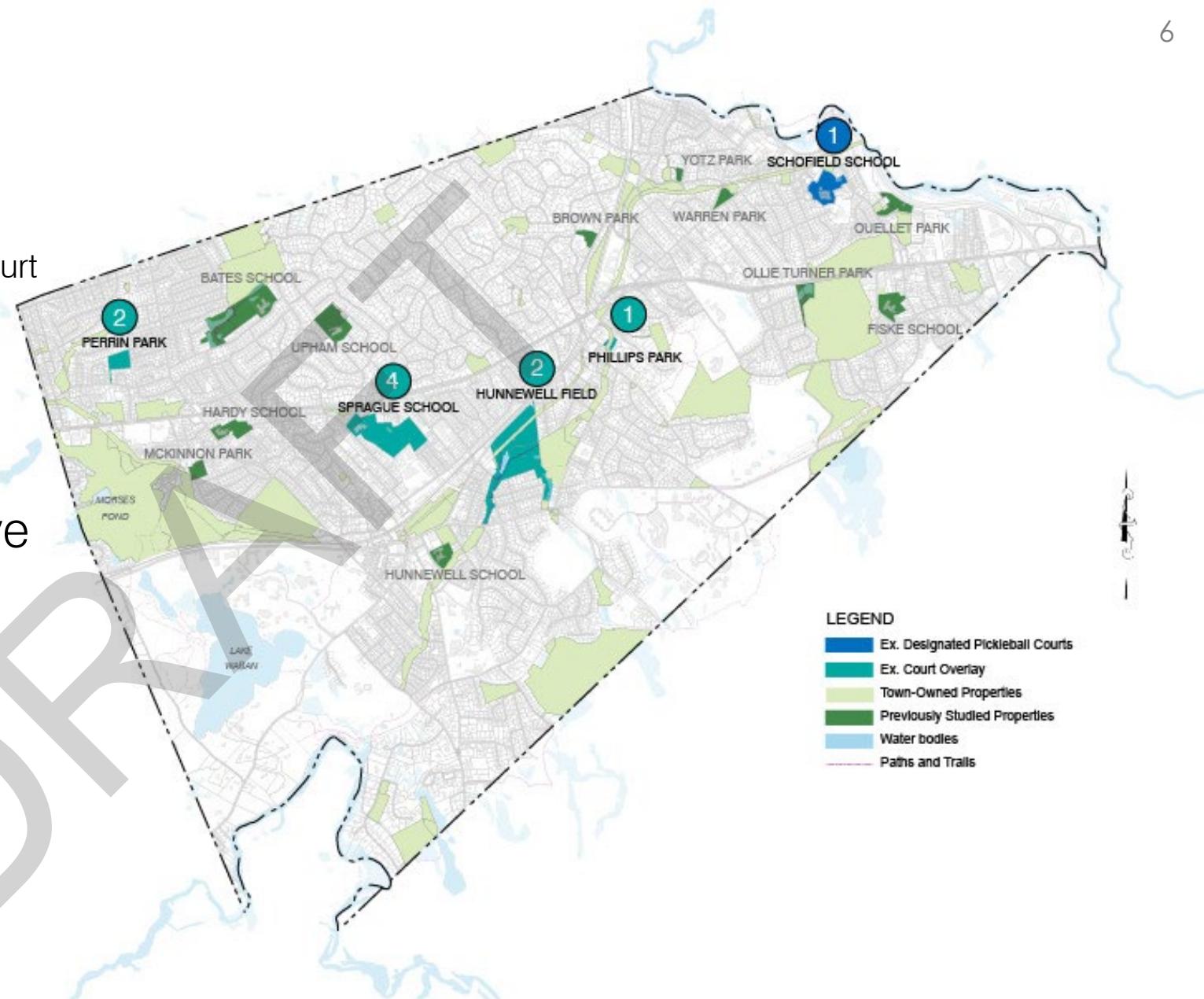
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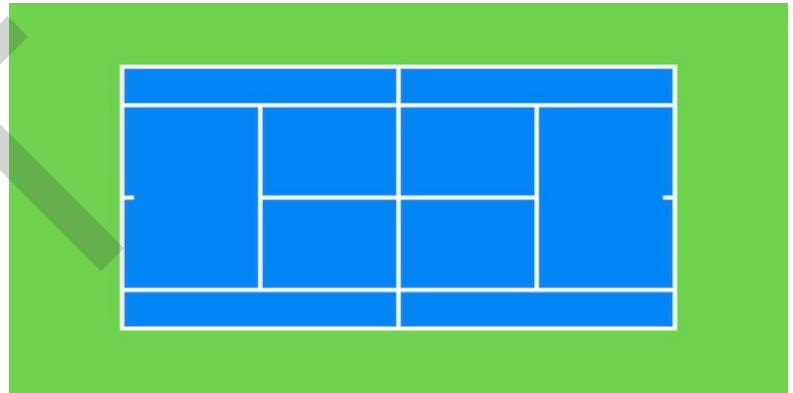
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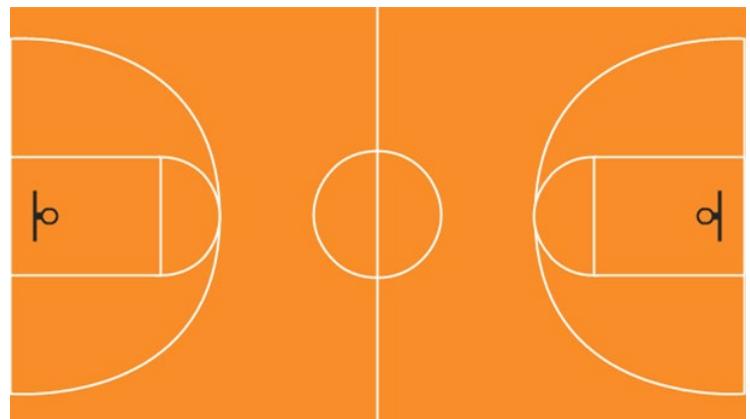
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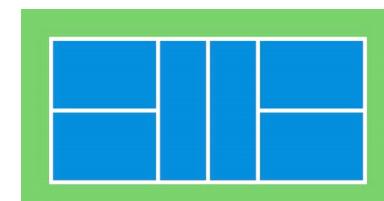
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## PICKLEBALL

- 3 overlap with basketball
- 6 overlap with tennis
- 1 designated court

10



Field Utilization Study suggested Wellesley should have up to 14 pickleball courts



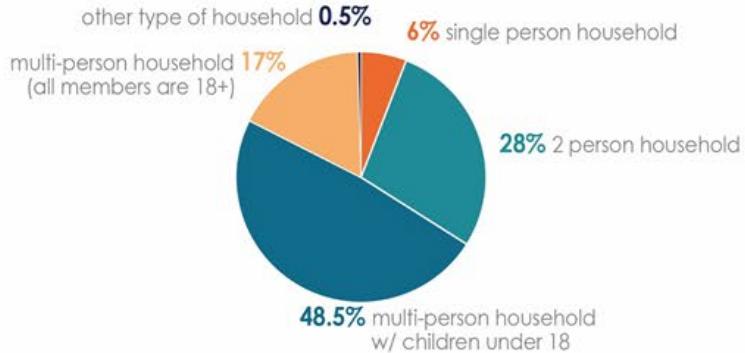
# COMMUNITY SURVEY SUMMARY

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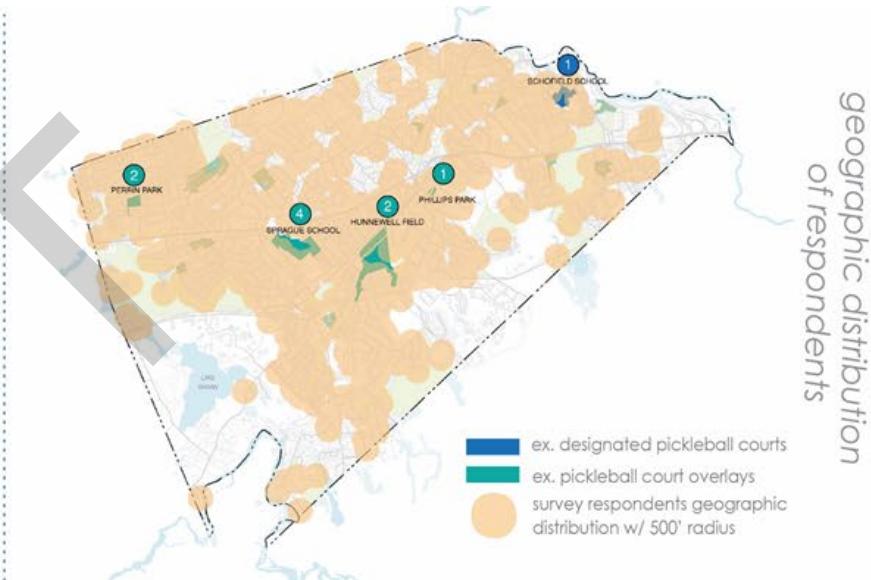
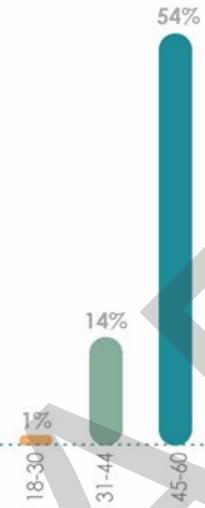
## DEMOCRAPHICS

946

People responded  
to the online survey



age range of respondents



## CONCERNS

top concerns from respondents who play pickleball



top concerns from respondents who do not play pickleball



desired considerations

- Separation of pickleball courts and tennis courts, **no overlays**
- Provide more **indoor** courts
- Consideration for **wildlife impacts**
- Proximity to **neighboring residents**
- Restrict play** to certain times of day
- Provide **priority** of court use to **residents**

in your words...

"I would love to see more indoor pickleball courts in Wellesley"

"I am concerned about the impact of pickleball on tennis. I would like pickleball expansion, but not at the cost of loss of tennis."

"I'm opposed to Pickleball courts, particularly outside courts due to noise, proximity to property, impact on environment/habitat, traffic, and spill..."

"I think pickleball is great but I do feel badly for people that live close to the courts. I think the sound would get very annoying. Therefore I think it makes sense to restrict play before 8am and after 8pm."

"Some kind of priority given to town residents in scheduling system"



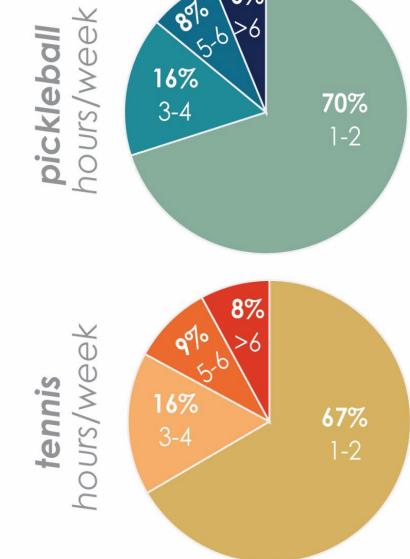
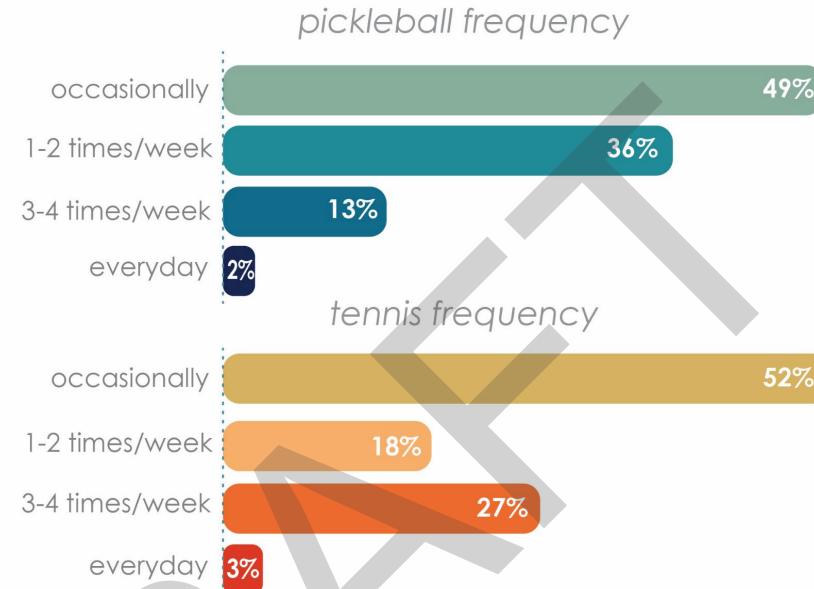
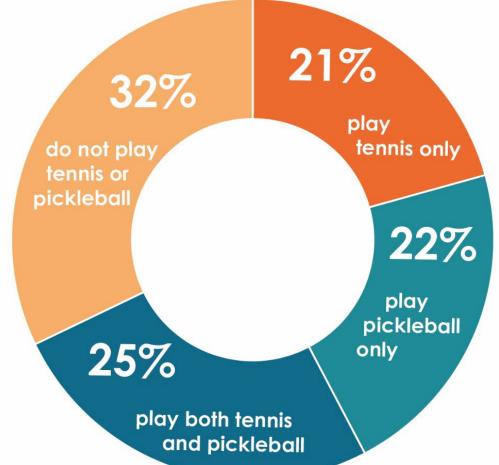
TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson

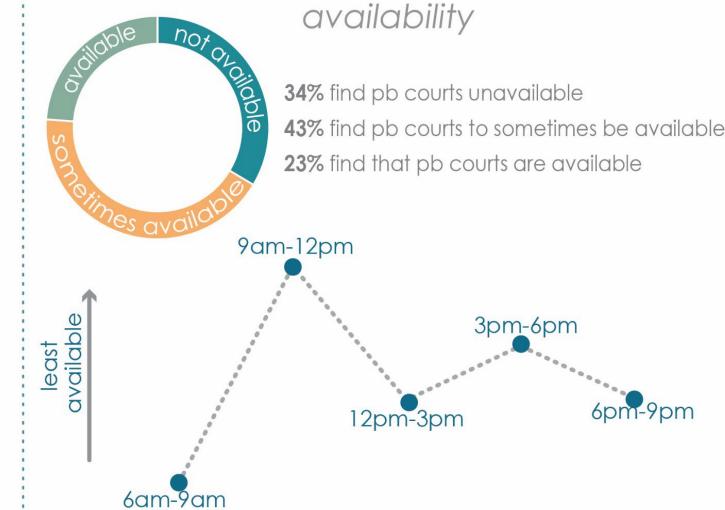
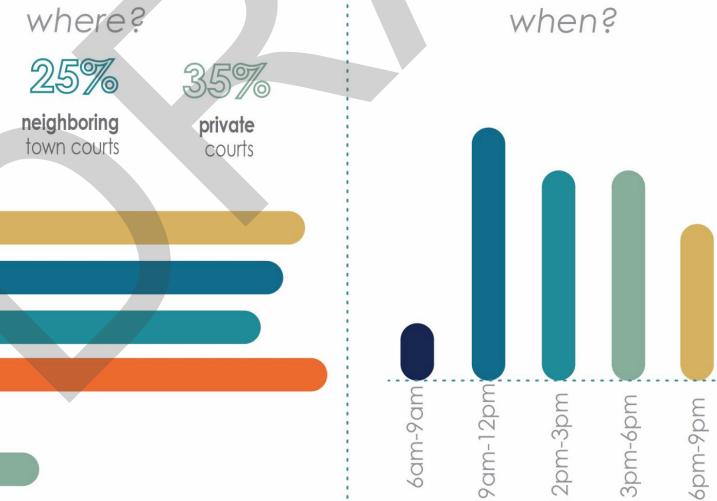
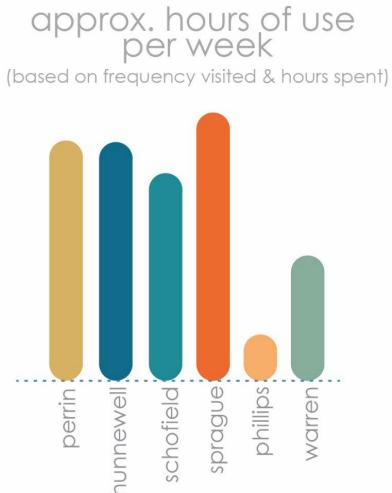
# COMMUNITY SURVEY SUMMARY

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## COURT USE



## EXISTING USE



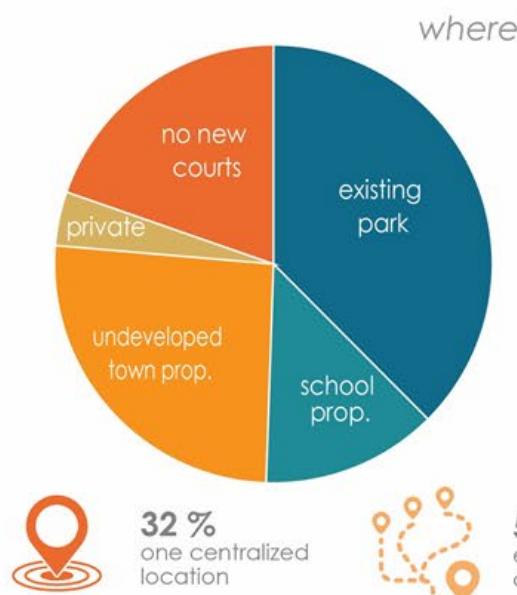
## TOWN OF WELLESLEY PICKLEBALL COURT STUDY



# COMMUNITY SURVEY SUMMARY

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## FUTURE PICKLEBALL

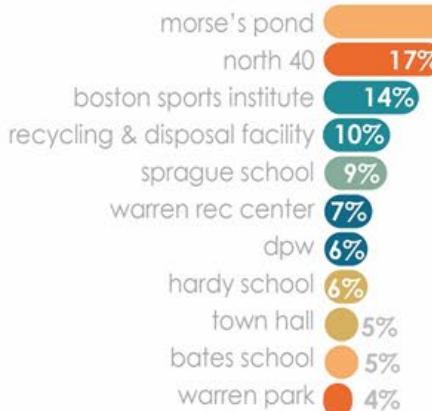


32 %  
one centralized  
location



54 %  
equally distributed  
across town

## other properties suggested for pickleball



## TOWN OF WELLESLEY PICKLEBALL COURT STUDY

where?

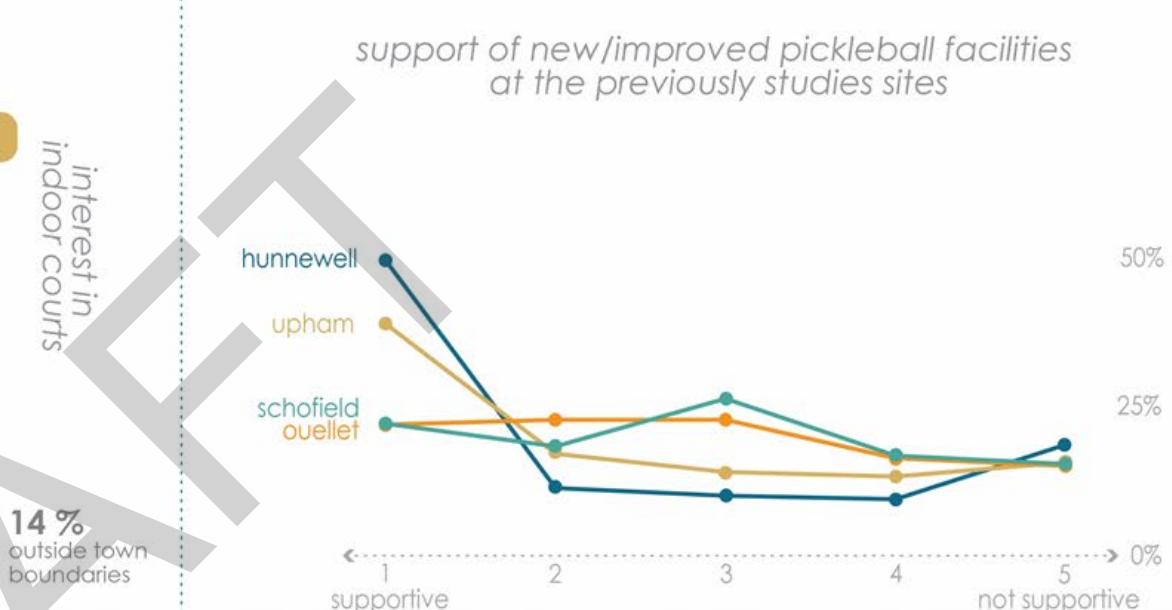
37% very receptive

33% receptive

21% not receptive

9%  
no opinion

support of new/improved pickleball facilities  
at the previously studied sites



14 %  
outside town  
boundaries

Pickleball is great for **exercise** and **mental health**

More pickleball courts would be an **asset to Wellesley**

Pickleball promotes **socialization**

"It's the best way for residents from different generations to exercise, socialize and be outdoors. Great way for our residents to improve mental and physical health!"

"I think any activity that keeps people active is amazing so I support any pickle facilities!"

"Demand for courts is going to continue to grow. Now is the time to plan for the future."

Court overlays **conflict with tennis play**

**Noise levels** of pickleball play

**Environmental impacts** to natural habitats

"Any pickleball space should be indoors due to the noise."

"don't infringe on existing natural outdoor habitats."

# PRIMARY SITE SELECTION PARAMETERS

What factors related to sound need to be assessed before choosing a location for pickleball?

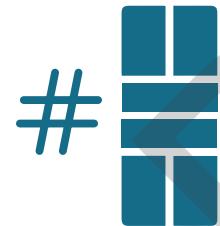
Distance to the closest residential property line



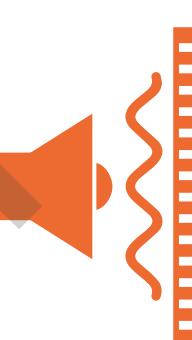
Elevation of the court in relation to the closest residential property



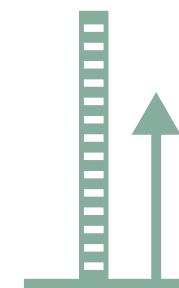
Number of courts



The 3 contributing factors tell us...



If a sound barrier is required



Height and quality of sound barrier, as required



Pickleball courts should not be at this site



# OTHER SITE SELECTION PARAMETERS

The following site parameters should also be considered.



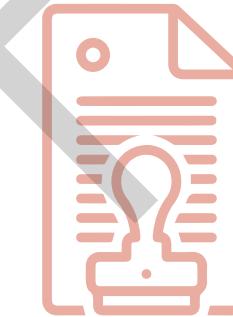
Site Access



Earthwork



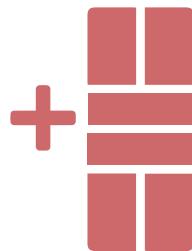
Tree Clearing



Permitting /  
3rd Party Permission



Brownfield  
Site



Room for Expansion



Traffic Congestion



Restricted by  
School Hours



Parking



# SITE SELECTION PARAMETERS

# APPLIED TO EXISTING COURTS



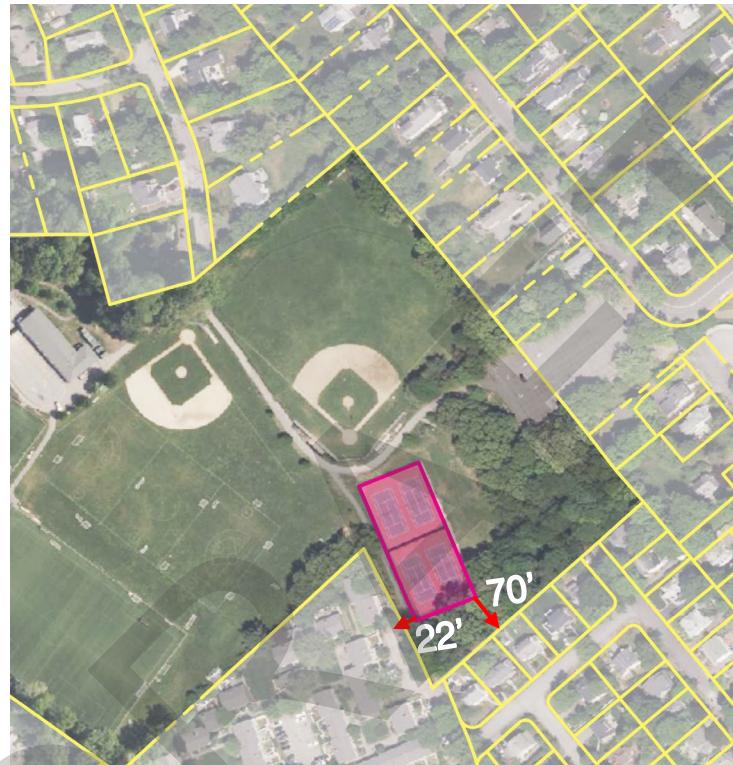
## HUNNEWELL FIELDS

Closest properties: 230' & 480'

Court elevation: 130'

Adjacent property elevations: 146' & 130'

**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



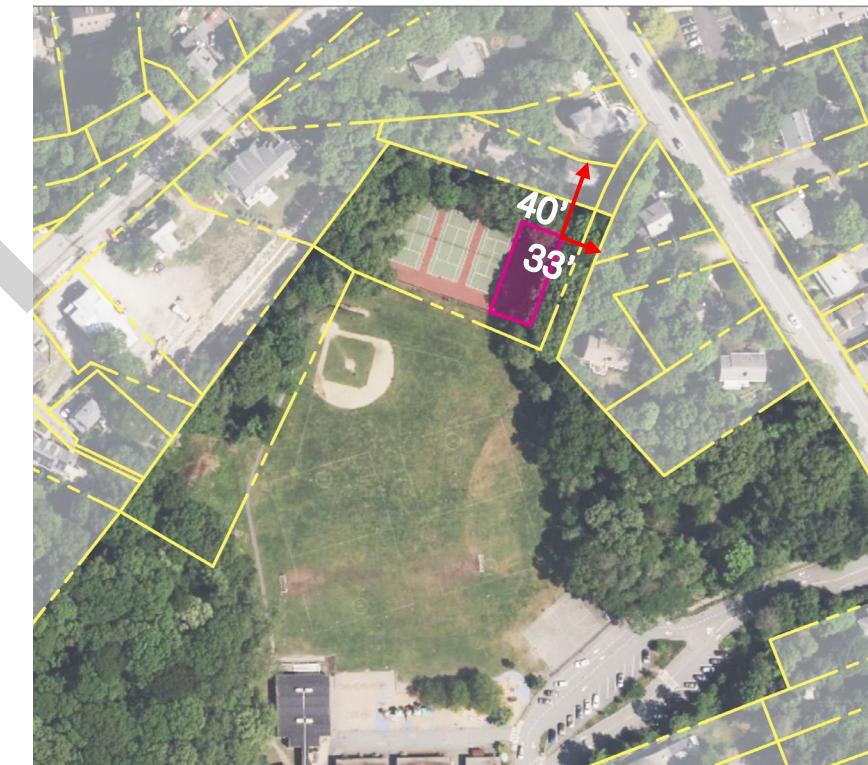
## SPRAGUE ELEMENTARY SCHOOL

Closest properties: 22' & 70'

Court elevation: 140'

Adjacent property elevations: 138' & 148'

**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



## SCHOFIELD ELEMENTARY SCHOOL

Closest properties: 40' & 33'

Court elevation: 90'

Adjacent property elevations: 94' & 98'

**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



# SITE SELECTION PARAMETERS

# APPLIED TO EXISTING COURTS



## PHILLIPS PARK

Closest properties: 10' & 52'

Court elevation: 142'

Adjacent property elevations: 142' & 150'

**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



## PERRIN PARK

Closest properties: 5' & 105'

Court elevation: 160'

Adjacent property elevations: 158' & 160'

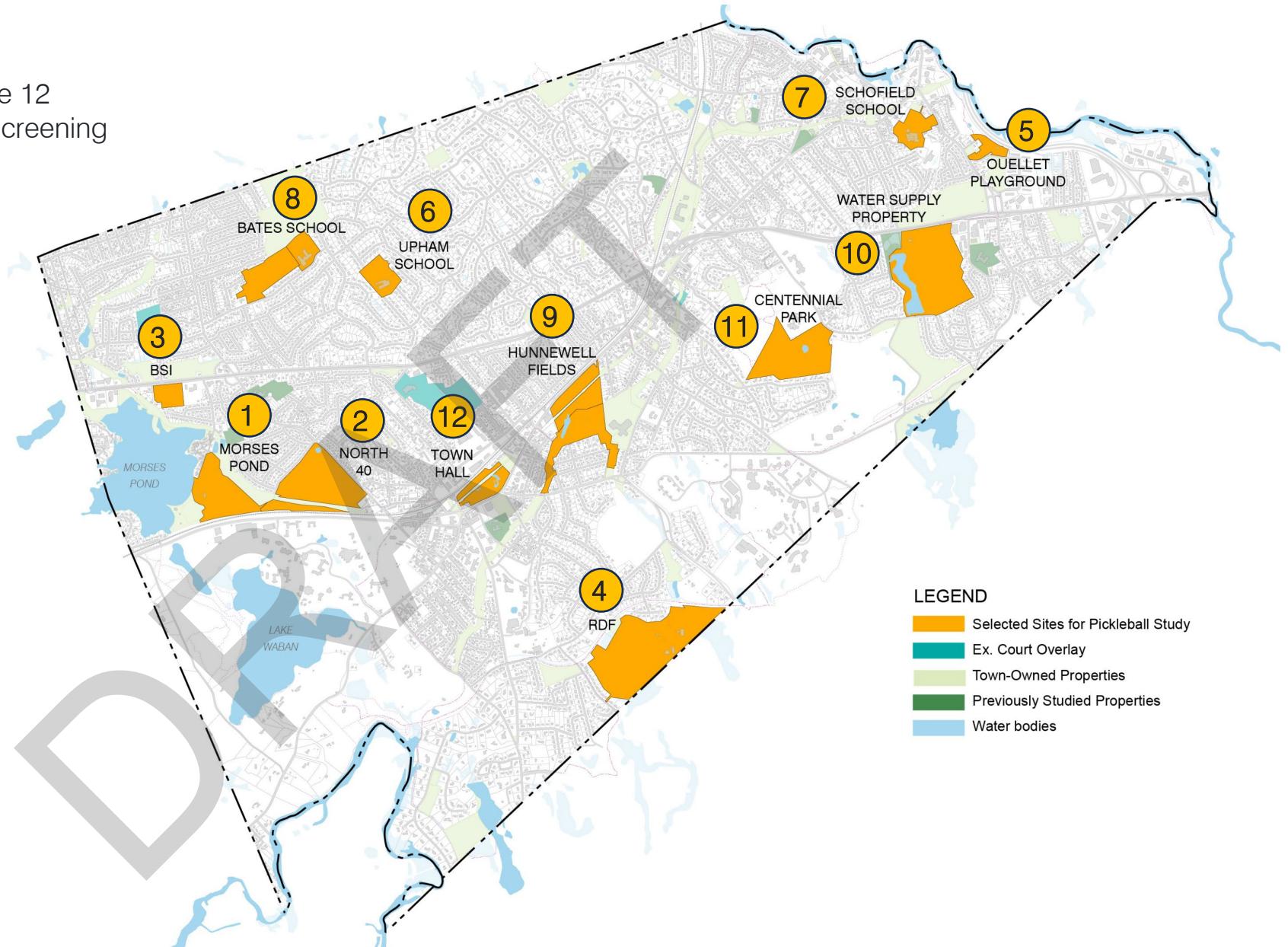
**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



# SELECTED SITES

W&S looked at all town owned properties. The 12 below were the only ones that passed initial screening or were suggested by town residents.

- 1 Morse's Pond
- 2 North 40
- 3 BSI
- 4 RDF
- 5 Ouellet
- 6 Upham
- 7 Scofield
- 8 Bates
- 9 Hunnewell
- 10 Water Supply Prop.
- 11 Centennial Park
- 12 Town Hall



# SELECTED SITES



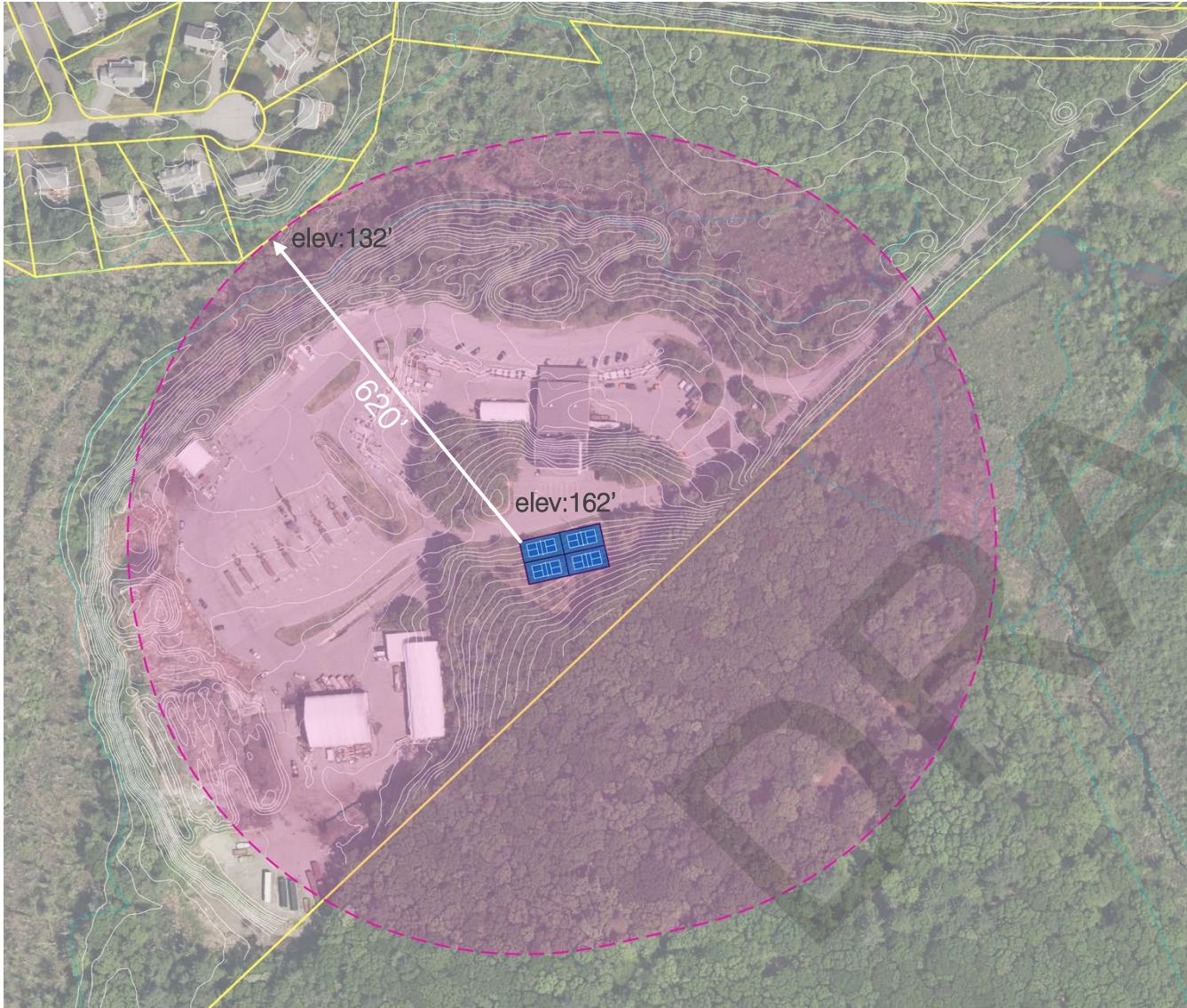
| (x)=# of courts        | Barrier height | Minimal access | Extensive earthwork | Tree clearing | Permitting/permissions | Brownfield Site | No ability to expand | Traffic conflicts | Restricted by school hours | No ex. Parking |
|------------------------|----------------|----------------|---------------------|---------------|------------------------|-----------------|----------------------|-------------------|----------------------------|----------------|
| Morse's Pond (2)       | 12'            |                |                     |               |                        |                 |                      |                   |                            |                |
| North 40 (6)           | 12'            | <b>X</b>       | <b>X</b>            | <b>X</b>      |                        | <b>X</b>        |                      |                   |                            | <b>X</b>       |
| BSI (1)                | 15'            |                |                     |               | <b>X</b>               |                 | <b>X</b>             |                   |                            |                |
| RDF (4)                | 6'             |                |                     |               | <b>X</b>               |                 |                      |                   |                            |                |
| Ouellet (1)            | 15'            |                | <b>X</b>            |               |                        |                 | <b>X</b>             | <b>X</b>          |                            |                |
| Upham (2)              | 10'            | <b>X</b>       | <b>X</b>            | <b>X</b>      |                        |                 | <b>X</b>             |                   |                            |                |
| Schofield (2)          | 15'            |                |                     |               | <b>X</b>               |                 | <b>X</b>             |                   | <b>X</b>                   |                |
| Bates (2)              | 15'            |                |                     |               | <b>X</b>               |                 | <b>X</b>             |                   | <b>X</b>                   |                |
| Hunnewell (2)          | 12'            |                |                     |               | <b>X</b>               |                 | <b>X</b>             |                   | <b>X</b>                   |                |
| Water Supply Prop. (2) | 10'            | <b>X</b>       | <b>X</b>            | <b>X</b>      | <b>X</b>               |                 | <b>X</b>             | <b>X</b>          |                            | <b>X</b>       |
| Centennial Park (2)    | 12'            | <b>X</b>       | <b>X</b>            | <b>X</b>      |                        |                 | <b>X</b>             |                   |                            | <b>X</b>       |
| Town Hall (2)          | 6'             |                |                     |               |                        |                 | <b>X</b>             |                   |                            |                |



# RECOMMENDED SITES

RDF

17



## LOCATION 1

-  no barriers for 2 courts  
6' high for 4 courts
-  access modifications needed
-  moderate earthwork needed
-  minimal tree clearing
-  coordination needed with RDF facility
-  no history of contamination
-  room to expand to 4 courts if 6' of sound barrier is added
-  traffic patterns will need adjustments
-  not restricted by school hours
-  Existing parking available



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson

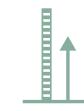
# RECOMMENDED SITES



# TOWN HALL

20

## LOCATION 1

 6' high for 2 courts

 easy access from ex. parking lot

 moderate earthwork needed

 minimal tree clearing

 no permitting anticipated



no history of contamination



no room for expansion



traffic patterns will remain the same



not restricted by school hours



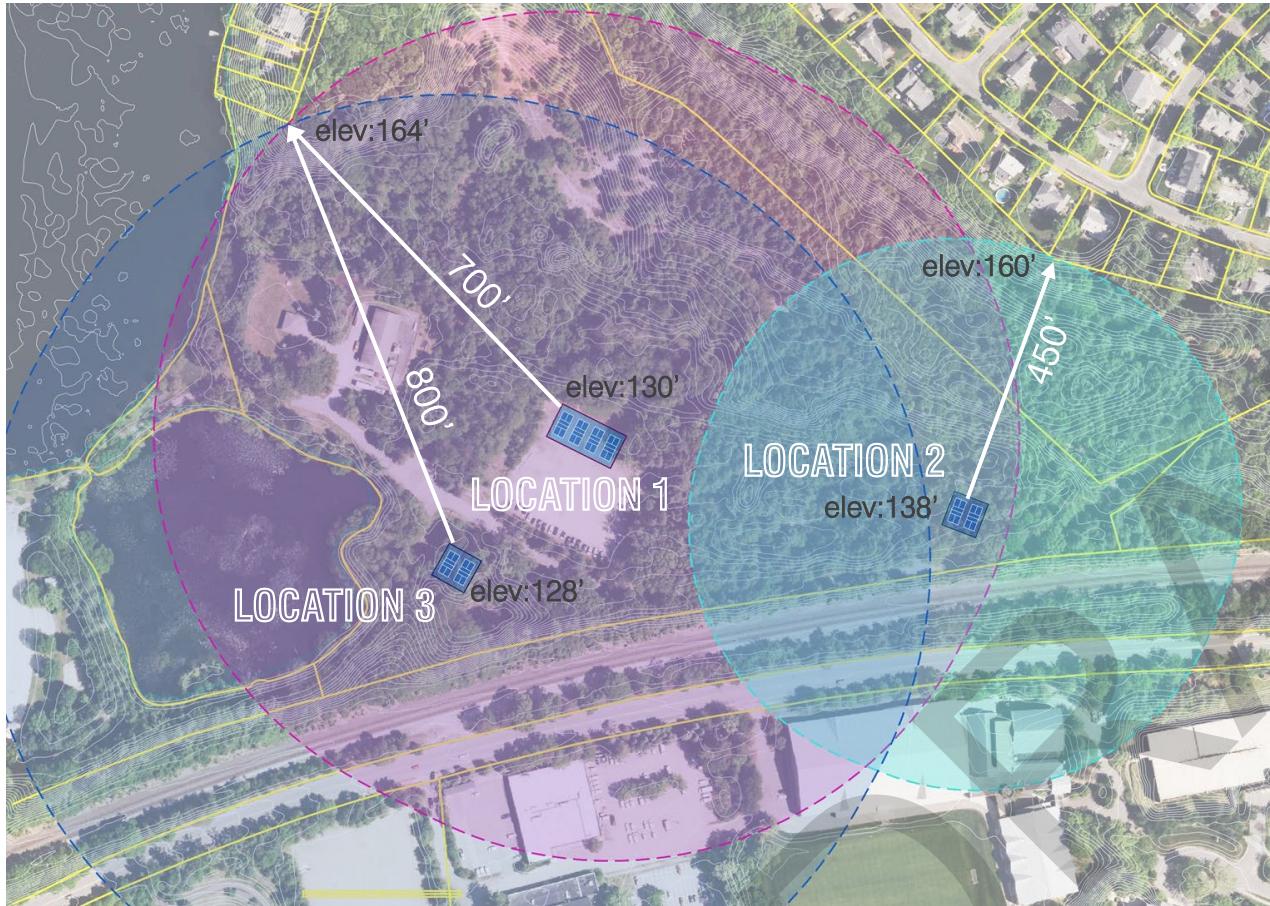
Existing parking available



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

# RECOMMENDED SITES



## LOCATION 3

 10' ht for 2 courts  
 15' ht for 4 courts  
 easily accessed from ex. road

 moderate earthwork  
 tree clearing needed  
 may trigger permitting

 no history of contamination  
 room to expand to 4 courts  
 traffic patterns will be the same

 not restricted by school hours  
 existing parking available

TOWN OF WELLESLEY PICKLEBALL COURT STUDY



# MORSE'S POND

## LOCATION 1

 12' high for 2 courts  
 15' high for 4 courts  
 easy access from ex. parking lot  
 flat site  
 no tree clearing  
 it falls outside of the wetland buffers

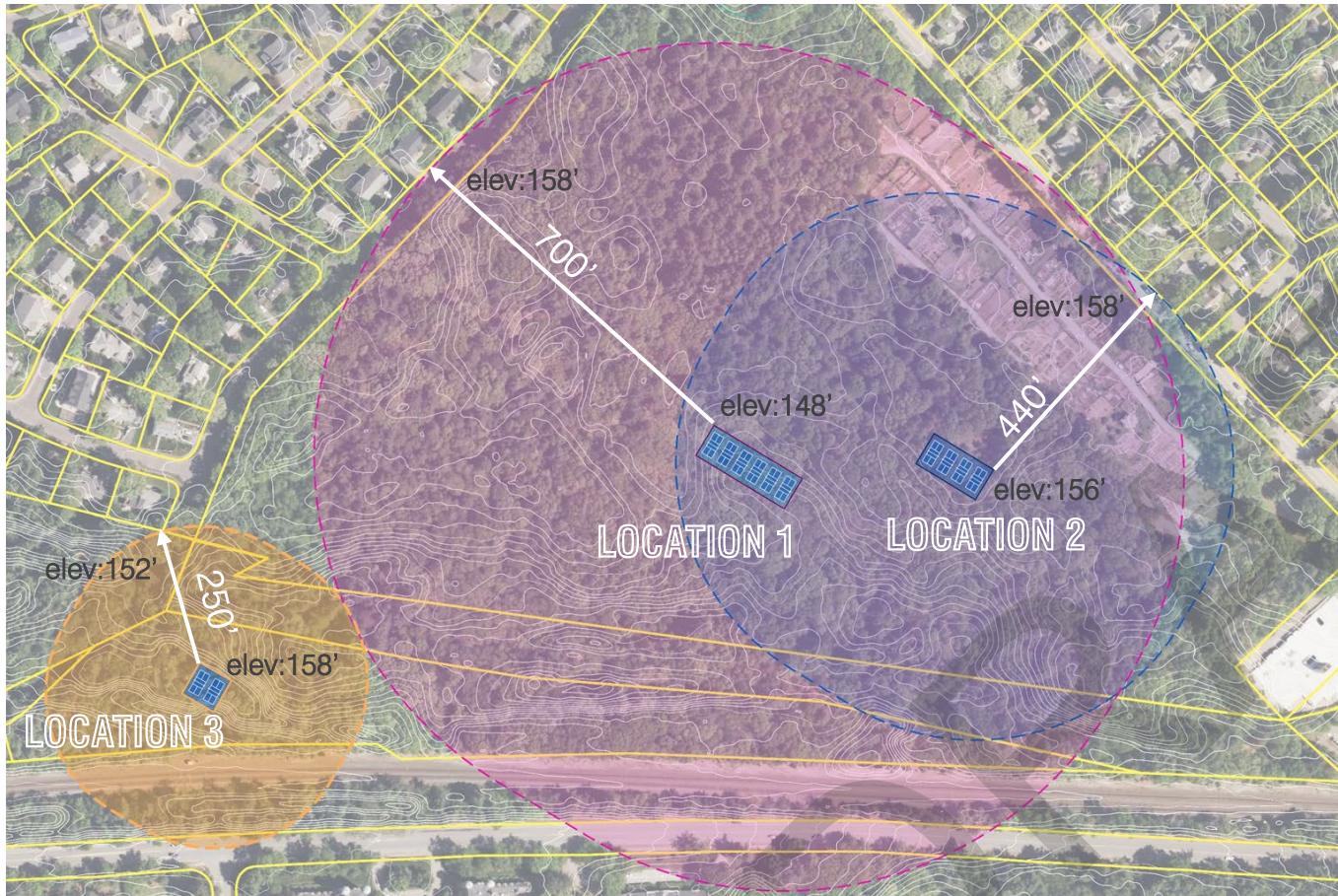
 no history of contamination  
 room to expand to 4 courts if 3' of sound barrier is added  
 traffic patterns will remain the same  
 not restricted by school hours  
 Existing parking available

## LOCATION 2

 12' high for 2 courts  
 15' high for 4 courts  
 easy access from ex. road  
 moderate earthwork needed  
 tree clearing needed  
 it falls outside of the wetland buffers

 no history of contamination  
 room to expand to 4 courts if 3' of sound barrier is added  
 traffic patterns will remain the same  
 not restricted by school hours  
 new parking would be needed

# RECOMMENDED SITES



## LOCATION 3

12' ht for 2 courts  
15' ht for 4 courts  
easily accessed from ex. road

moderate earthwork  
 tree clearing needed  
 may trigger permitting

history of contamination  
 room to expand to 4 courts  
 traffic patterns will be the same

not restricted by school hours  
 new parking would be needed

## LOCATION 1

- 12' high for 6 courts  
15' high for 8 courts
- not easily accessed
- extensive earthwork
- tree clearing required
- may trigger permitting

## LOCATION 2

- 12' high for 4 courts  
15' high for 6 courts
- not easily accessed
- moderate earthwork needed
- tree clearing needed
- may trigger permitting

# NORTH 40

- history of contamination  
room to expand to 8 courts if 3' of sound barrier is added
- traffic patterns may be affected
- not restricted by school hours
- new parking would be needed



# NOISE BARRIER CONSIDERATIONS

## Barrier Requirements:

- Must consist of a material designed specifically for noise mitigation with a minimum weight of 1 lb. per square foot.
- The barrier material must extend completely to the court surface and be installed without any gaps.
- The height of any retaining walls along the edges of the courts should count toward the height of the barriers.
- The barrier must be installed on a minimum of three of the four sides of the courts, with the open side facing away from the nearest property line.

## Recommended Barriers:

- Pickleblok / AcoustiFence Noise Reducing Fences

*As manufactured by Acoustiblok, Inc. or similar.*

- Retaining walls / Existing Buildings

## Additional Noise mitigation:

- Quiet Paddles or Green Paddles

*(These were not accounted for under site selection parameters.)*

*(Owl Paddles, first paddle qualifying for USA Pickleballs new Quiet Category)*



### What is a green pickleball paddle?



A "green pickleball paddle" refers to a pickleball paddle that is meant to produce less noise than traditional pickleball paddles.

The term "green" here is used to indicate that the paddles are more *environmentally friendly* because they produce less noise pollution.

MassPickleballGuide.com



**THANK YOU**

*Add questions and comments to the  
Q&A*

DRAFT

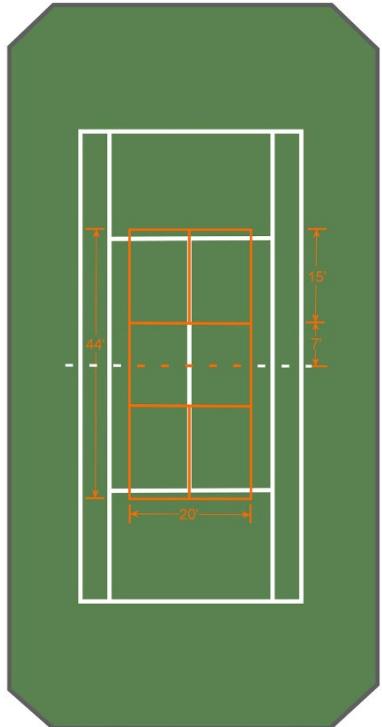


TOWN OF WELLESLEY PICKLEBALL COURT STUDY

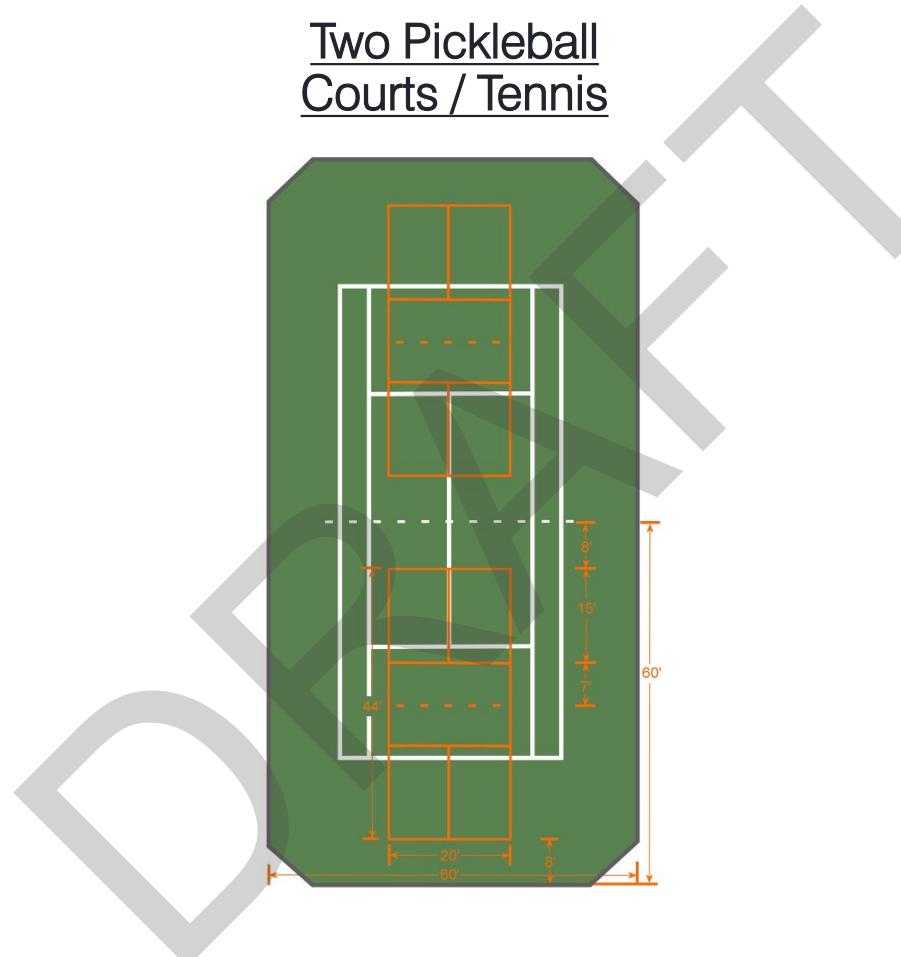
Weston & Sampson SM

# COURT OVERLAY OPTIONS

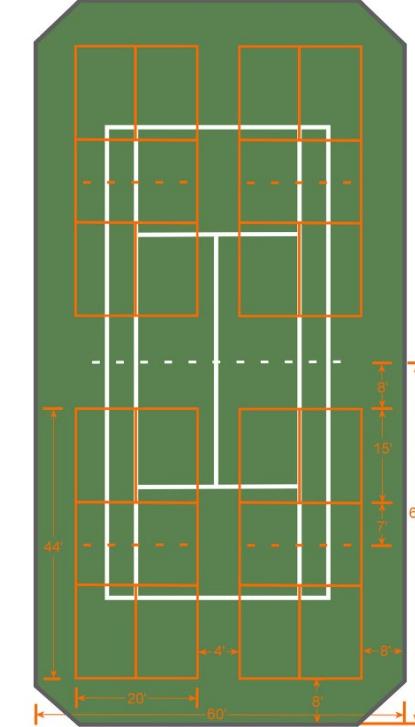
One Pickleball  
Court / Tennis



Two Pickleball  
Courts / Tennis



Four Pickleball  
Courts / Tennis



# ASSOCIATED COSTS

The following represent typical costs associated with recreational level (30' x 60') full scale court construction. All costs are related to the court only. Additional costs may be required for surrounding site accommodations and should be assessed during initial design phases.

| ITEM            | COST                  | DESCRIPTION   |
|-----------------|-----------------------|---|
| Court Surfacing | \$10 - \$12 per SF    | Hot mix asphalt paving, gravel base, color seal coat      |
| Court Fencing   | \$120 per linear foot | 10' height black vinyl chain link perimeter fencing only  |
| Court Amenities | \$3k - \$5k per court | Pickleball nets & Posts                                   |
| Sound Proofing  | TBD                   | Sound barriers, additional noise mitigation.              |
| Site Work       | TBD                   | Landscaping, permitter pathways, grading, earthwork, etc. |

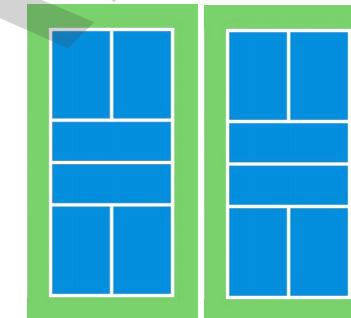
1,800 sf  
180 lf  
fencing



(1) Pickleball Court

**\$44k - \$48k**

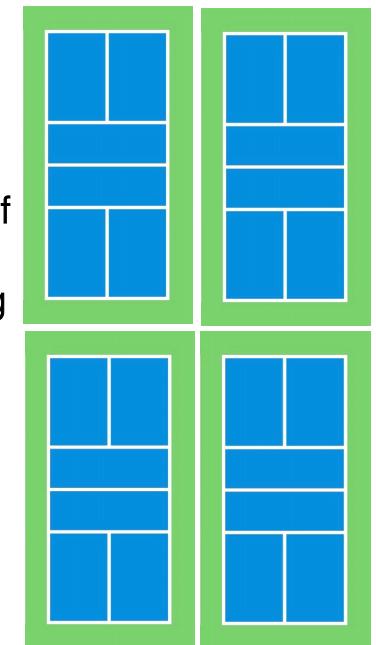
3,480 sf  
240 lf  
fencing



(2) Pickleball Courts

**\$70k - \$82k**

6,840 sf  
360 lf  
fencing



(4) Pickleball Courts

**\$124k - \$145k**





TOWN  
OF WELLESLEY  
Pickleball Court Study  
3-6-2024

# ZOOM MEETING

## VIRTUAL MEETING ETIQUETTE

We want to ensure this conversation feels accessible to everyone and each one of you feels comfortable sharing your questions and comments.

Please be respectful and mindful of other's time when asking questions/ providing comments, so that all attendees are able to participate in the meeting.

Keep questions/ comments project-specific and not personal to yield a solution driven discussion.

### DURING THE PRESENTATION:



#### VIA WEB:

Turn video on / off.

### ZOOM TIPS

Here is how you can participate during the questions and answers part of the presentation.

#### DURING THE Q&A:



#### JOINING VIA PHONE?

Use \*9 to raise hand to ask for audio / video permission to ask questions or provide comments.



#### VIA WEB:

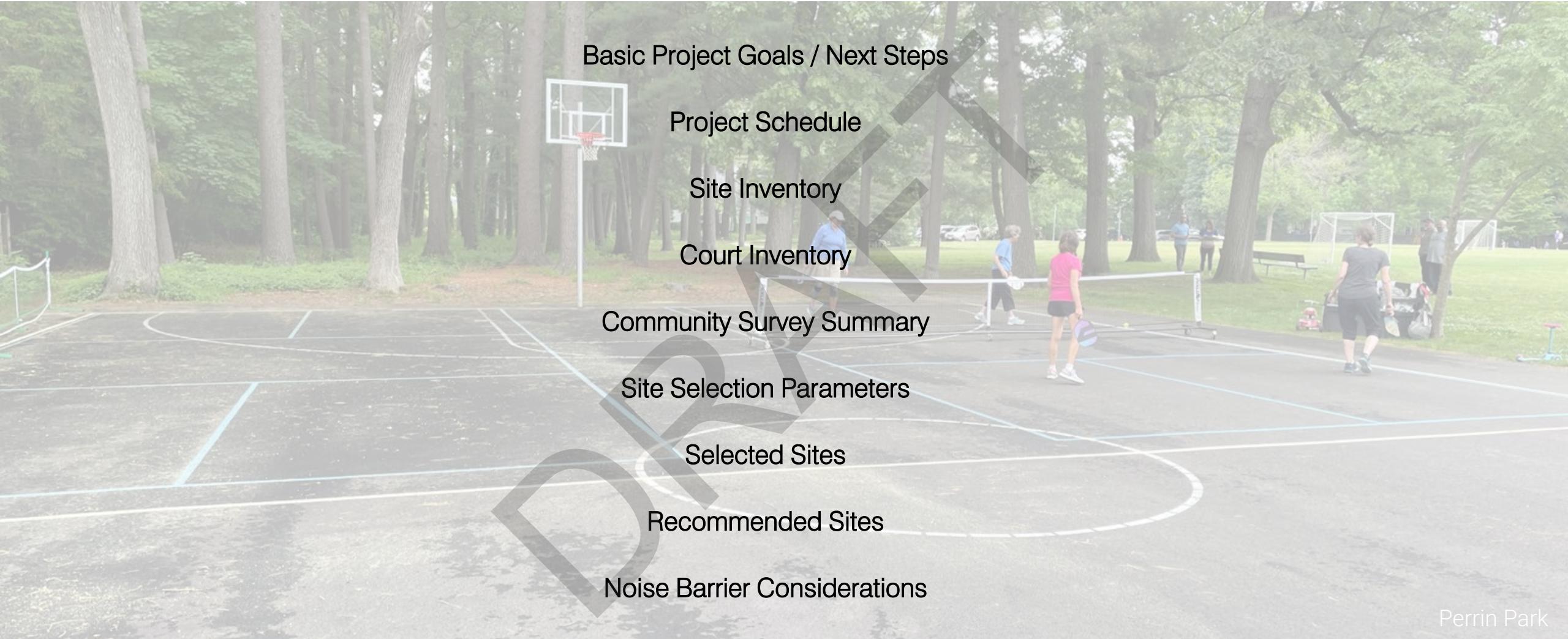
Chat to ask questions / comments or provide responses to poll questions



Raise hand to ask for audio / video permission to ask questions or provide comments.



# INDEX



# BASIC PROJECT GOALS / NEXT STEPS

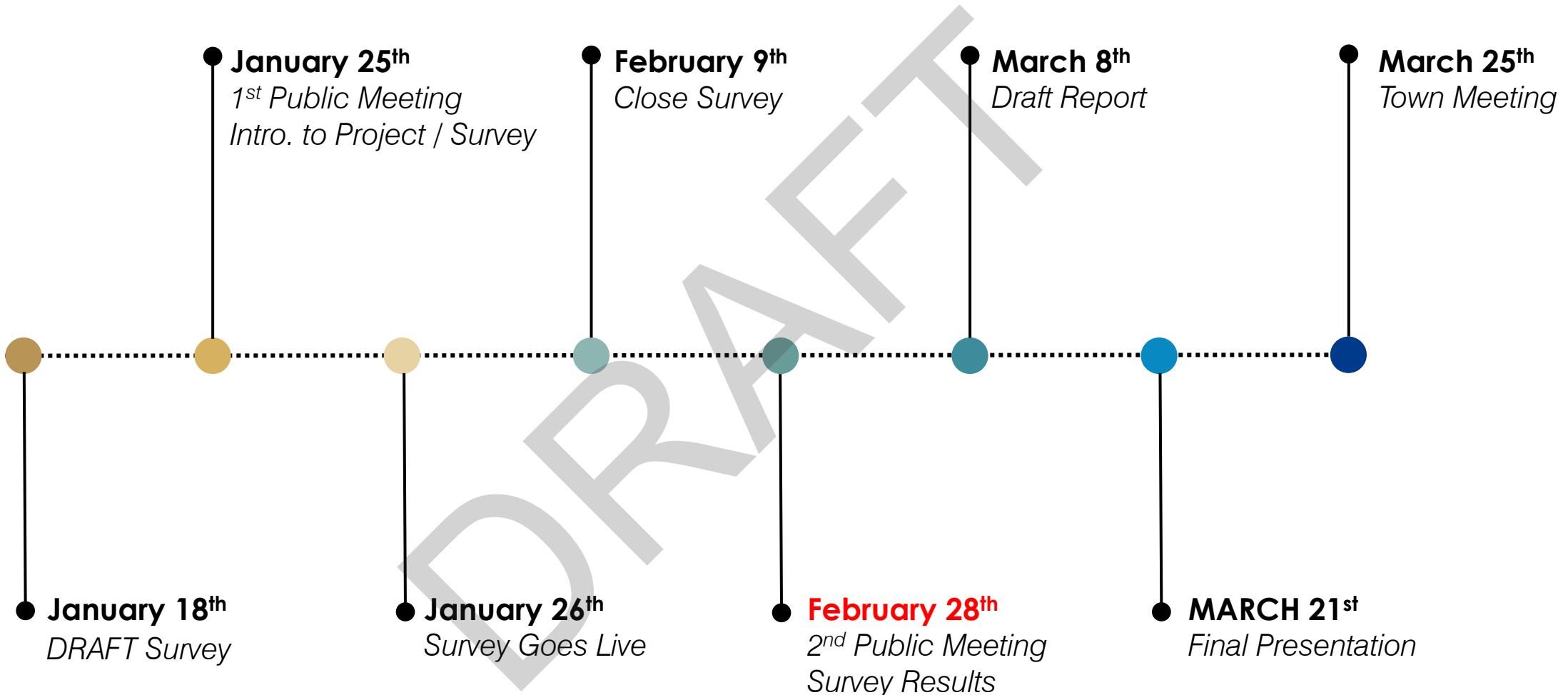


Hunnewell Courts

- Complete a **public outreach** process to identify current and future pickleball needs / concerns.
- Develop site **assessment criteria** that reflect community interests based on input collected through public outreach.
- Utilizing current industry standards, **best practices** and emerging standards to identify current and future needs.
- Complete an **inventory** of existing outdoor Pickleball courts and assess against optimal court criteria.
- Using the proposed assessment criteria, **identify** 3 possible locations that may be suitable for pickleball in Wellesley.
- **Next Steps:** Develop a Draft Feasibility Study Report based on findings.



# PROJECT SCHEDULE



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

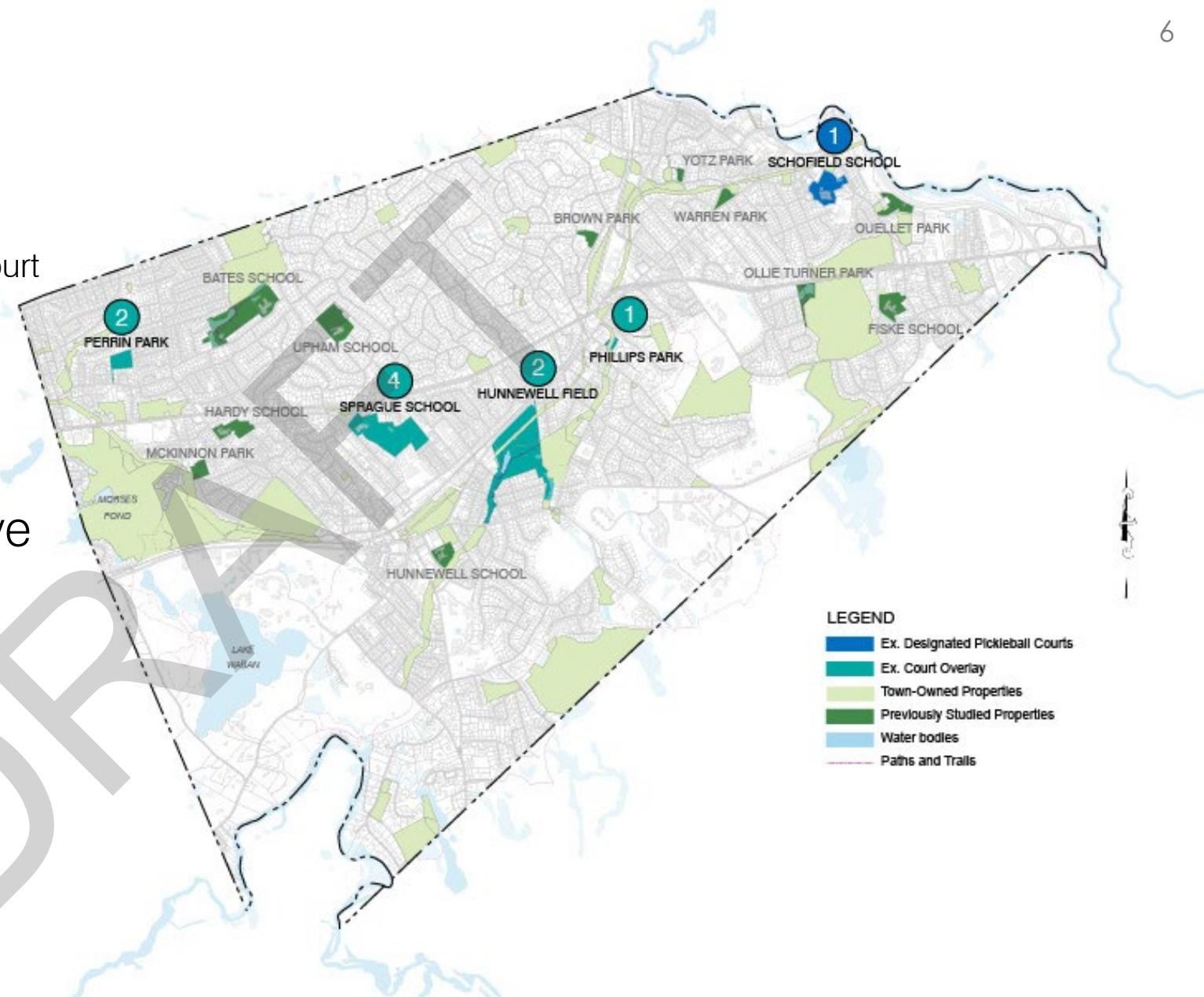
# SITE INVENTORY

## Existing Pickleball Courts

- Hunnewell Fields – (2) Temp. on Tennis Court
- Perrin Park – (2) on Basketball Court
- Phillips Park – (1) on Basketball Court
- Schofield School – (1) Court
- Sprague School – (4) on 2 Tennis Courts

## Previously Studied Sites with Active Field & Court Use

- Bates School
- Brown Park
- Fiske School
- Hardy School
- Hunnewell School
- Ouellet Playground
- Upham School
- Warren Park



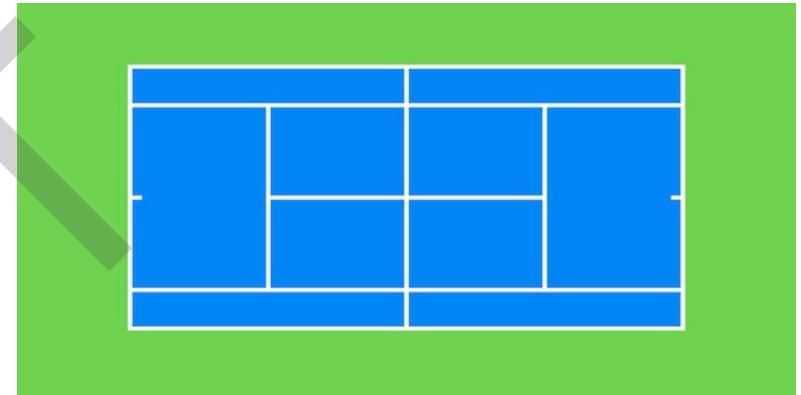
# COURT INVENTORY

How many courts does Wellesley have?

## TENNIS

- 3 Overlap with Pickleball

17



## BASKETBALL

- 11 full courts (2 overlaps with pickleball)
- 2 half courts

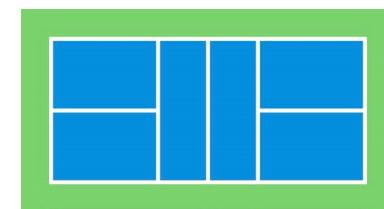
12



## PICKLEBALL

- 3 overlap with basketball
- 6 overlap with tennis
- 1 designated court

10



Field Utilization Study suggested Wellesley should have up to 14 pickleball courts



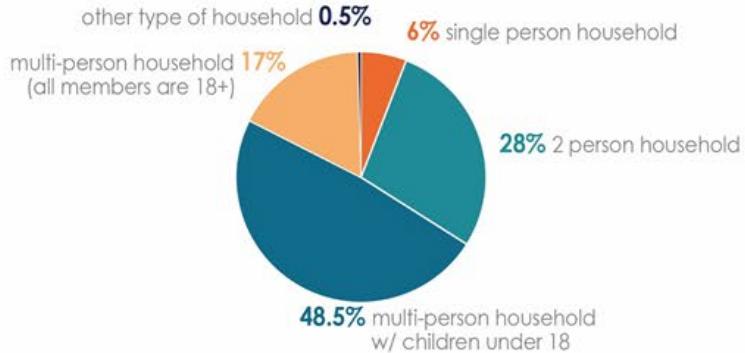
# COMMUNITY SURVEY SUMMARY

8

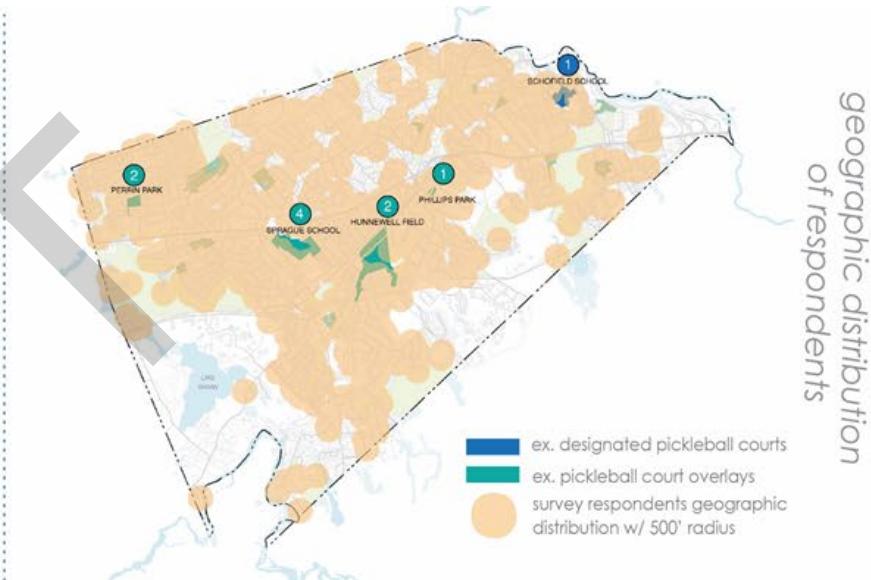
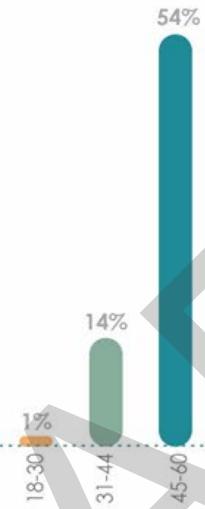
## DEMOCRAPHICS

946

People responded  
to the online survey



age range of respondents



## CONCERNS

top concerns  
from respondents who  
**play pickleball**



top concerns  
from respondents who  
**do not play pickleball**



desired considerations

- Separation of pickleball courts and tennis courts, **no overlays**
- Provide more **indoor** courts
- Consideration for **wildlife impacts**
- Proximity to **neighboring residents**
- Restrict play** to certain times of day
- Provide **priority** of court use to **residents**

in your words...

"I would love to see more indoor pickleball courts in Wellesley"

"I am concerned about the impact of pickleball on tennis. I would like pickleball expansion, but not at the cost of loss of tennis."

"I'm opposed to Pickleball courts, particularly outside courts due to noise, proximity to property, impact on environment/habitat, traffic, and spill..."

"I think pickleball is great but I do feel badly for people that live close to the courts. I think the sound would get very annoying. Therefore I think it makes sense to restrict play before 8am and after 8pm."

"Some kind of priority given to town residents in scheduling system"



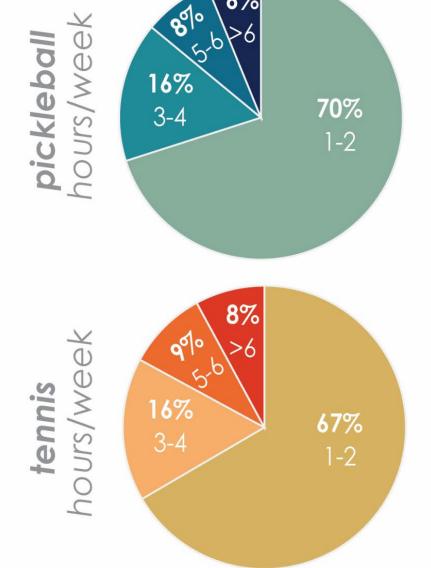
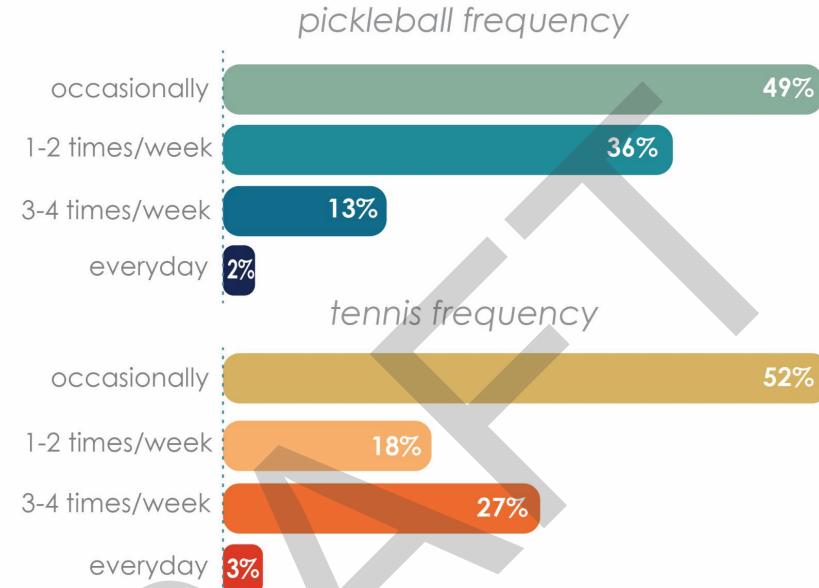
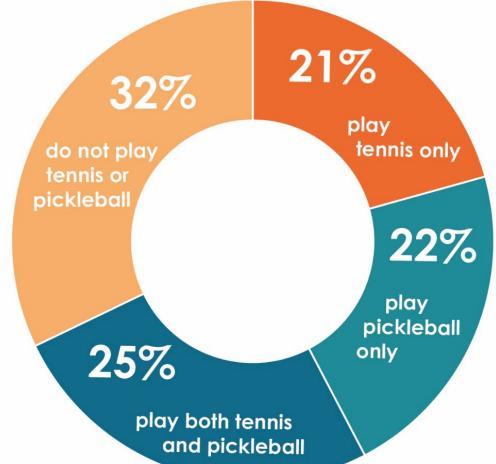
TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson

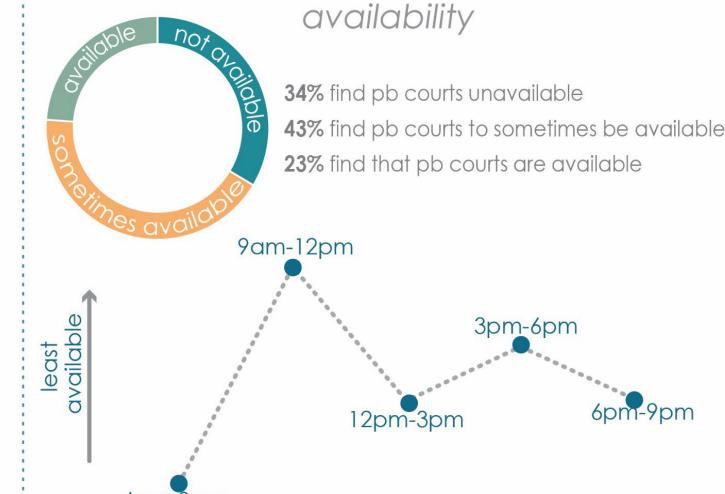
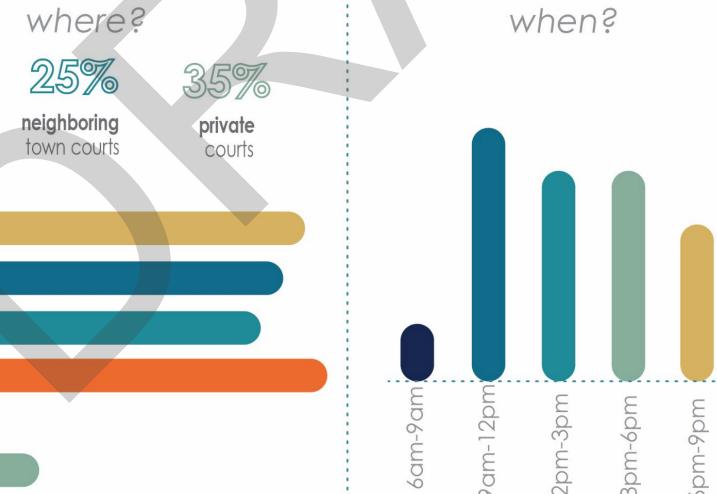
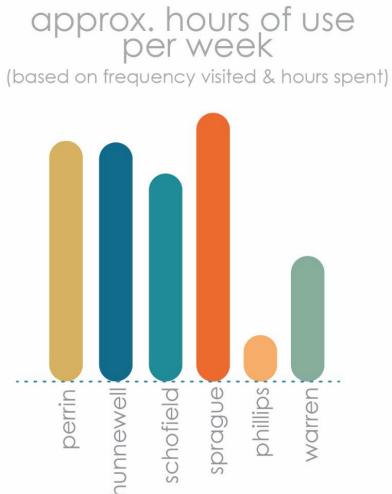
# COMMUNITY SURVEY SUMMARY

9

## COURT USE



## EXISTING USE



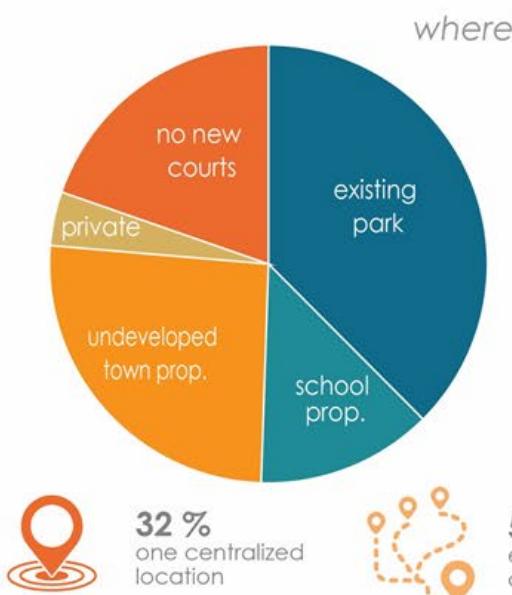
## TOWN OF WELLESLEY PICKLEBALL COURT STUDY



# COMMUNITY SURVEY SUMMARY

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## FUTURE PICKLEBALL

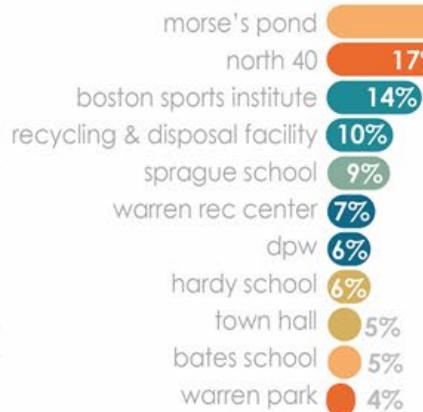


32 %  
one centralized location



54 %  
equally distributed across town

## other properties suggested for pickleball

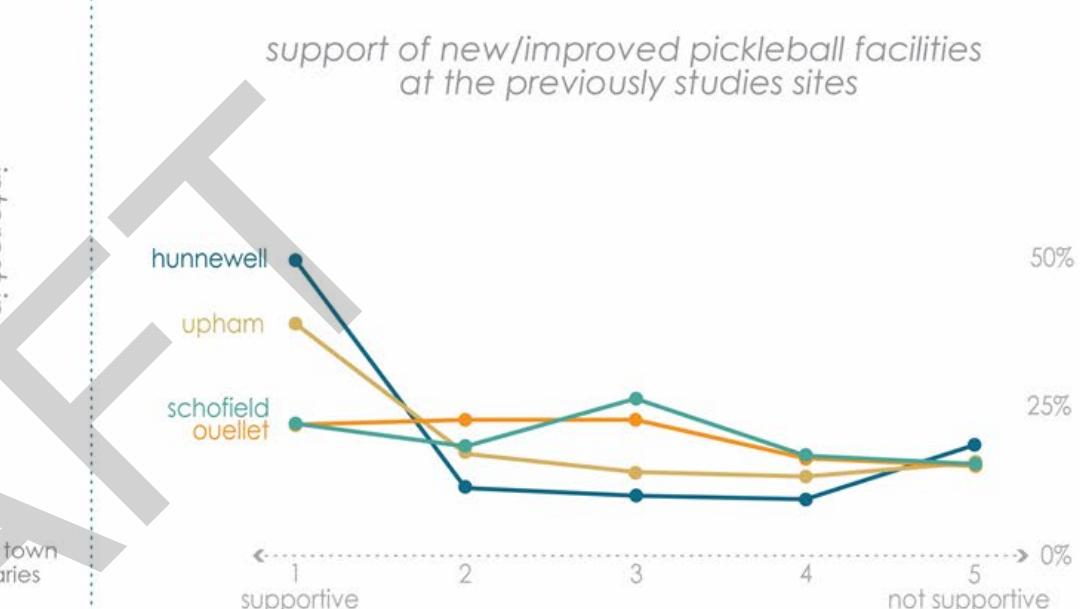


## TOWN OF WELLESLEY PICKLEBALL COURT STUDY

where?



interest in indoor courts



14 %  
outside town  
boundaries



Pickleball is great for **exersize** and **mental health**

"It's the best way for residents from different generations to exercise, socialize and be outdoors. Great way for our residents to improve mental and physical health!"

More pickleball courts would be an **asset to Wellesley**

"I think any activity that keeps people active is amazing so I support any pickle facilities!"

Pickleball promotes **socialization**

"Demand for courts is going to continue to grow. Now is the time to plan for the future."

"During the summer it is already difficult to find available tennis courts--often times players have to wait for a long time for a court to be available, so don't sacrifice the already limited tennis courts in town for pickle ball."

"Any pickleball space should be indoors due to the noise."

"don't infringe on existing natural outdoor habitats."

Court overlays **conflict with tennis play**

**Noise levels** of pickleball play

**Environmental impacts** to natural habitats

# PRIMARY SITE SELECTION PARAMETERS

What factors related to sound need to be assessed before choosing a location for pickleball?

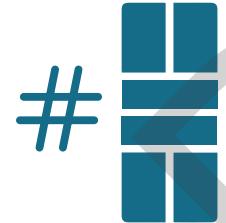
Distance to the closest residential property line



Elevation of the court in relation to the closest residential property



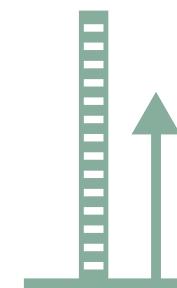
Number of courts



The 3 contributing factors tell us...



If a sound barrier is required



Height and quality of sound barrier, as required



Pickleball courts should not be at this site



# OTHER SITE SELECTION PARAMETERS

The following site parameters should also be considered.



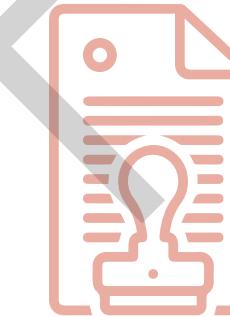
Site Access



Earthwork



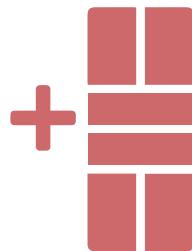
Tree Clearing



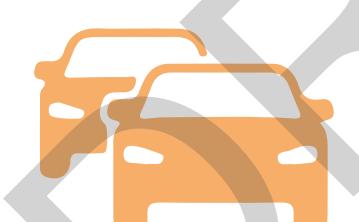
3<sup>rd</sup> Party Permission



Brownfield Site



Room for Expansion



Traffic Congestion



Restricted by  
School Hours



Parking



# SITE SELECTION PARAMETERS

# APPLIED TO EXISTING COURTS



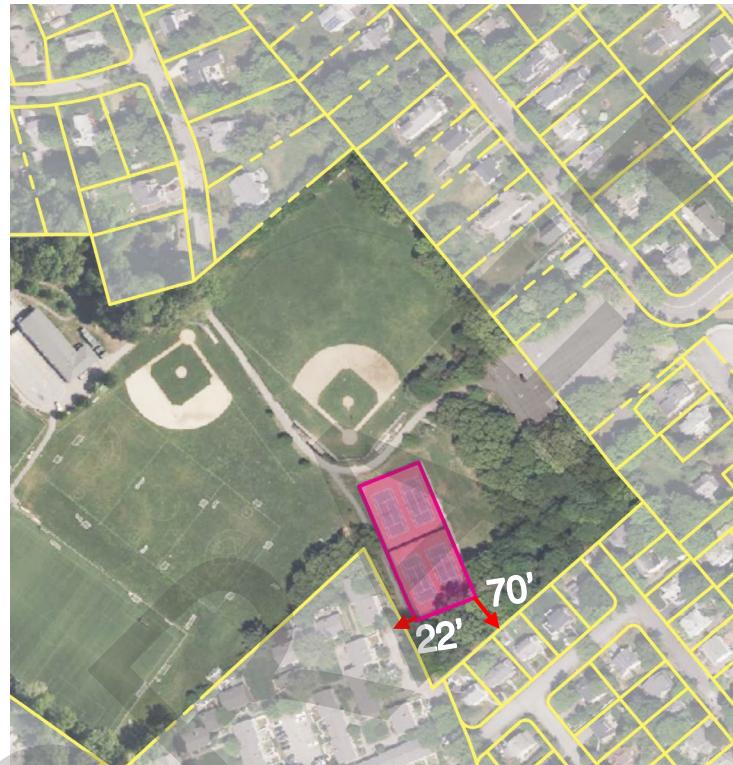
## HUNNEWELL FIELDS

Closest properties: 230' & 480'

Court elevation: 130'

Adjacent property elevations: 146' & 130'

**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



## SPRAGUE ELEMENTARY SCHOOL

Closest properties: 22' & 70'

Court elevation: 140'

Adjacent property elevations: 138' & 148'

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## SCHOFIELD ELEMENTARY SCHOOL

Closest properties: 40' & 33'

Court elevation: 90'

Adjacent property elevations: 94' & 98'

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# APPLIED TO EXISTING COURTS



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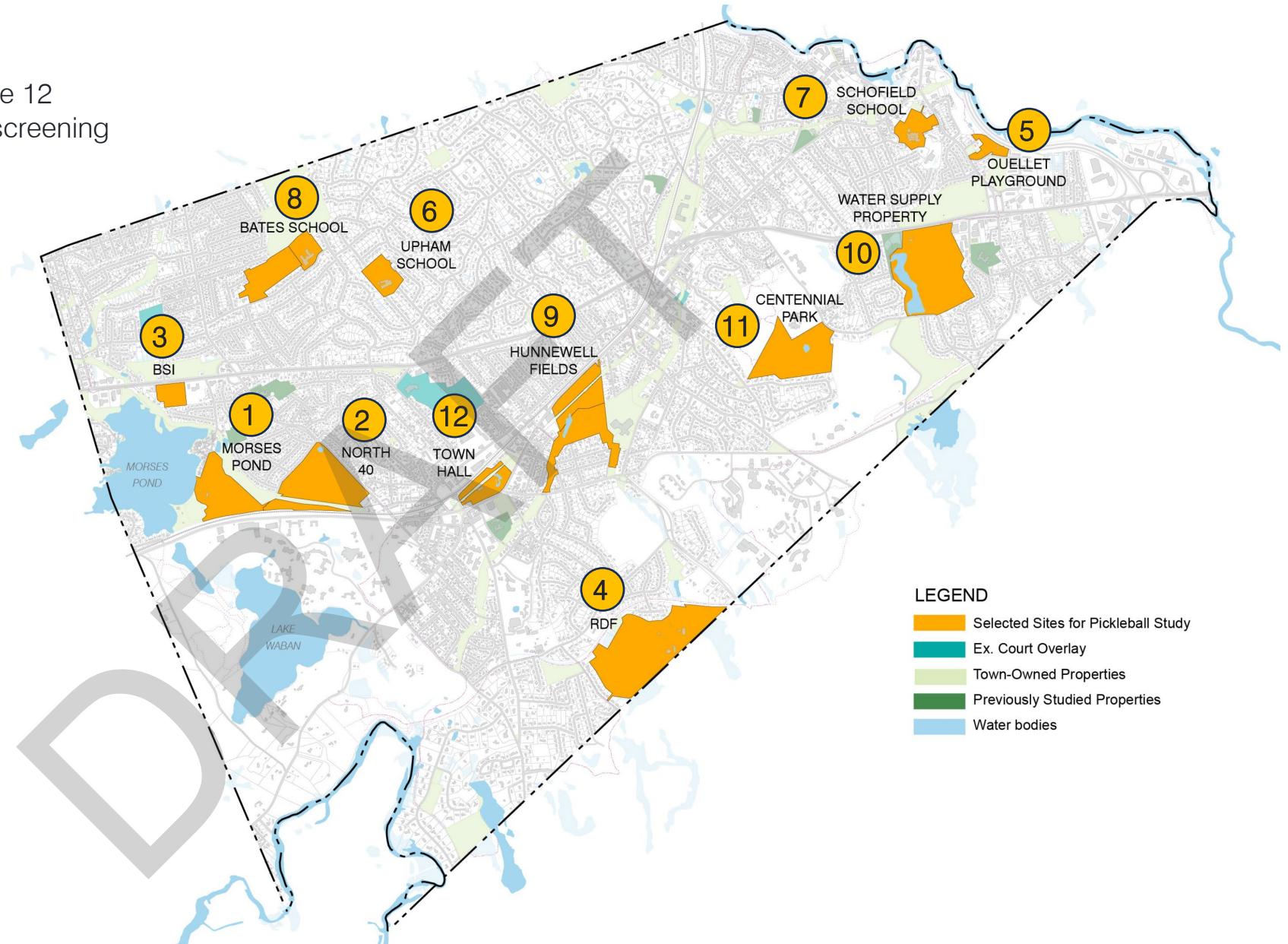
**Due to proximity & elevation change, sound barriers would not mitigate the sound pollution reaching neighboring properties**



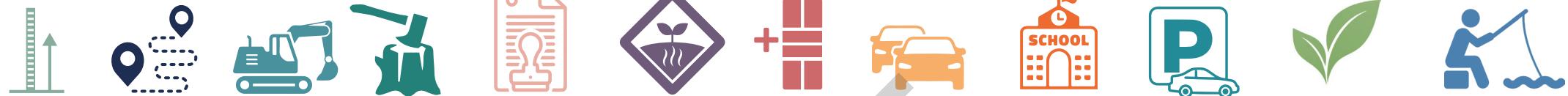
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- 7 Scofield
- 8 Bates
- 9 Hunnewell
- 10 Water Supply Prop.
- 11 Centennial Park
- 12 Town Hall



# SELECTED SITES



(x)=# of courts

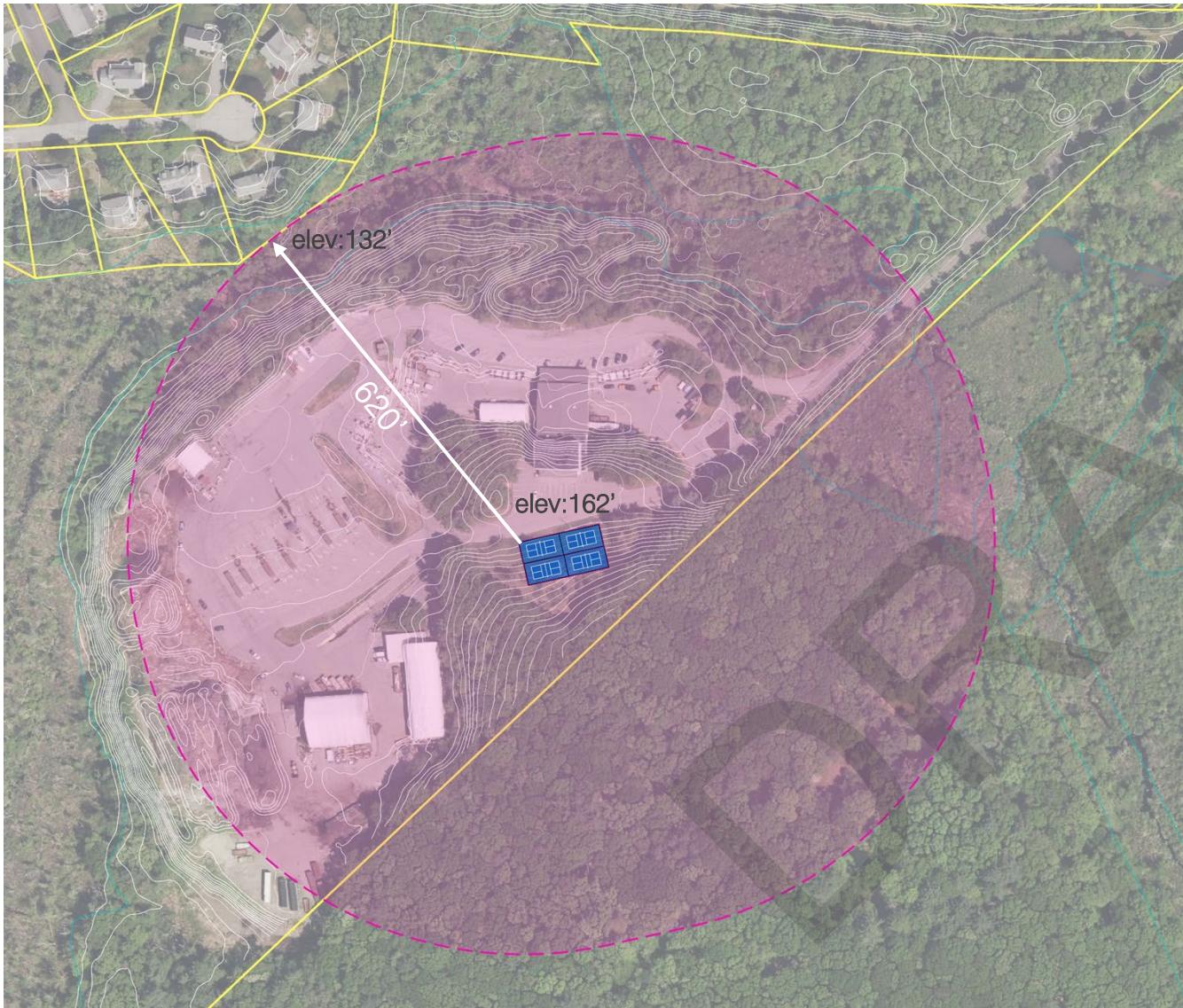
|                        | Barrier height | Minimal access | Extensive earthwork | Tree clearing | Permitting/permissions | Brownfield Site | No ability to expand | Traffic conflicts | Restricted by school hours | No ex. Parking | Environmental impact | Passive rec. impacts |
|------------------------|----------------|----------------|---------------------|---------------|------------------------|-----------------|----------------------|-------------------|----------------------------|----------------|----------------------|----------------------|
| Morse's Pond (2)       | 12'            |                |                     |               |                        |                 |                      |                   |                            |                | X                    | X                    |
| North 40 (6)           | 12'            | X              | X                   | X             |                        | X               |                      |                   |                            | X              | X                    |                      |
| BSI (1)                | 15'            |                |                     |               | X                      |                 | X                    |                   |                            |                |                      |                      |
| RDF (4)                | 6'             |                |                     |               | X                      |                 |                      |                   |                            |                |                      |                      |
| Ouellet (1)            | 15'            |                |                     | X             |                        |                 | X                    |                   | X                          |                |                      |                      |
| Upham (2)              | 10'            | X              | X                   | X             |                        |                 | X                    |                   |                            |                |                      | X                    |
| Schofield (2)          | 15'            |                |                     |               | X                      |                 | X                    |                   | X                          |                |                      |                      |
| Bates (2)              | 15'            |                |                     |               | X                      |                 | X                    |                   | X                          |                |                      |                      |
| Hunnewell (2)          | 12'            |                |                     |               | X                      |                 | X                    |                   | X                          |                |                      |                      |
| Water Supply Prop. (2) | 10'            | X              | X                   | X             | X                      |                 | X                    | X                 |                            | X              | X                    | X                    |
| Centennial Park (2)    | 12'            | X              | X                   | X             |                        |                 | X                    |                   |                            | X              | X                    |                      |
| Town Hall (2)          | 6'             |                |                     |               |                        |                 | X                    |                   |                            |                |                      |                      |



# RECOMMENDED SITES

RDF

17



## LOCATION 1

-  no barriers for 2 courts  
6' high for 4 courts
-  access modifications needed
-  moderate earthwork needed
-  minimal tree clearing
-  coordination needed with RDF facility
-  no history of contamination  
room to expand to 4 courts if 6' of sound barrier is added
-  traffic patterns will need adjustments
-  not restricted by school hours
-  Existing parking available



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson

# RECOMMENDED SITES



# TOWN HALL

20

## LOCATION 1

6' high for 2 courts

easy access from ex.  
parking lot

moderate earthwork  
needed

minimal tree clearing

no permitting  
anticipated



no history of contamination



no room for expansion



traffic patterns will remain the  
same



not restricted by school hours



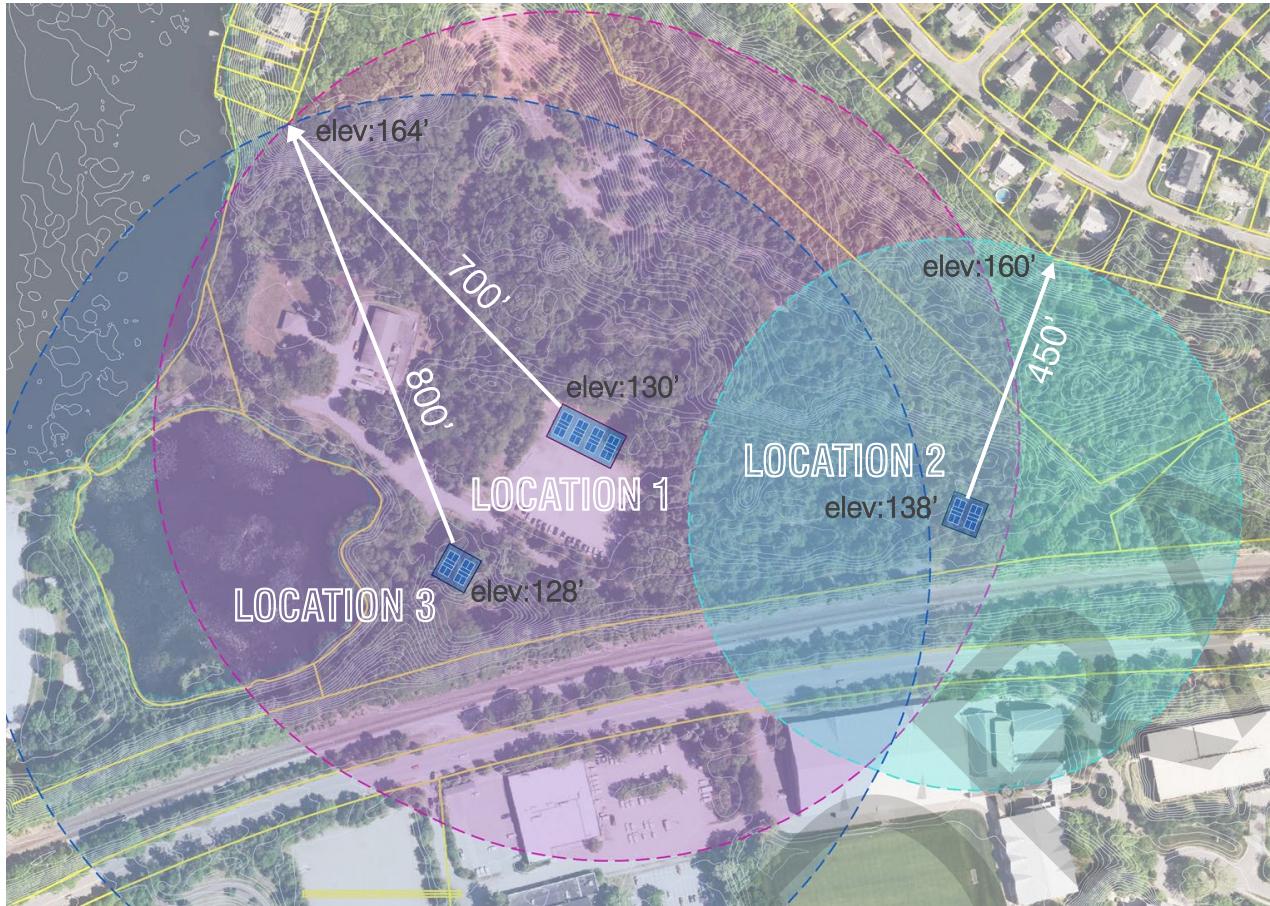
Existing parking available



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

# RECOMMENDED SITES



## LOCATION 3

10' ht for 2 courts  
15' ht for 4 courts

easily accessed  
from ex. road

moderate earthwork  
 tree clearing  
needed  
 may trigger  
permitting

no history of  
contamination  
 room to  
expand to 4  
courts  
 traffic patterns  
will be the same

not restricted  
by school  
hours  
 existing  
parking  
available

TOWN OF WELLESLEY PICKLEBALL COURT STUDY



# MORSE'S POND

## LOCATION 1

12' high for 2 courts  
15' high for 4 courts  
 easy access from ex.  
parking lot  
 flat site  
 no tree clearing  
 it falls outside of the  
wetland buffers

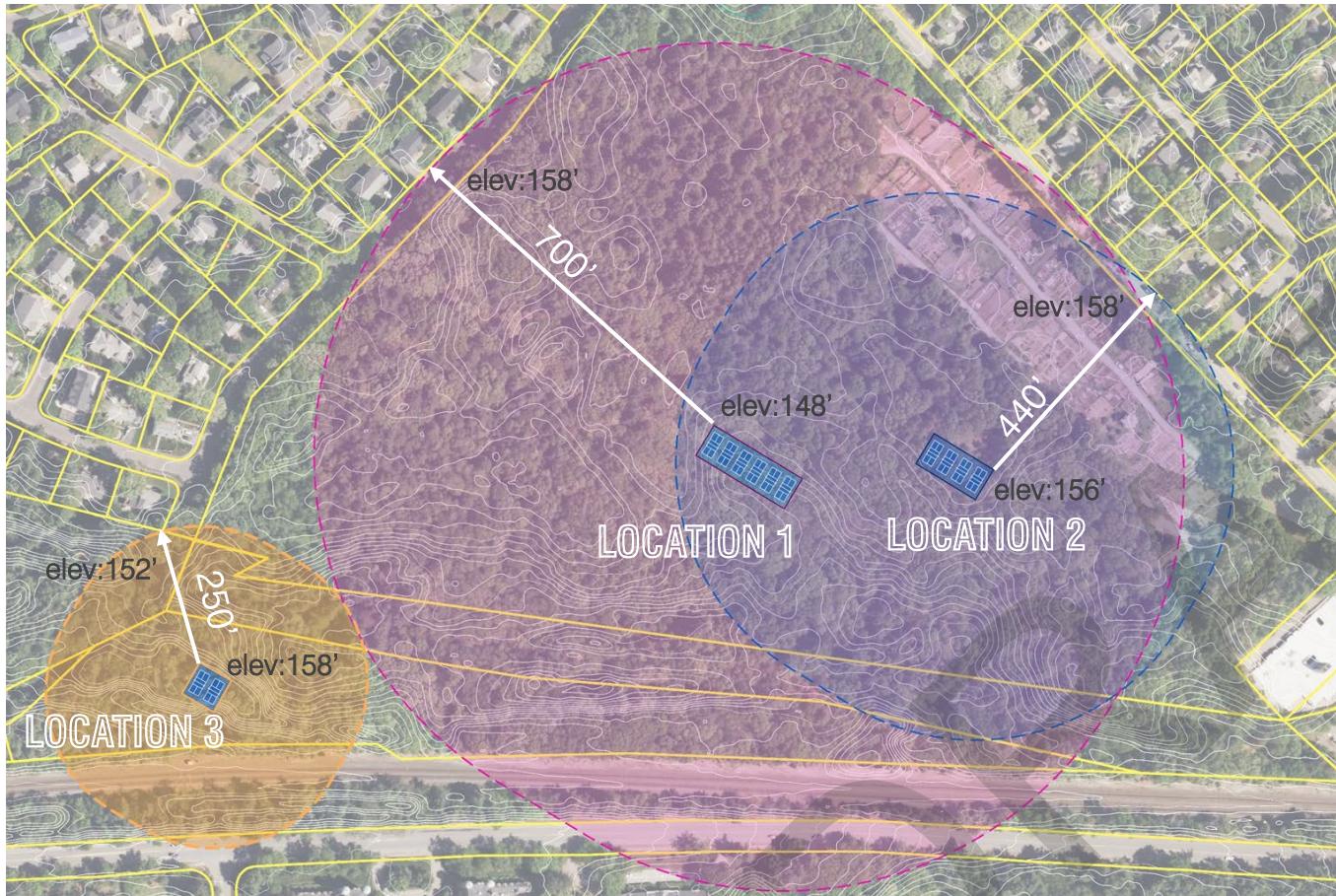
no history of contamination  
 room to expand to 4 courts if  
3' of sound barrier is added  
 traffic patterns will remain the  
same  
 not restricted by school hours  
 Existing parking available

## LOCATION 2

12' high for 2 courts  
15' high for 4 courts  
 easy access from ex.  
road  
 moderate earthwork  
needed  
 tree clearing needed  
 it falls outside of the  
wetland buffers

no history of contamination  
 room to expand to 4 courts if  
3' of sound barrier is added  
 traffic patterns will remain the  
same  
 not restricted by school hours  
 new parking would be  
needed

# RECOMMENDED SITES



## LOCATION 3

12' ht for 2 courts  
15' ht for 4 courts  
easily accessed from ex. road

moderate earthwork  
 tree clearing needed  
 may trigger permitting

history of contamination  
 room to expand to 4 courts  
 traffic patterns will be the same

not restricted by school hours  
 new parking would be needed

## LOCATION 1

12' high for 6 courts  
15' high for 8 courts  
 not easily accessed  
 extensive earthwork  
 tree clearing required  
 may trigger permitting

history of contamination  
 room to expand to 8 courts if 3' of sound barrier is added  
 traffic patterns may be affected  
 not restricted by school hours  
 new parking would be needed

## LOCATION 2

12' high for 4 courts  
15' high for 6 courts  
 not easily accessed  
 moderate earthwork needed  
 tree clearing needed  
 may trigger permitting

history of contamination  
 room to expand to 6 courts if 3' of sound barrier is added  
 traffic patterns may be affected  
 not restricted by school hours  
 new parking would be needed



# NOISE BARRIER CONSIDERATIONS

## Barrier Requirements:

- Must consist of a material designed specifically for noise mitigation with a minimum weight of 1 lb. per square foot.
- The barrier material must extend completely to the court surface and be installed without any gaps.
- The height of any retaining walls along the edges of the courts should count toward the height of the barriers.
- The barrier must be installed on a minimum of three of the four sides of the courts, with the open side facing away from the nearest property line.

## Recommended Barriers:

- Pickleblok / AcoustiFence Noise Reducing Fences  
*As manufactured by Acoustiblok, Inc. or similar.*
- Retaining walls / Existing Buildings

## Additional Noise mitigation:

- Quiet Paddles or Green Paddles  
*(These were not accounted for under site selection parameters.)*
- (Owl Paddles, first paddle qualifying for USA Pickleballs new Quiet Category)*



### What is a green pickleball paddle?



A "green pickleball paddle" refers to a pickleball paddle that is meant to produce less noise than traditional pickleball paddles.

The term "green" here is used to indicate that the paddles are more *environmentally friendly* because they produce less noise pollution.

MassPickleballGuide.com



**THANK YOU**

*Add questions and comments to the  
Q&A*

DRAFT



TOWN OF WELLESLEY PICKLEBALL COURT STUDY

Weston & Sampson SM

APPENDIX B

SH Acoustics: Pickleball Noise Guidelines



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Town of Wellesley, MA

Pickleball Noise Guidelines



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February 19, 2024

SH Acoustics, LLC  
263 Tresser Blvd, 9th Floor, Stamford, CT 06901-3236  
T: (203) 877-6340 W: [www.shacoustics.com](http://www.shacoustics.com)

## Introduction

Weston & Sampson have engaged the expertise of SH Acoustics (SHA) to develop comprehensive noise guidelines tailored specifically for the selection and placement of public pickleball courts in Wellesley, MA. The primary objective of these guidelines is to effectively mitigate the noise generated by pickleball play, ensuring that it falls within an acceptable range that minimizes disturbance to nearby residents and surrounding areas. Through careful consideration of the specific nature of pickleball noise, mitigation strategies, and the multiple contributing factors to outdoor noise propagation, SHA has created a point system that can identify the noise mitigation necessary for a given plot near residential spaces to maintain the tranquility and well-being of local residents.

Pickleball is the fastest growing sport in the United States and throughout this growth, many issues with the sound of the sport have arisen across the country. Many pickleball court installations are situated too close to residential properties and/or without the appropriate noise mitigation. However, it's essential to recognize that pickleball noise is a manageable issue with the implementation of proper noise mitigation strategies. By utilizing techniques such as strategically placed fencing, and designated playing hours, communities can effectively control and minimize the impact of pickleball noise. Unlike tennis, pickleball has a distinct "plunk" noise due to the hard plastic ball against a hard paddle. We have measured this frequency to be around 1 kHz. Fortunately, this relatively small wavelength can be easily controlled with the appropriate noise mitigation.

Noise codes frequently fail to account for pickleball gameplay's unique sound profile and frequency. The repetitive thwack of paddles hitting balls and the reverberations off hard court surfaces can be particularly disruptive in residential areas. However, these nuances are seldom captured in traditional noise ordinances. Consequently, residents near pickleball courts may experience heightened frustration due to the lack of specific guidelines tailored to mitigate the annoyance factor of pickleball noise. Addressing this gap in noise regulation requires a nuanced approach that considers the distinctive characteristics of pickleball sound and its impact on community well-being, prompting noise guidelines specific to the sport.

### Contributing Factors to Pickleball Noise Propagation:

The main factors that play into how disruptive a sound will be are Factors at play are:

Distance: naturally, the further a residential property is to a court or set of courts, the weaker the sound waves will be as they propagate in all directions.

Relative Topography: The elevation of the court(s) vs. the elevation of the

Number of Courts: A larger number of courts will increase the number and frequency of pickleball hits and the number of players.

Night Play: If the courts are to have lights installed and play can be expected into later hours of the day and into the night, additional mitigation will be required. This is due to a variety of factors, including quieter background noise levels and the tendency for sound to bend back down to the earth after the sun sets due to temperature inversions.

### Noise Reducing Paddles:

While our system below acknowledges the potential variance in equipment choices among players, promoting the adoption of noise-reducing paddles can significantly contribute to minimizing overall noise levels on the court. These paddles offer a practical solution by dampening the sound produced during gameplay, thereby lessening the potential for disturbance to nearby residents. While it is understood that not all players may opt to use these specialized paddles, promoting their adoption can help cultivate a culture of mindfulness and respect for the surrounding community.

## Proposed Guidelines

To determine if a piece of land is appropriate for pickleball courts, the factors of distance, relative topography, number of courts and nighttime play should all be considered. Use Table 1 below to calculate the points for the specific plot of land to determine how tall of an acoustic barrier, if any, would be required. Determine the number of points for each contributing factor by using the formulas provided or the tables on the following pages. Once the total number of

points is summed, use Table 2 to determine if and how tall a barrier is necessary, or if the studied location is not acceptable for pickleball.

Table 1:

| Factor:                         | Description:  | Points Formula (refer to tables on the following pages for each factor)  | Points: |
|---------------------------------|---|--|---------|
| Distance (in feet)              | D = Shortest distance between the edge of the court to the nearest property line, in feet   | Distance Points = $55 - \left  10 \cdot \log \left( \frac{2}{4\pi \cdot (D \times 0.305)^2} \right) \right $<br>(see Table 3 for a conversion chart) |         |
| Relative Topography             | $E_p$ = Elevation of the nearest point along the property line, in feet<br>$E_c$ = Elevation of the proposed courts' playing level, in feet | $\text{Topo Points} = (E_p - E_c) \times 0.2$<br>(see Table 4 for a conversion chart)  |         |
| Number of courts                | N = number of courts  | $\text{Courts Points} = 13 \cdot \log(N)$<br>(see Table 5 for a conversion chart)  |         |
| Lights/Night Playing            | If lights are to be installed/night playing will be allowed, add 5 points. If not, add 0.   | $\text{Night Points} = 5$  |         |
| Sum of Points from all factors: |   |  |         |

Table 2:

| Number of Points  | Height of Barrier Required                         |
|-------------------|--|
| 0 or less         | No barrier required                                |
| 0 - 6 points      | 6' barrier   |
| 7 - 8 points      | 8' barrier   |
| 9 - 10 points     | 10' barrier  |
| 11 - 13 points    | 12' barrier  |
| 14 - 16 points    | 15' barrier  |
| 17 or more points | Courts should not be constructed in this location. |

### Distance Factor:

Where "D" is the shortest distance between the edge of the court surface to the nearest property line, measured in feet.

| D    | Points | D    | Points | D     | Points | D     | Points |
|------|--------|------|--------|-------|--------|-------|--------|
| 20'  | 31     | 210' | 11     | 480'  | 4      | 1250' | -5     |
| 25'  | 29     | 220' | 10     | 490'  | 4      | 1300' | -5     |
| 30'  | 28     | 230' | 10     | 500'  | 3      | 1350' | -5     |
| 35'  | 26     | 240' | 10     | 525'  | 3      | 1400' | -6     |
| 40'  | 25     | 250' | 9      | 550'  | 3      | 1450' | -6     |
| 45'  | 24     | 260' | 9      | 575'  | 2      | 1500' | -6     |
| 50'  | 23     | 270' | 9      | 600'  | 2      | 1600' | -7     |
| 55'  | 23     | 280' | 8      | 625'  | 1      | 1700' | -7     |
| 60'  | 22     | 290' | 8      | 650'  | 1      | 1800' | -8     |
| 65'  | 21     | 300' | 8      | 675'  | 1      | 1900' | -8     |
| 70'  | 20     | 310' | 8      | 700'  | 0      | 2000' | -9     |
| 75'  | 20     | 320' | 7      | 725'  | 0      | 2100' | -9     |
| 80'  | 19     | 330' | 7      | 750'  | 0      | 2200' | -10    |
| 85'  | 19     | 340' | 7      | 775'  | 0      | 2300' | -10    |
| 90'  | 18     | 350' | 6      | 800'  | -1     | 2400' | -10    |
| 95'  | 18     | 360' | 6      | 825'  | -1     | 2500' | -11    |
| 100' | 17     | 370' | 6      | 850'  | -1     | 2600' | -11    |
| 110' | 17     | 380' | 6      | 875'  | -2     | 2700' | -11    |
| 120' | 16     | 390' | 6      | 900'  | -2     | 2800' | -12    |
| 130' | 15     | 400' | 5      | 925'  | -2     | 2900' | -12    |
| 140' | 14     | 410' | 5      | 950'  | -2     | 3000' | -12    |
| 150' | 14     | 420' | 5      | 975'  | -2     | 3500' | -14    |
| 160' | 13     | 430' | 5      | 1000' | -3     | 4000' | -15    |
| 170' | 13     | 440' | 4      | 1050' | -3     | 4500' | -16    |
| 180' | 12     | 450' | 4      | 1100' | -3     | 5000' | -17    |
| 190' | 12     | 460' | 4      | 1150' | -4     | 5500' | -17    |
| 200' | 11     | 470' | 4      | 1200' | -4     | 6000' | -18    |

Table 3 – Distance Factor Points Chart

Relative Topography Factor:

Where " $E_p - E_c$ " is the elevation of the nearest point along the property line minus the elevation of the courts.

| $E_p - E_c$ | Points |
|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| -250'       | -50    | -30'        | -6     | 0'          | 0      | 30'         | 6      |
| -200'       | -40    | -28'        | -6     | 1'          | 0      | 32'         | 6      |
| -175'       | -35    | -26'        | -5     | 2'          | 0      | 34'         | 7      |
| -150'       | -30    | -24'        | -5     | 3'          | 1      | 36'         | 7      |
| -125'       | -25    | -22'        | -4     | 4'          | 1      | 38'         | 8      |
| -100'       | -20    | -20'        | -4     | 5'          | 1      | 40'         | 8      |
| -95'        | -19    | -19'        | -4     | 6'          | 1      | 42'         | 8      |
| -90'        | -18    | -18'        | -4     | 7'          | 1      | 44'         | 9      |
| -85'        | -17    | -17'        | -3     | 8'          | 2      | 46'         | 9      |
| -80'        | -16    | -16'        | -3     | 9'          | 2      | 48'         | 10     |
| -75'        | -15    | -15'        | -3     | 10'         | 2      | 50'         | 10     |
| -70'        | -14    | -14'        | -3     | 11'         | 2      | 55'         | 11     |
| -65'        | -13    | -13'        | -3     | 12'         | 2      | 60'         | 12     |
| -60'        | -12    | -12'        | -2     | 13'         | 3      | 65'         | 13     |
| -55'        | -11    | -11'        | -2     | 14'         | 3      | 70'         | 14     |
| -50'        | -10    | -10'        | -2     | 15'         | 3      | 75'         | 15     |
| -48'        | -10    | -9'         | -2     | 16'         | 3      | 80'         | 16     |
| -46'        | -9     | -8'         | -2     | 17'         | 3      | 85'         | 17     |
| -44'        | -9     | -7'         | -1     | 18'         | 4      | 90'         | 18     |
| -42'        | -8     | -6'         | -1     | 19'         | 4      | 95'         | 19     |
| -40'        | -8     | -5'         | -1     | 20'         | 4      | 100'        | 20     |
| -38'        | -8     | -4'         | -1     | 22'         | 4      | 125'        | 25     |
| -36'        | -7     | -3'         | -1     | 24'         | 5      | 150'        | 30     |
| -34'        | -7     | -2'         | 0      | 26'         | 5      | 175'        | 35     |
| -32'        | -6     | -1'         | 0      | 28'         | 6      | 200'        | 40     |

Table 4 – Relative Topography Factor Points Chart

### Number of Courts Factor:

Where "N" is the number of courts to be installed.

| N  | points | N  | points |
|----|--------|----|--------|
| 1  | 0      | 16 | 16     |
| 2  | 4      | 17 | 16     |
| 3  | 6      | 18 | 16     |
| 4  | 8      | 19 | 17     |
| 5  | 9      | 20 | 17     |
| 6  | 10     | 21 | 17     |
| 7  | 11     | 22 | 17     |
| 8  | 12     | 23 | 18     |
| 9  | 12     | 24 | 18     |
| 10 | 13     | 25 | 18     |
| 11 | 14     | 26 | 18     |
| 12 | 14     | 27 | 19     |
| 13 | 14     | 28 | 19     |
| 14 | 15     | 29 | 19     |
| 15 | 15     | 30 | 19     |

Table 5 – Number of Courts Factor Points Chart

### Barrier Requirements:

The barrier must consist of a material designed specifically for noise mitigation with a minimum weight of 1 lb. per square foot. The barrier material must extend completely to the court surface and be installed without any gaps. The height of any retaining walls along the edges of the courts should count toward the height of the barriers.

The barrier must be installed on a minimum of three of the four sides of the courts, with the open side facing away from the nearest property line. The calculation must be repeated for the nearest point along the property line exposed to the open side, reaching 0 points or less.

### Exceptions:

The point system above is a simplified version of a potentially complex calculation. The point system is always conservative in favor of the residential neighbors. In some cases, additional natural or existing noise mitigation may exist such as extreme topography, large buildings, and densely wooded areas may sufficiently attenuate pickleball noise.

In these cases, if a qualified professional in the field of acoustics is consulted and they determine and document that the existing conditions provide equal or additional noise attenuation, the rules can then be reduced.

## Conclusion

We are confident that the system we have developed above will enable pickleball to be played without causing disturbance to the surrounding community. We look forward to continuing our collaboration with you to address any questions or concerns you may have regarding our acoustic study. Please feel free to reach out for further clarification or assistance with any aspect of this matter. Your input is highly valued as we strive to ensure that our pickleball facilities contribute positively to the overall well-being of Wellesley.

Kind regards,



Kevin Peterson,  
Technical Director & Senior Consultant  
SH Acoustics

APPENDIX C

Precedent Projects w/ Successful Sound Mitigation