


## MEMORANDUM

TO: Town Council  
FROM: David E. Cox, Town Manager   
DATE: October 6, 2023  
SUBJECT: Town Manager's Report

The following information includes follow up from general items that were discussed at previous Council meetings as well as updates of a general nature from the departments or agencies. The items are organized by department and are intended to provide information on activities currently being undertaken by the Town's departments and those matters that are upcoming. Not all departments will be represented in each Report.

### **Council Meeting Follow Up**

- Staff has requested third party engineering and testing information from the developer of the Edgewater development in which Town Hall is located in relation to the ongoing discussion regarding Town acceptance of maintenance responsibility for the main road, including the portion in front of Town Hall. The developer indicates that this material is available and will be transmitted. Staff will review the information when it is received and provide information to the Council.

### **Collector**

- The Town recently implemented a new online payment service through Invoice Cloud. Payers have expanded options for making payments including American Express, Visa, Discover, Mastercard, PayPal, PayPal Credit, Google Pay, Venmo and Apple Pay. These transactions are subject to a 3.25% convenience fee. Payers may also continue to select the option to pay by ACH or E-Check through which the information typically found on a paper check (bank routing number and account number) is entered and the payment is directly deducted from the account. This method is free to the payer. Of course, payments may be made by dropping a check in the outside drop box or visiting the counter at the Town Hall.
- As a reminder, Sewer use bills were mailed on September 28, 2023 for the October 1, 2023 - September 30, 2024 billing cycle. The sewer user rate is \$560 per unit and an additional \$350 for properties with a Town-maintained grinder pump. Sewer bills may be paid in two installments with the first installment due by November 1. The second installment has an April 1 due date and is delinquent after May 1.

### **Library**

- The Library hosted its first Halloween Costume Swap on September 30. Many costumes were handed out and feedback from the community about the event was very positive. The Library intendeds to grow this event in the coming years.

- Library staff are busy preparing for several other upcoming Halloween programs, including Halloween Happening, a story time for ages 0-5; STEMtastic- Halloween Science, a science program for grades 1-5; HallowTween, an afternoon party and movie for grades 4-8; and Celtic Halloween with Ringrose & Freeman, an evening music program for adults. The Library will also be participating in the Recreation Department Trunk or Treat event.
- Patrons will see a new circulation desk waiting to be installed at the Library. Once parts that were damaged in shipping are replaced, the desk will be installed in the same general location as the existing counter. The new desk will provide improved workspaces for staff and improved functionality while also eliminating some hazards that had developed in the old unit. The new time frame for installation is the end of October.
- The monthly Library Report for September is included in this Report.

### **Police Department**

- During the month of September, the Department did not use Narcan, nor did it respond to any medical call in which a family member or other person had used it.

### **Public Works**

- Over the past weeks, between rain events, the Public Works Department has been focused on regrading gravel roads and addressing washouts on these roads as well as patching potholes resulting from the significant amount of rain experienced in this time. Department staff also completed curb installation on Old Clark Hill Road and has completed work to address some drainage issues on Depot Hill Road. Additionally, roadside mowing and wood pick up from trees taken down by the Town contractor is ongoing.

- On Thursday, October 5, the Department took delivery of its new Public Works Dump Truck. This truck was purchased utilizing ARPA funds and is replacing a 2002 vintage truck.



As the Council will recall, the Town was able purchase this truck quickly because it was originally ordered by another municipality that ended up not taking the delivery. Otherwise, the replacement truck would not have arrived until sometime in 2025. One other note of interest is that this truck has come equipped with a stainless steel



slide-in sander, as opposed to an "all season body." This change allows de-icing material to be discharged at the rear of the truck instead of at the side, which will help keep salt from accumulating on the truck's frame and will extend longevity of the truck. An added benefit of the slide-in sander is that when removed, the truck is able to carry more weight than a truck with an all season body.

- Last week, staff met with representatives of Tom Irwin Advisors, who had been hired to undertake some evaluations of the High School soccer field to discuss the attached preliminary report, and options to improve the field. Based in the initial investigation, some additional soil analysis may be performed to determine the drainage characteristics of the base soils and aid in developing solutions to the ongoing poor drainage on the field. The report also recommended a rain sensor be added to the irrigation system to prevent overwatering and this has been completed.

## Recreation

- The community is reminded of the upcoming Trunk or Treat event scheduled for October 25 from 5:30 to 7:30pm. Parties interested in having a "trunk" in the event or are planning to attend should contact the department and register online to assist in planning. This is the Department's biggest event of the year, and it is always looking for more vehicle hosts.

- Also, the community is reminded of the Air Line Trail Maintenance Day and cleanup scheduled for October 28 from 9:00am to noon. Participants will meet at the Cranberry Bog. This is a great event involving the Recreation Department, The Air Line Trail Sub-Committee and many other local organizations and volunteers. Registration to help out at this event is available online or by contacting the Recreation Office.

### **Senior Center**

- The Senior Center experienced some difficulties in the transition to the new congregate and Meals-on-Wheels food provider, The Estuary. Nevertheless, staff continues to work with them and looks forward to a smooth program in the future.
- Staff are developing new programs including a monthly Aging Gracefully program and a Design and Create program twice a month. Additionally, the Center will be offering a celebration to veterans on November 8 from 10am to noon.
- The Center staff are also working with resident applicants to process Energy Assistance applications. Heating assistance support under the program begins November 1 for income eligible people and is ultimately managed by Community Renewal Team (CRT). As a reminder, the Senior Center focuses on application assistance for the Town's senior population and the Youth and Family Services Department helps with other residents.

### **Town Manager/Other**

- An agreement has been reached with Tyche Planning and Policy Group of Vernon to provide interim land use assistance while the hiring process for the permanent Planning and Zoning Official is ongoing. Tyche will provide weekly office hours as well as staff support and meeting attendance for the Planning and Zoning Commission, the Inland Wetlands and Watercourses Agency and Zoning Board of Appeals. Additionally, Tyche staff will support Building Official Jim Prue, who has been appointed as the acting Zoning Enforcement Official.

DC

cc: Management Staff

# September 2023

## Monthly Report

### At a glance:

*This section contains a brief summary of the most important information.*

- The new circulation desk was delivered on September 26. Unfortunately, several pieces were damaged during shipping and the Library is waiting for replacements to complete the installation. The new time frame for installation is mid-October.

### Strategic Plan Actions Update

*This section contains information about new programs, services, collections, or initiatives directly relating to the Strategic Plan.*

- The Library is working to better meet patrons' demand for eBooks and digitally accessible audiobooks by renewing our focus on collection development in that area. Through Overdrive Advantage, the Library has purchased several new copies of the most in demand digital materials. *(Informative & Collaborative)*
- The Library's entryway has been upgraded to include more shelving for the Friends of the Library Book Sale, a simplified magazine swap, and several new, informative bulletin board displays. *(Welcoming & Vibrant)*

### Department Reports

#### Administration:

*This section contains general updates and news about Library administration.*

- Ms. Cachuela attended the New Director's Roundtable through the Connecticut Library Consortium on September 7, which had a focus on resources available for public libraries through the Connecticut Library Consortium and the Connecticut State Library.
- Ms. Cachuela began serving on the newly established LION Resource Committee to assist in evaluating existing LION services for their relevancy and cost. The first meeting was held on September 26. Initial resources to be evaluated include Shoutbomb text messaging, Overdrive Magazines, and our current ILL courier, Riverbend.
- The Friends of the Library held their monthly meeting on September 11, during which they discussed two upcoming fundraisers; a Mahjong Tournament in May and a t-shirt sale during the holiday season that would involve local high school students creating designs that incorporate the Friends' logo. The Friends also announced that they have purchased the painted bell hanging outside of the Library from the Rotary Club's auction so that it may remain in its current location.

- The Library Advisory Board held its monthly meeting on September 11. Ms. Cachuela gave an update on Library operations and ongoing Facilities projects, which include updated siding this fall, the new circulation desk, a new overhead patron counter in the front entryway, and a deep cleaning for the building's interior.
- A new fence is being installed behind the Library in an effort to decrease trespassing.

## **Children's Department:**

*This section contains general updates and news about the Children's Department.*

- The Library has been accepting donations of gently used Halloween costumes in anticipation of our first annual Costume Swap. The swap is being held on Saturday, September 30. Feedback from the community about the event has been very positive and a good turnout for the event is expected.
- Our new Monday storytime, Bubbles & Beats, has been very popular. The music and movement based program had approximately 40 participants each week during its first month. STEMtastic also remains a high-demand children's program, with full registrations for all four sessions this fall.
- Preschool outreach visits will resume in October.
- Beginning in November, Ms. Cachuela will once again facilitate an after school Climbing Club at Center School.

## **Adult / Young Adult Department:**

*This section contains general updates and news about the Adult / Young Adult Department.*

- Cookbook Club, LibrarYoga, Belltown Book Brunch and the new Quilt, Craft, Create program have all seen renewed or increasing interest and participation.
- The audiobook and CD collections have been weeded and relocated, with an improved, less confusing browser experience for patrons.
- Teen Advisory Board met and worked on planning for the upcoming Cardboard Arcade and HallowTween party.

## **Circulation and Technical Services Department:**

*This section contains general updates and news about the Circulation and Technical Services Department.*

- September marks the first full month with the new overhead door counter, resulting in a higher and more accurate measure of traffic in the Library. New features include being able to see trends in traffic, including the most active dates and times over the course of the month.
- A new batch of Toniebox figurines has been added to the growing collection of Children's audio resources.
- An interest in improving the patron borrowing experience has led the department to research MuseumKey and LendingKey. These software would allow patrons to make reservations for museum passes and items in our Library of Things, many of which cannot currently be placed on

hold. Museum Key would also allow patrons the convenience of printing museum passes at home, allowing them to be obtained without the user coming into the Library. Staff are currently getting estimates for the software and discussing potential procedural changes that would accompany their use.

## Strategic Plan Indicators of Success

### Circulation

#### Borrowers *(Accessible and Inclusive)*

	+/- Last Month	September	August Borrowers	July Borrowers
<b>Adults</b> (borrowing physical items)	-63	1220	1283	1,268
<b>Children</b> (borrowing physical items)	-78	327	405	379
<b>Corporate</b> (borrowing physical items)	0	12	12	13
<b>Staff</b> (borrowing physical items)	0	17	17	17
<b>SUBTOTAL</b>		<b>1576</b>	<b>1717</b>	<b>1,677</b>
Overdrive	-21	238	259	225
Hoopla	-12	250	262	240
<b>SUBTOTAL</b>		<b>488</b>	<b>521</b>	<b>465</b>
<b>TOTAL</b>		<b>2,064</b>	<b>2,238</b>	<b>2,142</b>

#### Borrowing *(Welcoming and Vibrant, Informative and Collaborative)*

	2023	2023	2023	2022	2021	2020
	September	August	July	September	September	September
Adult Collection	2885	3739	3241	3,209	3,533	4,386
Children's Collection	2876	4015	4070	2,716	3,564	2,713
Young Adult	373	623	592	314	312	222
<b>SUBTOTAL</b>	<b>6134</b>	<b>8377</b>	<b>7903</b>	<b>6,239</b>	<b>7,409</b>	<b>7,321</b>
eBooks – Overdrive	990	1008	983	1,010	1,056	687
eBooks - Hoopla	674	797	617	686	520	486
eBooks – RB Digital*	0*	0*	0*	0*	0*	0*
<b>SUBTOTAL</b>	<b>1664</b>	<b>1805</b>	<b>1,600</b>	<b>1,696</b>	<b>1,576</b>	<b>1,173</b>
<b>TOTAL</b>	<b>7,798</b>	<b>10,186</b>	<b>9,503</b>	<b>7,935</b>	<b>8,985</b>	<b>8,588</b>

\*RB Digital was discontinued.

## Visits

### Door Counter (*Welcoming and Vibrant*)

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
5,019	6,497	3,964**									

\*\*New Door Counter for September

## Programs and Partners

### Events, Workshops, Programs and Outreach (*Accessible and Inclusive*)

<i>Onsite Programs</i>				<i>Participants</i>		
	<i>September</i>	<i>August</i>	<i>July</i>	<i>September</i>	<i>August</i>	<i>July</i>
Adult	9	5	5	61	52	35
Children's	18	13	17	369	224	327
Young Adult	2	3	4	7	15	24
Intergenerational	0	1	0	0	235	0
<b>SUBTOTAL</b>	<b>29</b>	<b>22</b>	<b>26</b>	<b>437</b>	<b>526</b>	<b>386</b>
<i>Self-Directed Activities</i>				<i>Participants</i>		
Adult	1	3	2	23	142	57
Children's	5	6	4	200	749	283
Young Adult	1	3	3	10	140	23
Intergenerational	0	5	3	0	162	257
<b>SUBTOTAL</b>	<b>7</b>	<b>17</b>	<b>12</b>	<b>233</b>	<b>1193</b>	<b>620</b>
<i>Offsite Programs</i>				<i>Attendance</i>		
Adult	0	0	0	0	0	0
Children's	0	5	5	0	111	95
Young Adult	1	0	0	13	0	0
Intergenerational	0	1	0	0	150	0
<b>SUBTOTAL</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>13</b>	<b>261</b>	<b>95</b>
<b>TOTAL**</b>	<b>37</b>	<b>45</b>	<b>43</b>	<b>683</b>	<b>1980</b>	<b>1101</b>

\*\*Program totals do not reflect events on Saturday, September 30

## Promotion

### Website (*Welcoming and Vibrant*)

	<b>+/- last month</b>	<b>September</b>	<b>August</b>	<b>July</b>
<b>Users</b>	<b>-200</b>	1704	1904	1875
<b>Sessions</b>	<b>-558</b>	2855	3413	3142
<b>Page Views</b>	<b>-801</b>	4038	4839	4734
<b>Events Calendar</b>	<b>-604</b>	887	1491	1137

**5 Most Popular Pages:** Library Homepage, Hours & Contact Info, Library of Things, Library Staff, Museum Passes



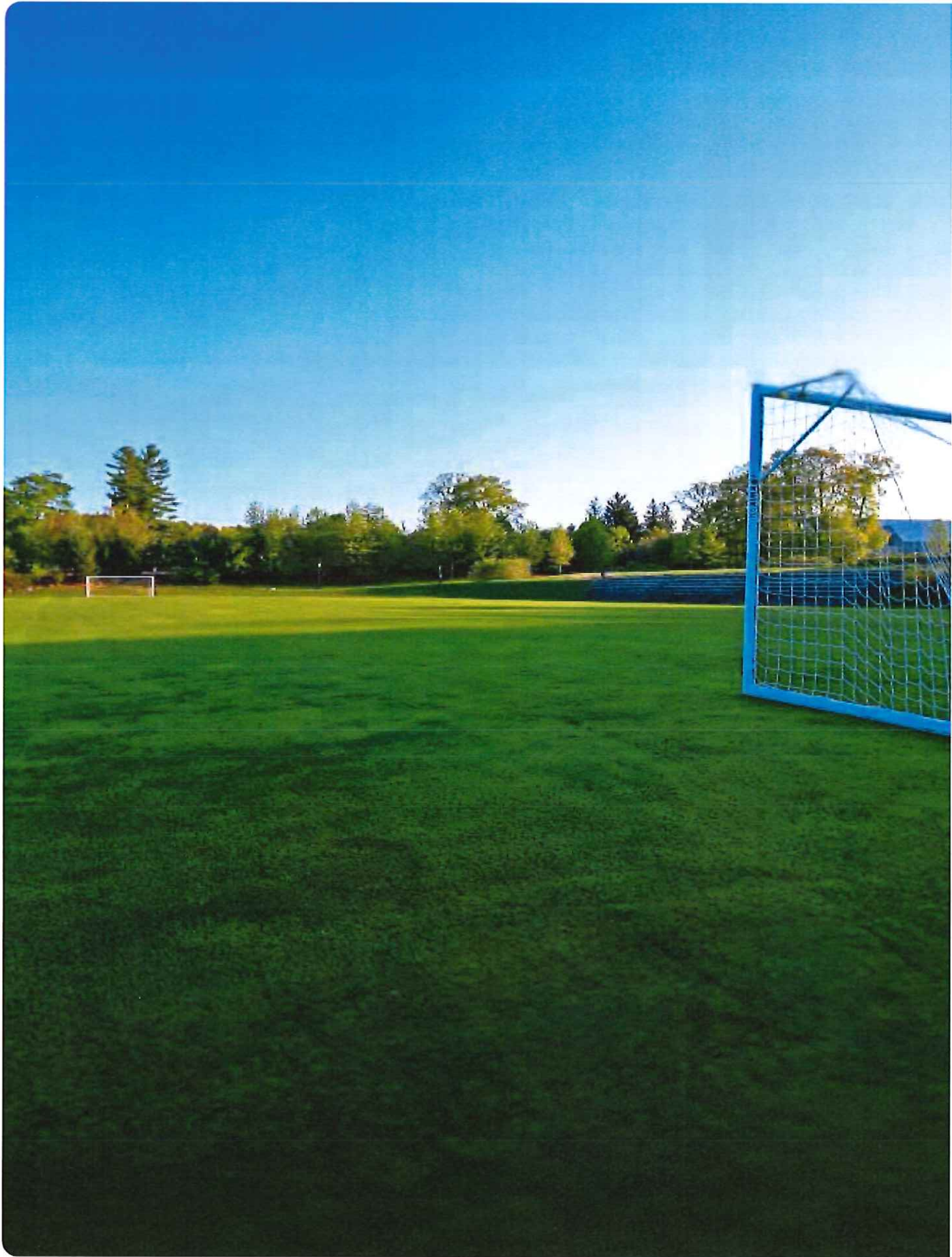
**Social Media** (*Welcoming and Vibrant*)

	<b>+/- last month</b>	<b>September</b>	<b>August</b>	<b>July</b>
<b>Facebook</b>				
<b>Reactions/Comments/Shares</b>	<b>-2451</b>	2323	4774	3311
<b>Page Reach</b>	<b>-1595</b>	3726	5321	4662
<b>New Followers</b>	<b>+6</b>	29	23	23
<b>Instagram</b>				
<b>Reactions/Comments/Shares/Views</b>	<b>+1884</b>	6270	4386	5369
<b>Page Reach</b>	<b>+50</b>	631	581	1154
<b>New Followers</b>	<b>-1</b>	13	14	22

Understand the fundamentals of your fields and make sound decisions based on objective core standards



# CORE PERFORMANCE QUALITY STANDARDS

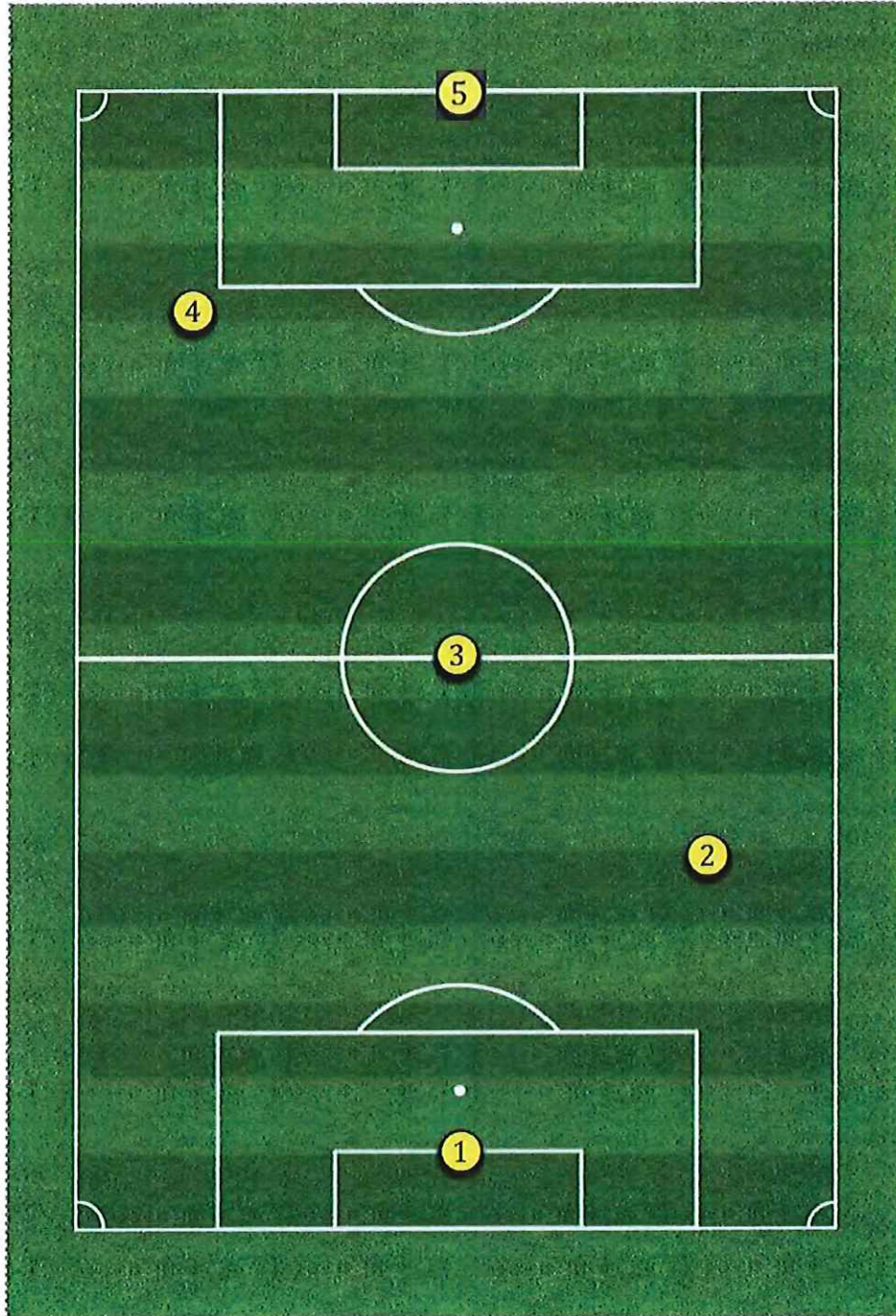


# East Hampton High

Soccer Field (Inside of Running Track)

Test Locations

(may be an example field)



# WHY IS CORE PQS IMPORTANT?

**Ian Lacy, Lead Project Advisor**



At Tom Irwin Advisors, we believe the condition of an organization's athletic and recreational fields represents a commitment to their community's health, happiness and well being.

Core Performance Quality Standards (C-PQS), a field assessment approach which scientifically measures a field's existing conditions, helps managers better understand a field's short and long term needs. C-PQS leads to confident decision making on maintenance or remediation programs while allowing a turfgrass manager to accurately track a field's progress over time.

Core Performance Quality Standards have three key distinguishing characteristics:

## **They are fundamental and foundational**

They measure a field's condition according to key fundamental metrics. These are the criteria that you simply must know and understand to manage safe performance turf that is fit for purpose. The C-PQS score is an average calculated by sampling up to 10 different locations per field for each criteria. This gives TIA clients insights into the foundation of a field's condition according to the factors that matter most to its users and the people who care for it.

## **They are objective**

Core Performance Quality Standards are based on hard data, not subjective opinion. They deliver necessary and vital intelligence that informs decision-making, guides remediation efforts, and enables progress to be measured accurately.

## **They are a benchmark**

By fully capturing the basic condition of a field, Core Performance Quality Standards enable its condition to be compared not only to other fields, but to itself and Full PQS's over time.

C-PQS is a proprietary system of analytics that measures a field's current state of fitness. C-PQS ensures your fields address the relevant requirements of ASTM standards and the protocols ordained by the governing bodies of sport. C-PQS provides objective, repeatable, quantifiable, accurate, and defensible data to support your decision making.



# Core PQS Field Test for Natural Turf

Organization: East Hampton High School

OVERALL GRADE

**D**









Field Name: Soccer Field (Inside of Running Track)

Date Of Test: 08-15-2023

GRADE

CORE PLAYABILITY	Tool	Average Results	Points	F
Planarity	3 Meter Straight Edge & Wedge	21.60 mm	2	D
% Desirable Turfgrass Cover	Grass Quadrant	57.0 %	0	F
Rotational Traction	Traction Meter	8.80 Nm	0	F
Surface Hardness	Clegg/Gmax	43 GMax	0	F
% Volumetric Water Content	POGO +	45.4 %	0	F
CORE PRESENTATION	Tool	Average Results	Points	D
% Weed Cover	Grass Quadrant	36.0 %	0	F
% Surface Debris	Grass Quadrant	0.2 %	4	B
CORE STRUCTURE	Tool	Average Results	Points	C
Infiltration Rate	Double Ring Infiltrometer	7.56 "/hr.	4	B
Compaction 1"	Penetrometer	91 PSI	5	A
Compaction 3"	Penetrometer	285 PSI	2	D
Root Depth	12" Profiler	2.00 "	2	D
Thatch Depth	12" Profiler	0.58 "	4	B
Rootzone Medium Depth	12" Profiler	3.90 "	0	F
SCORING KEY	PQS Soccer Field	Total Criteria	Total points available for each criteria	
A = Superior	65-53 total points	13 criteria	5 points per criteria achieved	
B = High Standard	52-40 total points	13 criteria	4 points per criteria achieved	
C = Standard	39-27 total points	13 criteria	3 points per criteria achieved	
D = Low Standard	26-14 total points	13 criteria	2 points per criteria achieved	
E = Below Standard	13 and below total points	13 criteria	1 points per criteria achieved	
F = Failing	If any critical criteria score far Below Standard and present a potential safety issue the overall rating of the field must also score an F or failing.			

# TOOLS AND TECHNIQUES

Tests	Tool	Description
Planarity		<p><b>A 3 Meter Straight Edge</b> is the tool which is placed upon the field surface in order to observe and measure surface undulations with a graduated wedge gauge.</p>
Rotational Traction		<p><b>Traction Meter</b> is a tool which measures the rotational resistance and the shear strength of the turf grass surface.</p>
Compaction Rating 1" & 3" Depth		<p><b>The Penetrometer</b> is the tool of choice for measuring soil compaction. Soil compaction differs from field hardness. Compaction is measured in the pounds per square inch (PSI) required to drive the probe to differing depths.</p>
Surface Hardness (GMax)		<p><b>The Clegg Hammer</b> is a tool which measures field surface hardness. Surface hardness may contribute to athlete injury and poor playing conditions.</p>
Moisture 2.2" Depth		<p><b>Pogo Pro+</b> is a tool which measures the Volumetric Moisture Content of a wide range of soils. Soil moisture affects turf grass health and playability. It also measures salinity canopy temperature, soil temperature, and can be used for precision gps mapping</p>
% Weed Cover		<p><b>The Grass Quadrant</b> is a grid of 100 equal squares used to accurately measure the percent of certain field imperfections.</p>
Surface Debris		<p><b>Observation and Measurement</b> The Field Technician conducting the test surveys the field looking for and noting obvious deficiencies. These include hazardous debris, bare areas, overall condition, signage, fencing, field markings, goal posts, and other structures.</p>
Turf Infiltration Rate		<p><b>Double Ring Infiltrometer</b> is a tool which measures the rate of water movement through a limited soil column.</p>

# Field Progress Tracking:

		Test Date	Test Date	Test Date	Test Date	Test Date
Organization: East Hampton High School		08-15-2023				
Field Name: Soccer Field (Inside of Running Track)		Overall Grade	Overall Grade	Overall Grade	Overall Grade	Overall Grade
		<b>D</b>				
		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
<b>PLAYABILITY</b>	Tool	<b>F</b>				
Planarity	6-Foot Straight Edge	D				
Rotational Traction	Traction Meter	F				
Surface Hardness	Clegg/Gmax	F				
% Volumetric Water Content	POGO+	F				
% Desirable Turfgrass cover	Grass Quadrant	F				
<b>PRESENTATION</b>	Tool	<b>D</b>				
% Weed Cover	Grass Quadrant	F				
% Surface Debris	Grass Quadrant	B				
<b>STRUCTURE</b>	Tool	<b>C</b>				
Infiltration Rate	Double Ring Infiltrometer	B				
Compaction 1"	Penetrometer	A				
Compaction 3"	Penetrometer	D				
Root Depth	12" Profiler	D				
Thatch Depth	12" Profiler	B				
Rootzone Medium Depth	12" Profiler	F				



# CORE PQS SUMMARY:

Organization: East Hampton High School

Field Name: Soccer Field (Inside of Running Track)

You have set your vision of producing and providing an Athletic Field that is consistent, durable and of the highest quality possible. You also wish to critically examine the field's condition and, through this knowledge, be proactive in maintenance planning for the future.

To realize this goal Tom Irwin Advisors (TIA) carried out a Core Performance Quality Standards (PQS) assessment on the Athletic Field on 08-15-2023

- The Overall Grade was a D
- The Playability Grade was a F or Failing
- The Presentation Grade was a D or Low Standard
- The Structural Grade was a C or Standard

## General Observations:

Testing began at 9:30 AM under cloudy skies and intermittent heavy mist. There had been approximately .35" of precipitation the morning and night before the assessment. This was after there had been nearly 1.5" of precipitation over the previous week. The irrigation system was running on other fields as a survey was conducted on the Soccer field.

The field is very well fenced in, is surrounded by an Asphalt laminated surface athletic track, has a set of bleachers on the side closer to the parking lot and has a new scoreboard. There is a maintenance building just outside the fence in the Northeast corner. I was able to meet Tucker Rozevink, who is the new Maintenance Supervisor, in the field who shared some valuable insights. He mentioned an irrigation break had just been repaired in the Southeast corner, however there has always been saturation issues in that location long before the break. He also said the field is aerated multiple times per year and they work with an application company for nutrition and control products. Tucker confirmed the centerline and goal areas of the field had been re-sodded years ago, and the settling of material is creating a concave seam.

The field was very saturated in the Southeast corner closest to the school and scoreboard, where tire ruts from a mower appeared to have sunk in. The center line of the field appeared to be depressed and re-sodded at some point in the past. There was significant weed pressure from Crabgrass (*Digitaria sanguinalis*) and to a lesser extent Bentgrass (*Agrostis* spp.) and Annual Bluegrass (*Poa annua*).

There are surface drains along the border to the inside of the track, however, they are overgrown with vegetation and appear to have lips built up in the 20 foot radius around them. While the field does appear crowned towards the drains there are many shelves and ridges that may affect sheet flow of surface water to the drains.

There was seagull activity on the field during testing and a noticeable amount of a Canadian goose feces.

# SURFACE EVALUATION AND RECOMMENDATIONS

The field scored below standard on Planarity, Rotational Traction, Surface Hardness, Volumetric Water Content, Desirable Cover %, Weed%, 3" Compaction, Root Depth and Rootzone Medium Depth. All the criteria are affected by one another, in our opinion the main drivers are the challenging soil environment, and elevation and planarity issues.

When evaluating the soil profile, there was a transition to a much stonier material at the 2.5-3" depth in all sample locations. The turf grass roots appeared to struggle breaking through this threshold. This issue has likely led to the low Rotational Traction scores. Having a compacted transition layer higher in the soil profile typically leads to moisture retention closer to the surface of the field. This leads to high Volumetric Water Content readings and very low Surface Hardness readings.

Additionally, after driving the profile extraction tool into the surface with a mallet and removing a core, a compaction reading was taken at the sub-base transition. This layer was nearly impenetrable, in fact at Test Location 2 there was water visible in the extraction hole, likely due to excess moisture being unable to drain through the sub-base.

Weeds are able to gain a competitive advantage over desirable turf grass in environments prone to excessive moisture. Crabgrass (*Digitaria sanguinalis*) was evident all over the field particularly the North end and the Southeast corner had a higher percentage of Bent-grass (*Agrostis* spp) and Yellow Nutsedge (*Cyperus esculentus*). Spotted Spurge (*Chamaesyce maculata*) was seen along the border of the track.

## RECOMMENDATIONS

- 1) A more thorough Soil Investigation should be carried out to determine the extent of the drainage challenges being created
  - 2) The planarity, and grading survey also identified that the difficult soil conditions are being exacerbated by inconsistent surface levels. (For more information see gradient survey on pages 13-14)
  - 3) The rain sensor on the irrigation system should be checked, the programs were running on other fields as the survey was being carried out.
  - 4) The drain covers inside the track around the border of the field should be cleared of all vegetation, and any impeding ridges that may hinder water flow to the drains should be addressed.
  - 5) A thorough cultural maintenance regime should be implemented to increase the percentage of desirable coverage in the stand; including topdressing, overseeding and deep tine aeration.
-



Northwest wing area soil profile.  
Note the 3" transition to stonier  
material.



Southeast wing soil profile. Note  
how much more moisture is in  
this profile compared to the one  
above and the brick colored  
aggregates at the base.



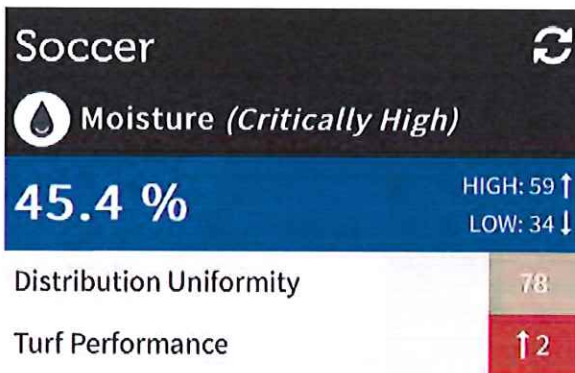
Minimal root depth into stonier material at 2.5-3" depth. Note the roots that are present are thin and tan.



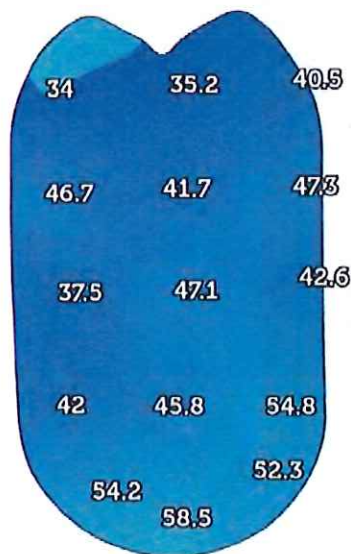
Overgrown drain area. Drain should be cleared to expedite excess water off the playing surface.



Southeast wing area profile extraction hole with water at the base, not draining through sub-base.



POGO+ Visual analysis of the Volumetric Water Content. Note the critically high reading. The field is at or near saturation. The Southern end is very wet. The irrigation was running in other fields after a significant rainfall event overnight and into the morning. Rain sensor likely not operational. Soccer field may have been irrigated prior to testing resulting in the saturated conditions.

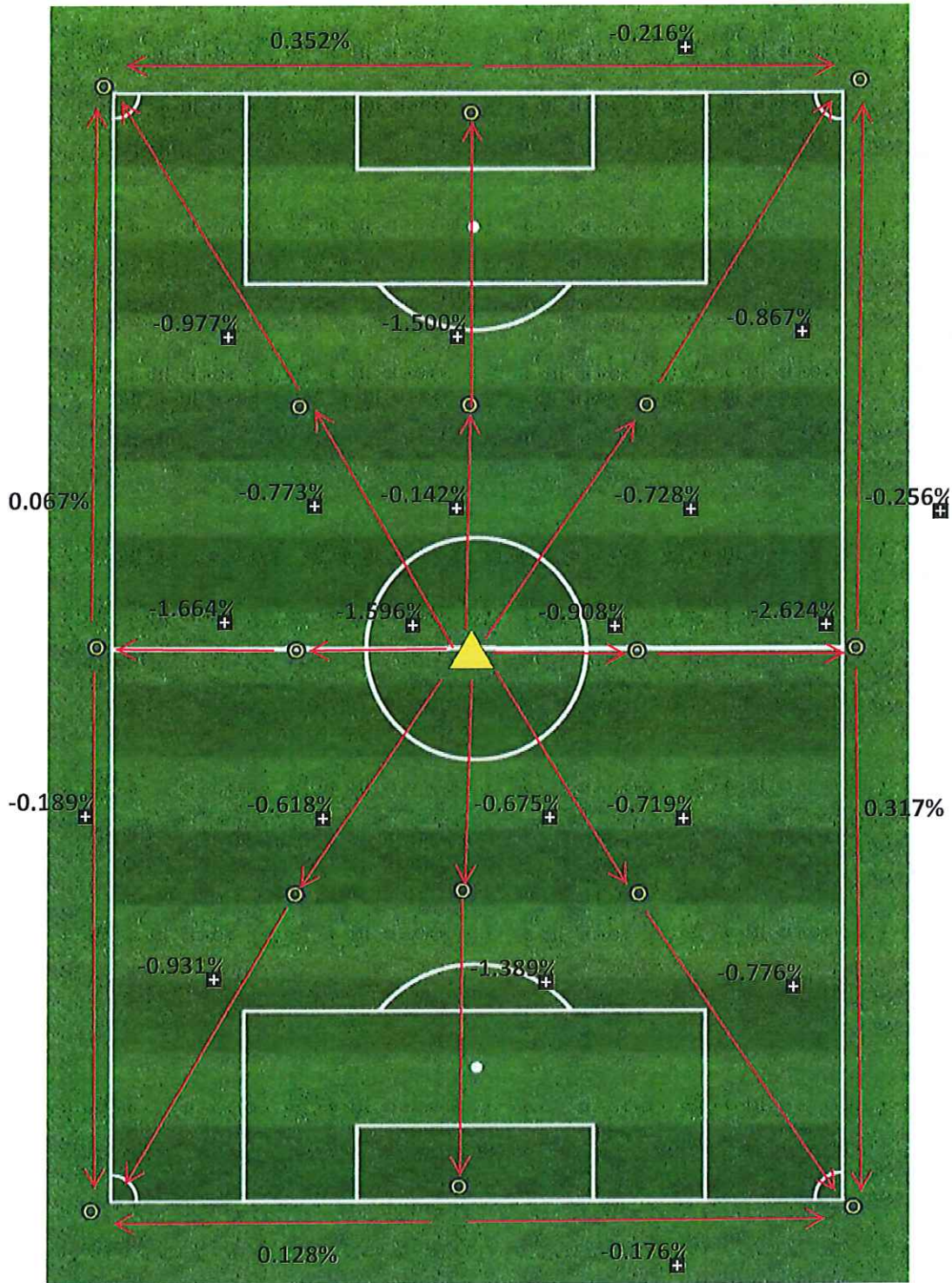


Aug 15th 2023, 9:35 am  
Set 1 - 15 Samples

# East Hampton HS

Soccer Field

Field Gradients



NORTH

- = Datum Point
- = Spot Elevation

TOM IRWIN ADVISORS, INC.



# GRADIENT EVALUATION AND SOIL TEST RESULTS

## GRADIENT EVALUATION

The map on the previous page was generated by taking 24 elevation readings across the field to create a view of how surface water may drain across the field. Heights were determined using a laser level and distances were found using a laser range finder. Slopes were calculated between points to create the map. As you can see all the arrows are directed away from the datum at the midfield location, indicating the field is crowned. Water will likely move from the center of the field towards the edges where the drains are located.

However, you will notice the slopes calculated are very inconsistent and range from .07% to 2.6%. This indicates there are localized planarity challenges across the field that may create a dam effect and hinder surface flow. Several of these areas were identified with more detailed elevation readings such as:

- 1" rise identified between the Southeast intermediate and corner reading which may be contributing to the prolonged saturation issues Tucker had described.
- 1.5" depression along the centerline, approximately 20' to either side.
- 6" drop over the last 15' to the Northwest corner.
- These were just a few of many observed across the field.

Increased topdressing and core aeration can help alleviate subtle planarity inconsistencies over time, however the extent of the amount of material that would be needed does not make this a feasible option.

## RECOMMENDATIONS

- 1) The field should be re-graded to establish more uniform slopes across the field and subsequently, a more consistent growing environment. (Also see page 9 and point 1 of the recommendations)

## SOIL TEST RESULTS

A composite sample of the Soccer field topsoil was collected and sent to two different laboratories for physical and nutritional assessment. Approximately 60 cores, 1" wide and 4" deep, were extracted from the field and mixed thoroughly to generate a representation of the growing material used on the field.

### Physical Soil Test Results

The topsoil is classified as a Gravelly Sandy Loam, having 37.1% combined Silt and Clay. There is another 18.5% of fine sands, bringing the total number of fine aggregates to 55.6% which is extremely high for maintaining a performance sports field. Organic matter was also high at 6.17%, ideally this would be between 3-5%. Lab Infiltration Testing was very slow. The gravel concentration is also concerning with a total of 19% of the aggregates being classified as gravel. Any core aeration activity deeper than 3" would likely bring gravel aggregates to the surface which can create a safety concern for play and maintenance.

### Nutritional Soil Test Results

The Chemical Soil Test determined the pH was slightly high, measuring 7.1. A more desirable range would be in the low 6's which is more conducive to a soil solution with abundant nutrient availability. An imbalance of Ammonia and Nitrate was identified which may indicate poor microbial activity in the soil.

The Saturated Paste Test identified a higher percentage of Sodium compared to Potassium, which has been known to create a challenging environment to establish and maintain resilient turfgrass.

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# SOIL REPORTS



Turf & Soil Diagnostics

MATERIALS TEST REPORT FOR  
East Hampton HS



REPORT TO: Tom Irwin Advisors  
Scott Voso  
11A Street  
Burlington, MA 01803

DATE RECEIVED: Aug-17-2023  
REPORT DATE: Aug-24-2023  
CONDITION OF SAMPLE: Normal

PARTICLE SIZE (ASTM F1632)

Lab ID#	Sample Name	Gravel %			Soil Separate*			Sieve Size / Sand Fraction Sand Particle Diameter % Retained				
		1/4" 6.3 mm	No. 5 4.0 mm	No. 10 2.0 mm	Sand	Silt	Clay	No. 16 V. Coarse 1.0 mm	No. 35 Coarse 0.50 mm	No. 60 Medium 0.25 mm	No. 140 Fine 0.10 mm	No. 270 V. Fine 0.05 mm
49267-1	Soccer Composite Topsoil	8.4	2.3	8.3	62.9	26.8	10.3	11.5	15.0	16.5	11.5	7.0

Lab ID#	Sample Name	Ksat** In/hr	Bulk Density** g/cc							Textural Class
49267-1	Soccer Composite Topsoil	< 0.1	1.24							Gravelly Sandy Loam

\*ASTM F1632 Method B

<sup>2</sup> ASTM F1647 Method A

Data reported using USDA definitions of soil classification

\*\* Saturated Hydraulic Conductivity (K-SAT) with compaction energy reduced to 5.76 ft lb/sq inch. Field infiltration rates may be lower, if soil is more heavily compacted than lab test conditions.

Samples were tested as received and comments pertain only to the samples shown

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Samples were received with a transmittal letter.

Reviewed by Duane K. Otto





Turf & Soil Diagnostics

August 24, 2023

Tom Irwin Advisors  
Scott Vose

East Hampton HS  
TSD File #49267

This report details the results of the Soccer Composite Topsoil sample, which was tested as received. No specifications were provided for this project, but our understanding is that these soils will be used for sports fields.

The Soccer Composite Topsoil sample is classified as gravelly sandy loam per the USDA textural classification scheme. The sand fraction is widely graded with the sand spread throughout the sand and gravel fractions.

Sandy loam soils typically have potential to provide acceptable water and nutrient holding for most turf and landscapes. They provide limited internal drainage and can be prone to excess compaction under heavy use. Fields should be crowned to ensure adequate surface drainage.

The infiltration rate of this sample suggests essentially internal drainage may be expected. Infiltration rates are related to bulk density (compaction) such that they may be lower if the soil is installed or maintained at a higher bulk density (or vice versa).

If the soil is used as is, care should be taken during any renovation or construction work to prevent excessive compaction. The soil shouldn't be handled when wet. Equipment with low ground pressure is recommended for the placement and gradation of the soil. It may be desirable to specify a maximum compaction level.

As with any soil installation, it will be especially important to control compaction during any renovation or construction work to prevent excessive compaction. The soil shouldn't be handled when wet. Equipment with low ground pressure is recommended for the placement and grading of the soil.

Please let us know if you have any questions or are in need of further assistance. Samples are generally kept on the premises for 45 days after report date. Thank you for using Turf & Soil Diagnostics, Inc.

**Duane K. Otto** Digitally signed by Duane K. Otto  
Date: 2023.08.24 16:05:08 -0400

Duane K. Otto  
Vice President

Page 2 of 2

# Soil Report

Job Name: **EHCPSQSEHHS-23**

Date: 8/22/2023

Company: Tom Irwin Advisors Inc

Submitted By: Scott Vose

Sample Location		Soccer				
Sample ID		Composite				
Lab Number		32				
Sample Depth in inches		4				
Total Exchange Capacity (M. E.)		5.83				
pH of Soil Sample		7.1				
Organic Matter, Percent		6.17				
<b>ANIONS</b>	<b>SULFUR:</b> p.p.m.	15				
	<b>Mehlich III Phosphorous:</b> as (P <sub>2</sub> O <sub>5</sub> ) lbs / acre	139				
<b>EXCHANGEABLE CATIONS</b>	<b>CALCIUM:</b> lbs / acre Desired Value Value Found Deficit	1057 1043 -14				
	<b>MAGNESIUM:</b> lbs / acre Desired Value Value Found Deficit	134 215				
	<b>POTASSIUM:</b> lbs / acre Desired Value Value Found Deficit	134 125 -9				
	<b>SODIUM:</b> lbs / acre	26				
<b>BASE SATURATION %</b>	Calcium (60 to 70%)	67.08				
	Magnesium (10 to 20%)	23.05				
	Potassium (2 to 5%)	4.12				
	Sodium (.5 to 3%)	1.45				
	Other Bases (Variable)	4.30				
	Exchangable Hydrogen (10 to 15%)	0.00				
<b>TRACE ELEMENTS</b>	Boron (p.p.m.)	0.8				
	Iron (p.p.m.)	201				
	Manganese (p.p.m.)	31				
	Copper (p.p.m.)	1.05				
	Zinc (p.p.m.)	1.77				
	Aluminum (p.p.m.)	1327				
<b>OTHER</b>	Ammonium (p.p.m.)	0.3				
	Nitrate (p.p.m.)	17.9				
	Silicon ppm	15.9				

# Saturated Paste Report

Job Name EHCPQSEHHS-23

Date 8/22/2023

Company Tom Irwin Advisors Inc

Submitted By Scott Vose

<i>Sample Location</i>		Soccer				
<i>Sample ID</i>		Composite				
<i>Lab Number</i>		202930				
<i>Water Used</i>		DI				
<i>pH</i>		7.1				
<i>Soluble Salts</i> ppm		46				
<i>Chloride (Cl)</i> ppm		100				
<i>Bicarbonate (HCO3)</i> ppm		56				
<b>ANIONS</b>	<b>SULFUR</b> ppm	1.79				
	<b>PHOSPHORUS</b> ppm	0.09				
<b>SOLUBLE CATIONS</b>	<b>CALCIUM</b> ppm	7.19				
		meq/l	0.36			
	<b>MAGNESIUM</b> ppm	2.10				
		meq/l	0.17			
	<b>POTASSIUM:</b> ppm	2.56				
		meq/l	0.07			
	<b>SODIUM</b> ppm	2.75				
		meq/l	0.12			
<b>PERCENT</b>	Calcium	49.89				
	Magnesium	24.28				
	Potassium	9.23				
	Sodium	16.60				
<b>TRACE ELEMENTS</b>	Boron (p.p.m.)	0.03				
	Iron (p.p.m.)	2.37				
	Manganese (p.p.m.)	0.06				
	Copper (p.p.m.)	0.02				
	Zinc (p.p.m.)	0.02				
	Aluminum (p.p.m.)	2.1				
<b>OTHER</b>						

# PQS RATINGS

**A: Superior Rating** indicates an exceptional field which will demonstrate superior wear tolerance and be able to support prolonged above average usage under normal conditions. Aesthetically, this field is suitable for high-level play. This rating is difficult to achieve and a field may move between Superior and High Standard depending upon the stressors on the surface and varying natural conditions.

**B: High Standard Rating** equals a top-performing field suitable for use in high visibility community events such as varsity sports. This field should exhibit better than average durability under its current management practices and has a sustainable level of usage.

**C: Standard Rating** is acceptable for general recreational purposes under a carefully monitored management plan and with ongoing supportive maintenance. It will likely wear at an expected rate and have an average lifespan.

**D: Low Standard Rating** is marginal and indicates a field that is currently fit for purpose but will likely need future remedial work to maintain playability. A Low Standard Field will continue to decline unless additional maintenance efforts and management changes are implemented quickly.

**E: Below Standard Rating** means significant aspects of playability and safety may be seriously impaired. Caution is strongly advised—use should be determined on a case-by-case basis depending upon the specific criteria scores. This field requires immediate corrective action and significant rehabilitation to support continued use.

**F: Failing Rating** is reserved for fields that score well Below Standard in one or more critical criteria. It is our opinion that these fields present a clear and significant safety concern. It is recommended that the field be immediately closed to use until properly repaired.



## FURTHER GUIDANCE

*If you have any questions regarding this document, the actions discussed, or the challenges that you face, please reach out to us. We are eager to help support you and your vision moving forward.*

*We are composed of a unique team of highly qualified professionals who; have consulted on athletic fields globally for FIFA and other governing bodies of sport; have lectured at Universities and in other academic settings; have contributed to the development of many industry and professional standards; have renovated and constructed athletic fields for every level of the game, and, have spent decades carefully and conscientiously managing turf that we care deeply about. We would be honored to provide any assistance, guidance, and advice that you require.*



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TOM IRWIN ADVISORS, INC.

*Tom*  
**IRWIN**



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TOM IRWIN ADVISORS

Speak with Ian Lacy at **781-999-4320** or  
give us the details of your project at  
[www.tomirwinadvisors.com/engage-with-us](http://www.tomirwinadvisors.com/engage-with-us)

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