

MINUTES

Members Present: Thomas Tyler, Paul Picard, Anthony Tarnowski, Joe Ruiz

Members Absent: Irene Malsbenden, Lynn Goodwin

Others Present: Tecton: Stephen Melingonis, Jeff McElravy; O&G: Gus Kotait; Arcadis: Jack Butkus; Board of Education Chairman Brad Bernier, Director of Educational Operations Ken Jackson, Board of Selectman Liaison Rosemary Coyle, First Selectman Art Shilosky, Director of Public Works Jim Paggioli, Bacon Civic Students

1. **Call to Order:** Chairman Tyler called the meeting to order at 7:18 pm.
2. **Changes to the Agenda:** None
3. **Citizen's Comments:** First Selectman Shilosky and J. Paggioli urged the Committee to reconsider installing an irrigation system on the athletic fields and submitted the attached memo.
4. **Approval of Minutes - November 8, 2018:** J. Ruiz motioned to approve the November 8, 2018 meeting minutes, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**
5. **Approval of invoices:**
 - J. Ruiz motioned to approve the following invoices, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**

WJJMS BUILDING PROJECT
INVOICE SUMMARY
12/13/18 MEETING

VENDOR	INV. #	DESCRIPTION	PRJT. #0043	PRJT. #0044	TOTAL
O&G Industries	Application #024 Dtd. 12/07/18	CM & Construction Services 11/01/18 – 11/30/18	803,702.74	46,107.94	849,810.68
Tecton	Inv. #: 11302018 Dtd. 11/30/19	Billing Period 11/01/18 – 11/30/18	23,565.28	809.72	24,375.00
Arcadis	Inv. #: 0942728 Dtd. 11/30/18	Billing Period 10/29/18 – 11/25/18	14,640.00	0.00	14,640.00
Arcadis	Inv. #: 0942732 Dtd. 11/30/18	Billing Period 10/29/18 – 11/25/18	0.00	600.00	600.00
Arcadis	Inv. #: 0942727 Dtd. 11/30/18	Billing Period 10/29/18 – 11/25/18	14,020.00	0.00	14,020.00
Arcadis	Inv. #: 0942729 Dtd. 11/30/18	Billing Period 10/29/18 – 11/25/18	0.00	600.00	600.00
IMTL	Inv. #: 3202-L Dtd. 10/11/18	Agent's Final Report	1,800.00	0.00	1,800.00
Fuss & O'Neill PO#: 196531	Inv. #: 0204213 Dtd. 08/16/18	Construction Admin / Monitoring Services Testing Analysis	11,822.27	0.00	11,822.27
Fuss & O'Neill PO#: 196531	Inv#: 0205147 Dtd. 09/17/18	Construction Admin / Monitoring Services Testing Analysis	15,985.40	0.00	15,985.40
Fuss & O'Neill PO#: 196531	Inv#: 0206549 Dtd. 11/07/18	Construction Admin / Monitoring Services Testing Analysis	5,317.26	0.00	5,317.26
Fuss & O'Neill PO#: 196531	Inv#: 0207141 Dtd. 11/28/18	Monitoring Summary Report	2,500.00	0.00	2,500.00
Fuss & O'Neill PO#: 196533	Inv. #: 0204227 Dtd. 08/16/18	Construction Admin / Monitoring Services Testing Analysis	0.00	2,086.53	2,086.53
Fuss & O'Neill PO#: 196533	Inv. #: 0204940 Dtd. 09/10/18	Construction Admin / Monitoring Services	0.00	391.64	391.64
Fuss & O'Neill PO#: 196533	Inv. #: 0205914 Dtd. 10/19/18	Construction Admin / Monitoring Services	0.00	889.98	889.98

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Fuss & O'Neill	Inv. #: 0205667 Dtd. 10/10/18	Continuation of Constr. Admin / Monitoring & Testing Analysis	17,494.69 17,493.69	0.00	17,494.69 17,493.69
The Hartford	Inv. #: 14971780 Dec 2018 Dtd. 12/03/18	Builder's Risk Insurance Policy	4,814.70	100.19	5,004.89
Colchester Sewer & Water Commission	Acct. #: 12085 Dtd. 10/02/18	Demolition Water Use	3,350.16	0.00	3,350.16
Colchester Sewer & Water Commission	Acct. #: 12213 Dtd. 12/04/18	Demolition Water Use	1,559.07	0.00	1,559.07
VENDOR	INV. #	DESCRIPTION	PRJT. #0043	PRJT. #0044	TOTAL
CDW-G PO#: 196539	Inv. #: PZK1383 Dtd. 11/13/18	Technology Order	1,396.17	0.00	1,396.17
Gerry's Music Shop PO#: 196546	Inv. #: 138935 Dtd. 12/07/18	FF&E Order	1,978.00	0.00	1,978.00
Red Thread PO#: 196582	Inv. #: 737816 Dtd. 11/21/18	FF&E Order	153,797.50	0.00	153,797.50
TOTAL					\$1,127,443.22 \$1,127,442.22

- A. Tarnowski motioned to approved \$2,891 for the Builder's Risk Insurance Policy extension for the period of December 21, 2019 through February 1, 2019, seconded by P. Picard. Vote was unanimous. **MOTION CARRIED.**
- A. Tarnowski motioned to transfer \$4,909.23 from project account to construction account to pay water and sewer, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- P. Picard motioned to issue a purchase order in the amount of \$17,493.69 to Fuss & O'Neill for the continuation of Construction Administration / Monitoring Services, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**

6. Project Manager update and potential action:

- A. Tarnowski motioned to approve a purchase order in the amount of \$2,166.64 to Rusty Kiln, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- J. Butkus gave the monthly report for November.
- A meeting was held in Superintendent Burt's office to discuss TouchIt boards. There has been over 11% failure rate, a separate concern from the wiring issues. Chairman Tyler expressed dissatisfaction on the lack of progress in making the boards functional. Members agreed that RedThread should not be paid in full until a solution has been reached and requested the pace in which the matter is being dealt with be accelerated.
- There was a consensus among members to accept User Change Order #18, delete courtyard fence and add chain link fence at the west corner of the building.
- An extended construction period is needed due to weather and existing conditions. The gym floor finishing will begin on December 17th and bleacher installation on January 25th. Full use of the gym and bleachers can begin on February 3rd. If the school chooses, the gym could begin used on January 7th and bleachers be installation be worked around school use. Recreational activities could not begin until February 3rd. Members, in the best interest of the quality of the project, would like the gym, including the structuring of the bleachers, completed before any use begins.

7. Architect update and potential action:

- S. Melingonis noted that the fence around the courtyard had been added as a security measure but is not required. Principal Bennett and Superintendent Burt are both in agreement to remove it.
- Project plaque was approved.
- Principal Bennett has given his preference for lockdown blind options on doors.

- Brick staining pricing was presented for each area. Members would like to know if they committed to staining all remaining areas if the mason would discount the price.
- Acoustical Consultant has suggested doing a test over the school break. A machine will be used to make and measure noise for the purpose of the test.
- Areas of concern were expressed over the last couple of weeks relative to the overall control of the HVAC system. They appear to be a control issue.
- Larger steamer has been installed in the kitchen but is not working correctly. P. Picard said the steamer is not installed to the manufacturer's suggestion. The steamer needs to be placed in the correct location in which it can work correctly. Chairman Tyler said the first priority of the kitchen design has to be that the equipment is placed to work correctly. The desired layout comes second.

8. Construction Manager update and potential action:

- G. Kotait distributed O&G Monthly Progress Report No. 20 through November 2018.
- Summary Data was reviewed.
- Completion date of areas E&F has been changed from December to January.
- G. Kotait will increase the masonry trade contractor pending change order amount to allow for completion of brick staining. Window Treatment line item will also be increased to allow for lockdown blinds.
- Paved driveway loop will open when school resumes in January.
- Members instructed G. Kotait to obtain pricing for the paint to cover graffiti in basement and mezzanine.
- Extensions were added to scuppers near the back sidewalk.
- P. Picard motioned to approve Out of Scope Change #145 for a total net sum of \$1,355, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**
- A. Tarnowski motioned to approve Out of Scope Change #150 for a total net sum of \$5,169, seconded by P. Picard. Vote was unanimous. **MOTION CARRIED.**
- P. Picard motioned to approve Out of Scope Change #152 for a total net sum of -\$2,936, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- P. Picard motioned to approve Out of Scope Change #153 for a total net sum of -\$512,000, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- A. Tarnowski motioned to approve Out of Scope Change #155 for a total net sum of -\$10,885, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- A. Tarnowski motioned to approve Out of Scope Change #156 for a total net sum of -\$5,121, seconded by J. Ruiz. Vote was unanimous. **MOTION CARRIED.**
- J. Ruiz motioned to approve Out of Scope Change #157 for a total net sum of -\$7,169, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**
- P. Picard motioned to approve Out of Scope Change #158 for a total net sum of \$1,937, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**
- P. Picard motioned to approve Out of Scope Change #159 for a total net sum of \$4,257, seconded by A. Tarnowski. Vote was unanimous. **MOTION CARRIED.**

PCO SUMMARY

12/13/18 SBC MEETING

Out of Scope Changes for Approval

PCO #	Title	Cost (\$)	Date	Reason Code	T&M	Reimb
145	Change hardware on Nurse's Exam room door and Media cfr door for better access and security	\$1,255.00	27-Nov-18	OR	N	N
150	Add & relocate visual display boards in classrooms as requested.	\$8,169.00	27-Nov-18	OR	N	Y & N
152	MEP coordination	\$2,938.00	27-Nov-18	FC	N	Y
153	Partial CM Contingency Credit	\$512,000.00	27-Nov-18	P	N	Y
155	Deduct Balance of demolition and abatement bid package allowances	\$10,855.00	3-Dec-18	P	N	Y
156	Deduct balance of Steel Bid Package Allowances	\$5,121.00	3-Dec-18	P	N	Y
157	Deduct Balance of Elevator bid package Allowance	\$7,169.00	3-Dec-18	P	N	Y
158	Add duct for kitchen venting	\$1,937.00	10-Dec-18	OR	N	Y
Total PCO's presented for Approval		-\$628,620.00				

In Scope CM Contingency Changes for Approval

PCO #	Title	Cost (\$)	Date	Reason Code	T&M	Reimb
		\$0.00				

Time Sensitive Changes Approved Since Last SBC Meeting

PCO #	Title	Cost (\$)	Date	Reason Code	T&M	Reimb
		\$0.00				

Time Sensitive in Scope CM Contingency Changes Approved Since Last SBC Meeting

PCO #	Title	Cost (\$)	Date	Reason Code	T&M	Reimb
		\$0.00				
Total PCO's presented for Approval		-\$628,620				

Reason Code: CC = Design/Construct, FC = Field Construction, OR = Owner's Request, P = Partially Approved, T&M = Time Sensitive, Y = Yes, N = No, R = Reimbursed

9. Discussion on communication/social media: None

10. Citizen's Comments: None

11. Adjournment: J. Ruiz motioned to adjourn, seconded by P. Picard. Vote was unanimous. **MOTION CARRIED.** Chairman Tyler adjourned the meeting at 9:45 pm.

Submitted by,
Dawn LePage,
Dawn LePage, Clerk

Town of Colchester Interoffice Memorandum

To: Tom Tyler, Chairman, WJJMS Building Committee
From: James Paggioli, Director of Public Works
CC:
Date: December 13, 2018
Re: WJJMS Proposed Sports Field Irrigation System Recommendation

Over the last month concerns regarding the installation of an irrigation system as part of the sport fields construction of the WJJMS project has been a topic of discussion. I am hereby submitting my recommendation of the installation of an in ground irrigation system to be included within the project, for the proposed athletic fields. My reasons for this recommendation are as follows:

For the past 4 years there has been a concerted effort in order to improve the playing surfaces of all athletic fields throughout the Town of Colchester. This has been a priority for the Town and BOE properties due to the issues regarding the demand for field use and the limited number of field available within the Town. The first shortage of available field space was noted many times within the 1997 Masterplan for the RecPlex, the 2007 Recreational Site Improvement Plan, and notably within the 2014 Long Term Capital Plan that was submitted to the BOE, BOF and BOS of the Town of Colchester.

In each case, Town – Recreation Complex and BOE- School Facilities, only two fields have been constructed since 1997. These were constructed on the Town side R-7 at the RecPlex, and Cody Camp Baseball field at JJIS by volunteers. Both of these fields have irrigation systems installed.

As highlighted with 2014 Long Term Plan, the School District has actually decreased the amount of athletic fields available when the construction of Colchester Elementary School occurred, Once the present project at WJJMS is completed, with its two new fields, the District will still be down a net of one athletic field since the construction of Bacon Academy in 1993.

Having said the above, the issue would not be significant, except for the number of users of the fields of the School District has dramatically increased with the increase of male and female scholastic sports teams since 1993, all utilizing the same fields as the Physical Education classes throughout the day.

This nonstop use of the field space creates a limited period of time, summer break, for turf management and repair to occur and become established. This repair and reestablishment of the turf is limited additionally at WJJMS since there are laws enacted that limit the uses of pesticides and herbicides.

In 2014 Dr. Jason Henderson of the University of Connecticut conducted field observation recommendations in regard to athletic field conditions within the Town. At the time, there was consistent issue in regard to fair to poor playing grass surfaces. Overall, soil conditions were not an issue at the fields. The report stated : " The primary causes can be linked to; 1) Lack of Irrigation, 2) malfunctioning of existing irrigation, 3) no routine core cultivation, 4) minimal over seeding , and 5) the inability to control weeds". Since the report, the Town has obtained a core aerator and enacted an over seeding and fertilization program, and made significant repairs to irrigation systems at Bacon Academy, R-8 and R-7. These fields have seen significant improvement in regard to turf conditions.

Other existing fields without irrigation are subject to hit and miss results subject to the rainfall amounts that occur through the growing season. Timing of over seeding is attempted to be matched to upcoming rainfall events. There is no guarantee that successive rainfall will occur during the germination period. Success has been limited on these fields due to this and in drought periods, the grass going dormant due to high temperatures and no rainfall. Use of the field directly following these conditions has led to complete removal of the turf surface by the sports field users and created unsafe playing conditions. However due to lack of additional available fields, alternate locations are not available and the damage to the playing surface continues.

In 2015, William Dest of the University of Connecticut was conducting soil density studies in regard to turf/grass cover and head concussion injuries and with myself and staff, had noted the condition of the playing field at WJJMS. Due to the missing grass cover throughout the center of the playing surface, he raised concerns in regard to the future viability of the field without major reconstruction. I advised Mr. Dest at that time, that the area would become the likely lay down area for building materials when the new school reconstruction began. Such was the case. However it should be noted that during the spring and summer of 2015, the unirrigated athletic field went from adequate to concerned/unsafe within one drought season.

In 2016, A Field Sustainability Task Force recommended: "Improve the irrigation system so that all playing fields have water." A per participant user fee has been established in order to fund capital improvements at the Recreation Complex. The number one item for this funding will be the expansion and installation of irrigation systems for those field that do not presently have irrigation systems. It has been the practice since 2007 that all new fields constructed have had irrigation systems installed when they were constructed.

In conclusion, as the Department Head responsible for the maintenance and upkeep of all the Athletic Fields for both the Town and District properties, I cannot guarantee that the same conditions that occurred in 2015 would not occur again in the future on

the proposed athletic fields depicted in the present WJJMS Building project if an irrigation system is not installed. The installation of an irrigation system is a prudent protection of the investment in constructing two new athletic fields. It has been the "policy in effect by action" since 2007 that all new athletic fields have irrigation systems installed at the time of construction. Experts within the specific field of Turf Management have recommended such systems on new athletic fields, and pointed out that lack of irrigation has led poor field conditions within the Town specifically. I have attached relevant documentation for the Committee's review. I would request that the Building Committee approve the addition of the in-ground irrigation system for the athletic fields to the WJJMS Building Project.

Field Sustainability Task Force

Recommendations

Committee Members: R. Coyle, D. Mizla, J. McNair, A. Bisbikos, E. Kundahl and T. Loskant
(Updated 10/4/16)

Problem Statement: Colchester Parks and Recreation fields are in an unsustainable state. There is far too much traffic on existing fields. As a result, according to a survey and report by Jason Henderson and Julie Campbell, Professors at UCONN's Turf Management program, there is minimal turf grass cover in high traffic areas that become dormant due to moisture stress. The fields had high surface irregularities creating inconsistent playing surfaces. Irrigation is not available for 6 of the 8 fields. These issues are compounded by a lack of public funding approved by taxpayers to improve the fields.

- We have 8 Rec fields at Rec Plex and 1 field on the Town Green, 2 fields at JJIS, 1 field at WJJMS.
- They are used by over 1800 participants over the course of the year.
- They are used 7 days per week, and average 12 hours per day for 10 months of the year.

Mission Statement: To find solutions to maintain and improve field conditions and funding that supplements taxpayer dollars.

Short term Improvements:

- Manage the number of participants on the existing fields
- Increase professional development of staff to maintain the fields with existing resources
- Improve the irrigation system so that all fields have water
 - Setting up a fixed irrigation system
 - Setting up a mobile irrigation system

Long term improvements:

- Acquiring another 8-9 acres of land

Short term funding options:

- Maintain and improve current budget funding levels to maintain existing fields
- Grants
- State monies
- Major League Sports
- Sports Park Improvement Fund usage fees
- Local Business sponsorships

Long term funding: Bonding for land

Next steps for taking action:

- Review and feedback from the Park and Recreation Commission
- Review and feedback from Town Hall staff
- Review and feedback from the Board of Finance and Selectmen



TOWN OF COLCHESTER
Recreation Complex

TO: Cheryl Hancin
Recreation Manager
Colchester Parks and Recreation
127 Norwich Avenue
Colchester, CT 06415

FROM: Jason Henderson and Julie Campbell
Department of Plant Science
and Landscape Architecture
University of Connecticut
1390 Storrs Road, Unit 4163
Storrs, CT 06269

Per your request, this report is summary of soil test results and observations made during a visit to the Recreation Complex on August 12, 2014. Cheryl Hancin, Tim Angell, Jim Paggioli and Eric Kundahl were present. Officials representing the Town of Colchester expressed serious concerns regarding the lack of turfgrass cover, overall weed pressure and poor playing conditions. Three athletic fields (R2, R7, and R8) were evaluated.

All three fields had minimal turfgrass cover in high traffic areas or were dormant due to moisture stress. The fields had high surface irregularities creating inconsistent playing surfaces (Figure 1). Several subsamples were extracted to a 4" depth from each field for particle size analyses, percent organic matter determination and nutrient analyses. Results indicate that the soil from each field would be classified as a sandy loam according to the U.S. Department of Agriculture classification system. Organic matter content is another indication of soil quality. Generally, an organic matter content of 4-6% by weight would be considered ideal for native soils used to construct high quality turfgrass areas. The organic matter content was adequate on all three fields (Table 1).

Results from nutrient analyses indicate that the calcium, magnesium, phosphorus and potassium levels were within or above optimum ranges for turfgrasses on all three fields (Table 2). The pH was within the optimum range on all three fields (Table 1). Complete soil test results are attached.

Several factors likely contributed to the condition of these athletic fields. However, the primary causes can be linked to; 1) the lack of irrigation, 2) malfunctioning of existing irrigation, 3) no routine core cultivation, 4) minimal overseeding, and 5) the inability to control weeds. Effective July 1, 2010, the state of Connecticut banned the usage of all lawn care pesticides on athletic fields at public and private schools grades pre-K through 8. Therefore, conventional methods of controlling weeds, diseases and insects are not an option. However, while not totally eliminating pest problems, the use of best management practices such as proper turfgrass species/cultivar selection, aggressive overseeding, entomopathogenic nematodes, and proper irrigation can help mitigate pest pressure. The current condition of the athletic fields (R2, R7, and R8) will be detailed below including suggestions regarding improvement.

Sports Field Management

Maintaining safe sports fields

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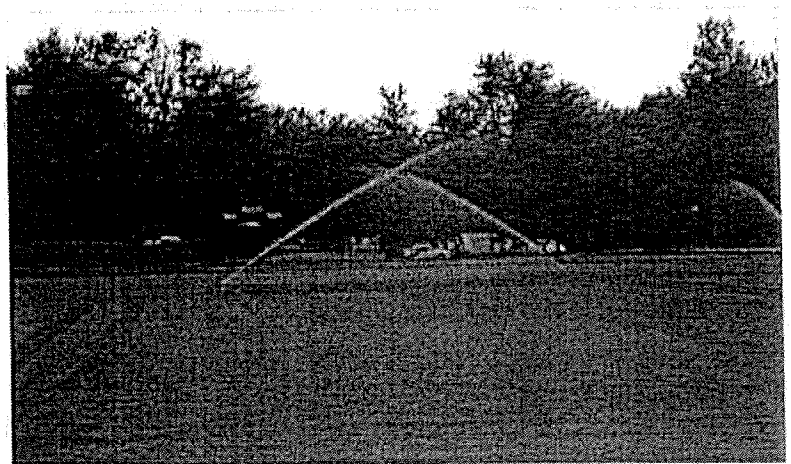
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Watering

Why is water important?

Water has many important roles within plants and if the water content in the tissue should drop below 60%, the turf is seriously weakened and can die or go dormant. Water is not only essential for growth but necessary for conditioning turf to handle and recover from stress caused by heavy use and harsh environmental conditions.



Supplemental water is necessary when natural rainfall is not sufficient to keep turf healthy after the soils have dried out. Temperature, sunlight, wind, humidity and natural rainfall are climatic factors that help determine the amount of irrigation that is needed.

Know your soil! soil texture (determined by the amount of sand, silt and clay in the soil) influences the amount of water that can be stored and available for plant use. For example, coarse textured soils such as sandy soils have poor water-holding capacity and will need to be watered more frequently than soils with more clay and organic matter which can hold more water. Soils can differ from field to field. (See [Soils](#) section for more information.)

Keys to proper watering:

Irrigation should be supplied to replenish the amount of moisture lost. Monitor conditions and water only when needed. You can use a soil probe or moisture sensors to check the soil and see if it is wet to a depth just below the majority of the root system which is about 4-6". Also, turf takes on a dull bluish-gray color and its leaves curl when under severe moisture stress. If you can see your foot prints after walking on the turf and the leaves won't bounce back...begin irrigation. If the field is used before irrigation is applied damage will result.

How much?

Turf should receive about 1" to as much as 2" of water per week during the growing season. A rain gauge is a very inexpensive management tool that can be used to monitor rainfall. If rainfall provides $\frac{1}{2}$ " you will have to provide the additional amount of water depending on your soil and grass and evapotranspiration amount or ET.

Turfgrass managers use ET to help determine supplemental watering needs. ET is the abbreviation for evapotranspiration, which is the combination of water lost from the soil surface and the water used by plants through the process of transpiration. Find rainfall information and ET values at the Forecast website.

How often?

Deep and infrequent watering, once or twice a week, is preferred unless you are on sand that needs more frequent irrigation. Another time when more frequent watering will be necessary is at the time of establishment. At this time it will be critical to keep the seedbed moist to ensure germination and may require daily watering, even several times a day.

Caution:

Never apply more water than the soil can absorb. Water that does not infiltrate into the soil will be lost to evaporation or through runoff. There is an environmental risk to water quality when surface water runoff carries soil particles that contain adsorbed nutrients. When water bodies, such as lakes, estuaries, or slow-moving streams receive excess nutrients plant growth is greatly stimulated. When dead plant material decomposes the dissolved oxygen in the water is reduced and this can cause other aquatic organisms to die. Therefore, proper water management and nutrient management are critical for protecting both soil and water resources and aquatic life.

Best time of day to water

Water in the early morning when the wind is calm. This allows for adequate time for the turf blades to dry off before field use. Turf watered in the late afternoon or early evening remains wet longer allowing disease organisms time to penetrate turf tissue.

Be sure to finish watering at least 24 and preferably 48 hours before a game. Some managers water the field after the last practice or game if needed to help turf recover from the stress.

Watering during the growing season

Overwatering may lead to disease problems and thatch development. The better practice is to water deeply and less frequently which may be 1 to 3 times per week.

If the fields are not needed for summer sports and are in good shape, don't worry about supplemental irrigation and let the turf go dormant. Keep in mind that Kentucky bluegrass can survive in a dormant state for several weeks as long as the crown is hydrated so water $\frac{1}{4}$ " to $\frac{1}{2}$ " every 4 weeks. Avoid traffic and management practices such as coring, verticutting or scarifying that may stress out the turf even more.

If the fields are in poor shape, summer watering may help them recover and get ready for fall use.

In preparing turf for winter keep the field on the dry side. The slight moisture stress actually enhances hardiness and winter survival. Do not, however, allow the turf to become drought stressed.

Watering systems

Portable systems: Many school and community sports fields do not have in-ground irrigation systems and rely on rainfall or above ground portable systems to provide needed water. Water reels, for example, are portable traveling irrigation systems that can be moved from the field to field once they complete the irrigation cycle. All above ground portable systems will take time and labor to set up, move and monitor to ensure adequate and uniform coverage.

In ground systems: If you have an irrigation system check the heads to make sure they are level and running properly. Check the uniformity of your system by conducting a catchment test which will also let you know how long to run your system to provide the desired amount of water. Cans or collectors of the same size are spaced throughout the area being watered. After a period of 10, 20 or 30 minutes the amount collected is measured and noted to determine the amount of water applied and if there is even distribution so adjustments can be made.

Finally

Remember: All fields are not the same. Soil texture, upcoming games and predicted weather will all factor into how much you will water and when. Avoid watering in windy conditions (>5 mph) because you will not get very uniform coverage. Over time you can gain experience with each field so you can determine the watering rate and timing based on your fields' characteristics.

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SPORTS FIELD IRRIGATION

A. J. Powell, Jr., Extension Turfgrass Specialist

It is almost impossible to maintain high quality sports fields in Kentucky without irrigation. Our average rainfall during the summer is almost 1 inch per week and that is sufficient for most turf. The problem is that we may go several weeks without significant rainfall and, during that time, the turf suffers. Because of heavy use of most fields, irrigation is also needed to produce FAST GRASS. We seldom allow more than one season during the year for grass to develop or recover. Obtaining quality in such a short period almost always requires irrigation.

IRRIGATION METHOD

Certainly one can water a portion of a field by hand, with lawn spinners, with a traveler, or even with a portable aluminum pipe system. However, seldom can you apply water often enough with these methods and it is impossible to supply the water uniformly. Many new fields are now being watered with large water guns, placed off the playing surface. These are manual systems that require physically changing the gun location after each portion of the field is irrigated. These guns require fairly large piping and excellent pressure to operate properly. The advantage of the water gun over an automatic pop-up system is that there is no piping required within the field and you have no underground pop-up sprinklers that have to be avoided when you aerate a field. An automatic pop-up irrigation system is certainly the most convenient method and it allows best uniformity when watering. The small pop-up sprinklers designed for sports fields should not be a hazard to players and they are easily repaired. The automatic clock, that can regulate watering for any time of the day or week, is a major benefit to this system.

OTHER USES FOR IRRIGATION

Irrigation is more than just supplying water to improve turf growth. Some handy and important uses are to:

1. irrigate an entire field after making application of a soluble farm-type fertilizer. The cheap, farm-type fertilizer can cause foliar burn to the turf if applied during hot weather. Irrigation after application minimizes the problem and helps the fertilizer to begin feeding the turf immediately.

2. irrigate with respect to a pesticide application.

- a. Although the risk to players after a pesticide application is negligible if the pesticide label directions are closely followed, being able to water soon after some applications is often considered an extra precaution.

- b. Obtain maximum herbicide efficacy. Broadleaf weed and crabgrass post-emergence herbicides work best if you have good soil moisture prior to application. On the other hand, a crabgrass pre-emergence herbicide works best if watered in immediately after application. To be effective, white grub control insecticides **MUST** be watered in immediately after application.

3. reduce surface hardness caused by heavy field use. Even with good grass, a hard surface causes increased problems with shin splints, and increased risk of shoulder and knee injuries. Keeping the field somewhat moist (not extremely wet) will greatly reduce the problem.

4. Cool the surface. The surface of a dry turf may reach temperatures well above 120°F during hot, late-summer days. The same, well-irrigated turf may only reach a temperature of 90-95°F. This certainly reduces stress upon players relative to heat exhaustion, fatigue, etc.

5. Establish new grass from seed in early spring, or from bermuda seed or sprigs in early summer. It is **MOST IMPORTANT** that the surface remain very moist during the establishment period. With seed, this may require a light irrigation two or three times per day on bright, windy, sunny days. When establishing sprigs, allowing the irrigation to run about 10 minutes every two hours for the first week or so will assure great establishment of sprigs. If you let new sprigs dry out, they die!

6. Wet an infield or baselines just prior to a game to reduce dust and improve traction. Soil type will dictate the amount needed to provide a firm but softer surface that will not dust or blow. Being able to apply water just hours before a game is often necessary.

IRRIGATION SCHEDULING/TIMING FOR GOOD TURF MAINTENANCE

It is unfortunate that most fields are greatly under-watered when depending upon manual irrigation and often over-watered when irrigated with an automatic system. Consider the following as guideline to maintenance irrigation:

Don't irrigate unless the turf needs it. Do not set the automatic system to irrigate every day, or three times per week, etc. If you do, the field is almost always over-watered. Over-watering causes problems such as:

- (a) Lush turf with little tolerance to heavy traffic.
- (b) Wet soil surface that is easily compacted by play or by mowing equipment.
- (c) Many more weed problems such as nutsedge, crabgrass, and knotweed.
- (d) Increased leaching of nutrients. In addition to leaching, when a soil becomes saturated nitrogen is lost into the air through denitrification.
- (e) Over-irrigation causes bermudagrass to produce few underground rhizomes. These are very important in helping bermuda escape winterkill.

HOW OFTEN TO IRRIGATE?

Check the field every day or so during the summer. When it becomes very dry, irrigate at that time or set the automatic clock to irrigate one time the following morning (if rainfall is not in the forecast). You can check the field with a soil probe or even a screwdriver. A dry soil is hard to penetrate and a wet soil is easy to penetrate. The advantage of a soil probe is that you can bring up a 3-4" plug. If the top inch or so is dry, but there appears to be good moisture in the next 3 inches or so, irrigation can often be delayed.

Cool season grasses such as tall fescue, Kentucky bluegrass and perennial ryegrass utilize water less efficiently and thus dry the field out much faster than bermudagrass. With insufficient moisture, these cool season grasses also suffer much more than bermudagrass because of high temperatures that result with low evapotranspiration (evaporative cooling). Bermudagrass can maintain decent to high quality for several days and maybe several weeks of heat and drought.

If you cannot observe a field every few days and the weather is extremely hot, then consider setting the automatic system to irrigate about 1 times per week for bermudagrass and 2 times per week for tall fescue, perennial ryegrass or Kentucky bluegrass. But remember, if it rains, you not only waste considerable water but you also risk other problems as outlined earlier. An inexpensive rain shut-off valve is a handy add-on for an automatic system that cannot be constantly monitored.

TIME-OF-DAY

You can irrigate any time of day; however, early morning watering has several advantages:

- (1) Much less evaporative loss of water than when added during the heat of the day.
- (2) When water is supplied by a municipal system, the water pressure is always better during early morning when the residential demand for water is lower.
- (3) If a disease happens to be present, the early morning water helps knock off the dew and guttation fluid from the leaves, thus causing the leaves to dry 2-3 hours quicker. This greatly reduces disease pressure.

HOW MUCH TO APPLY

For most soils, about 2/3 inches of water is required to properly wet the surface 4 inches of soil (where a majority of the roots are located). With most automatic systems, it may require irrigating one hour or more for each sprinkler zone in order to apply 2/3 inches of water. You can check the rate of irrigation by distributing small containers, pie pans, cups, etc. around the field before irrigation.

Fwd: Bill Dest fall visit

Cheryl Hancin

Fri 9/29/2017 9:54 PM

To: James Paggioli <JPaggioli@colchesterct.gov>; Dean Hunniford <highway@colchesterct.gov>;

2 attachments (429 KB)

Athletic Field Form May2015.pdf; Athletic Field Injury Report Form2.doc;

Can you both work on this form for UConn? They have been kind enough to study our field for 3 years and the info gather can help us going forward.

Cheryl Preston
Recreation Manager
Colchester Parks and Recreation
127 Norwich Ave.
Colchester, CT 06415
(860) 537-7297

From: Wallace, Victoria <victoria.wallace@uconn.edu>

Sent: Friday, September 29, 2017 4:58 PM

Subject: re: Bill Dest fall visit

To: Monica Bragdon <mbragdon@coventryct.org>, Rich Calarco <rcalarco@hebronct.com>, Maskaitis, Henry <hmaskaitis@townofcantonct.org>, Pytel, Jay <jpytel@parishhill.org>, Labbe, Will <wlabbe@parishhill.org>, Robert Potter <rpotter@clintonct.org>, Cheryl Hancin <recdirector@colchesterct.gov>, Ho, Edward <edward.ho@uconn.edu>, John Torgerson <jtorgerson@hamden.com>, Dave Fortin <fortind@region10ct.org>, Kevin French <kevin.french@lebanonct.org>, <mtupper@manchesterct.gov>, Howe, John <john.howe@newcanaanct.gov>, Samuelson, Carl <carl.samuelson@newtown-ct.gov>, David Emery <dme527@hotmail.com>, Walter Sykes <wsykes@rockyhillct.gov>, Tom Barry <tbarry@gfacademy.org>, Brian Musumeci <bmusumecib@woodstockschools.net>, Craig Mansfield <cmansfield@easthaddam.org>, <walter.parkus@easthaddamschools.org>, <skrajewski@vernon-ct.gov>, <gbrosofske@ci.new-london.ct.us>, McMinn, William <mcminnwh@madison.k12.ct.us>, Tim Webb <twebb@ellington-ct.gov>, Carl Johnson <cjohnson@portlandct.org>, Don O'Leary <olearyd@region-12.org>, David J. DeNoia <ddenoia@ci.new-london.ct.us>

Cc: Wallace, Victoria <victoria.wallace@uconn.edu>, Bill Dest <profdest@sbcglobal.net>

Hi all,

I met with Bill Dest this week and he asked me to email that he will soon be starting his second and final round of field assessments for the season. This second visit also will finish this project. He is anticipating a start date early October, so expect that you will hear from him soon as he begins to schedule his visits.

He asked that you please have ready for him an estimated use of the field (hours/season/year) for this spring, summer and estimate usage for the fall as well. Also, please confirm the seed amounts that were overseeded, or are expected to be overseeded this fall along with the approximate date of the overseeding events. He has asked for a completed field assessment form when he makes this second visit. The fertility/maintenance program on the field for this current season, along with the hours of field usage is critical to the overall assessment of your field. My hope is that you can provide this information to him. This is the final assessment of the 3 year program, and we appreciate that you have allowed us on your fields to collect this data. This information really will help verify how field usage impacts the maintenance and health of your fields. The data from this project will be analyzed this winter.

Again, I am attaching the assessment form to help make this request an easy one...no searching for a filed document. You can either hand it off to Bill, or mail it to him. His mailing address is: 53 McMullen Ave., Wethersfield, CT 06109.

Also, I'm attaching a copy of the Injury report form that was sent this spring. If you can forward or deliver to the school nurse or sport groups that have used the field this season, it would be important to see if there were any player injuries that occurred on the field.

Any questions, give me a call. My sincerest "thank you" for your support and effort with this project.

Sincerely,
Vickie

Victoria H. Wallace

*UConn Extension
Sustainable Turf & Landscape
562 New London Turnpike
Norwich, CT 06360
860-885-2826
www.ipm.uconn.edu*

Re: Field conditions

James Paggioli

Mon 6/1/2015 10:24 AM

To: Jerry Craig <Jcraig@coventryct.org>;

Jerry,

Can you be more specific on which field you are discussing?

If we are discussing WJMS school field the issue is over use, no irrigation, and sports leagues that are unwilling to use alternating areas within the available open space. The solution in order for that field is in reality closing it for re-sodding or complete restoration. This will create the issue that there are no other fields for use at the middle school for gym class during the day and that there is no other practice fields for the school sports teams. Also that school has a major referendum scheduled within the next month for a complete renovation. (Which includes the relocation and addition of an athletic field to address the lack of field space). Even with the lack of available space, the department is given time constraints by the schools in which to conduct even grass cutting activities and line painting. There is no overtime scheduled for weekend work due to budget constraints, which in this town due to the referendum form of voting for the budget, which has failed in the past two years, where additional monies for the field maintenance has been proposed, insufficient numbers voters come out to support the budget. The comment of "many people are willing to help"; has not translated into funding required utilizing the present system. There is a sub-committee of Members of the Board of Selectmen, Board of Finance and Recreation Commission presently looking at the means to provide both the funding and sustainability of the fields. This will likely provide the solution to the short term issue, including limitation of use and alternative funding sources.

You should also be aware that there are chemical prohibitions per state statute on all fields K-8. Combine this with the drought conditions over the past 3 weeks, (one of the driest May's on record following a harsh Winter) without an irrigation system for the vast majority of the fields, and you have the situation that occurred.

In order to meet the expectations that each field is in "game field" condition, the turf standards would require that no more than 5 to 6 one hour games are played on the field each week. In WJMS's case that would leave only gym class for the field use; no practices and no other uses. For the Rec-Plex field's this leaves one game event per day per week, not the every night practices and full weekend days of practices and games.

The total number fields that were arrived at through out the town, were determined over 15 years ago, when the sports were primarily baseball/softball in the spring, soccer and football in the fall. This schedule left basically one growing season for each field to recover from the uses of the primary field use. Now with extension of seasons and the addition of lacrosse in the spring, there is no longer a growing season for each field to recover. At the rec-plex this is the first year with aeration, overseeding and fertilizer scheduled systematically being utilized, however in drought conditions, without irrigation (and the non-use of the center portions) the results within the heavily tracked areas (centers of fields) will be limited. Even in the case of R-7 and R-8 at the Rec-Plex and The Bacon Academy Football field, over use of the center portions of the fields during growing season will not allow the overseeding to fully effective.

James Paggioli, L.S.
Director of Public Works
Town of Colchester

From: Jerry Craig <Jcraig@coventryct.org>
Sent: Sunday, May 31, 2015 8:24 AM
To: James Paggioli
Subject: Field conditions

To the Public Works Director,

I just wanted to reiterate the sediment shared by many people in the town regarding how extremely deplorable the playing field conditions are in our town. It is not only dangerous for our kids to play, but also a complete embarrassment when folks from other communities come to play. I realize a long term solution is needed for the fields to get in optimal condition, but there has to be a short term solution to at least get the fields ready for immediate play. Please consider that many people in this town are concerned and are willing to help the town help fix the problem.

Thank you,
Jerry Craig

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