



ON-SITE GMAX TESTING EVALUATION

Client Info: Attn. Brandon Bennett
Noblesville Parks and Rec
7001 Cicero Road
Noblesville, IN 46062

Site Name and Address: James A. Dillon Park

GENERAL INFORMATION:

Test Dates	5-18-17 and 6-8-17
Report Date	6-13-17
Sport Field Type	Football
Weather Conditions	Sunny
Air Temperature	Recorded air temp at 10am – 63 Degrees
Test Method	ASTM F1936 and according to device instructions
Test Device	Clegg Impact

Prepared and checked by: Robyn Hamilton and Randy Staton

Turf Innovations offers complete evaluation of your playing surface. We provide GMAX testing and a complete field evaluation. This testing provides you with the necessary data to sustain compliance of your field for safety and warranty purposes.

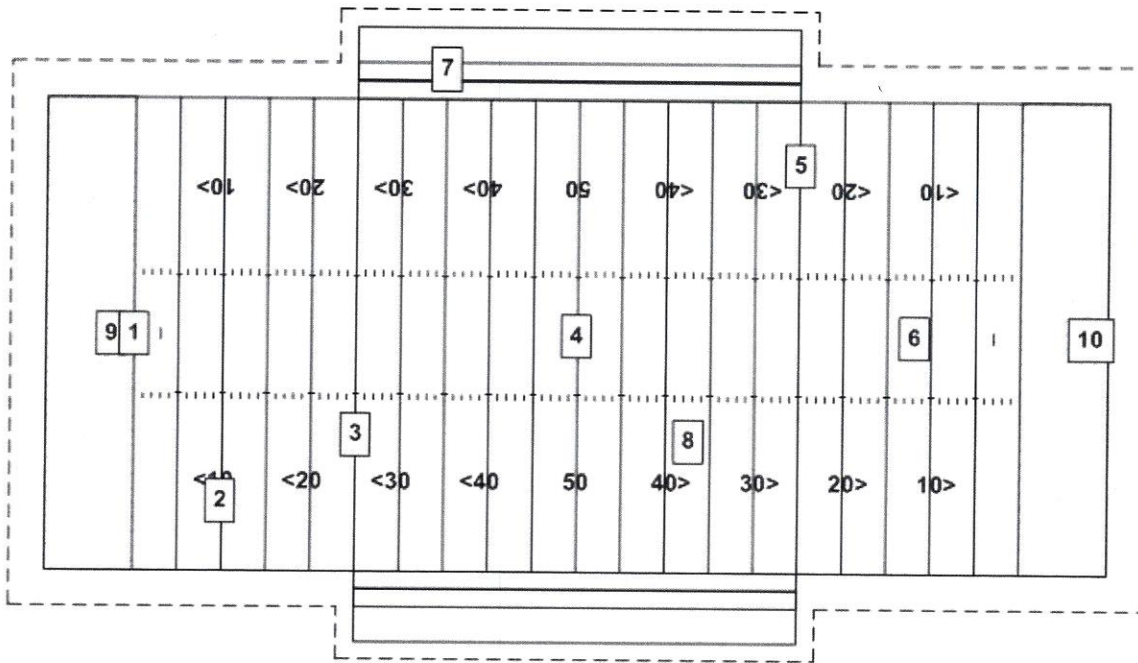
Turf Innovations performs onsite GMAX testing according to ASTM Standard F355-A and Specification F1936. F355-A defines specific test method to be used. "A" Procedure of F355 (F355-A) defines specific equipment to be used. Turf Innovations uses a Clegg Impact Device. Specification F1936 describes procedures for testing including the test point locations. Using a Clegg impact system, the maximum allowable is 60- 100g's.

Turf Innovations does not share test results without the consent of the owner.

Test results have been summarized in the tables on the following pages:

TEST POINT MAP:

In accordance with ASTM standards, there are 10 test points for a football field. There are 3 drops at each test point. To avoid compacting the same exact area over and over again with the hammer, the 3 drops are done within a 30-inch radius of the test location.



TEST AREA PHOTO:



RESULTS TABLE FIELD #1 (West)

Map Site	Drop #	GMAX	Location Description	GPS	Infill Depth	GMAX Avg
Site 1	1	83	South Goal 1 yard line	N/A	N/A	97
	2	100				
	3	109				
Site 9	1	87	South Goal End zone just past 1 yard line	N/A	N/A	89
	2	87				
	3	94				
Site 2	1	75	10 yard line East Side	N/A	N/A	70
	2	71				
	3	64				
Site 3	1	66	25-yard line South East side	N/A	N/A	74
	2	78				
	3	77				
Site 4	1	96	50 yard line Center of Field	N/A	N/A	91
	2	80				
	3	99				
Site 8	1	88	42 yard line north east	N/A	N/A	86
	2	79				
	3	92				
Site 5	1	85	25 yard line north west	N/A	N/A	83
	2	96				
	3	70				
Site 7	1	113	West sideline	N/A	N/A	102
	2	96				
	3	98				
Site 6	1	88	North 10 yard line Center of field	N/A	N/A	100
	2	115				
	3	98				
Site 10	1	110	North Side of Field End zone goal post	N/A	N/A	111
	2	111				
	3	114				

TEST CONCLUSION AND COMMENTS:

Overall average GMAX for field #1 was 90. Site was aerified previous Thursday before test. Aerification Plugs and top dressing sand were present. Sites 7 and 10 were over the 100 limit. Site 7 is an out of bounds area. Site 10 is located right next to goal post. Site 6 is a high traffic area that should be paid special attention.

RESULTS TABLE FIELD #2

Map Site	Drop #	GMAX	Location Description	GPS	Infill Depth	GMAX Avg
Site 1	1	101	South Goal 1 yard line		N/A	93
	2	91				
	3	87				
Site 9	1	80	South Goal End zone just past 1 yard line	Irrigation head location	N/A	72
	2	85				
	3	51				
Site 2	1	80	10 yard line East Side		N/A	76
	2	75				
	3	73				
Site 3	1	86	25-yard line South East side		N/A	88
	2	93				
	3	85				
Site 4	1	84	50 yard line Center of Field		N/A	89
	2	85				
	3	99				
Site 8	1	88	42 yard line north east		N/A	89
	2	86				
	3	94				
Site 5	1	75	25 yard line north west		N/A	81
	2	85				
	3	85				
Site 7	1	100	West sideline	Has picture	N/A	94
	2	89				
	3	93				
Site 6	1	72	North 10 yard line Center of field		N/A	93
	2	116				
	3	93				
Site 10	1	121	North Side of Field End zone goal post		N/A	125
	2	135				
	3	121				

TEST CONCLUSION AND COMMENTS:

Average overall gmax for field # 2 was 90. Site 10 is high due to location which is right next to goal post. Site #6 picture below is a potential safety hazard.



RESULTS TABLE FIELD #3 – Before After Aerification

Map Site	Drop #	GMAX	Location Description	GPS	Infill Depth	GMAX Avg.	Before Aerification
Site 1	1	102	South Goal 1 yard line	N/A	N/A	89	95
	2	75					
	3	92					
Site 9	1	67	South Goal End zone just past 1 yard line	N/A	N/A	89	94
	2	100					
	3	100					
Site 2	1	95	10 yard line East Side	N/A	N/A	91	95
	2	89					
	3	89					
Site 3	1	108	25-yard line South East side	N/A	N/A	95	98
	2	90					
	3	88					
Site 4	1	92	50 yard line Center of Field	N/A	N/A	91	95
	2	81					
	3	100					
Site 8	1	78	42 yard line north east	N/A	N/A	83	98
	2	80					
	3	91					
Site 5	1	84	25 yard line north west	N/A	N/A	73	103
	2	69					
	3	66					
Site 7	1	155	West sideline	N/A	N/A	134	107
	2	128					
	3	121					
Site 6	1	93	North 10 yard line Center of field	N/A	N/A	90	126
	2	95					
	3	84					
Site 10	1	100	North Side of Field End zone goal post	N/A	N/A	101	124
	2	96					
	3	109					

TEST CONCLUSION AND COMMENTS

Overall, the average for field #3 was 94. Prior to aeration and sand topdressing, 1 week before, the field average was 113. Overall all three fields had a very good stand of Turfgrass which made for very playable fields. Gmax numbers will rise during the playing season. Solid tine aeration is a quick way to bring the number within an acceptable range.