

PUBLIC COMMENT SIGNUP SHEET

MARCH 15, 2017

Pursuant to N.C. Gen. Stat. §153A-52.1, the Henderson County welcomes public comment at its meetings. Please note that each speaker is limited to three (3) minutes, unless a different time limit is announced. Also, the Board may adopt rules limiting the number of persons speaking taking the same position on a given issue, and other rules regarding the maintenance of good order.

Each speaker should be aware and by their signatures hereto they agree that their comments may be recorded (by audio-visual recordings, photography or other means), and may be (but are not required to be) broadcast by the County as a part of the broadcast of this meeting, or as a part of the County's programming on its local video channel(s). By their signature they further agree that Henderson County is and will be the sole owner of all rights in and to such programming. The undersigned hereby indemnifies Henderson County, its employees and agents, against any and all claims, damages, liabilities, costs and expenses arising out of the use of the undersigned's images and words in connection therewith.

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Philip Ellis
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Greenways
Topic

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Hendersonville NC 28792
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Suzanne Hale
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415 Linwood Pond Rd

Topic

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H'ville 28739

6.

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Michael Reilly

SIGNATURE

411 S. Nancy St. Rd

Oklawaha Greenway

H'ville 28791

Topic

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Suggs

7.

PRINTED NAME

John Moore

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307 Hebron Rd.

Topic

Hendersonville, NC

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8.

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No Ed Ties

SIGNATURE

510 Cobblestone

Topic

FLAT ROCK, NC 28731

MAILING ADDRESS

Ed Ties

Greenway

9.

PRINTED NAME

No Drew Fautter

SIGNATURE

15 Cottage Ridge Rd

Topic

28732

MAILING ADDRESS

Greenway

10.

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KEN SHELTON

SIGNATURE

282 SADDLE TREE LANE

Topic

MAILING ADDRESS

Ken Shelton
GREENWAYS

11.

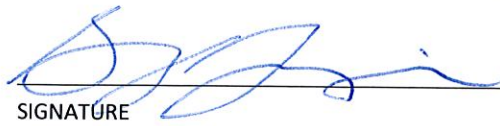
Gray Ternigan

PRINTED NAME

834 N. Oak St

Hendersonville, NC 28791

MAILING ADDRESS



SIGNATURE

Greenways

Topic

12.

Linda Bradley

PRINTED NAME

SIGNATURE

Topic

MAILING ADDRESS

13.

PRINTED NAME

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14.

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16.

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SIGNATURE

Topic

MAILING ADDRESS

highlight
3/17

Good morning commissioners and staff

My name is Chris Walters and I am absolutely and completely against the firing range and tactical training facility proposed for the brcc campus. This is a personal issue for me. I was a teacher for many years at frms. Our students go on to east high and then many go on to brcc. Many of our students go to Early College and Balfour school. And those students will occupy the classrooms of the new innovative high school.

I assure you that at the time the school was conceived and construction begun, few if any student at brcc or parent of students of early college and Balfour had any idea of your plans for the area right in front of the new high school. Even if they had a bare inkling of the plans, no one could have known in September 2016 the nature and scope of the project. A times-news article at the time, showed two officers firing hand guns at targets less than 25 yards away. At the time no one could reasonably have envisioned a massive 49,000 square foot structure covering the area of a football field, or a shooting complex with 12 firing lanes 100 yards deep- the length of a football field- encased in double walled pre-cast concrete ending in targets almost directly across the drive way in front of the entrance to the new high school.

An administrator from early college told me that area across the drive in front of the school was supposed to have been an orchard for the new brewery that college was certified to operate-it was actually supposed to have been vineyards for the college winery.

It seems bizarre and unreasonable to now decide that the best use for that area is a firing range and para military tactical training complex where law enforcement from around the western North Carolina will be invited to bring their rifles and AR 15 s and fire at indoor targets right in front of the school.

You will argue that the purpose of the facility on the brcc campus is to enhance the BLET program there.

The number of BLET students enrolled in continuing education is about 60 a year. There are a total of about 15,000 students a year in the entire continuing education program on three brcc campuses. If you do the math you will see that you were persuaded to spend over 20 million dollars that would benefit .4 percent of the total students attending brcc.

Is it really possible that the commissioners are so concerned about enhancing the educational opportunities at brcc that you would be willing to spend over 20 million dollars to support less than one half of one percent of the student population? Obviously there is something more going on here.

By pursuing this project you have challenged the patience and the commonsense of voters and taxpayers. You have opened the Pandora's Box. I assure you that from here on out, every aspect of this project will be inspected and examined. And that there will be found further information that casts doubt on the reasonableness of the project and the soundness of process in which it has been carried forward.

We played 11 games yesterday on the new
TiTuf Bermuda and you cannot even see a
cleat mark today.

Troy Crawford,
FC Dallas, Dallas, TX
March 2017

“Artificial turf injures kids. I sent one to
the hospital with a concussion that
ended their career and several slid and
ended up with broken fingers, toes and
ankles. One child had 14 stitches from
playing on it in Waynesville.”
Henderson County High School Soccer Coach

“I couldn’t understand the difference
until I actually played on both surfaces.
It’s not worth the convenience in my
opinion. Having played club football on
both surfaces, I can say that I prefer
natural grass. Artificial grass at Enka
was like playing on asphalt.”
Colton Pittillo, Feb. 25, 2017

There are many lawsuits pending because the
artificial plastic surface companies do not stand
behind their products. When investing this much
money people expect people to get what they
were promised. Additionally many schools
struggle to pay for the plastic in the future.
Lastly, please know that we understand why
people want the artificial turf but that doesn’t
make it right. Natural grass has not had a
chance in our county, that’s what I am asking for.

Thank You, Linda Bradley



Carolina Green Corp. is a
full-service Athletic Field
Construction Company
specializing in turn-key
design, construction and
renovation of natural and
synthetic turf sports fields.
As part of this world-class
service, we offer variety of
custom grown sod products,
including our **championship**
GameOnGrass™ sod grown

We encourage you to contact Carolina Green to
discuss your sports turf needs or schedule a free
consultation and site visit. Request more information
about Carolina Green. Feel free to contact us toll free
at (866) 753-1707 or by email @ info@cgcfields.com.



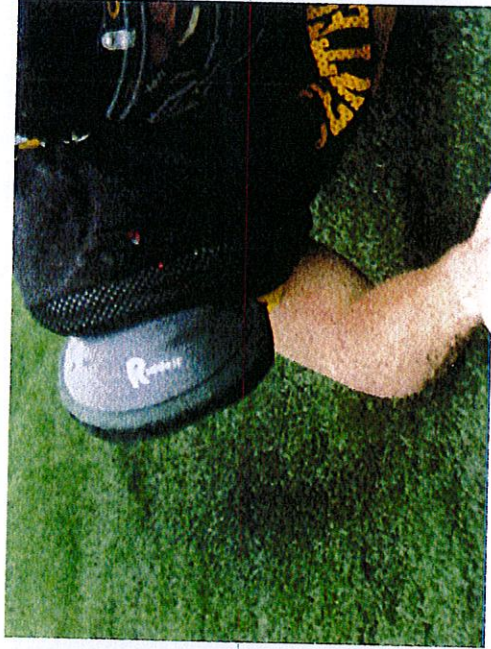
Above: One of the new bermuda
fields in Philadelphia. PA

handout #2

“Fields are not overplayed they are under maintained.”

Jared Minnick,
Rockville, MD

We need to make sure the costs, use restrictions, risks of injury, and maintenance tasks of artificial plastic turf are completely understood. Making certain wise decision today and for those that follow in 8-12 years. Additionally we have spent very little money on proper drainage and maintenance on our current fields to fairly compare.



Artificial Plastic Turf Facts:

Does Not Cool the Environment like natural turf

They now use green color pellets to avoid complaints

Does not filter air and water pollutants (water coming off the surface can be dangerous)

Artificial Plastic does not fix carbon-dioxide and release oxygen like natural grass

Artificial plastic does need watering and cleaning.

Seems, tears and punctures are an issue.

LB McCarty

Clemson Univ. study findings:

Air Temp 94 F

Water Temp 94F

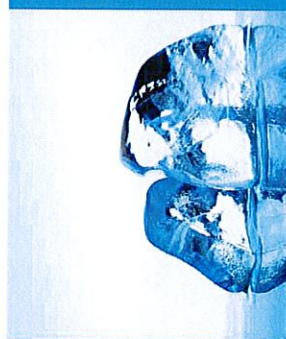
Bermudagrass 104 F

Sand Temp 132 F

Asphalt Temp 136 F

Artificial Turf 165 F

Handout #3



ANOTHER COOL INNOVATION FROM FIELDTURF

FieldTurf continues to sweat the details so athletes can enjoy a safe environment, challenge their limits and maximize their performance. The experts at our Innovation and Performance Center have been hard at work finding a solution to high surface temperatures on this hot sunny day. Years of experimentation with materials and systems have finally paid off.

CoolPlay was designed to reduce the heat within any FieldTurf field performance based on the 47°F goal we set for the summer. CoolPlay is the cool solution.

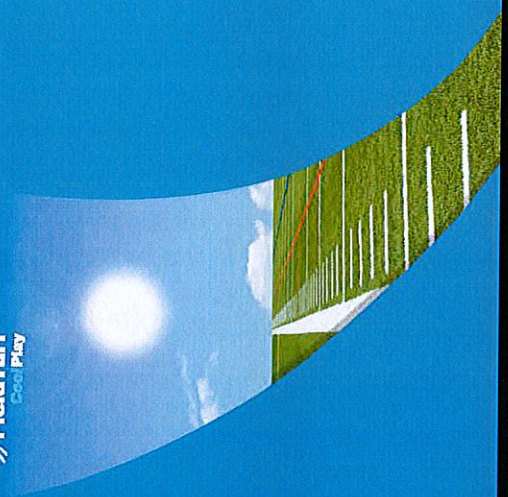
High Performance. Low Temperature.



High Performance. Low Temperature.

High Performance. Low Temperature.

HOT FIELD? CHILL OUT.



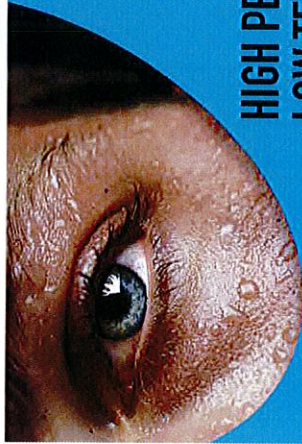
Information
(800) 724-9950
info@fieldturf.com
www.fieldturf.com



THE ULTIMATE SURFACE EXPERIENCE

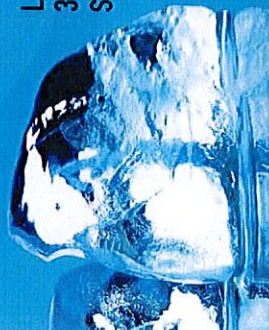


THE ULTIMATE SURFACE EXPERIENCE



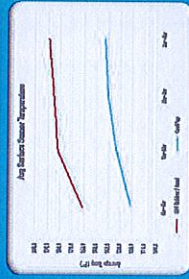
**HIGH PERFORMANCE.
LOW TEMPERATURE.
-35°F**

**LABORATORY TESTED TO BE OVER
35°F COOLER THAN TRADITIONAL
SAND/RUBBER SYSTEMS.**



CHILLING RESULTS

Heat works pays off. Our team tried everything until they found the perfect solution to the problem of hot fields. We tested it and found that the FieldTurf CoolPlay system consistently cooled the field by 35°F cooler than traditional sand/rubber infill systems.



Reduction in surface temperature in the laboratory. On top of that, the CoolPlay turf will not absorb the heat.

CHILLING PERFORMANCE

CoolPlay is cool. FieldTurf's exclusive and innovative Extruded Composite top dressing allows the CoolPlay system to deliver the same behavior and overall stability as FieldTurf's Elite system fields found in the world's most famous stadiums. CoolPlay takes nothing away from performance – except the heat!

COOL REVIEWS

"I'd give 5000 stars if I could. I've never seen a field so cool in the country. On top of that, the CoolPlay turf will not absorb the heat."
— Steve Green, High School Coach

"We received the turf with the new FieldTurf CoolPlay top dressing. The turf is noticeably cooler and provides the same level of The CoolPlay system is a game-changer for the Oklahoma football field. Our players are now able to play on the field during the summer months without any of the problems that sand and rubber infill systems cause."
— Scott Hawkins, Associate Vice President, University of Tulsa

CHILLING DESIGN

CoolPlay wasn't designed just to be cool. In designing the system, we ran a multitude of tests with one goal in mind: cooler surfaces with no compromise to the safety and performance of our fields.

- Crumb rubber as a top layer absorbs heat, causing the surface temperature to rise
- An all-sand system may be cool, but the surface would be far too hard
- Our organic and sand system is also cooler, but only CoolPlay offers a surface with ideal safety and performance.

Testing finally led us to the special CoolPlay top dressing that allows us to layer crumb rubber on our patented shock-absorbent sand system, which provides superior performance and safety in over 4,500 fields around the world.

The CoolPlay granule is durable, shock absorbing and absorbs far less heat than other alternatives.

SAVING MONEY IS ALSO PRETTY COOL

The exciting alternative to CoolPlay is inorganic, which only provides temporary relief from high temperatures. Compared to a cost of about \$25,000 to install an irrigation system on a typical field, CoolPlay can save you a significant amount of money. Besides, installing an "artificial" turf field just doesn't make any sense. Any way you look at it, CoolPlay is an excellent alternative – and saving 40 dollars pretty cool, too!

A SAFE SOLUTION HEAVY METALS TESTING

CoolPlay has been tested to the industry standard EN71-3 (Part 3) for testing – meeting all requirements.

Heavy Metals	CoolPlay	Requirements
Asbestos	<0.05	47
Lead	<0.5	67
Zinc	4	65,000



HOT FIELD? CHILL OUT.





BUYING
TURF & **TRACK**
HAS NEVER BEEN SO
EASY.

smartbuycooperative.com

It's time to build your dream facility.
Time to use the traditional public bid process. **Right?**

Wrong!

FieldTurf & Beynon's SmartBuy Cooperative Purchasing Program can help you get the products you want at the best available price - all without duplicating the bid process.



Let's address some of the key **MYTHS** about the turf and track purchasing processes.

MYTH 1 Building your dream project needs to be a painful process.

If you've ever built a turf field or track, using the public bid process, you're likely hesitating to do it again. It's a painstakingly arduous process. It makes completing projects on-time and on-budget difficult - if not impossible. Now, the good news - it doesn't have to be that way! The SmartBuy Cooperative Purchasing Program is designed to make your life easier. By:

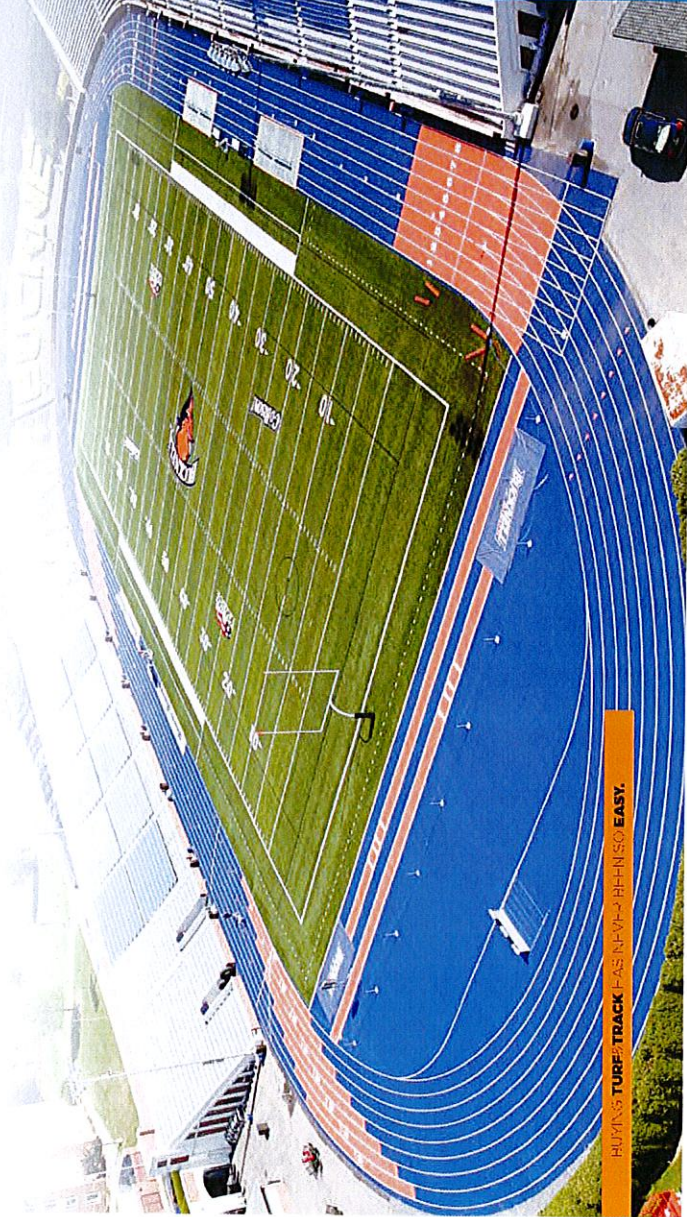
- Simplifying the ordering process
- Preventing duplication of the bid process
- Carrying the industry's best products
- Guaranteeing the "Best Value"
- Leveraging economies of scale
- Satisfying bid laws and procurement process in most states
- Providing the fastest proposal to contract process
- Providing owner with project control
- Providing "Turnkey Product Solutions"

MYTH 2 I need to go to bid and select the cheapest (lowest quality) product.

Let's get this one out of the way first. SmartBuy has already been competitively bid through a sealed-bid process and it includes pre-negotiated prices for the best products from FieldTurf and Beynon. No need to settle for low quality systems through the public bid process. Why leave it up to chance? Get what you want at the best value. The SmartBuy program encompasses the highest quality sports surfacing products in the industry from the two National leaders, FieldTurf and Beynon. Whether it be artificial turf, running tracks, or court surfaces, it has never been easier or more cost-effective to obtain the highest quality sports surfacing products all while preventing the duplication of the bid process.

MYTH 3 SmartBuy sounds great, but it can't be viable.

SmartBuy gives you access to several different Cooperatives that are competitively bid and awarded based on a rigorous evaluation process. We'll help you determine which one is best for you. In fact, your organization is likely already buying things like classroom supplies and computers from one of these Cooperatives. That's right, buying turf and track products has become just as easy as buying a pencil as all costs and services are identified.



BUYING TURF, TRACK & ASSETS IS NEVER SO EASY.

The SmartBuy Cooperative Purchasing Program

The SmartBuy Cooperative Purchasing Program is comprised of multiple National Cooperative Purchasing Agencies, such as The Association of Educational Purchasing Agencies (AEPAs), California Multiple Award Schedule (CMAS), General Services Administration (GSA), The Cooperative Purchasing Network (CPN), National Joint Powers Alliance (NJPA), Buy Board Cooperative Purchasing, Keystone Purchasing Network (KPN), Educational and Institutional Cooperative (E&I) and COSTARS Cooperative Purchasing Program.



Through these Cooperatives, customers can purchase FieldTurf synthetic turf, Beynon running tracks and tennis/ basketball courts across the U.S. on previously bid contracts with preferential pricing. Turnkey solutions are available with these Cooperatives through the alternative costing method, R.S. Means and the Unit Price Book (UPB).

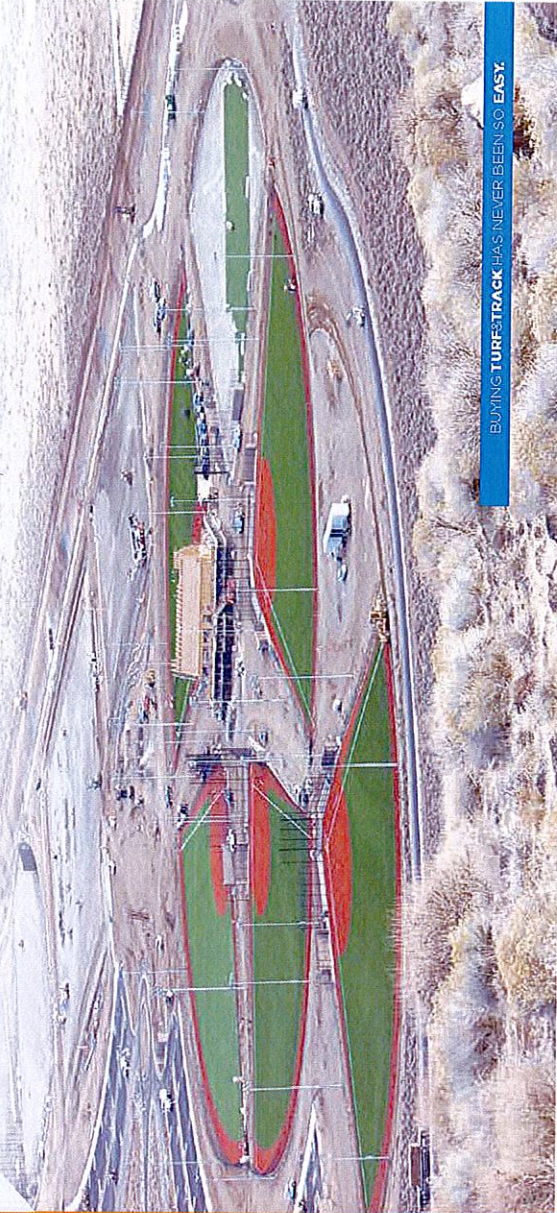


Over 1000 customers have used this method to purchase their sports surfaces and related site work preparation. Finding strength in numbers, the Cooperative Purchasing contracts unite schools and municipalities from around the country, helping each one of them save valuable time and money for facility enhancement projects. They work on the organization's behalf to secure multistate volume purchasing contracts. These contracts provide measurable and cost effective benefits.

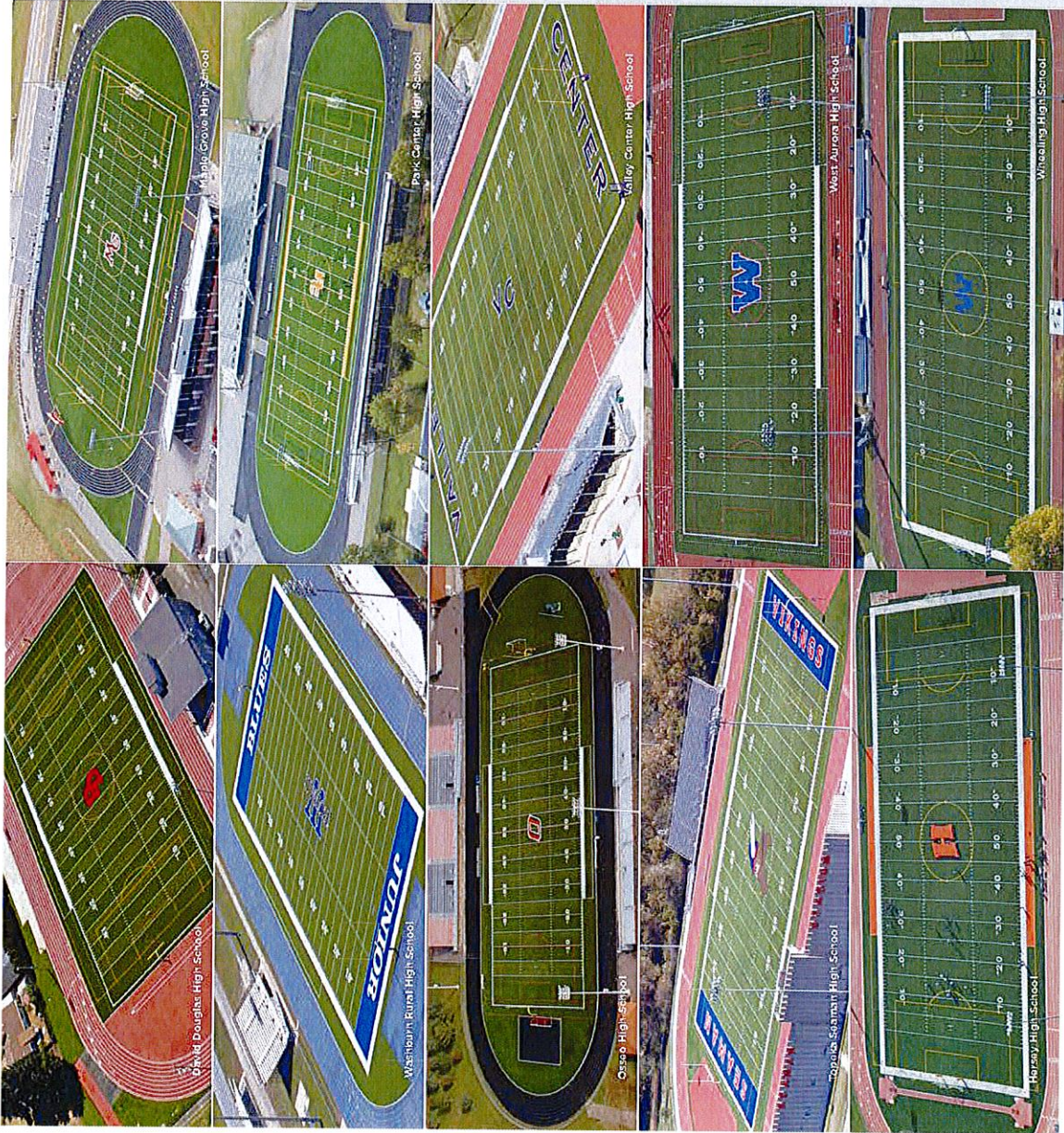


Traditional Bid Process vs. SmartBuy Purchasing Process

Bid Method	Smart Buy Purchasing Program
Step 1 Research contractors	Contract FieldTurf or Beynon
Step 2 Interview contractors	Site evaluation completed & quote issued to owner
Step 3 Select contractors	Owner issues a Purchase Order
Step 4 Write out specs with contractors	Construction begins
Step 5 Obtain final designs	
Step 6 Advetise bid meeting	
Step 7 Arrange for bid meeting	
Step 8 Collect bids	
Step 9 Review bids with bid committee	
Step 10 Investigate manufacturers	
Step 11 Bid acceptance	
Step 12 Coordinate installation process	
Step 13 Construction Begins	



BUYING TURF TRACK HAS NEVER BEEN SO EASY.



Here's what some of our clients are saying about the **Cooperative Purchasing Program**

"The primary advantage of using SmartBuy is that the district is relieved from the burden of the lengthy RFP process. The fact that vendors have already been selected through an audited competitive bid process ensures that selected vendors are legitimate and can perform the job. The track and field has been a tremendous asset to the community. Our girls' track team has had two consecutive state championships."

Kirk Whedde - Business Manager,
Mingus Union High School District, Cottonwood, AZ
kwhedde@muhsd.net

"The SmartBuy process allowed us to expedite the purchase process. We did not have to extend ourselves beyond our knowledge base to establish specifications for bid purposes and then compare products (apples and oranges) to determine what we knew we already wanted. We do not have a legal team to review multiple bids, proposals, and contracts. We did our homework, discussed synthetic surfaces with numerous vendors and customers, and made our decision."

Neel Durbini - Director of Schools,
Dyersburg City Schools, Dyersburg, TN
ndurbini@k12tn.net

"It cut down the overall time of our overall procurement process. While giving us the comfort of knowing the product and services were competitively bid for us and we could choose which company made us feel most comfortable using. Once we were able to show Procurement that other major municipalities have used this system, it was very easy to get Procurement's blessing. We also had no issues with City Council on either co-op field vote."

Kelth Flemming - Department of Parks and Cultural Affairs
City of Atlanta, Atlanta, GA
kflemming@AtlantaGaGov

"Using Cooperative Purchasing saved us time and money. After significant research, it was clear that our district could get the products that we felt best met the needs and wants of our kids without having to worry about the bid process."

Dan Brooks - Superintendent
Sauk Centre Public Schools, Sauk Centre, MN
dan_brooks@sa16743.k12.mn.us



BUYING
TURF & **TRACK**
HAS NEVER BEEN SO
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THE COMPLETE FIBER

REVOLUTION — 360 —



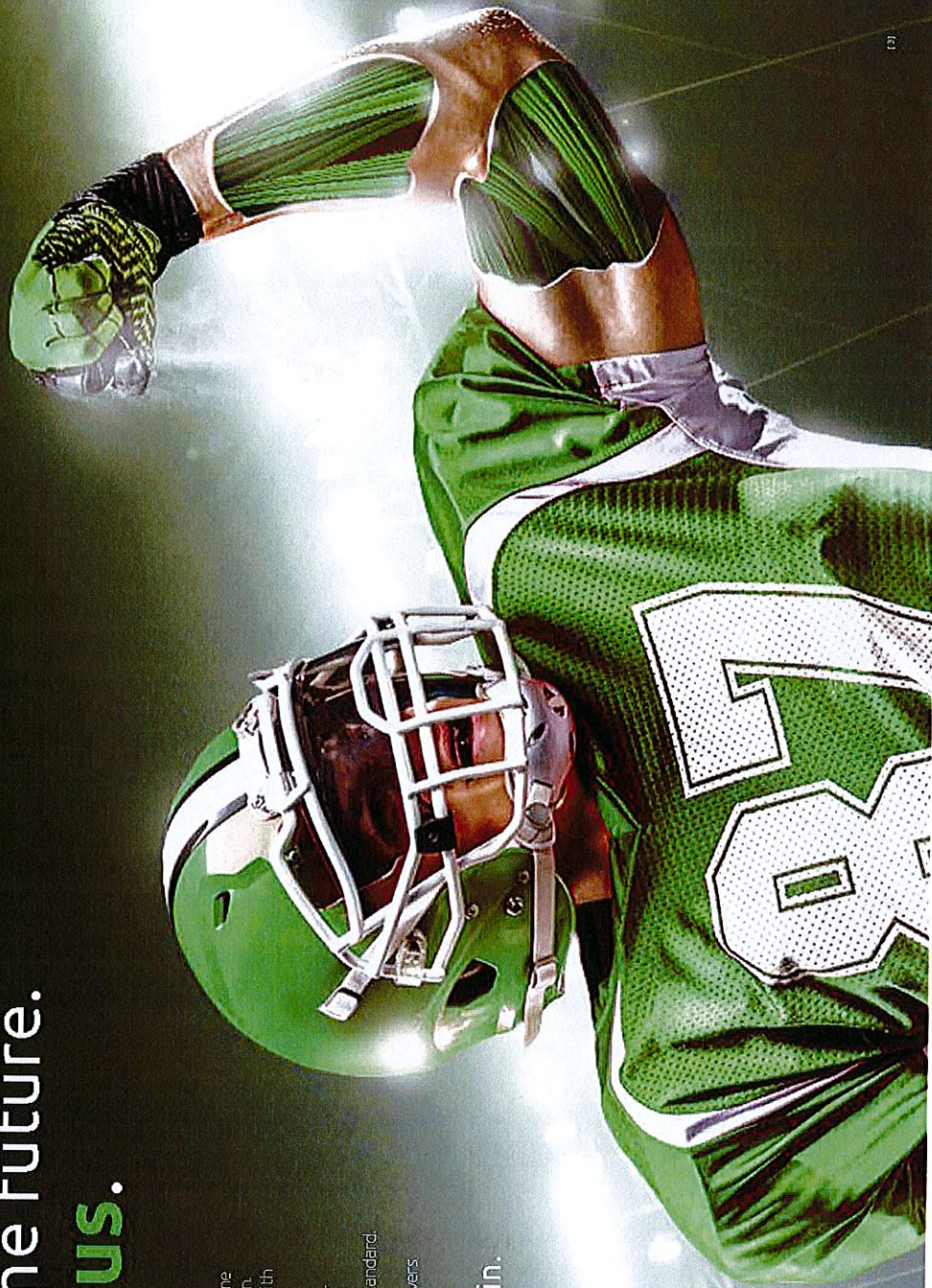
Here's the future. It's on us.

In 2011, FieldTurf changed the game with the introduction of Revolution. Now, FieldTurf is setting the bar with Revolution 360.

No development program has ever subjected a fiber to more rigorous requirements. Or, faced a higher standard.

Revolution 360. The fiber that delivers complete performance.

Yes, we did it again.



(2)

(3)

Designed and built, in **our** house.

FIELDTURF INNOVATION AND ENGINEERING.

FieldTurf has unlocked the secrets behind the keys to producing some of the best fibers in the world.

POLYMER, PROCESS AND GEOMETRY.



POLYMER

FieldTurf Revolution 360 uses a high grade polymer that was designed specifically for our turf. We gave it a great catalyst (Metalocene) and a super protective UV package (10,000 HALS of the best stuff we could find).

PROCESS

Very few companies make their own turf fibers. We do. FieldTurf Revolution 360 is made with state-of-the-art extrusion and precision manufacturing processes. Our extended, slower production line increases the "healing" time of the fiber, creating a much longer-lasting fiber.

GEOMETRY

Revolution 360's intricate design eliminates breaking points and provides a more natural looking fiber.



THE BEST WAY TO IMPROVE THE FUTURE... IS TO CREATE IT.
(3)



WE BUILT IT TO BE THE BEST TESTING PROVED IT



Certified Perfect
Fiber Wear Test
30,000 cycles

PENN STATE WEAR TEST

Number of Cycles	Good	Hair Splitting	Fractured	Complete Splitting
30,000	10	0	0	0
50,000	10	0	0	0
75,000	10	0	0	0
100,000	10	0	0	0
125,000	10	0	0	0
150,000	10	0	0	0

FIBER XQ 83
PERFORMANCE INDEX

FIELD TEST RESULTS

YEAR	84	85	86	87	88	89	90	91
INDEX	84	84	87	87	89	89	90	91

Field Turf Revolution 360 2.25"

TEST - Measuring a fiber's stress tenacity - a key indicator of fiber strength - is commonly used by the turf industry for quality control purposes.

RECOVERY - Assessing fiber resilience after an exhaustive 5,000 cycle compression test. This test uses specially designed equipment to reproduce a fiber's running on a field.



FIBER XQ 82
PERFORMANCE INDEX

FIELD TEST RESULTS

YEAR	84	85	86	87	88	89	90	91
INDEX	84	87	87	89	89	90	90	91

Field Turf Revolution 360 2.25"



UV - Measuring a fiber's resistance to UV exposure. This test is one of the most demanding standards in force in the industry.

PEEL - Measuring a fiber's softness using an invasive method from the consumer goods industry. This test is conducted by qualified technicians, whose results are then processed through a statistical model to ensure repeatability and accuracy.

FIBER XQ 81
PERFORMANCE INDEX

FIELD TEST RESULTS

YEAR	84	85	86	87	88	89	90	91
INDEX	84	88	88	90	90	90	90	91

Field Turf Revolution 360 2.0"

WHAT IS THE FIBER PERFORMANCE INDEX?

Responding to the needs of architects, facility owners and operators, Labosport is proud to introduce Fiber Performance Index (FPI) - the first true measurement of fiber quality. As part of the Labosport Certification Program, FPI establishes an "index" - a rating or score of an artificial turf fiber, to help prospective turf buyers understand and weigh the individual qualities of a turf fiber. FPI provides a comparative measuring tool to help architects, facility owners and operators make the right artificial turf selection from a wide number of options.

Proven Safety.

On a natural grass field the athlete's cut, plant, and release in the earth – not in the blades of grass. On an artificial turf field, the infill is the earth.

FieldTurf's infill provides the same biomechanical properties as natural grass, as athletes cut, plant and release. Like in natural grass, athletes play in the infill, not on the turf fibers.

FieldTurf's infill system contains up to 9.2 lbs. per square foot. It's the "heavyweight" in the turf industry.

FieldTurf Revolution 360

Fiber Height	Face Weight	Sand Weight	Rubber Weight	Total Weight
2.5"	42 oz/yd ²	6.2 lbs/ft ² *	3 lbs/ft ² *	1388 oz/yd ²
2.25"	38 oz/yd ²	6.2 lbs/ft ² *	2.2 lbs/ft ² *	1269 oz/yd ²
2"	36 oz/yd ²	3.65 lbs/ft ² *	2.6 lbs/ft ² *	957 oz/yd ²

* Other alternative infill systems available upon request.

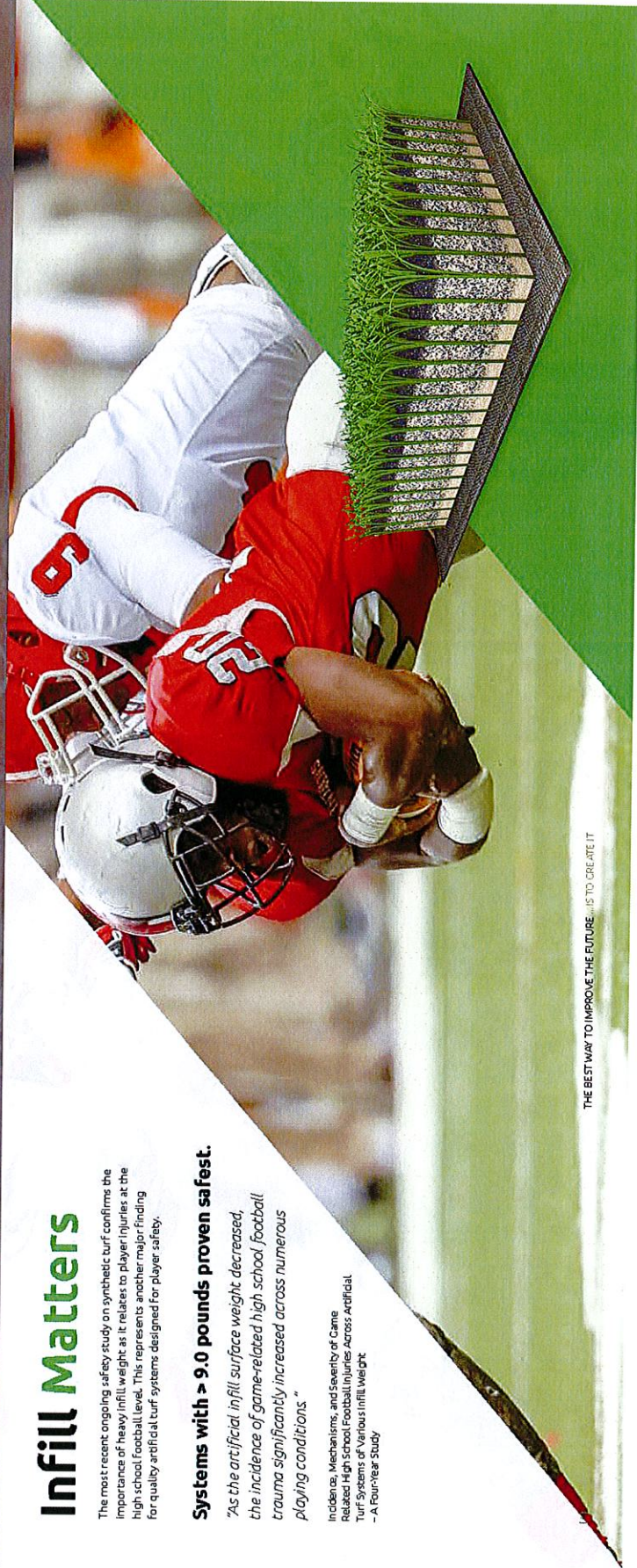
Infill Matters

The most recent ongoing safety study on synthetic turf confirms the importance of heavy infill weight as it relates to player injuries at the high school football level. This represents another major finding for quality artificial turf systems designed for player safety.

Systems with > 9.0 pounds proven safest.

"As the artificial infill surface weight decreased, the incidence of game-related high school football trauma significantly increased across numerous playing conditions."

Incidence, Mechanisms, and Severity of Game Related High School Football Injuries Across Artificial Turf Systems of Various Infill Weight
- A Four-Year Study



THE BEST WAY TO IMPROVE THE FUTURE IS TO CREATE IT

The future is now.



"We have been playing on FieldTurf for years, and as every aspect of the surface and company has advanced in the sport, when it came time to replace our field, it was an easy decision to choose FieldTurf again. The new generation 300 system has more advanced construction - from the coatings - all the way to the fibers - we often find it to be one of the best to install. The field now has permanent markings for men's and women's soccer, men's and women's lacrosse and football. These markings have made the field a beautiful playing surface for all sports."

George Smith, Athletic Director
St. Thomas Aquinas



"The FieldTurf product that was installed in 2011 has performed well, especially considering the increase in stadium events, especially soccer matches and concerts. The new field will offer the field maintenance crew an excellent and cost-effectively durable product to meet the requirements of each event."

Peter McLoughlin, President
Seattle Seahawks



"We are looking forward to the installation of our new field for 2016 and beyond. FieldTurf has been a great partner for us and they are highly recognized as the global leader, having the highest amount of fifth court pad patches in soccer stadiums and training facilities around the world."

Adrian Hanauer, Owner
Seattle Sounders FC



"We are extremely excited to have a new playing surface in the Sun Bowl that will be safe for players and spectators. We're also excited about having the same exact playing surface on our practice facility at Ology Road."

Sean Kugler, Head Football Coach
University of Texas at El Paso





THE COMPLETE FIBER

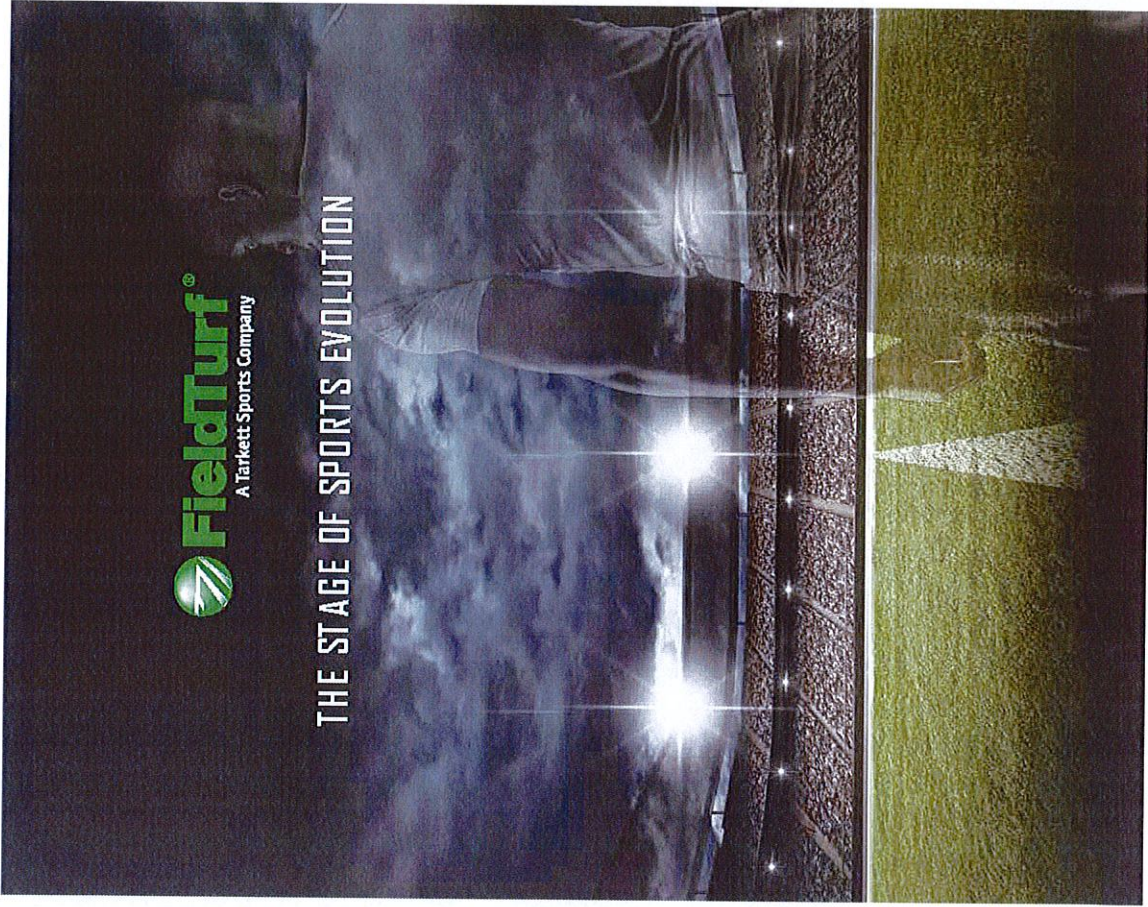


Information | (800) 724-2969 | info@fieldturf.com | www.fieldturf.com



A Tarkett Sports Company

THE STAGE OF SPORTS EVOLUTION



Why Artificial Turf is the SMART OPTION



Increased field use for the life of the surface.

Creates significant new revenue stream from field rentals.

Greatly reduces the overall cost of field maintenance.

Saves billions of gallons of tap water each year.

Eliminates the use of hazardous chemicals each year.

Diverts millions of tons from landfill sites each year.

Eliminates gas, oil, mowing, and fuel-powered mowing, aerating, and re-seeding.

Provides the opportunity to obtain multiple LEED credits.

Here's what independent reviews often find when comparing Natural Grass and Artificial Turf fields:

"Despite the higher up-front one-time replacement costs, an artificial turf MCPS Stadium field proved to be a substantially lower net cost per hour of use than any of the natural grass options because of the substantially increased hours of use and additional revenue generated from that increased use."

Montgomery County Work Group

20 Year Cost Summary

	Added Turf	Revenue (per Hour)	Revenue (per Hour)	Revenue (per Hour)	Revenue (per Hour)	Cost (per Hour)
Initial Capital Cost	1,125,000	500,000	500,000	150,000	75,000	75,000
20 Year Replacement Cost*	1,200,000	150,000	175,000	150,000	60,000	60,000
20 Year Maintenance / Other Costs	200,000	1,000,000	1,000,000	900,000	50,000	50,000
20 Year Total Cost	2,525,000	1,650,000	1,725,000	1,150,000	65,000	65,000
20 Year Revenue - MCPS**	1,000,000	-	-	-	-	-
20 Year Net Cost - MCPS	1,525,000	1,650,000	1,725,000	1,150,000	65,000	65,000
Annual Hours of Use	2,300	600	500	400	300	300
20 Year Net Cost Per Hour of Use - MCPS	21.98	140.00	175.50	143.75	105.83	105.83

*Assumes two artificial turf carpet replacements (after years 8 and 16) and one major natural grass rehab after year 12.

**No revenue assumed for natural grass fields since MCPS would remove these fields only for MCPS team games and practices.

A Review of Benefits and Issues Associated with Natural Grass and Artificial Turf for Rectangular Stadium Fields - Montgomery County Work Group.



You know artificial turf makes sense.
So...what now?
 Time to find the right turf partner.

WHY FIELDTURF IS THE RIGHT TURF PARTNER

Since our invention of the original long pile artificial turf system some 15 years ago, we've been consistently innovating the industry.

Today, we don't just make turf. We make a difference.

Our dedication to innovation helps us make a difference for athletes, facility owners and operators - every single day.



PROVEN SAFETY

We've invested in key partnerships to study the issues that matter - like how compared to natural grass, FieldTurf can help reduce concussions and lower body injuries.

5-Year High School Football Study
 44% Fewer Concussions Injured Combined
 19% Fewer ACL Injuries Combined
 19% Fewer Ligament Tears
 19% Fewer Joint Damage Injuries
 18% Fewer Injuries (Landing, 1st Day)

5-Year College Football Study
 44% Fewer Concussions Injured Combined
 19% Fewer ACL Injuries Combined
 19% Fewer Ligament Tears
 19% Fewer Joint Damage Injuries
 18% Fewer Injuries (Landing, 1st Day)

Source: American Journal of Sports Medicine, 2015, 43(10), 1916-1926
 NATURAL GRASS VS. SYNTHETIC TURF STUDY
 NATURAL GRASS VS. SYNTHETIC TURF STUDY

SUPERIOR PERFORMANCE

Not only do our systems mirror the look and feel of natural grass - they replicate its performance! When compared to competitive turf systems, FieldTurf showcases superior performance.

Rational traction values for each surface

Surface	Rational Traction (N/m)
FieldTurf Revolution	53.1
Kentucky Bluegrass	52.3

See study for full results.

Source: The Pennsylvania State University
 COMPARISON OF RATIONAL TRACTION OF ARTIFICIAL TURF AND NATURAL GRASS SURFACES THROUGH INCLINE TESTS

GLOBAL EXPERIENCE

With over 5000 installations in North America and 7500 worldwide, FieldTurf has been the surface of choice for the last 20+ years.

Association	Number of Fields
NFL	20
FIFA 1 / 2 Star	211
NCAA Div I	500+

UNMATCHED DURABILITY

Manufactured and installed with the highest attention to detail, FieldTurf offers superior proven durability. There are over 5000 FieldTurf fields still in use that are 6 or more years old.

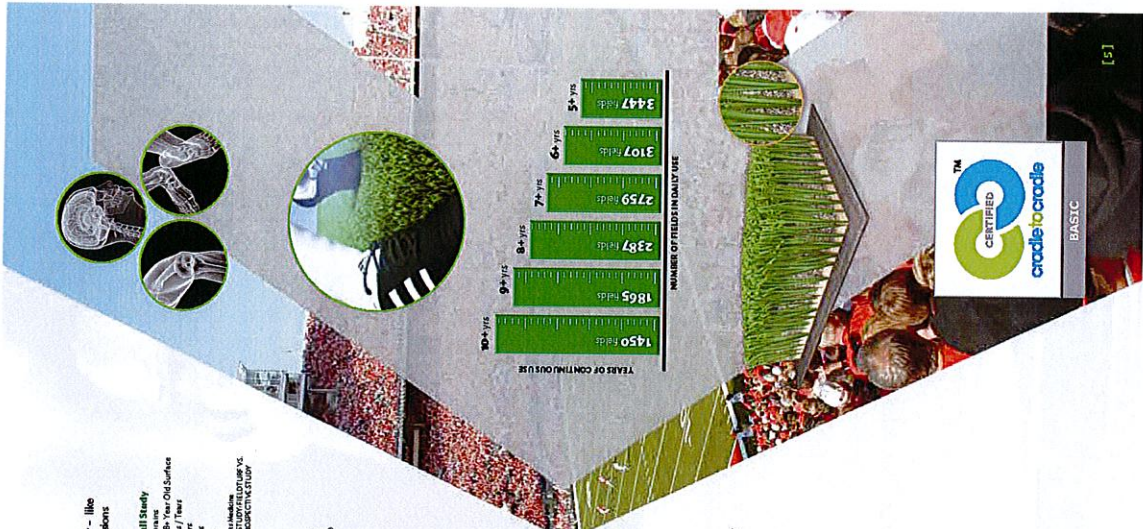
Years in Use	Number of Fields
10+	1450
9+	1865
8+	2387

ENDLESS INNOVATION

From the original 3 layer infill system; to our SureLock coating drainage system; to our game-changing CoolPlay system - our patented innovations continue to change the game.

HONESTLY GREEN

Being green is not a cliché for us. It's a reality. Each year we help save millions of gallons of fresh water and eliminate tons of chemicals and pesticides. Our Cradle to Cradle™ certification is just part of our ongoing commitment to use recycled content in our manufacturing and convert old turf fields into new, reusable materials.



WE MAKE THE GAME SAFER

Heavyweight infill systems rise above.

Exhaustive study confirms that infill weight plays key role in reducing player injuries. Systems with **>9.0 lbs/sq ft** are proven safer!

Study presented at the 2014 annual American Orthopaedic Society for Sports Medicine (AOSSM) meeting. Incidence of football incidence of injury on old turf comparing field turf with infill weight of >9 lbs/sq ft to other turf systems with 0 lbs to 5.9 lbs/sq ft or 6 lbs/sq ft.



Concussion Injuries Combined
8.3%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Total Injuries
20.5%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Severe Injuries
16.8%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Player-to-Turf Collisions
36.9%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Adverse Weather Conditions Combined
26.3%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Turf Age (4 to 8+ years)
33.8%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft



Turf Age (8+ years)
72.7%

lower incidence of injury between FieldTurf >9 lbs/sq ft and 5.5-9 lbs/sq ft

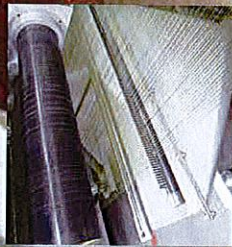


MANUFACTURING EXCELLENCE



ISO 9001:2015
 ISO 14001:2015
 FIELDTURF, INC. | 2025
 800.946.3827
 214.444.4400

FieldTurf controls all aspects of the manufacturing value chain. This provides our customers with a high level of quality assurance.



FIBER PRODUCTION:

Our fibers are produced at our very own facility in Germany, making FieldTurf one of the most vertically integrated companies in the world. The quality control process at our facility follows stringent testing of fiber properties, including tensile strength, uniformity and colorfastness.



TUFTING EXPERTISE:

Once the fiber is produced it is ready for tufting. This takes place at our 500,000 square-foot manufacturing plant in Calhoun, Georgia. This plant is an ultra-modern facility in the heart of carpet country, with dedicated employees who have 500+ years of combined experience in the artificial turf industry.



COATING INNOVATION:

One of the most sophisticated coating lines in the artificial turf industry is at the heart of FieldTurf's Calhoun plant. It features our patented StoneLock coating system which leaves a lock of the turf backing porous for industry-leading field drainage.



IN-HOUSE LOGO PRODUCTION:

Our specialized manufacturing capabilities allow us to bring your logo to life. Our logo experts can reproduce the most intricate and complex turf logos - and we do it all in-house. No matter the size, shape, color or detail of your logo, our team will reproduce it and bring it to life in your field.



EXPERIENCED INSTALLERS:

Installing FieldTurf fields is an art. Our installers are experienced and fully trained in the use of FieldTurf products. These professional experts are the ones our customers can count on to make sure that every FieldTurf field is installed to perform exactly as expected.

WHICH SYSTEM IS RIGHT FOR YOU?

FIBER

SLIT-FILM

- Consists of wider fibers designed to lie over the top of the infill, while absorbing the impact of the ball, while providing a soft, cushioned feel.
- Designed to withstand the highest use and provide durable, long-lasting fibers.

MONOFILAMENT

- Resilient individual monofilament fibers designed to stand upright.
- Designed primarily for grass-like aesthetics and proper ball-roll characteristics; monofilament fibers also provide the desired appearance of perfectly mowed, healthy natural grass.

HYBRID

- A combination of monofilament fibers and a slit-film fiber in the same stitch.
- Designed to provide fiber resilience while encapsulating the infill for the life of the field.



INFILL SYSTEMS

THREE-LAYER

- One of the most intricate and meticulous infill systems available today, this system can only be achieved by experienced installers.
- Designed to provide the best Gmax and energy restitution results, providing athletes with improved safety and performance.



- AVAILABLE LITERATURE
- REVOLUTION 460 - CLASSIC HD
- VERTEX PRIME

TWO-LAYER

- This homogeneous infill system consists of a sand base with crumbly rubber to provide the proper firmness required for optimal athletic performance while providing proper shock absorption.



- AVAILABLE LITERATURE
- VERMENT VIBRTEX

LOW-INFILL

- Built on a pad, these systems utilize a latex design, re-engineered with new age technology to offer an alternative surface solution constructed with turf and other little rubber or completely rubber-free.



- AVAILABLE LITERATURE
- NOVA FIBERIES
- MOUSEY PAVEMENT

GAUGE

Gauge refers to the distance between the rows of fibers. Field turf has the ability to produce a wide variety of gauges – but our standard systems are produced with a 3/4" gauge.

The wide gauge 3/4" spacing allows for proper cleat penetration into the infill. Proper penetration enables the athletes to grip, push off and release just like they do on natural grass, and allows athletes to take full strides to the knee and adjust to avoid torque transmitted injuries are greatly reduced.

Other turf systems typically use a very narrow gauge, usually 3/8" or 1/2". This narrow gauge results in turf that is overly dense, preventing the same penetration and positive biomechanical functions found on field turf and natural grass.



The result is that the athlete plays on or in the fibers – not in the infill. This causes the fibers to wear faster and makes it more difficult for the athlete to get solid footing, causing slippage.

EACH OF OUR CUSTOMERS HAS UNIQUE NEEDS. Our "Customer-First" philosophy guides YOU to identify the type of field YOU need.

And, while many turf companies try to sell you "their best product" without even knowing your needs, FieldTurf looks for a different approach. Our "Customer-First" philosophy guides you to identify the type of field you need. Our sports turf systems today are very different from anything else. Each is constructed with materials, fiber and infill design criteria to serve the unique needs of very different customers.

TURF BACKING

FINGER-UNIT / SURELOCK

- This backing delivers ultimate strength, stability and drainage.
- A patented finger unit seals only the top of the fibers, leaving the backing 40% porous, allowing for unmatched drainage.



SOLID COATED / PERFORATED

- While we create an effective seal for the front end of the backing, this is a good trade-off and stability.
- This solid coated backing is perforated to facilitate drainage.



WHICH INFILL IS RIGHT FOR YOU?

The infill system is one of the most important aspects of synthetic turf fields. It is the backbone of the system, and it is what makes the artificial grass feel like real grass. The infill provides the cushioning that keeps the blades of grass from matting together. It also provides a level of cooling that helps to keep the blades from getting too hot. It is important to understand the difference between the various infill types and materials.

CRYOGENIC SBR

Cryogenic rubber is the cleanest and highest grade of recycled crumb rubber granule. Made from products purchased from the same manufacturer, it is free of contaminants. It provides excellent shock absorption and is less likely to heat in water.

AMBIENT SBR

Ambient rubber is made from tires that are ground up at ambient temperatures. It results in a rougher and more irregular crumb than cryogenic rubber, with considerably more loose particulate. Its jagged edges attract wear on shoes that can make it prone to flotation and displacement in wet conditions.

COOLPLAY

CoolPlay utilizes FieldTurf's exclusive and innovative Extruded Cork Composite top dressing which allows the infill to behave in the same manner and overall stability as the systems but with an added heat reduction feature - up to 35° F cooler!

PUREFILL

FieldTurf's PureFill cork infill is an all-natural infill. It is an organic, recyclable and sustainable product that is harvested from the cork oak tree every nine years, without harming the tree. It is 100% environmentally-friendly and non-toxic.

ECOMAX

ECOMAX is an extruded composite of recycled materials and thermoplastic elastomer (TPE). It is a heavy impact absorbing infill that offers safe and comfortable performance and the best value in its category regarding durability, price and performance.

ECOGREEN

ECOGREEN is built from premium, virgin TPE that have been selected for their characteristics to deliver a safe surface over the long-term. Each pellet has built-in memory and rebounds back to its original shape after compression. Resistant to UV degradation, it is a durable and fully recyclable infill alternative.

ECOGROUND

ECOGROUND is one of the most cost-efficient alternatives to SBR. Made from post-industrial recycled products, these reclaimed materials are ground-up to create a new, clean, eco-friendly infill for your artificial turf field. EcoGround is the ideal answer for high-use facilities looking for a proven infill solution.



Cryogenic Rubber



Ambient Rubber



CoolPlay



PureFill



EcoMAX



EcoGreen



EcoGround

PROVEN SAFE

Independent tests performed by Southern California State University and the University of California at Berkeley have validated the safety of children's playground materials.

WE ARE AS COMMITTED TO YOUR PROGRAM AS YOU ARE

As a leader in turf care for the long term, when you buy a field from FieldTurf, you are buying from a company that knows how to take care of you. It's what we do best. So you can think of ourselves as the most talented turf company. And every day. Let your abilities shine on our turf; you will understand why.

CUSTOMER CONNECT

As a FieldTurf customer, you will enjoy exclusive access to our online community, Customer Connect. You will appreciate this convenient service which offers users a full resource of maintenance content and an online store.



AFTERCARE SERVICE

FieldTurf's FieldCare Maintenance Program secures your investment by adding to your field's life, delivering consistent high performance and providing significant cost savings. We'll even build a customized program just for you.



INITIAL TRAINING

We'll make sure you know everything about your new FieldTurf field. After your field is installed, our experts will teach you exactly how to care for your new surface and keep it performing in top condition.

RESPONSE TIME

We pride ourselves on quick and effective response time. Our specially trained FieldTurf crews are always standing by and will never be stumped with a FieldTurf team that's here to handle any situation that may arise.

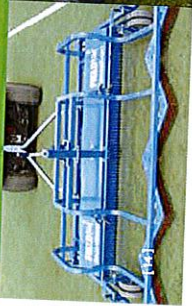


"The FieldTurf team has done a tremendous job of our school. We have a FieldTurf field on our campus, & our dog and I (a body) use it for commitment and reassurance. Our students are a strong trainer. They do what they promise in a timely manner and are always on time. Our professional staff enjoy dealing with a company who puts our needs first."

Dan Macdonald, Head Football Coach
Patent Country Day School

"In the fall of 2016 we had FieldCare come in and apply it on football field. By the time they were done the field looked like new! I would recommend FieldCare if you have any problems with your synthetic turf field."

Erich Klotz, Facilities Coordinator
Eastern Michigan University





THE CHOICE OF FOOTBALL AT EVERY LEVEL

With fields at over 20 NFL teams, 50 premier High School programs and the second largest High School program in the world, FieldTurf is the home of football. Every year, over 1 million steps are taken on our surfaces. These FieldTurf's renowned performance, safety and quality.

"We went with FieldTurf because we wanted the best. Even after several years of use, it still looks and plays like new. We can see the difference our surface makes on the entire football team and directly affects our play and performance."

Steve Smith - Head Football Coach and Athletic Director, Piedmont High School

"...the biggest difference from us over really to stick our feet in the ground. FieldTurf really made a difference... we were able to really make some jump out of our surface."

Brian Kelley - Head Coach, Norm Dams

"FieldTurf provides the best possible game and practice surface for our teams while maintaining the consistency and integrity of these high-use fields."

Jan Noham, Sr. - Vice President of Finance, Administration and Operations for Gilllette Stadium

20% FEWER LIGAMENT TEARS
12% LESS CONCUSSIONS



3 Year College Football Study
SPORTS COLLEGE FOOTBALL SAFETY STUDY
A 3-YEAR PROSPECTIVE STUDY
AMERICAN SPORTSMANAGEMENT



(16)

(17)

BEAUTIFUL TURF FOR THE BEAUTIFUL GAME



FC BARCELONA
OFFICIAL SPORTS SURFACES SUPPLIER



THE PITCH OF CHAMPIONS

FieldTurf's artificial football pitches are used the globe. And, in the case of notable clubs, FC Barcelona, Arsenal, Liverpool, West Ham United, Paris Saint-Germain, Olympique Lyonnais, Werder Bremen, and Seattle Sounders. Independent studies show that FieldTurf fiber optic technology delivers grass-like playability and ball roll.

Our heavy-duty infill systems and water-saving turf blades allow us to achieve exceptional results for safety, energy efficiency and performance.



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[97]



University of Oregon, University of Houston, Baylor University, University of Texas, Oregon State University, University of Illinois, Dickinson College, Seaway High School

BASEBALL SOFTBALL

THESE PILLARS BEHIND FIELDTurf DOUBLE PLAY

SURFACE SPEED

Factor grass-like, we customize surface speed to your program

NATURAL AESTHETICS

Unique fiber height for the most realistic appearance

REDUCED INFILL SPLASH

Documented infill splash reduction

INNOVATIVE DURABILITY SOLUTIONS

Turfed technologies for longer-lasting light-use areas

COACH APPROVED

We don't leave the site until Coach is satisfied.

"When this stuff is good, I believe that pitching coach Rick Hartfield has found in terms of getting our guys used to consistent play and getting them used to the feel of the turf, it's a major factor in our success, and that's what Coach Hartfield likes to coach his kids on."

Pat Casey, Oregon State Beavers





Lacrosse

We've been at the forefront of the impressive growth of Lacrosse. LAX players of all ages are playing on FieldTurf, from local clubs to the top college teams. Some of the best programs chose FieldTurf. It can take a beating and still provide the world-class performance you demand.

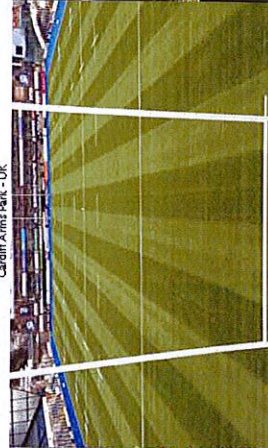
Syracuse University



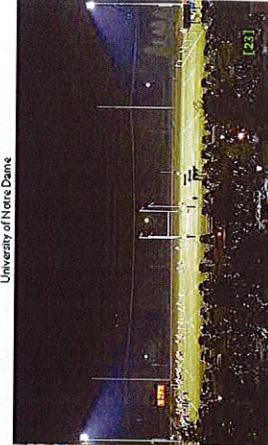
University of Louisville



Cardiff Arms Park - UK



University of Notre Dame



Rugby

FieldTurf's infill provides the same biomechanical properties as natural grass, giving players the best possible footing. Investing in a turf field means your surface will stand up to the constant beating your Rugby programs can put on a field.



WORLD RUGBY

THINK BIG

Some of the largest sports complexes in the world look to FieldTurf to bring their vision to life.

Golden Eagle Regional Park
Sparks, NY
13 Fields - 14,000,000 sq. ft.

StarrVive Sports Complex
Tulwila, WA
8 Fields - 632,000 sq. ft.

Chino Hills Community Park Field
Chino Hills, CA
6 Fields - 615,000 sq. ft.

Mass Youth Soccer Association
Lancaster, MA
5 Fields - 445,000 sq. ft.

Medford Sports Park
Medford, OR
11 Fields - 968,000 sq. ft.

Regional Athletic Fields
Lacey, WA
6 Fields - 552,000 sq. ft.

Chino Hills Community Park Field
Chino Hills, CA
6 Fields - 615,000 sq. ft.

Syracuse University
Syracuse, NY
5 Fields - 432,474 sq. ft.

Washington State University
Pullman, WA
7 Fields - 978,323 sq. ft.

Warhill Sports Complex
Williamsburg, VA
6 Fields - 510,000 sq. ft.

Rutgers University
New Brunswick, NJ
4 Fields - 424,421 sq. ft.

Ohio State University
Columbus, OH
5 Fields - 268,977 sq. ft.

University of Notre Dame
Notre Dame, IN
6 Fields - 717,444 sq. ft.

THINK PROUD Nothing gives us more pride than being selected to provide the right turf to our troops wherever they may be.

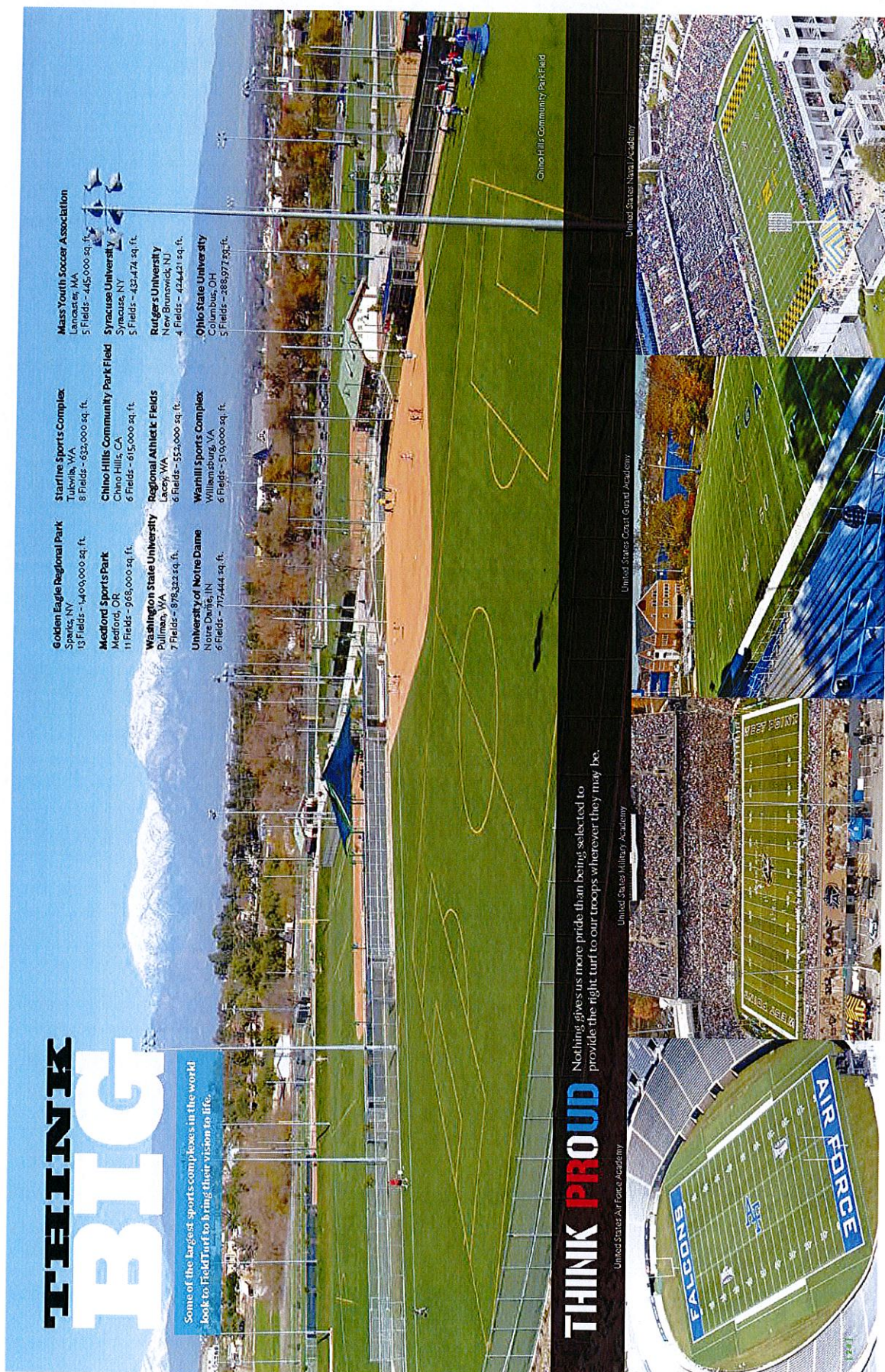
United States Air Force Academy

United States Military Academy

United States Coast Guard Academy

United States Naval Academy

Chino Hills Community Park Field



what the experts say!

SAFE

DURABLE

PROVEN



KEVIN ANDERSON
DIRECTOR OF ATHLETICS
UNIVERSITY OF MARYLAND

"This FieldTurf project has been an overall success for the University of Maryland. Our playing surface at Capital One Field at Byrd Stadium has improved student-athlete safety through this innovative CoolPlay technology. We also now have had the ability to attract outside events to our campus, generating revenue and contributing to improve the on-campus lives of our students and our community."



MARK RICHT
HEAD FOOTBALL COACH
UNIVERSITY OF GEORGIA

"When we were looking to replace our synthetic field, I wanted to continue our relationship with FieldTurf. We like the quality and we are very excited about using CoolPlay. It will reduce the temperature of our turf for the safety of our players."



JOEY SAPUTO
PRESIDENT
MONTREAL IMPACT

"We are proud to offer the local community a good quality field, all the while being available for all the club's teams, from the Espoirs in our sport-club, to the progression of our club and our sport."



TOM CALDER
DIRECTOR OF ATHLETICS AND RECREATION
JOHNS HOPKINS BLUE JAYS

"After looking at different options, FieldTurf was the best choice for us. We believe playing on FieldTurf's baseball-specific product will further develop our program and give us an excellent opportunity to continue our winning tradition."



TERRY HOSSACK
ASSOCIATE VICE-PRESIDENT
UNIVERSITY OF FLORIDA

"We could not be happier with the new FieldTurf CoolPlay turf system. The field is noticeably cooler as promised and the players love it. The CoolPlay system is a game-changer to benefit the Oklahoma State and keep our players safe. It is the only turf system that has created a cool high-performance artificial turf system; it's just what we needed."



DON PATKO
ATHLETIC DIRECTOR FACILITIES OPERATIONS
OHIO STATE UNIVERSITY

"Since we started on FieldTurf in 2007, at this stadium, our surface has consistently provided excellent footing for our players throughout the season."



DANNY MACIOCIA
HEAD FOOTBALL COACH
UNIVERSITE DE MONTREAL

"Our FieldTurf field has been a key part of our success! The ability to start only our first quarter in season has been instrumental in developing our active and elite team play. We are beyond impressed with the consistency and performance of our field."



JIM NOLAN
SENIOR VICE-PRESIDENT OF FINANCE,
ADMINISTRATION & OPERATIONS
NEW ENGLAND PATRIOTS

"When we made the decision to install a new turf surface, we underwent an extensive evaluation and testing process of our FieldTurf products in the marketplace. Selecting the FieldTurf Revolution was one of the best-informed decisions. What we are getting is an elite level turf system that will significantly benefit our players for years to come."



ELMAR BOLOWICH
HEAD MEN'S SOCCER COACH
CREIGHTON UNIVERSITY

"FieldTurf Revolution is an exceptional product. It has proven its worth in terms of durability, playability and cost savings. FieldTurf has significantly contributed to the fact that Creighton Stadium is considered the college soccer venue in the country."



NEEL DURBIN
DIRECTOR OF SCHOOLS
DYERSBURG CITY SCHOOLS

"FieldTurf has exceeded our expectations at every level. The sales personnel worked with us to meet our needs with the product and scheduling. The TCPN procurement process sped up the process and guaranteed a low price for our needs. The installation team was efficient, friendly and professional and every step was ahead of schedule."



TODD WHITTING
HEAD BASEBALL COACH
UNIVERSITY OF HOUSTON

"FieldTurf DoublePlay plays more like a natural turf field than anything else we have seen. From a product and company standpoint, FieldTurf is the right choice for us."



JOHN HAVERSTOCK
STADIUM MANAGER
MAMAHORN STADIUM

"We went and visited other facilities with the surface and we also received input from (Stamps equipment manager) George Hopkins and (assistant general manager) Mike Pette based on the players' experience with turfs in other CFL stadiums. FieldTurf does messy, messy fields across North America and in fact, believe it or not, there is a greater than all of its competitors combined."



JAIME SHERWOOD
DIRECTOR OF ATHLETICS
WAZATA HIGH SCHOOL

"We had our initial FieldTurf field for a decade now and can confidently say that this investment has paid dividends throughout our entire season both immediately in the short-term and each and every year thereafter."



TIMOTHY WISE
SENIOR ASSOCIATE ATHLETIC DIRECTOR
UNIVERSITY OF MIAMI

"We felt as though this upgrade to FieldTurf for our facility sends a positive message to our athletes that we want them to play on the highest performing surfaces, so they can perform at their best. We did a lot of research into what surface would be best for us and this is the one."



GLEN SHILLING
HEADMASTER
DETROIT COUNTRY DAY SCHOOL

"We looked at many different products in the industry and the same holds true today as it did more than a decade ago—nothing in the marketplace compares to what the FieldTurf product offers in terms of safety and playability. When we originally decided to install FieldTurf on our Stadium Field, we expected an excellent level of service and product and that is exactly what we experienced over the last 13 years. We are excited to continue our longstanding relationship with the world leader in artificial turf."



GREG BYRNE
DIRECTOR OF ATHLETICS
UNIVERSITY OF ARIZONA

"We've been extremely pleased with our FieldTurf CoolPlay that was installed at Arizona Stadium. The surface has provided a great enhancement to our stadium and has served as a benefit for our coaches and student-athletes both on the field and in the classroom. FieldTurf, along with our other stadium upgrades, has made a tremendous difference in our environment at Arizona Stadium."

THE STAGE OF SPORTS EVOLUTION.



THE ULTIMATE
SURFACE EXPERIENCE

Information | (800) 724-2569 | info@fieldturf.com | www.fieldturf.com

01043

Handout
#4

Public Water Utilities in North Carolina

Public Utility

- Public Utility means a person, whether organized under the laws of this State or under the laws of any other State or Country, now or hereafter owning or operating in this State equipment or facilities :
 - ... for diverting, developing, pumping, impounding, distributing or furnishing water to or for the public for compensation, . . .
- Because of the enormous capital investment in the utility infrastructure the public utility is in exclusive possession or control of the supply or trade in a commodity or service (a monopoly)

Public Water Utility Regulation in North Carolina

- State of North Carolina General Assembly recognized that in order to protect the consumer / customer of a public water utility that it was imperative to establish a government organization to oversee & regulate these companies operating in a community where there is no competition (monopoly)
- The State of North Carolina adopted the Public Utilities Act in 1891!
- The Act (Chapter 62) provides for the establishment of the NC Utilities Commission – a 7 member Board serving 6 year terms, appointed by the Governor
- The purpose is to provide oversight & accountability of the utility ownership/management – rates & fees, extension policies, customer service standards, etc.

Public Water Utility Systems in Henderson County

Name	Accounts	Population	Name	Accounts	Population
City of Hendersonville	27,400	60,000	Indian Springs MHP	42	76
Town of Laurel Park	804	2,010	Crab Creek Valley S/D	42	32
City of Asheville	750	1,875	Pinnacle Falls S/D	40	80
High Vista Estates S/D	232	738	Country Place S/D	38	69
Fox Ridge S/D	180	457	Lake Summit – North	37	172
Rambling Ridge S/D	136	200	Fruitland MHP	30	75
Cinnamon Woods S/D	126	288	Knoll Ridge MHP	30	75
Fletcher Academy	101	965	Camelot S/D	28	70
Magnolia MHP	92	138	Mountain View MHP	27	67
Hooper Valley Estates S/D	88	220	Oleta Falls S/D	27	75
Woodhaven S/D	80	198	Cliffs Valley North S/D	24	50
White Oak Village S/D	75	185	Country Acres MHP	24	30
Maple Hill MHP	74	185	Holly Tree S/D	23	95
Tuxedo Water System	66	168	Fairfield Apartments	22	56
Lake Sheila S/D	60	98	Grahams MHP	20	25
Lake Summit – South	57	178	Jeter Mountain MHP	18	45
Bearwallow Valley MHP	49	124	Village of Flowers S/D	15	97
Clear Creek Meadows S/D	49	124	Mountain View Assisted Living	4	44
Oak Crest Estates S/D	49	98	Totals	30,959	69,482

- All public water utility operations are subject to review by the Utility Commission except:

- Municipal owned water systems

- Water & Sewer Authority systems established per State Statute

- Homeowners Association water systems

- Water Systems with less than 15 connections

- Why are these exempt ?

The governing body which sets the rates & fees, policies, etc. are subject to recall by the consumers of the system thru the public election process. If the Board gets out of line the customers can vote them out of office.

Municipal Public Water Systems Henderson County Exempt from NC Utilities Commission

Owner / Municipality	Accounts	% Outside
City of Hendersonville	27,400	75 %
Town of Laurel Park	804	0 %
City of Asheville	750	44 %
City of Saluda	94	27 %

- The City of Asheville & City of Saluda customers in Henderson County
- Should be shown as 100% outside

Customer Imbalance

- Is this inside/outside customer imbalance unusual?
- UNC School of Government collected data in 2011 and reports that there are 296 municipal water systems in our State
 - 96.6 % (286) of them reported less than 50% of their customers are located outside their corporate limits.
 - 3.4% (10) of them reported more than 50% of their customers are located outside their corporate limits.

Leaders in Outside Customer Base

Municipality	Total Accounts	% Outside	Water Rate
Town of Linden	679	89%	0%
City of Hendersonville	25,268	75%	+ 66%
Town of Valdese	5,263	70%	+ 56%
Town of Teachey	199	70%	0%
Town of Ellenboro	827	60%	+ 28%
Town of Clyde	1,178	57%	+ 75%
Town of Hillsborough	5,168	54%	+ 95%
Town of Powellsville	250	53%	0%
Town of King	8,044	50%	+ 25%
Town of Falcon	313	50%	0%

■ UNC School of Government 2011 data – 2016 survey report

City of Hendersonville Public Water System

■ Outside City customer accounts –	19,000 (72%)
■ Inside City customer accounts -	7,400 (28%)
Total Accounts	26,400

- Outside City customer accounts –
 - Town of Laurel Park
 - Town of Fletcher
 - Town of Mills River
 - Village of Flat Rock
 - Unincorporated Henderson County

Data provided by the City of Hendersonville to Henderson County in March, 2015

- This imbalance of the customer base has created a situation where the governing body of the City of Hendersonville is not answerable to the vast majority of the system's customers.
- There is no means for the customers located outside of the corporate limits to hold the governing body accountable for its actions.
- More specifically, for discriminating service to those who are located outside its legally established jurisdiction.

- City of Hendersonville

- Water Rates & Fees

- 3,000 Gal/Month 5,000 Gal/Month 10,000 Gal/Month

Inside City Bill \$ 14.19 \$ 19.79 \$ 33.79

Outside City Bill \$ 21.47 \$ 30.17 \$ 51.92

Surcharge + 51.3% + 52.5 % + 53.7 %

- How can this governance control be corrected to protect the consumers / customers?
- Option # 1 Establish a new governance board composed of members from each of the customers governing bodies (Town of Laurel Park, Town of Mills River, Town of Fletcher, Village of Flat Rock, City of Hendersonville & Henderson County)
- OR

- Option # 2 – Amend Chapter 62 Public Utilities Act to expand the jurisdiction of the NC Utilities Commission to include those municipal water systems with a customer base of 50% or more located outside its' corporate limits.
- This would result in a thorough review by the NC Utilities Commission of the City of Hendersonville Water System rates & fees to make them uniform for all customers. It would also provide a thorough review and oversight of all water system operating policies to make sure there is no discrimination of outside city customers vs inside city customers.
- It would make available to all customers of the system a means for holding the system's owner/governing board accountable for their actions.

- The Henderson County Board of Commissioners have explored and supported the implementation of Option # 1 with the City of Hendersonville City Council numerous times over the past 40 years.
- Each time the subject has been presented to City Council both formally and informally they chose to keep the governance of the public utility water system under their sole control. There have been advisory boards and committees to present advice but they have always faded away over time and been given no administrative authority.

- The Henderson County Board of Commissioners, acting as elected officials for the 19,000+ customers of the City of Hendersonville water system located outside their area of jurisdiction, recently made one more attempt to gain support from the City Council to advance the implementation of Option # 1 (new governing body).
- The City Council has once again declined the request and will continue to retain total control of the largest public water utility in Henderson County.

- The County Commissioners should decide whether or not to proceed with the implementation of Option # 2 (Public Utilities Act amendment). If this Board determines that such an action is in the best interest of these 19,000+ customers then a resolution supporting this option must be made asap to our Henderson County representatives in the NC General Assembly (McGrady, Hensen, & Edwards). This resolution would request that they introduce legislation in the current session to accomplish this goal.