Borough of Leonia
312 Broad Avenue
Leonia, NJ 07605
(201)592-5780 ext. 222
awardrop@leonianj.gov

Andrea L. Wardrop
Borough Administrator

Meeting: 08/28/2020 9 A.M.

Mayor and Council

Special Meeting

1 **FLAG SALUTE**

2 **OPEN MEETING STATEMENT**

3 **ROLL CALL**

4 **COMMENTS FROM THE PUBLIC –**

AGENDA AND NON AGENDA ITEMS

TWO (2) MINUTES PER SPEAKER

5 **NON-CONSENT RESOLUTIONS**

5.1 RES. 2020-180 Authorize Change Order Turf Field

6 **ADJOURNMENT**

BOROUGH OF LEONIA
BERGEN COUNTY, NEW JERSEY

RESOLUTION NO. 2020-180

Date: August 28, 2020

MEMBER	YES	NO	ABSTAIN	ABSENT
Councilman Fusco				
Councilwoman Davis				
Councilwoman Flaim				
Councilman Grandelis				
Councilwoman Terrell				
Councilman Ziegler				
Mayor Zeigler (tie)				

AUTHORIZE THE AWARD OF CONTRACT CHANGE ORDER – CONTRACT #10 ATHLETIC FIELD IMPROVEMENTS AT LEONIA HIGH SCHOOL

WHEREAS, the Borough of Leonia had a need for the procurement of Athletic Field Improvements at the Leonia High School; and

WHEREAS, pursuant to N.J.A.S.A. 40A:11-7, the Borough solicited bids for these services which are anticipated to exceed the bid limit for the fiscal year; and

WHEREAS, the contract was awarded to Applied Landscape Technologies at the July 6, 2020 Mayor and Council meeting under Resolution #2020-149; and

WHEREAS, a change order is required for the project due to unforeseen issues with the soil structure and the topsoil that needs to be removed. Further, the contractor proposes leaving a one foot layer of compacted material and cover with soil stabilization geo-grid to bridge the poor soils; and

WHEREAS, the Mayor and Council find and declare that the change order is acceptable; and

WHEREAS, the Borough' Qualified Purchasing Agent (QPA) has concurred with the legality of the purchase in accord with the N.J.A.C. 5:3011.3; and

WHEREAS, the Borough Engineer and Borough Administrator recommend an award to Applied Landscape Technologies at a cost of $94,603.76.

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and Council of the Borough of Leonia, County of Bergen, State of New Jersey authorize a change order for Athletic Field Improvements payable to Applied Landscape Technologies of 145 River Road, Montville, New Jersey for Contract #10 at Leonia High School in an amount not to exceed $94,603.76.

I hereby certify that the above resolution was duly adopted by the Mayor and Council of the Borough of Leonia at a meeting of said Borough Council on, August 28, 2020.

ANDREA WARDROP, ACTING CLERK

Turf Field Change Orders

	Applied Landscape Technologies			
	Date	Amount		
Stage 1	08.17.2020	$ 37,472.02		
Stage 1	08.28.2020	$ 22,026.53		
Stage 2	08.28.2020	$ 62,577.23		
Contingency	08.28.2020	$ 10,000.00		
			$ 94,603.76	*for 08.28.2020 Special Meeting*
Total Change Orders through 08.28.2020		$ 132,075.78		

Applied Landscape Technologies

Phone (973) 402-6544 www.appliedlt.com Fax (973) 402-6709

Erik E. Boe, PE, LEED® AP
Director of Civil Engineering

August 26, 2020

sent via email
LAN ASSOCIATES, Engineering Planning Architecture Surveying
erik.boe@lanassociates.com

Re: Leonia HS Field Improvements – Undercutting and Subgrade

Erik,

Stage 1
On 8/4/20 it was brought to your team's attention that there were some areas of concern related to the subgrade along the Eastern edge of the field. That area was measured to be about 300x100 and unsuitable materials were approximated to be six inches deep. We prepared and submitted a proposal (based on this volume) to establish a unit price per cubic yard (CY) to utilize moving forward if and where other areas of concrete were encountered. At that time, the field was still more than 50% covered with soil so we were unable to inspect entire field footprint. This change order for $37,472.02 was approved at our progress meeting on 8/11/20 and work commenced. After this area was completed, the area and depths were remeasured with Leonia's representative on 8/21/20 and it was confirmed to be 884.74 CY; applying our unit price of $67.25/CY increased the total CO amount to **$59,498.55.** This area is shown on the attached map in **GREEN.**

Stage 2
On 8/24/20 another site meeting was conducted to outline the other areas of concern above and beyond this area covered under Stage 1 and a volume was presented and subsequently discussed in our conference call on 8/25/20. Following the call, ALT went into the field to confirm the total scope of work and provide a level of certainty this encompassed the problem. During the investigation it was determined that nearly all of the subgrade was unsuitable and should be removed; however, we could not guarantee a stable bottom – in other words, it got worse the deeper we went. The costs to fix this would be exorbitant and in excess of $300,000.

Method of Repair in Stage 2
Based on our experience, we would like to propose leaving a 1 foot layer of compacted material and cover with soil stabilization geo-grid to bridge the poor soils. We believe this will work where stone profile for field ranges from 12-24" in depth (the middle of the field). For the infield area, we would like to remove the unsuitable material, install geo-grid and backfill with DGA to subgrade. These areas are shown on the attached map in **YELLOW**. The two worst areas will need to be undercut to a depth of 2 feet followed by installation of geo-grid and backfilled with 12" of rip-rap, 6" of 2.5" stone, and 6" of DGA to subgrade. These areas are shown on the attached map in **PINK**. The other isolated, smaller areas are not shown on map but will be removed and replaced with DGA similar to repair in Stage 1. This scope was elaborated upon during today's meeting. This portion of the work that would be done as a lump sum under Stage 2 for a total of **$62,577.23.**

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While we feel the abovementioned method(s) is the best, most economical approach, we cannot guarantee that there will not be any issues moving forward as the stone is installed and remainder of field is constructed. With that considered, and pursuant to our discussions on site today, we recommend Leonia keeps a **$10,000** contingency for these minor repairs. ALT will perform these repairs on a T&M basis, if needed.

Please confirm we have authorization to proceed as outlined herein this letter for a total amount of **$132,075.79 (which includes contingency allowance)**. A summary sheet and supporting documentation of the narrative above are attached herein. If you should have any questions, feel free to call our office to discuss further.

Respectfully submitted,

Phil Pirro, Jr. P.E.
Project Manager

Cc: P. Martino (ALT); C. Tedford (ALT); E. Alheidt (ALT); P. Ercolano (LAN)

Applied Landscape Technologies

Phone (973) 402-6544 www.appliedlt.com Fax (973) 402-6709

Stage 1				
Volume measured 8/24/20	884.74 CY	$67.25	per CY	$59,498.55
Stage 2 (submitted 8/26/20)				
Volume confirmed 8/25/20 - see attached worksheet and map				$ 62,577.23

Revised Subtotal	**$122,075.79**
Contingency	**$10,000.00**
Grand Total	**$132,075.79**

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Applied Landscape Technologies

Phone (973) 402-6544 www.appliedlt.com Fax (973) 402-6709

JOB NUMBER:	20-190
JOB NAME:	Leonia High School
DECRIPTION OF CHANGE ORDER	Field Undercut, Part 2
NEW JERSEY	8/26/2020

Undercut areas based on attached map developed from field visit 8/25/20 - depths vary
Areas shown in **GREEN** (Stage 1) received DGA at 8" deep (on average) and completed 8/24/20
Areas shown in **YELLOW** to receive DGA at 8" deep (on average) and geo-grid across entire area
Areas shown in **PINK** to receive rip-rap stone for first 18" and capped with 6" of DGA
Other miscellaenous areas not shown for clarity - discussed at 8/26/20 site meeting
Two additional crew days figured to deploy stone into field (means and methods)

LABOR:	REG		OT-	OT-	OT- DBL	OT - DBL	TOTAL
TYPE	HOURS	RATE	HOURS	RATE #1	HOURS	RATE #2	
LABOR FOREMAN -472	40.0	$ 115.32		$ 172.98		$ 230.64	$ 4,612.80
LABORER - 472	80.0	$ 96.13		$ 144.20		$ 192.26	$ 7,690.40
OPERATOR- 825	64.0	$ 108.70		$ 163.05		$ 217.40	$ 6,956.80
DRIVER	16.0	$ 96.13		$ 144.20		$ 192.26	$ 1,538.08
							$ -
							$ 20,798.08

MATERIAL							
DESCRIPTION	QTY	UNIT $					TOTAL
DGA per TN	548.00	$ 19.90					$ 10,865.40
Rip Rap stone per TN	72.00	$ 31.84					$ 2,292.48
Biaxial geo-grid BX-11 per SF	22558.00	$ 0.15	(attached spec sheet)				$ 3,383.70
Skaps GT-132 nonwoven geotextile per SF	22500.00	$ 0.07	(attached spec sheet)				$ 1,575.00
		$ -					$ -
		$ -					$ -
		$ -					$ -
							$ 18,116.58

EQUIPMENT							
TYPE	QTY (HOURS)	RATE PER HR					TOTAL
DAEWOO 130 BACKHOE/ PC 220	32.00	$ 78.75					$ 2,520.00
PC 50 EXCAVATOR		$ 59.38					$ -
250 FRONT END LOADER		$ 63.25					$ -
D51 DOZER	32.00	$ 131.20					$ 4,198.40
JUMPING JACK RENTAL (DAY)		$ 126.66					$ -
TRACTOR TRAILER - MACH. DELIVERIES		$ 120.00					$ -
CAT 416/ RUBBER TIRE BH		$ 43.75					$ -
ROLLER	24.00	$ 56.25					$ 1,350.00
Rack Truck		$ 48.75					$ -
TANDEM or ROLLOFF TRUCK	16.00	$ 85.00					$ 1,360.00
MINIEXCAVATOR/ BOBCAT		$ 42.15					$ -
MAROOKA TRACK DUMP		$ 59.38					$ -
KOMATSU 490		$ 53.98					$ -
							$ 9,428.40

SUBCONTRACTOR							
	QTY	UNIT $					TOTAL
Export from Site (Loads)	26	$ 250.00					$ 6,420.00
	0.00	$ -					$ -
	0.00	$ -					$ -
	0.00	$ -					$ -
							$ 6,420.00

SUMMARY	COST	OH	PROFIT	TOTAL
		10%	5%	
LABOR	$ 20,798.08	$ 2,079.81	$ 1,143.89	$ 24,021.78
MATERIAL	$ 18,116.58	$ 1,811.66	$ 996.41	$ 20,924.65
EQUIPMENT	$ 9,428.40	$ 942.84	$ 518.56	$ 10,889.80
		0%	5%	
SUB	$ 6,420.00		$ 321.00	$ 6,741.00
				$ 62,577.23

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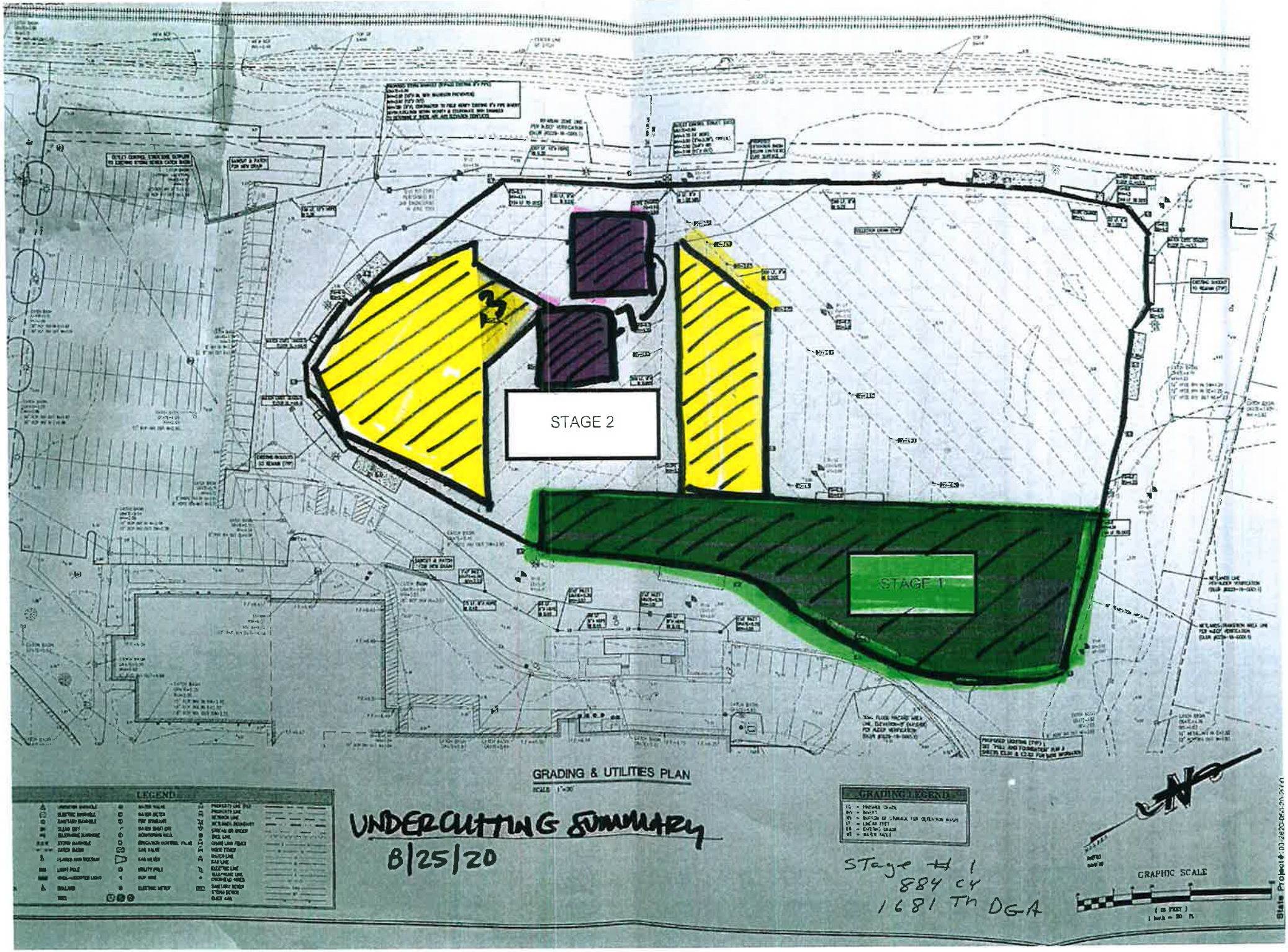
STAGE 2
STAGE 1
GRADING & UTILITIES PLAN
LEGEND
GRADING LEGEND
UNDERCUTTING SUMMARY
8/25/20
Stage #1
884 cy
1681 Th DGA
GRAPHIC SCALE

L & M Supply Co., Inc.
P. O. Box 640 Willacoochee, GA
31650 912-534-6071 Direct
800-948-7870 Toll Free
912-534-6254 Fax
www.landmsupplyco.com

Product Specification - Biaxial Geogrid BXGRID11 Type 1

Product Type: Integrally Formed Biaxial Geogrid
Polymer: Polypropylene
Load Transfer Mechanism: Positive Mechanical Interlock
Primary Applications: Spectra System (Base Reinforcement, Subgrade Improvement)

Product Properties

Index Properties	Units	MD Values[1]	XMD Values[1]
▪ Aperture Dimensions[2]	mm (in)	25 (1.0)	33 (1.3)
▪ Minimum Rib Thickness[2]	mm (in)	0.76 (0.03)	0.76 (0.03)
▪ Tensile Strength @ 2% Strain[3]	kN/m (lb/ft)	4.1 (280)	6.6 (450)
▪ Tensile Strength @ 5% Strain[3]	kN/m (lb/ft)	8.5 (580)	13.4 (920)
▪ Ultimate Tensile Strength[3]	kN/m (lb/ft)	12.4 (850)	19.0 (1,300)
Structural Integrity			
▪ Junction Efficiency[4]	%	93	
▪ Flexural Stiffness[5]	mg-cm	250,000	
▪ Aperture Stability[6]	m-N/deg	0.32	
Durability			
▪ Resistance to Installation Damage[7]	%SC / %SW / %GP	95 / 93 / 90	
▪ Resistance to Long Term Degradation[8]	%	100	
▪ Resistance to UV Degradation[9]	%	100	

Dimensions and Delivery

The biaxial geogrid shall be delivered to the jobsite in roll form with each roll individually identified and nominally measuring 3.0 meters (9.8 feet) or 4.0 meters (13.1 feet) in width and 75.0 meters (246 feet) in length. A typical truckload quantity is 185 to 250 rolls.

Notes

1. Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
2. Nominal dimensions.
3. Determined in accordance with ASTM D6637-10 Method A.
4. Load transfer capability determined in accordance with ASTM D7737-11.
5. Resistance to bending force determined in accordance with ASTM D7748-12, using specimens of width two ribs wide, with transverse ribs cut flush with exterior edges of longitudinal ribs, and of length sufficiently long to enable measurement of the overhang dimension.
6. Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) moment to the central junction of a 9 inch x 9 inch specimen restrained at its perimeter in accordance with GRI GG9.
7. Resistance to loss of load capacity or structural integrity when subjected to mechanical installation stress in clayey sand (SC), well graded sand (SW), and crushed stone classified as poorly graded gravel (GP). The geogrid shall be sampled in accordance with ASTM D5818 and load capacity shall be determined in accordance with ASTM D6637.
8. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
9. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

L & M Supply reserves the right to change its product specifications at any time. It is the responsibility of the specifier and purchaser to ensure that product specifications used for design and procurement purposes are current and consistent with the products used in each instance.

Made in the USA

This product specification supersedes all prior specifications for the product described above and is not applicable to any products shipped prior to February 1, 2013.

Sales Office:
Engineered Synthetic Products, Inc.
Tel (770) 564-1857
Fax (770) 564-1818
www.espgeosynthetics.com

Geotextile Product Description Sheet

SKAPS GT-142
Nonwoven Geotextile

SKAPS GT-142 is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. SKAPS GT-142 resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. SKAPS GT-142 conforms to the physical property values listed below:

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
Weight (Typical)	ASTM D 5261	oz/yd^2 (g/m^2)	4.2 (142)
Grab Tensile	ASTM D 4632	lbs (kN)	120 (0.533)
Grab Elongation	ASTM D 4632	%	50
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	50 (0.222)
CBR Puncture Resistance	ASTM D 6241	lbs (kN)	340 (1.46)
Permittivity*	ASTM D 4491	sec^{-1}	1.7
Water Flow*	ASTM D 4491	gpm/ft^2 ($l/min/m^2$)	120 (4885)
AOS*	ASTM D 4751	US Sieve (mm)	70 (0.212)
UV Resistance	ASTM D 4355	%/hrs	70/500

PACKAGING	
Roll Dimensions (W x L) – ft	12.5/15 x 360
Square Yards Per Roll	500/600
Estimated Roll Weight – lbs	152/180

* At the time of manufacturing. Handling may change these properties.

SKAPS Industries,
335 Athena Drive, Athens GA 30601
Phone:(706)-354-3700, Fax(706)-354-3737,
www.skaps.com

Made in U.S.A.

Applied Landscape Technologies

Phone (973) 402-6544 www.appliedlt.com Fax (973) 402-6709

JOB NUMBER:	20-190
JOB NAME:	Leonia High School
DECRIPTION OF CHANGE ORDER	Field Undercut, Part 1
NEW JERSEY	8/4/2020

Remove organic soils from area 300 x 100 x 6" thick, Export, and Backfill with DGA

LABOR:							
TYPE	REG HOURS	RATE	OT- HOURS	OT- RATE #1	OT- DBL HOURS	OT - DBL RATE #2	TOTAL
LABOR FOREMAN -472		$ 115.32		$ 172.98		$ 230.64	$ -
LABORER - 472	24.0	$ 96.13		$ 144.20		$ 192.26	$ 2,307.12
OPERATOR- 825	24.0	$ 108.70		$ 163.05		$ 217.40	$ 2,608.80
							$ -
							$ 4,915.92

MATERIAL							
DESCRIPTION	QTY	UNIT $					TOTAL
DGA	1054.50	$ 19.90					$ 20,984.55
		$ -					$ -
		$ -					$ -
		$ -					$ -
		$ -					$ -
		$ -					$ -
		$ -					$ -
		$ -					$ -
							$ 20,984.55

EQUIPMENT			
TYPE	QTY (HOURS)	RATE PER HR	TOTAL
DAEWOO 130 BACKHOE/ PC 220	8.00	$ 78.75	$ 630.00
PC 50 EXCAVATOR		$ 59.38	$ -
250 FRONT END LOADER		$ 63.25	$ -
D51 DOZER	16.00	$ 131.20	$ 2,099.20
JUMPING JACK RENTAL (DAY)		$ 126.66	$ -
TRACTOR TRAILER - MACH. DELIVERIES		$ 120.00	$ -
CAT 416/ RUBBER TIRE BH		$ 43.75	$ -
ROLLER	8.00	$ 56.25	$ 450.00
Rack Truck		$ 48.75	$ -
TANDEM or ROLLOFF TRUCK		$ 85.00	$ -
MINIEXCAVATOR/ BOBCAT		$ 42.15	$ -
MARCOKA TRACK DUMP		$ 59.38	$ -
KOMATSU 490		$ 53.98	$ -
	0		$ 3,179.20

SUBCONTRACTOR							
	QTY	UNIT $					TOTAL
Export from Site (Loads)	37.00	$ 100.00					$ 3,700.00
	0.00	$ -					$ -
	0.00	$ -					$ -
	0.00	$ -					$ -
	0.00	$ -					$ -
	0.00	$ -					$ -
	0.00	$ -					$ -
							$ 3,700.00

SUMMARY	COST	OH	PROFIT	TOTAL
		10%	5%	
LABOR	$ 4,915.92	$ 491.59	$ 270.38	$ 5,677.89
MATERIAL	$ 20,984.55	$ 2,098.46	$ 1,154.15	$ 24,237.16
EQUIPMENT	$ 3,179.20	$ 317.92	$ 174.86	$ 3,671.98
		0%	5%	
SUB	$ 3,700.00		$ 185.00	$ 3,885.00
				$ 37,472.02

Export: 16 operator hrs, 12 laborer hrs, 8 hrs D51, 8 hrs PC220, 4 hrs roller
Import: 8 operator hrs, 12 laborer hrs, 8 hrs D51, 4 hrs roller

$67.52 / CY

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