



NOTICE OF APPROVAL

The Department of Community Planning & Building of the City of Carmel-by-the-Sea has approved a Project pursuant to the City's Municipal Code. Persons interested in the project may review additional materials available at the Department of Community Planning & Building located at City Hall on Monte Verde Street between Ocean and 7th Avenues, phone number 831-620-2010.

The decision to approve this project may be appealed within 10 days from the date of this by filing a written appeal with the Department of Community Planning & Building.

Planning Case #: Design Study 22355

Owner Name: CARMEL PENINSULA PROPERTIES L L C

Case Planner: Suray Nathan, Assistant Planner

Date Posted: _____

Date Approved: 12/07/2022

Project Location: NE Corner of Lincoln & 10th

APN #: 010157008000 **BLOCK/LOT:** 112/ALL LOT 20

Applicant: Taylor McCormick

Project Description: Authorizes the demolition of an approximately 500 square feet existing non-permeable brick patio surface and replace with a combination of 27% permeable turf surface and 73% stone surface and interlace the stone pavers with 5-inch artificial turf strips

Can this project be appealed to the Coastal Commission? Yes No

Upon completion of the 10 calendar-day appeal period, please return this form, along with the Affidavit of Posting, to the case planner noted above.

CONDITIONS OF APPROVAL		
No.	Standard Conditions	
1.	Authorization. Approval of Design Study (DS 22-355, Cheney) authorizes the demolition of an approximately 500 square feet existing non-permeable brick patio surface and replace with a combination of 27% permeable turf surface and 73% stone surface and interlace the stone pavers with 5-inch artificial turf strips located on NE Corner of Lincoln & 10th Avenue in the Single-Family Residential (R-1) District as depicted in the plans prepared by Taylor McCormick stamped approved and on file in the Community Planning & Building Department unless modified by the conditions of approval contained herein.	✓
2.	Codes and Ordinances. The project shall be constructed in conformance with all requirements of the R-1 zoning district. All adopted building and fire codes shall be adhered to in preparing the working drawings. If any codes or ordinances require design elements to be changed, or if any other changes are requested at the time such plans are submitted, such changes may require additional environmental review and subsequent approval by the Planning Commission.	✓
3.	Permit Validity. This approval shall be valid for a period of one year from the date of action unless an active building permit has been issued and maintained for the proposed construction.	✓
4.	Water Use. Approval of this application does not permit an increase in water use on the project site without adequate supply. Should the Monterey Peninsula Water Management District determine that adequate water is not available for this site, this permit will be scheduled for reconsideration and appropriate findings prepared for review and adoption by the Planning Commission.	✓
5.	Service Laterals. All electrical service laterals to any new building or structure, or to any building or structure being remodeled when such remodeling requires the relocation or replacement of the main service equipment, shall be placed underground on the premises upon which the building or structure is located. Undergrounding will not be required when the project valuation is less than \$200,000 or when the City Forester determines that undergrounding will damage or destroy significant trees(s) (CMC 15.36.020).	✓
6.	Modifications. The applicant shall submit in writing, with revised plans, to the Community Planning and Building staff any proposed changes to the approved project plans prior to incorporating those changes. If the applicant changes the project without first obtaining City approval, the applicant will be required to submit the change in writing, with revised plans, within 2 weeks of the City being notified. A cease work order may be issued any time at the discretion of the Director of Community Planning and Building until: a) either the Planning Commission or Staff has approved the change, or b) the property owner has eliminated the change and submitted the proposed change in writing, with revised plans, for review. The project will be reviewed for its compliance to the approved plans prior to final inspection.	✓

7.	Exterior Revisions to Planning Approval Form. All proposed modifications that affect the exterior appearance of the building or site elements shall be submitted on the "Revisions to Planning Approval" form on file in the Community Planning and Building Department. Any modification incorporated into the construction drawings that is not listed on this form, shall not be deemed approved upon issuance of a building permit.	
8.	<p>Conflicts Between Planning Approvals and Construction Plans. It shall be the responsibility of the Owner, Applicant, and Contractor(s) to ensure consistency between the project plans approved by Planning Staff, the Planning Commission, or the City Council on appeal, and the construction plans submitted to the Building Division as part of the Building Permit review. Where inconsistencies between the Planning approval and the construction plans exist, the Planning approval shall govern, unless otherwise approved in writing by the Community Planning & Building Director, or their designee.</p> <p>When changes or modifications to the project are proposed, the Applicant shall clearly list and highlight each proposed change and bring each change to the City's attention. Changes to the project that are incorporated into the construction drawings that were not clearly listed or identified as a proposed change shall not be considered an approved change. Should conflicts exist between the originally approved project plans and the issued construction drawings that were not explicitly identified as a proposed change, the plans approved as part of the Planning Department Review, including any Conditions of Approval, shall prevail.</p>	
Landscape Conditions		
9.	Landscape Plan. All new landscaping shall be shown on a landscape plan and shall be submitted to the Community Planning & Building Department and to the City Forester prior to the issuance of a building permit. The landscape plan will be reviewed for compliance with the landscaping standards contained in the Zoning Code, including the following requirements: 1) all new landscaping shall be 75% drought-tolerant; 2) landscaped areas shall be irrigated by a drip/sprinkler system set on a timer; and 3) the project shall meet the City's recommended tree density standards, unless otherwise approved by the City based on-site conditions. The landscaping plan shall show where new trees will be planted when new trees are required to be planted by the Forest and Beach Commission or the Planning Commission.	✓
10.	Tree Removal. Trees on the site shall only be removed upon the approval of the City Forester or Forest and Beach Commission, as appropriate; all remaining trees shall be protected during construction by methods approved by the City Forester.	✓
11.	Significant Trees. All foundations within 15 feet of significant trees shall be excavated by hand. If any tree roots larger than two inches (2") are encountered during construction, the City Forester shall be contacted before cutting the roots. The City Forester may require the roots to be bridged or may authorize the roots to be cut. If roots larger than two inches (2") in diameter are cut without prior City Forester	✓

	approval or any significant tree is endangered as a result of construction activity, the building permit will be suspended and all work stopped until an investigation by the City Forester has been completed. Twelve inches (12") of mulch shall be evenly spread inside the dripline of all trees prior to the issuance of a building permit.	
12.	Erosion Control in the Right-of-Way. Projects with a natural slope within the right-of-way immediately adjacent to the property where parking is not practical shall install jute netting and a drought tolerant ground cover to manage post-construction erosion control. Plants installed within the drip line of trees shall be selected from the City's "List of Compatible Plants Under and Around Native Trees" located in the Forest Management Plan.	✓
13.	<p>Tree Protection Measures. Requirements for tree preservation shall adhere to the following tree protection measures on the construction site.</p> <ul style="list-style-type: none"> ● Prior to grading, excavation, or construction, the developer shall clearly tag or mark all trees to be preserved. ● Excavation within 6 feet of a tree trunk is not permitted. ● No attachments or wires of any kind, other than those of a protective nature shall be attached to any tree. ● Per Municipal Code Chapter 17.48.110 no material may be stored within the dripline of a protected tree to include the drip lines of trees on neighboring parcels. ● Tree Protection Zone -- The Tree Protection Zone shall be equal to dripline or 18 inches radially from the tree for every one inch of trunk diameter at 4.5 feet above the soil line, whichever is greater. A minimum of 4-foot-high transparent fencing is required unless otherwise approved by the City Forester. Tree protection shall not be resized, modified, removed, or altered in any manner without written approval. The fencing must be maintained upright and taught for the duration of the project. No more than 4 inches of wood mulch shall be installed within the Tree Protection Zone. When the Tree Protection Zone is at or within the drip line, no less than 6 inches of wood mulch shall be installed 18 inches radially from the tree for every one inch of trunk diameter at 4.5 feet above the soil line outside of the fencing. ● The Structural Root Zone -- Structural Root Zone shall be 6 feet from the trunk or 6 inches radially from the tree for every one inch of trunk diameter at 4.5' above the soil line, whichever is greater. Any excavation or changes to the grade shall be approved by the City Forester prior to work. Excavation within the Structural Root Zone shall be performed with a pneumatic excavator, hydro-vac at low pressure, or another method that does not sever roots. ● If roots greater than 2 inches in diameter or larger are encountered within the approved Structural Root Zone the City Forester shall be contacted for approval to make any root cuts or alterations to structures to prevent roots from being damaged. 	✓

	<ul style="list-style-type: none"> If roots larger than 2 inches in diameter are cut without prior City Forester approval or any significant tree is endangered as a result of construction activity, the building permit will be suspended and all work stopped until an investigation by the City Forester has been completed and mitigation measures have been put in place. 	
14.	Exterior Lighting. Exterior lighting shall be limited to 25 watts or less (incandescent equivalent, i.e., 375 lumens) per fixture and shall be no higher than 10 feet above the ground. Landscape lighting shall not exceed 18 inches above the ground nor more than 15 watts (incandescent equivalent, i.e. 225 lumens) per fixture and shall be spaced no closer than 10 feet apart. Landscape lighting shall not be used for tree, wall, fence or accent lighting of any type. The purpose of landscape lighting is to safely illuminate walkways and entrances to the subject property. All fixtures shall be shielded and down facing. The manufacturer's specifications, including illumination information, for each exterior light fixture shall be included in the construction drawings submitted with the building permit application.	✓
15.	Indemnification. The applicant agrees, at his or her sole expense, to defend, indemnify, and hold harmless the City, its public officials, officers, employees, and assigns, from any liability; and shall reimburse the City for any expense incurred, resulting from, or in connection with any project approvals. This includes any appeal, claim, suit, or other legal proceeding, to attack, set aside, void, or annul any project approval. The City shall promptly notify the applicant of any legal proceeding, and shall cooperate fully in the defense. The City may, at its sole discretion, participate in any such legal action, but participation shall not relieve the applicant of any obligation under this condition. Should any party bring any legal action in connection with this project, the Superior Court of the County of Monterey, California, shall be the situs and have jurisdiction for the resolution of all such actions by the parties hereto.	✓
16.	Driveway. The driveway material shall extend beyond the property line into the public right of way as needed to connect to the paved street edge. A minimal asphalt connection at the street edge may be required by the Superintendent of Streets or the Building Official, depending on site conditions, to accommodate the drainage flow line of the street. The driveway material and asphalt connection shall be clearly identified on the construction drawings submitted with the building permit application. If a driveway is proposed to be sand set a dimensioned construction detail showing the base material shall be included in the construction drawings.	✓
17.	Hazardous Materials Waste Survey. A hazardous materials waste survey shall be required in conformance with the Monterey Bay Unified Air Pollution Control District prior to issuance of a demolition permit.	✓
18.	Cultural Resources. All new construction involving excavation shall immediately cease if cultural resources are discovered on the site, and the applicant shall notify the Community Planning & Building Department within 24 hours. Work shall not be permitted to recommence until such resources are properly evaluated for significance by a qualified archaeologist. If the resources are determined to be	✓

	significant, prior to resumption of work, a mitigation and monitoring plan shall be prepared by a qualified archaeologist and reviewed and approved by the Community Planning and Building Director. In addition, if human remains are unearthed during excavation, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and distribution pursuant to California Public Resources Code (PRC) Section 5097.98.	
19.	USA North 811. Prior to any excavation or digging, the applicant shall contact the appropriate regional notification center (USA North 811) at least two working days, but not more than 14 calendar days, prior to commencing that excavation or digging. No digging or excavation is authorized to occur on site until the applicant has obtained a Ticket Number and all utility members have positively responded to the dig request. (Visit USANorth811.org for more information)	✓
20.	Conditions of Approval. All conditions of approval for the Planning permit(s) shall be printed on a full-size sheet and included with the construction plan set submitted to the Building Safety Division.	✓
SPECIAL CONDITIONS		
21.	Notice of Authorized Work. The applicant shall apply for and obtain a Notice of Authorized work for the installation of the new synthetic turf and the stone surface installation prior to commencing work.	✓
22.	Turf Requirements. The synthetic grass and associated base-rock materials shall be located a minimum of six feet from the base of any tree in order to adequately protect tree roots. The synthetic grass shall present the appearance of natural grass (approved material: Professional Play: with drainage of 121 inches, 1-1/4" pile height by WatersaverTurf).The synthetic grass and associated base material is shall be set with the ability to percolate water into the soil.	✓
23.	Final Inspection. A final inspection is required by the Planning Division.	✓

Acknowledgement and acceptance of conditions of approval:

Property Owner Signature

Printed Name

Date

Once signed, please email to snathan@ci.carmel.ca.us.

C-SCAPE

CARMEL-BY-THE-SEA
PLANNING DEPARTMENT
APPROVED

Permit #: DS 22-355 (Cheney)

Date Approved: 12/07/2022

Planner: Suray Nathan

mounted in mortar leaving
5" room on edges for drainage
through turf edging

16" x 16" x 1" squares combined
to create 32" x 32" squares;
mounted

these 5" gaps
to be filled with
permeable
artificial turf

Cordoba Cream
Stone

Plantings

(E) natural
gas fireplace
(modified)

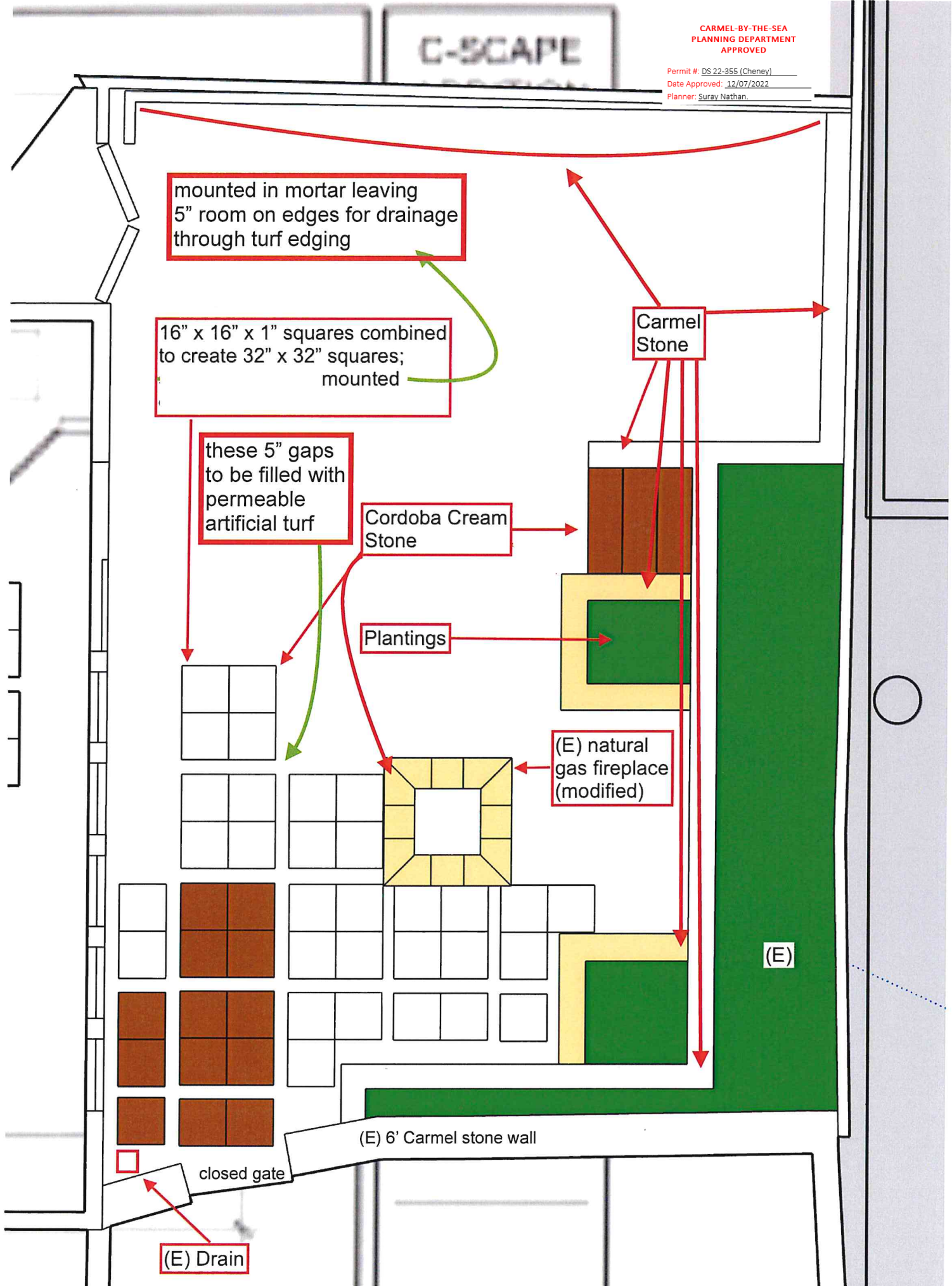
Carmel
Stone

(E)

(E) 6' Carmel stone wall

closed gate

(E) Drain



Cheney Artificial Turf Calculations

APN: 010-157-008-000

Taylor McCormick

831-206-2451

Stocker & Allaire General Contractors

12/2/22

1. The area to be covered by stone and turf totals 500 square feet (attachment #1)
2. A typical "section" of stone/turf is 37" square (see attachment #2)
3. 37" square is 1,369 square inches (9.5 square feet)
4. The 5" x 37" patches of turf in that 37" square is 370 square inches (2.6 square feet)
5. 2.6 is 27 percent of 9.5. Thus, 27% of coverage will be permeable turf, 73% will be stone.
Currently, coverage is 100 non-permeable brick in this area.
6. 27% of 500SF = 135 square feet.

Surveyor's Notes:

This map portrays the site at the time of the survey and does not show soils or geology information, underground conditions, easements, zoning or regulatory information or any other items not specifically requested by the property owner. There may be easements or other rights, recorded or unrecorded, affecting the subject property which are not shown hereon.

Underground utilities, if any, were not located. Information regarding underground utility locations should be obtained from the appropriate utility companies or public agencies.

Elevations are based on an arbitrary assumed datum as noted. Ground may be more irregular than contours indicate.

Distances are expressed in feet and decimals thereof.

The cross symbol (+) marks the horizontal position of the spot elevation shown. Tree symbols are drawn to scale only approximately.

Sufficient boundary lines were made to graphically show existing features however a complete boundary survey was not performed.

Lincoln street (a 50' wide City street)

2 NE of 10th & Lincoln
APN: 010-157-009
(Lot 18, Block 112 per R1)

Cheney
NE Corner of 10th & Lincoln
APN: 010-157-008
(Lot 20, Block 112 per R1)

- ① 20' x 11' = 220 SF
 - ② 20' x 8' = 160 SF
 - ③ 10' x 20' = 200 SF
- 580 SF

Concrete Form
16' x 16' 1"

⑤ House
57.5 x 25 = 1,438 SF

Concrete
14.58
7.76
14.8
20.0
53.3
2,012.5
580 = 20.4%

APN: 010-157-007
29 x 19.35 = 560.25 SF

Map Legend:

Basis of Bearings: A measured line between a 3/4" iron pipe with tag marked 'LS 2689' at the northwest corner of Lot 2, Block 112 and a 3/4" iron pipe with tag marked 'LS 2689' at the northwest corner of Lot 14, Block 112, N 00°00'00"E 239.99 M, / N 00°00'00"E 240.00 R1.

Horizontal Datum: Assumed.

Vertical Datum: Assumed. Elevation 1000.00' assigned to Control Point #1 (CP 1) as shown hereon.

Site Benchmark: Control Point #1 (CP 1) as shown hereon.

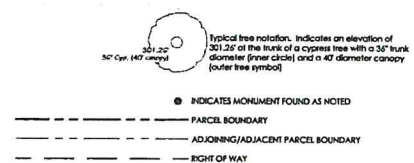
Contour Interval: Contours as shown hereon are interpolated using computer digital terrain modeling software and spot elevations.

Record Map References:

R1 = "Map of Carmel-by-the-Sea Monterey County California" recorded in Volume 1 of Maps "Cities & Towns" at Page 2, filed in the Monterey County Recorder's Office, State of California.

- | | | | |
|-------------------------------|--------------------------------|---------------------------------|---------------------|
| AC = ASPHALT CONCRETE | FEH-CL = CHAINLINK FENCE | OPN = OPEN | △ = CONTROL POINT |
| AGS = ABOVE GROUND SURFACE | FEH-G2 = GRAPSTAKE FENCE | P = POOL | ⊕ = ELECTRIC METER |
| AL = AREA LIGHT | FEH-W = WROUGHT IRON FENCE | P-F = FULL BOX | ⊙ = SEWER CLEAN OUT |
| AP = ANGLE POINT | FEH-W2 = WOOD FENCE | PLR = PLASTER | ⊕ = UTILITY POLE |
| BC = BRASS CAP OR BEGIN CURVE | FEH-WR = WIRE FENCE | P-PP = JOINT POWER/UTILITY POLE | ⊕ = WATER METER |
| BGS = BELOW GROUND SURFACE | FF = FRESH FLOOR | PRV = P-VALVE | ⊕ = WATER SHUTOFF |
| BL = BIKE LANE | FL = FLOW LINE | RF = REGISTERED CIVIL ENGINEER | |
| BLD = BUILDING | FOB = FACE OF BUILDING | RCE = REGISTERED CIVIL ENGINEER | |
| BLDRIT = BOLDLINE(S) | FOB = FACE OF BUILDING | ROD = ROD | |
| BM = BENCHMARK | FS = FRESH SURFACE | ROW = RIGHT OF WAY | |
| BL = BOUNDARY LINE | FT = FOOTING | SCO = SEWER CLEAN OUT | |
| BTM/SOT = BOTTOM | FW/FOW = FACE OF WALL | SDMH = STORM DRAIN MANHOLE | |
| BW = BACK OF WALK | F.T.C. = FROM TRUE CORNER | SW/SW2 = SIDEWALK | |
| CA = CENTERLINE | GAZ = GARAGE | SMH = SEWER MANHOLE | |
| CATV = CABLE TV | GC/GC/GWB = GROUND BLEV. | SPK = SPIRE | |
| CF = CURB FACE | GB = GRADE BREAK | SIC = STUCCO | |
| CL = CENTERLINE | GHW = GAS METER | STN = STONE | |
| CLM = COLLUM | GV = GAS VALVE | STP = STEP | |
| CCOMM = COMMUNICATIONS | HC = HANDICAP | STL = STREET LIGHT | |
| CONC = CONCRETE | HDD = HEDGE | SWL = SWALE | |
| CSB = CURB | ICV = IRRIGATION CONTROL VALVE | TM = TEMPORARY BENCHMARK | |
| CJO = CLEAN OUT | IP = IRON PIPE | TC = TOP OF CURB | |
| CP = CONTROL POINT | IR = INTERSECTION | TCN = TOP OF CONCRETE | |
| CT = CONTRA | IS = IRRIGATION | TEL/TELCO = TELEPHONE | |
| DG = DRAIN GATE | ISB = IRRIGATION | IG = TOP OF GRATE | |
| DI = DIRT DRIVE | ISL = LEAD & TAG | TOP = TOP OF SLOPE | |
| DWY = DRIVEWAY | IP = EDGE OF CONC OUTER | TOE = TOP OF SLOPE | |
| EBO = EDGE OF BERT ROAD | LS = LAND SURVEYOR | TM/FOW = TOP OF WALL | |
| EM = ELECTRIC METER | LI = LIGHT | UL = UTILITY | |
| EO = ELECTRIC OUTLET | MAAG = MAAD NAIL & TAG | WL = WATER LINE | |
| ENG/ENGR = ENGINEER | MAAG = MAAD NAIL | WMD = WATER METER | |
| ENCL = ENCLOSURE | MND = MARKED | WY = WATER VALVE | |
| EP = EDGE OF PAVEMENT | MN = MONUMENT | | |
| FO/ND = FOUND | N-1/NS1 = NAIL & TAG | | |
| FN = FENCE | NO = NATURAL GRADE | | |

- △ CONTROL POINT
- ⊕ ELECTRIC METER
- ⊙ SEWER CLEAN OUT
- ⊕ UTILITY POLE
- ⊕ WATER METER
- ⊕ WATER SHUTOFF



- INDICATES MONUMENT FOUND AS NOTED
- PARCEL BOUNDARY
- ADJOINING/ADJACENT PARCEL BOUNDARY
- RIGHT OF WAY

10th Avenue (a 50' wide City street)

Attachment #1



Topographic Survey
Northeast Corner of 10th & Lincoln, APN: 010-157-008
Located in the City of Carmel-by-the-Sea, Monterey County, State of California

Prepared For: Gail Cheney
Requested By: Samuel Pitrnick, Architect

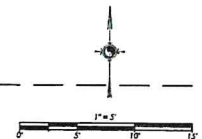
January 2018

Rasmussen Land Surveying, Inc.
2150 Garden Road, Suite A-3, Monterey, California 93942
P: 831.375.7240 F: 831.375.2545

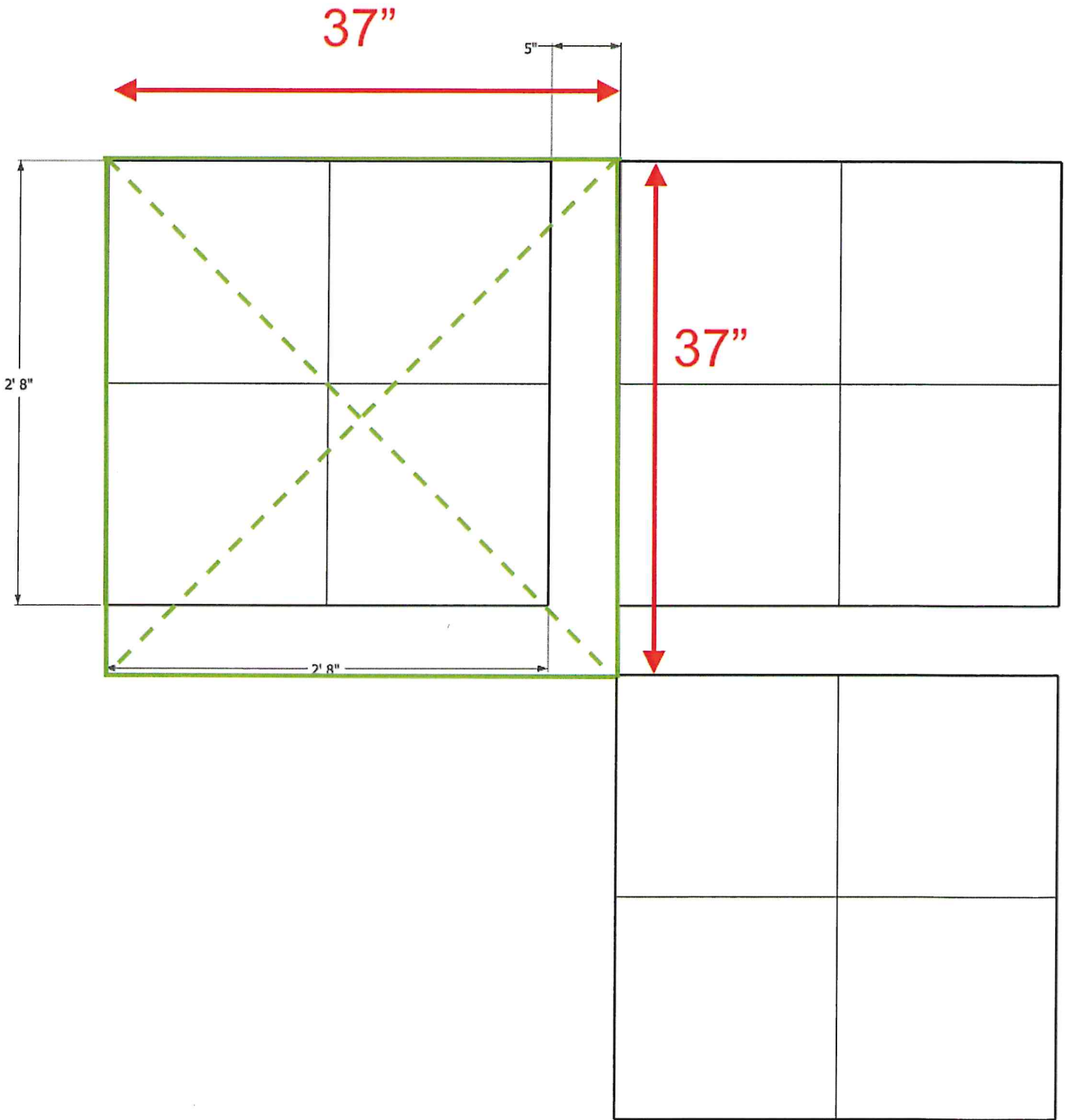
RLS W.O. # 2017-140

Sheet 1 of 1

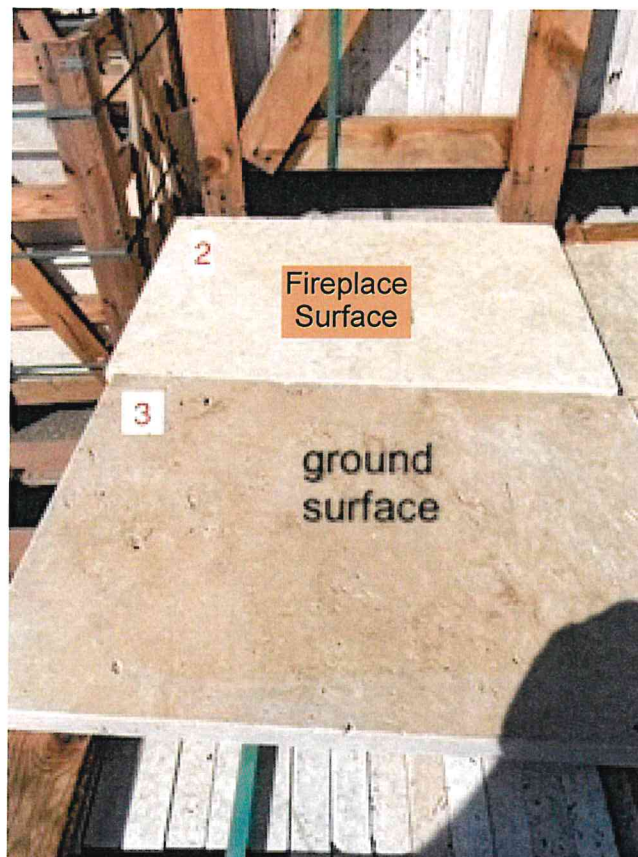
DRAWING REVISIONS
January 2018 - ORIGINAL SURVEY
January 2018 - Additional Post/Cheney shots added



Typical Cheney Patio
Stone/Turf "section"



Cheney Stone Surfaces









Product Specification Sheet

Professional Play

USES:

Landscape
Lawns
Playgrounds
Traffic Medians
Pet Areas
Commercial or Residential
Light-Heavy Traffic

SPECIFICATIONS:

Pile Height: 1-1/4"
Turf Gauge: 3/8"
Face Weight: 50 oz./yd²
Backing Weight: 27 oz./yd²
Total Weight; 77 oz./yd²
Stitch Rate: 17.5/10cm
Stitches/m²: 18375
Material/Dtex: PE 10200 & PP4400
Color: Emerald Green and Olive Green
with Brown and Green Thatching
Type Of Fiber: PE Monofilament and PP
Curled As Thatch

Summary Report

Watersavesrs Turf
4316 Redwood Hwy, Ste 100
San Rafael, CA 94903

Report Date: December 23, 2015

Work Order: 15122123



Project Location: U.S.A.

Project Name: Turf Test

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
410818	Professional Play	turf	2015-12-20	00:00	2015-12-21

Sample: 410818 - Professional Play

Param	Flag	Result	Units	RL
Total Lead		<1.00	mg/Kg	1



Certificate of Analysis Summary 627488



Watersavers Turf, San Rafael, CA

Project Name: Turf Testing

Project Id: Turf Testing Series 4

Project Location: USA

Date Received in Lab: Tue Jun-11-19 04:00 pm

Report Date: 20-JUN-19

Project Manager: John Builes

Analysis Requested	Lab Id:	627488-001				
	Field Id:	Turf Series 4				
	Depth:					
	Matrix:	SOLID				
	Sampled:	Jun-07-19 00:00				
Total Lead SUB: T104704215-19-29	Extracted:	Jun-16-19 14:30				
	Analyzed:	Jun-17-19 22:23				
	Units/RL:	mg/kg RL				
Lead		<0.943 0.943				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

John Builes
Project Manager

CERTIFICATE OF ANALYSIS

Client: Watersavers Turf
Product: Professional Play
Xenco Sample #: 627488
Lead Results: Less than one part per million

Synthetic fibers from turf product Professional Play, taken by Watersavers Turf 06-07-19, and received by Xenco Labs 06-11-19, were analyzed by Xenco Labs 06-17-19 for total lead by method ASTM G 2765-09 (EPA 6010). The results were less than one milligram lead per kilogram synthetic fiber (<1mg/KG).



Dr. Blair Leftwich, Director

06/18/19

Date



TEST REPORT

CLIENT:

Company:	Watersavers Turf	Report Number:	67979B
Address:	4316 Redwood Hwy, Ste 100	Lab Test Number:	2835-9355
	San Rafael, CA 94903	Test Completion Date:	7/8/2016
		Report Date:	7/20/2016
		Page:	1 of 1

TEST MATERIAL:

Material Type:	Synthetic Turf			Date Received:	7/7/2016
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:
Turf ID:	Professional Play				

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM F1551	Test Method:	Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials: Suffix-DIN 18-035, Part 6: Water Permeability of Synthetic Turf Systems and Permeable Bases

SAMPLING PLAN:

Sampling Date:	7/7/2016
<ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
none

TEST SUMMARY:

TEST METHOD	TEST DESCRIPTION	TEST RESULT
ASTM F1551; Suffix-DIN 18-035, Part 6	Average Rainfall Capacity (Water Permeability)	121.4 inches/hour

** Test data values represent drainage rates for the turf and infill only, and do not take into account the percolation properties of a sub-base or padding.*

Infill System: 1.2 lbs/ft ² Silica Sand	# of Specimens (3) 11.5" Diameter	
Tube: 10.75" OD 10.00" ID 8" Length (Beveled)	Tube Index Mark: 6"	Tube Weight: 39 lbs
Flange: 9.375" Diameter	Tube Flow Head: 2 Gallons	Pre-Conditioning: none

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available. TSI can only ensure the test results for the specific items tested.

Unless otherwise noted in the deviations sections of this report, all tests performed are in compliance with stated test method.

Test Report Approval:

 Digitally signed by Erle Miles
Date: 2016.07.21 09:15:47 -0800

Erle Miles, Jr. VP, Testing Services Inc

TSI Accreditation: Our laboratory is accredited by the US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSi is a certified independent testing laboratory by the Synthetic Turf Council

Form:	Rev:	Revision Date:	Page 1 of 1
Release Date:	Control Type: Electronic – Expires 24 hours after this date: Jul. 21, 16 Printed copies are uncontrolled		

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR REPORTS, LETTERS, NAME, SEALS, OR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

**PO Box 2041
Dalton, GA 30722-2041
(706) 226-1400
tsioffice@optilink.us**

TEST REPORT

CLIENT:

Company:	Watersavers Turf.	Report Number:	79395
Address:	4316 Redwood Hwy, Ste 100	Lab Test Number:	3169-2429
	San Rafael, CA 94903	Test Completion Date:	1/16/2020
		Report Date:	1/18/2020
		Page:	1 of 1

TEST MATERIAL:

Material Type:	Synthetic Turf	Date Received:	1/13/2020
Material Condition:	EXCELLENT: XXX GOOD:	POOR:	REJECTED:
Turf Identification:	Professional Play		
Infill:	None		

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM D2859	Test Method:	Standard Test Method for Ignition Characteristics of Finished Textile Pile Yarn Floorcoverings

SAMPLING PLAN:

Sampling Date:	1/13/2020
<ul style="list-style-type: none"> • Specimen sampling is performed in the sampling department at TSI. • The sampling size of specimens is determined by the test method requirements. • In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager. • All samples are subjected to the outside environmental conditions of temperature and relative humidity. • Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
Specimens were not exposed to air circulating oven.

TEST SCOPE:

This test method provides a method of determining the flammability characteristics of textile products when exposed to an ignition source in a laboratory environment. Eight specimens were taken from the sample lot, 230mm X 230mm, and preconditioned in an air circulating oven @ 150°C for 2 hours. After removal from the oven, the specimens are placed into a desiccator for 1 hour prior to performing the test. Each specimen was then placed into the test chamber floor with the pile surface up and a steel frame, 230mm X 230mm with 200mm diameter hole, placed on top of the specimen. A methenamine tablet was placed centrally onto the pile surface. The pill was ignited using a lighted match, with the ignition flame and propagated flame allowed to self-extinguish.

CRITERIA:

The specimen passes, if the charred portion of the test specimen, did not extend to within 25mm (1") of the diameter hole of the steel frame. The U.S. Consumer Product Safety Commission requires that at least seven of the eight specimens pass the test for acceptance as meeting the standard.

TEST SUMMARY:

TEST METHOD	TEST DESCRIPTION	TEST RESULT	
ASTM D2859-16	Ignition Characteristics of Textile Floor Coverings (Pill Test)	8 out of 8 Pass	Passes, U.S. CPSC 16CFR 1630 (FF1-70), Carpets & Rugs

Uncertainty:

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available.

TSI can only ensure the test results for the specific items tested.

Unless otherwise noted in the deviations sections of this report, all tests are performed in compliance with stated test method.

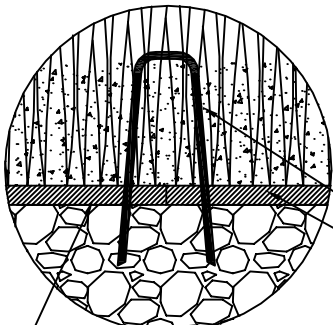
Test Report Approval:

 Erle Miles, III, Lab Director Testing Services (TSI) LLC

TSI Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSI is a certified independent testing laboratory by the Synthetic Turf Council



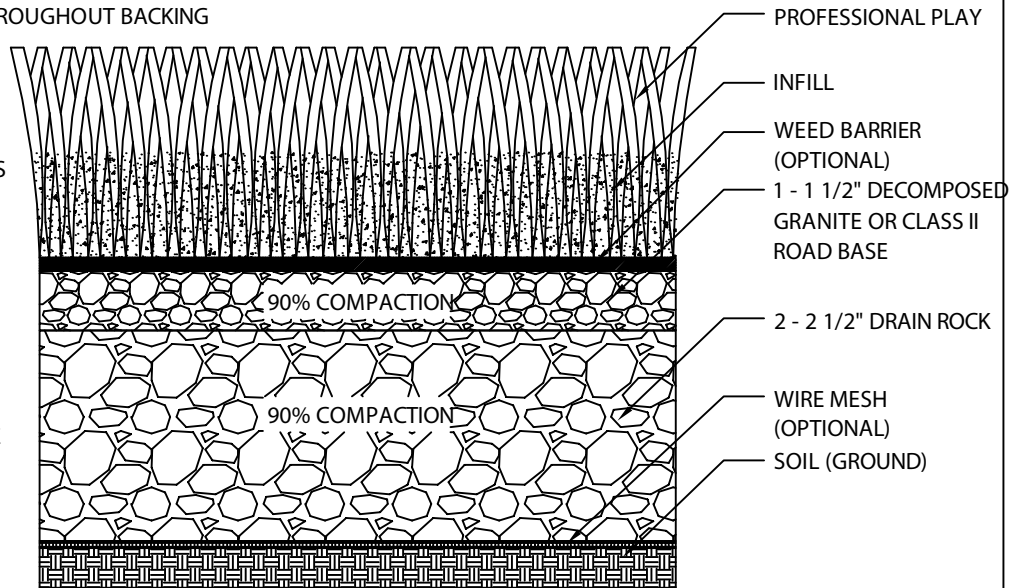
100108-0



SOD STAPLE 6" x 1" x 6"
 DRAINAGE PASS THROUGH FOR
 WATER IN PUNCHED HOLES
 THROUGHOUT BACKING

SEAMING TAPE
SPECIFICATIONS

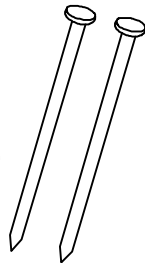
YARN TYPE POLYETHYLENE BLADE
 THATCH YARN TYPE POLYPROPYLENE CURLED AS
 THATCH
 PILE HEIGHT 1 1/4"
 TURF GAUGE 3/8"
 FACE WEIGHT 50 OZ/YD²
 BACKING WEIGHT 27 OZ/YD²
 TOTAL WEIGHT 77 OZ/YD²
 STITCH RATE 17.5/10 CM
 STITCHES/M² 18375
 COLOR EMERALD GREEN AND OLIVE
 GREEN WITH BROWN AND
 FIELD GREEN THATCHING
 ROLL SIZE (FEET) 15' x 100'
 MAXIMUM DRAIN RATE >30 INCHES PER HOUR



SECTION



SEAMING
 SOD STAPLES ARE
 RECOMMENDED TO SEAM
 THE SEAMS



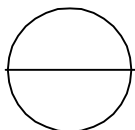
SECURING TURF TO BASE
 BRIGHT COMMON 40D/60D
 NAILS OR GALVANIZED NAILS
 6' APART ALONG PERIMETER
 SEAMS.



**POWER BROOM AFTER
 INSTALLATION IS
 COMPLETE**

NOTES:

1. THE GRASS MUST BE INSTALLED AND SEAMED WITH ADJACENT PIECES RUNNING IN THE SAME DIRECTION. SEAMS SHOULD BE GLUED WITH SUITABLE SEAMING GLUE AND SEAMING CLOTH, OR GST RECOMMENDED SEAMING TECHNIQUES.
2. COLOR: FIELD GREEN AND OLIVE GREEN WITH BROWN AND FIELD GREEN THATCHING.
3. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. DO NOT SCALE DRAWING.
5. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
6. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.



PROFESSIONAL PLAY



TEST REPORT

CLIENT:

Company:	Watersavers Turf	Report Number:	67979A
Address:	4316 Redwood Hwy, Ste 100	Lab Test Number:	2835-9355
	San Rafael, CA 94903	Test Completion Date:	7/13/2016
		Report Date:	7/20/2016
		Page:	1 of 1

TEST MATERIAL:

Material Type:	Synthetic Turf	Date Received:	7/7/2016
Material Condition:	EXCELLENT: XXX GOOD:	POOR:	REJECTED:
Turf ID:	Professional Play		

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM D5848	Test Method:	Standard Test Method for Mass Per Unit Area of Pile Yarn Floorcoverings

SAMPLING PLAN:

Sampling Date:	7/7/2016
<ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

TEST SUMMARY:

TEST METHOD	TEST DESCRIPTION	TEST RESULT
ASTM D5848-10e1	Total Product Weight	76.63 oz/yd ²
ASTM D5848-10e1	Pile Yarn Weight	50.05 oz/yd ²

Uncertainty:

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information using the latest test methods available. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests performed are in compliance with stated test method.

Test Report Approval:

Digitally signed by Erle Miles
Date: 2016.07.21 09:16:11 -0400

Erle Miles, Jr. VP, Testing Services Inc

TSI Accreditation: Our laboratory is accredited by the US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSi is a certified independent testing laboratory by the Synthetic Turf Council

Form:	Rev:	Revision Date:	Page 1 of 1
Release Date:	Control Type: Electronic – Expires 24 hours after this date: Jul. 21, 16 Printed copies are uncontrolled		

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR REPORTS, LETTERS, NAME, SEALS, OR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

**PO Box 2041
Dalton, GA 30722-2041
(706) 226-1400
tsioffice@optilink.us**



TEST REPORT

CLIENT:

Company:	Watersavers Turf.	Report Number:	79421
Address:	4316 Redwood Hwy, Ste 100	Lab Test Number:	3169-2420
	San Rafael, CA 94903	Test Completion Date:	1/16/2020
		Report Date:	1/18/2020
		Page:	1 of 1

TEST MATERIAL:

Material Type:	Synthetic Turf				Date Received:	1/13/2020	
Material Condition:	EXCELLENT:	XXX	GOOD:		POOR:		REJECTED:
Product ID:	Professional Play						

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM D1335	Test Method:	Standard Test Method for Tuft Bind Strength of Pile Yarn Floorcoverings

SAMPLING PLAN:

Sampling Date:	1/13/2020
<ul style="list-style-type: none"> Specimen sampling is performed in the sampling department at TSI. The sampling size of specimens is determined by the test method requirements. In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager. All samples are subjected to the outside environmental conditions of temperature and relative humidity. Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

TEST SUMMARY:

TEST METHOD	TEST DESCRIPTION	TEST RESULT
ASTM D1335-17e1	Average Tuft Bind Strength	17.4 lbs/force

➤ Each individual pull was made from a combination of monofilament and textured fibers, same needle site

Pull #1	18.66 lbs/force	Pull #2	19.95 lbs/force	Pull #3	18.50 lbs/force	Pull #4	19.01 lbs/force	Pull #5	18.09 lbs/force
Pull #6	19.76 lbs/force	Pull #7	17.56 lbs/force	Pull #8	14.63 lbs/force	Pull #9	16.67 lbs/force	Pull #10	17.37 lbs/force
Pull #11	14.95 lbs/force	Pull #12	15.89 lbs/force	Pull #13	14.71 lbs/force	Pull #14	19.36 lbs/force	Pull #15	16.11 lbs/force

Uncertainty:

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available.

TSI can only ensure the test results for the specific items tested.

Unless otherwise noted in the deviations sections of this report, all tests are performed in compliance with stated test method.

Test Report Approval:

 Digitally signed by Erle Miles
DN: cn=Erle Miles, o=Testing
Services Inc., ou,
email=erle@optilink.us, c=US,
serial=20200118164656565656

Erle Miles, III, Lab Director Testing Services (TSI) LLC

TSI Accreditation:

Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0.
TSI is a certified independent testing laboratory by the Synthetic Turf Council



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817 Showalter Ave
Dalton, GA 30722
(706) 226-1400
tsioffice@optilink.us

TEST REPORT

CLIENT:

Company:	Watersavers Turf	Report Number:	79707
Address:	4316 Redwood Hwy, Ste 100	Lab Test Number:	3169-2420
	San Rafael, CA 94903	Test Completion Date:	2/18/2020
		Report Date:	2/19/2020
		Page:	1 of 1

TEST MATERIAL:

Material Type:	Synthetic Turf			Date Received:	2/5/2020		
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:		
Product ID:	Professional Play						

TESTING METHODS REQUESTED:

<i>Testing Services Inc. was instructed by the client to test for the following...</i>	
Standard:	ASTM D5034
Test Method:	Standard Test Method for Breaking Strength of Textile Fabrics (Grab)

SAMPLING PLAN:

Sampling Date:	2/5/2020
<ul style="list-style-type: none"> • Specimen sampling is performed in the sampling department at TSI. • The sampling size of specimens is determined by the test method requirements. • In the event a specific sampling size is not called for, a determination will be made based on previous testing experience and approved for use by an authorized manager. • All samples are subjected to the outside environmental conditions of temperature and relative humidity. • Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested 	

DEVIATION FROM TEST METHOD:

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

TEST SUMMARY:

TEST METHOD	TEST DESCRIPTION	TEST RESULT
ASTM D5034-09(2017)	Average Grab Tear Strength of Length Direction (MD)	275.8 lbs/force
ASTM D5034-09(2017)	Average Grab Tear Strength of Width Direction (CMD)	230.7 lbs/force

Uncertainty:

We undertake all assignments for our clients on a best effort basis. Our findings and judgments are based on the information to us using the latest test methods available. TSI can only ensure the test results for the specific items tested. Unless otherwise noted in the deviations sections of this report, all tests are performed in compliance with stated test method.

Test Report Approval:

 Digitally signed by Erle Miles, III, DN: cn=Erle Miles, o=Testing Services, inc., ou=40400000000000000000, c=US, email=erle@testing-services.com, Date: 2020.02.19 14:56:06 -0700 Erle Miles, III, Lab Director Testing Services (TSI) LLC

TSI Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0. TSI is a certified independent testing laboratory by the Synthetic Turf Council



Technical Data Sheet: Professional Play

Product Properties:	Property	Imperial Unit	Metric Unit	Description
	Fiber Type			Polyethylene Monofilament and Polypropylene Curled as Thatch
	Fiber Mass	Denier 9180/3960 Monofilament	Detex 10200/4400 Monofilament	Polyethylene
	Pile Height	1.25 in	31.75 mm	
	Color(s)			Emerald Green and Olive Green with Brown and Green Thatching
	Tufting Gauge	.375 in	9.525 mm	
	Stitch Rate	17.78/4in	17.5/10cm	
	Stitches	15,363.338/yd ²	18,375/m ²	
	Primary Backing	5.899 oz/yd ²	200.00 g/m ²	Polypropylene and Polyester fiber
	Secondary Backing	20.681 oz/yd ² ±5%	701.227g/m ² ±5%	Urethane
	Total Backing Weight	26.58 oz/yd ² ±1.5oz	901.244 g/m ² ±50g	
	Micron	470		

Performance Properties:	Property	Imperial Unit	Metric Unit	Test Method
	Face Weight	50.05 oz/yd ²	1,697.039 g/m ²	ASTM D5848-10e1
	Total Weight	76.63 oz/yd ²	2,598.283 g/m ²	ASTM D5848-10e1
	Permeability	121.40 in/ft ² /hr	3,319.225 cm/m ² /hr	ASTM F1551; Suffix-DIN 18-035, Part 6
	Melting Point	176 °F for Blades (green) 250 °F for Thatch (brown and curled)	80 °C for Blades(green) 121 °C for Thatch (brown and green curled)	
	Tuft Bind	17.40 lb-f	77.399 N	ASTM-D1335-17e1
	Grab Tear MD	275.80 lb-f	1,226.820 N	ASTM-D5034-05
	Grab Tear CMD	230.70 lb-f	1,026.205 N	ASTM-D5034-05
	Infill Amount (recommended)	¾ of the Pile Height		

Packaging:	Property	Imperial Unit	Metric Unit	Description
	Model Number			Professional Play
	Roll Width	15 ft	4.57 m	
	Roll Length	100 ft	30.48 m	
	Area per Roll	1,500 ft ²	139.355 m ²	
	Total Roll Weight	865 lbs	392.357 kg	