SECTION 32 18 13

SYNTHETIC GRASS SURFACING

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

*Copyright 2024 - 2025 ARCAT, Inc. - All rights reserved*

\*\* NOTE TO SPECIFIER \*\* Synlawn; Artificial grass.  
This section is based on the products of Synlawn, which is located at:2680 Abutment Rd. S. E.Dalton, GA 30721Toll Free Tel: 866-796-5296Email: [request info (sales@synlawn.com)](https://arcat.com/rfi?action=email&company=Synlawn&message=RE%253A%2520Spec%2520Question%2520(02790lwn)%253A%2520&coid=46924&spec=02790lwn&rep=&fax=)  
Web: <https://www.synlawn.com>   
 [ [Click Here](https://arcat.com/company/synlawn-46924) ] for additional information.  
SYNLawn is the largest manufacturer and unrivaled innovator of artificial grass in North America with locations worldwide.  
The SYNLawn brand name has only been around for commercial and residential uses since 2003. The SYNLawn family of synthetic turf products has also been made and sold under the AstroTurf brand name to professional and collegiate companies around the globe since 1965. The inventors of synthetic grass, AstroTurf are one of the most iconic brands in all of sport.  
SYNLawn is the brand that created the synthetic landscape grass category. It remains the leading innovator in artificial grass products for your commercial and residential uses. The SYNLawn premium standard of quality in both workmanship and craftsmanship is unprecedented and installed by the most advanced professional installation network in the industry.

1. GENERAL
   1. SECTION INCLUDES.

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Synthetic Turf Surfacing: Product collections.
       1. Pet turf systems.
       2. Playground turf systems.
       3. Roofdeck turf systems.
       4. Golf turf systems.
       5. Bio-Based.
       6. SynAugustine.
       7. SynBlue.
       8. SynFescue.
       9. SynTipede.
       10. SynNatural.
       11. Sport / Agility.
       12. SynPlay.
  1. RELATED SECTIONS.

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete. For concrete substrate.
    2. Section 31 11 23 - Aggregate Base Courses. Subbase for resilient surfacing.
    3. Division 33 Section "Subdrainage" for piping and drainage course serving as subbase for synthetic turf surfacing.
  1. REFERENCES.

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
       1. ASTM D1335 - Test Method for Tuft Bind of Pile Yarn Floor Coverings.
       2. ASTM D1577 - Standard Test Methods for Linear Density of Textile Fibers.
       3. ASTM D2256 - Standard Test Method for Tensile Properties of Yards by the Single-Strand Method.
       4. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials.
       5. ASTM D5034 - Standard Test Method for Breaking Strength and Elongation of Textile Fabrics.
       6. ASTM D5793 - Standard Test Method for Binding Sites per Unit Length or Width of Pile Yard Floor Coverings.
       7. ASTM D5823 - Standard Test Method for Tuft Height of Pile Floor Coverings.
       8. ASTM D5848 - Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Coverings.
       9. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
       10. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source.
       11. ASTM F1015 - Standard Test Method for Relative Abrasiveness of Synthetic Turf Playing Surfaces.
       12. ASTM F1292 - Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment.
       13. ASTM F1551 - Standard Test Methods for Comprehensive Characterization of Synthetic Turf Playing Surfaces and Materials.
       14. ASTM F1951 - Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.
    2. International Play Equipment Manufacturers Association (IPEMA).
  1. SUBMITTALS.
     1. Submit under provisions of Section 01 30 00.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color of synthetic turf surfacing indicated.
    2. Shop Drawings: Installation details including roll and seaming layout, methods of attachment and details at penetrations and terminations.
       1. Show layout of marking plan if any, indicating details for specified activity areas.
    3. Qualification Data: For Installer.
    4. Installation Schedule: Showing planned commencement and completion dates for each portion of the Work; include critical dates indicated on Owner's project schedule.
    5. Warranty: Sample warranty specified in this Section.

\*\* NOTE TO SPECIFIER \*\* Delete maintenance materials paragraph if not required or edit as required.

* + 1. Maintenance Materials:
       1. Extra materials that match products installed and packaged with protective covering for storage and identified with labels describing contents.
          1. Seaming Materials: Sufficient quantity for 100 sq. ft.
          2. Synthetic Turf Fiber: Sufficient quantity for 100 sq. ft.
          3. Infill Material: Sufficient quantity for 100 sq. ft., in weatherproof bags.
  1. QUALITY ASSURANCE.

\*\* NOTE TO SPECIFIER \*\* SynLawn products are manufactured and warranty through Synthetic Turf Resources, a vertically integrated company owned by Sports Holdings Group. Quality Assurance is supported through these groups and has four decades of experience.

* + 1. Manufacturer Qualifications: A firm experienced in manufacturing synthetic turf surfacing materials like those specified for this project, with a record of successful service for a minimum of 5 years.
    2. Installer Qualifications: An experienced Installer certified by the manufacturer, employing workers trained and approved by the manufacturer.

\*\* NOTE TO SPECIFIER \*\* SynLawn certified installers meet design, experience and contractual standards set forth in Distributor Agreements. Installers also attend multiple annual trainings and work towards STC (Synthetic Turf Council) certification as well.

* + 1. Source Limitations: Obtain synthetic turf surfacing materials through one source from a single manufacturer.
       1. Provide secondary materials including adhesives, paint, thread, and repair materials of type and from source recommended by manufacturer of synthetic turf surfacing materials.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. The intent of the mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE.
     1. Conduct conference at Project site following award of contract. Review methods and procedures related to synthetic turf surfacing installation including, but not limited to, construction schedule, availability of materials, equipment and facilities needed to make progress and avoid delays, installation procedures, inspection procedures, and coordination with other work.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS.
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS.
      1. Acceptable Manufacturer: Synlawn, which is located at:2680 Abutment Rd. S. E.Dalton, GA 30721Toll Free Tel: 866-796-5296Email: [request info (sales@synlawn.com)](https://arcat.com/rfi?action=email&company=Synlawn&message=RE%253A%2520Spec%2520Question%2520(02790lwn)%253A%2520&coid=46924&spec=02790lwn&rep=&fax=);Web: <https://www.synlawn.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00.

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs in the following article that are not required.

* 1. PERFORMANCE REQUIREMENTS.
     1. Certification: Provide synthetic turf surfacing system with safety performance testing certified by IPEMA.
     2. Environmental: Provide synthetic turf surfacing system with EN 71-3 Heavy Metal Analysis.
     3. Specifier: Retain "Shock Attenuation Value" Paragraph below when required for Project. Coordinate with information on Drawings and Fall Pad requirements in Article 2.4 below.
     4. Shock Attenuation Value: Provide synthetic turf system with G-max value not exceeding 200 and Head Injury Criteria (HIC) not exceeding 1,000 in accordance with ASTM F 1292, based upon application and fall height indicated on Drawings.
     5. Specifier: Retain "Fire-Test-Response Characteristics" Paragraph below if fire-tested product is required by authorities having jurisdiction or desired by Owner.
     6. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
     7. Specifier: Retain "Exterior Fire-Test Exposure" Paragraph below if fire-tested product is required by authorities having jurisdiction or desired by Owner. ASTM E108 applies to SYNLawn Play Platinum product.
     8. Exterior Fire-Test Exposure: Provide synthetic turf surfacing materials identical to those of assemblies tested for Class A fire resistance according to ASTM E108 or UL 790 by Underwriters Laboratories or another testing and inspecting agency acceptable to authorities having jurisdiction.
     9. Specifier: Retain "Surface Burning Characteristics" Paragraph below if required by authorities having jurisdiction.
     10. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings from an applicable testing agency.
         1. Flame-Spread Index: Class A.
         2. Smoke-Developed Index: 50 or less.
     11. Accessibility Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1 for recreation surfaces.
         1. Provide synthetic turf system meeting requirements of ASTM F1951.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. PET TURF SYSTEMS.
     1. Performance Requirements:

\*\* NOTE TO SPECIFIER \*\* Retain "Fire-Test-Response Characteristics" Paragraph below if fire-tested product is required by authorities having jurisdiction or desired by Owner.

* + - 1. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
      2. Accessibility Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1.
         1. Provide synthetic turf system meeting requirements of ASTM F1951.
    1. System Design:
       1. Synthetic grass surfacing system specifically designed and recommended by the manufacturer for installation as a dog run.
       2. Synthetic grass surfacing system constructed to maximize dimensional stability, to resist damage during normal use, and to minimize UV degradation, including fading.
       3. Synthetic grass surfacing system resistant to staining, weather, insects, rot, mildew, and fungus growth, and shall be non-allergenic and non-toxic.
    2. Basis of Design Product: SYNLawn Pet Platinum.
       1. Test Data: USDA System, ASTM E108 CLASS A FIRE, D2859, C518, EN71, F1292, F1951, RCRA 8 TCLP, CAL 1350, IPEMA.
       2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Superrain+, Deluster, UV Stabilizers.
       3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
          1. Color: Field Green / Apple.
          2. Fabric Construction: Tufted.
       4. PE Yarn Denier/ Ends: 10800 / 6.
       5. Thatch Zone Yarn: Polyethylene.
          1. Color: Field Green / Beige.
       6. Thatch Zone Denier: 5000 / 8.
       7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
       8. Face Weight per ASTM D5848: 100 oz/yd2.
       9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
       10. Backing: 13PP/18PET 2pt / 22 oz EnviroLoc+.
       11. Primary Backing: Weight per ASTM D5848: 6 oz/yd2. 15/18 polypropylene, 2 layers with fiber-reinforcing core.
       12. Secondary Backing: Weight: 22 oz per sq yd. bio-base urethane.
           1. Enviroloc+
           2. Anti Fungi an Anti Algae blended into the secondary backing.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 30 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: Greater than 1000 inches per hour.
       21. Fabric Width: 15 ft.
    3. Basis of Design Product: SYNLawn Pet Premium.
       1. Test Data: ASTM E108 CLASS A FIRE, D2859, E648, F1292, F1551, F1951, CAL 1350, PFA-FREE.
       2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
       3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
          1. Color: Field Green / Olive / Apple.
          2. Fabric Construction: Tufted.
       4. Grass Zone Denier: 9900 / 9.
       5. Thatch Zone Yarn: Polyethylene.
          1. Color: Field Green / Beige.
       6. Thatch Zone Denier: 5000 / 8.
       7. Pile Height (Nominal)per ASTM D5823: 1-5/8 inch.
       8. Face Weight per ASTM D5848: 100 oz/yd2.
       9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
       10. Backing: 13PP/18PET 2pt / 22 oz EnviroLoc+.
       11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
       12. Secondary Coating Weight: 22 oz per sq yd.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 30 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: Greater than 1000 inches per hour.
       21. Fabric Width: 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. PLAYGROUND TURF SYSTEMS.
     1. Basis of Design Product: SYNLawn Play Platinum.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Color: Field Green / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 100 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22 oz EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 inches per hour.
        21. Fabric Width: 15 ft.
     2. Basis of Design Product: SYNLawn Play Premium.
        1. Test Data: ASTM E108 CLASS A FIRE, D2859, E648, F1292, F1551, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Color: Field Green / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 20 oz EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 1000 inches per hour.
        21. Fabric Width: 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. ROOFDECK TURF SYSTEMS
     1. Basis of Design Product: SYNLawn RoofDeck Platinum.
        1. Test Data: USDA SYSTEM, ASTM E108 CLASS A, ASTM D2859, E84, E648, F1292, F1951, IPEMA, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Diamond Mono.
           1. Color: Field Green.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 8400 / 16.
        5. Thatch Zone Yarn: Nylon.
           1. Color: Field Green.
        6. Thatch Zone Denier: 4200 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/8 inch.
        8. Face Weight per ASTM D5848: 60 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 88 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 12600 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 500 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn RoofDeck Premium.
        1. Test Data: USDA SYSTEM, ASTM E108 CLASS A, ASTM D2859, E648, F1292, F1951, IPEMA, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill, IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-5/8 inch.
        8. Face Weight per ASTM D5848: 100 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 1000 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. GOLF TURF SYSTEMS
     1. Basis of Design Product: SYNLawn Classic Pitch.
        1. Test Data: ASTM D2859, E648, F1292, F1951, IPEMA, CAL 1350 EMISSIONS, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Textured Diamond.
           1. Color: Verde.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 4200 / 8.
        5. Thatch Zone Yarn: N/A.
           1. Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 7/8 inch.
        8. Face Weight per ASTM D5848: 53 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 81 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 20 oz EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 4200 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: N/A.
        21. Fabric Width: 15 ft.
     2. Basis of Design Product: SYNLawn Classic Putt.
        1. Test Data: ASTM D2859, E648, F1292, F1951, IPEMA, CAL 1350 EMISSIONS, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Textured Diamond.
           1. Color: Verde.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 4200 / 8.
        5. Thatch Zone Yarn: N/A.
           1. Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 7/8 inch.
        8. Face Weight per ASTM D5848: 53 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 81 oz/yd2.
        10. Backing: 13PP/18PET 2pt/22oz. EnviroLoc.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 4200 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: N/A.
        21. Fabric Width: 15 ft.
     3. Basis of Design Product: SYNLawn Precision Putt.
        1. Test Data: ASTM E108 CLASS A FIRE, D2859, E648, F1292, F1951, PFA-FREE.
        2. Features: HeatBlock, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Textured Diamond.
           1. Color: Verde.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 4200 / 8.
        5. Thatch Zone Yarn: N/A.
           1. Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 3/8 inch.
        8. Face Weight per ASTM D5848: 47 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 84 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 20 oz Embossed.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 20 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 4200 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: N/A.
        21. Fabric Width: 15 ft.
     4. Basis of Design Product: SYNLawn SynRange Pro.
        1. Test Data:
        2. Features: EnviroLoc+, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Slit Film.
           1. Color: Field Green / Lime / White.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 10000 / 1.
        5. Thatch Zone Yarn: N/A.
           1. Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/4 inch.
        8. Face Weight per ASTM D5848: 41 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 69 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 10000 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 300.
        21. Fabric Width: 15 ft.
     5. Basis of Design Product: SYNLawn Tee Strike.
        1. Test Data: ASTM D2859, E648, F1292, F1951, CAL 1350 EMISSION, PFA-FREE.
        2. Features: EnviroLoc+, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Diamond Mono.
           1. Color: Field Green.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 8400 / 16.
        5. Thatch Zone Yarn: Nylon.
           1. Color: Field Green.
        6. Thatch Zone Denier: 4200 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1 inch.
        8. Face Weight per ASTM D5848: 120 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 148 oz/yd2.
        10. Backing: 13PP/18PET 2pt / Black PU.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 7000 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: N/A.

\*\* NOTE TO SPECIFIER \*\* Delete fabric width option not required.

* + - 1. Fabric Width: 6 ft.
      2. Fabric Width: 12 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. BIO-BASED COLLECTION
     1. Basis of Design Product: SYNLawn SYNAugustine 347.
        1. Test Data: USDA SYSTEM, ASTM E108 CLASS A, ASTM D2859, E648, F1292, F1951, IPEMA, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill, IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-7/8 inch.
        8. Face Weight per ASTM D5848: 75 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 103 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 700 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNAugustine 547.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene / Sugarcane.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5400 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-3/8 inch.
        8. Face Weight per ASTM D5848: 50 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 78 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15300 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 800 in/hr.
        21. Fabric Width 15 ft.
     3. Basis of Design Product: SYNLawn SYNAugustine X47.
        1. Test Data: ASTM E108 CLASS A FIRE, D2859, E648, F1292, F1551, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-5/8 inch.
        8. Face Weight per ASTM D5848: 100 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 16000 in/hr.
        21. Fabric Width 15 ft.
     4. Basis of Design Product: SYNLawnSYNTIPEDE 321.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Turf Green.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 607.6 in/hr.
        21. Fabric Width 15 ft.
     5. Basis of Design Product: SYNLawn SYNTIPEDE 343.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Biege.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 600 in/hr.
        21. Fabric Width 15 ft.
     6. Basis of Design Product: SYNLawn SYNTIPEDE X43.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Biege.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 100 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 348.57 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNAUGUSTINE COLLECTION
     1. Basis of Design Product: SYNLawn SYNAugustine 347.
        1. Test Data: USDA SYSTEM, ASTM E108 CLASS A, ASTM D2859, E648, F1292, F1951, IPEMA, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill, IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-7/8 inch.
        8. Face Weight per ASTM D5848: 75 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 103 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 700 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNAugustine 547.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene / Sugarcane.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5400 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-3/8 inch.
        8. Face Weight per ASTM D5848: 50 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 78 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15300 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 800 in/hr.
        21. Fabric Width 15 ft.
     3. Basis of Design Product: SYNLawn SYNAugustine 847.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Soft Omega.
           1. Color: Field Green / Olive / Apple.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/4 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 1000 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNBLUE COLLECTION
     1. Basis of Design Product: SYNLawn SYNBlue 545.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega / Rhombus.
           1. Color: Field / Olive / Apple / Tan.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 9900 / 9.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-7/8 inch.
        8. Face Weight per ASTM D5848: 90 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 118 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 14900 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 1/2 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNBlue 745.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: S + W + Diamond.
           1. Color: Field Green / Olive / Tan.
           2. Fabric Construction: Tufted.
        4. Grass Zone Denier: 10500 / 7
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 2 inch.
        8. Face Weight per ASTM D5848: 75 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 104 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15500 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNFESCUE COLLECTION
     1. Basis of Design Product: SYNLawn SYNFescue 60.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: S + Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Beige.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 6 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 88 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNFescue 80.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, PFA-FREE.
        2. Features: EnviroLoc+, HeatBlock, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: S + Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Beige / Brown.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-3/4 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 18/18 PP 2 part / 22 oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 in/hr.
        21. Fabric Width: 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. SYNRYE COLLECTION
     1. Basis of Design Product: SYNLawn SYNRye 200.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Nylon. Yarn Shape: Diamond Mono.
           1. Constructed: Tufted.
           2. Color: Field Green / Olive.
        4. Grass Zone Denier: 8400 / 16.
        5. Thatch Zone Yarn: Nylon.
           1. Color: Field Green.
        6. Thatch Zone Denier: 4200 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/8 inch.
        8. Face Weight per ASTM D5848: 60 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 88 oz/yd2.
        10. Backing: 18/18 PP 2 part / 22 oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 12600 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 52.19 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNTIPEDE COLLECTION
     1. Basis of Design Product: SYNLawn SYNTIPEDE 243.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple,
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Biege.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1 inch.
        8. Face Weight per ASTM D5848: 60 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 88 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 344.31 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNTIPEDE 321.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple,
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Turf Green.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 607.6 in/hr.
        21. Fabric Width 15 ft.
     3. Basis of Design Product: SYNLawn SYNTIPEDE 343.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple,
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Biege.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 80 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 108 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 600 in/hr.
        21. Fabric Width 15 ft.
     4. Basis of Design Product: SYNLawn SYNTIPEDE X43.
        1. Test Data: USDA SYSTEM, ASTM D2859, E648, F1292, F1951, CAL 1350, PFA-FREE.
        2. Features: Sanitized, EnviroLoc+, StatBlock Anti-Static, DualChill IR Reflective, Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Omega.
           1. Constructed: Tufted.
           2. Color: Field Green / Apple.
        4. Grass Zone Denier: 10800 / 6.
        5. Thatch Zone Yarn: Polyethylene.
           1. Color: Field Green / Biege.
        6. Thatch Zone Denier: 5000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1-1/2 inch.
        8. Face Weight per ASTM D5848: 100 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 128 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 348.57 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNPRO COLLECTION
     1. Basis of Design Product: SYNLawn SYNBOCCE.
        1. Test Data: ASTM Certified F1292, F1951 IPEMA Certified.
        2. Features: EnviroLoc+ HeatBlock UV Stabilizers.
        3. Grass Zone Yarn: Nylon / Verde. Yarn Shape: Textured Diamond.
           1. Constructed: Tufted.
           2. Color: Verde.
        4. Grass Zone Denier: 4200 / 8.
        5. Thatch Zone Yarn: N/A.
           1. Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 7/8 inch.
        8. Face Weight per ASTM D5848: 53 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 81 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 22oz. EnviroLoc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 4200Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: Greater than 400 in/hr.
        21. Fabric Width 15 ft.
     2. Basis of Design Product: SYNLawn SYNMOD.
        1. Test Data: ASTM Certified F355-01 Class 1 Fire Rating.
        2. Features: No Turf Delamination, Pre-installed Velcro attachment system.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Slit Film CP Pro Plus.
           1. Constructed: Tufted.
           2. Color: Field Green.
        4. Grass Zone Denier: 5040 / 8.
        5. Thatch Zone Yarn: Nylon.
           1. Color: Dark Green:
        6. Thatch Zone Denier: 6000 / 6.
        7. Pile Height (Nominal)per ASTM D5823: 1 inch.
        8. Face Weight per ASTM D5848: 65 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 102 oz/yd2.
        10. Backing: TTC G16 Reinforced Fiberglass.
        11. Primary Backing Weight per ASTM D5848: 7 oz/yd2.
        12. Secondary Coating Weight: 30 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 11040 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: 60.05 in/hr.
        21. Panel Width 4 x 7-1/2 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SPORT / AGILITY COLLECTION
     1. Basis of Design Product: SYNLawn SYNPRO Pet.
        1. Test Data: ASTM D2859, E648, F1292, F1951, CAL 1350 Emission, PFA-Free.
        2. Features: Deluster, UV Stabilizers, EnviroLoc+, HeatBlock.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Legend Mono.
           1. Constructed: Tufted.
           2. Color: Field Green and Turf Color.
        4. Grass Zone Denier: 10,800 / 6.
        5. Thatch Zone Yarn/Color:
           1. Green: Field Green / Beige.
           2. Colors: Matches Turf Color.
        6. Thatch Zone Denier: 5,000 / 8.
        7. Pile Height (Nominal)per ASTM D5823: 1 inch.
        8. Face Weight per ASTM D5848: 58 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 86 oz/yd2.
        10. Backing: 13 PP / 18 PET 2pt / 22 oz Enviroloc+.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight: 22 oz per sq yd.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 30 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: 348.57 in/hr.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Field Green.
      2. Color: Blue.
      3. Color: White.
      4. Color: Yellow.
      5. Color: Gold.
      6. Color: \_\_\_\_\_\_\_\_.
      7. Color: As determined by the Architect.
    1. Basis of Design Product: SYNLawn SYNPRO Play.
       1. Test Data: ASTM D2859, E648, F1292, F1951, CAL 1350 Emission, PFA-Free.
       2. Features: Deluster, UV Stabilizers, EnviroLoc+, HeatBlock.
       3. Grass Zone Yarn: Polyethylene. Yarn Shape: Legend Mono.
          1. Constructed: Tufted.
          2. Color: Field Green and Turf Color.
       4. Grass Zone Denier: 10,800 / 6.
       5. Thatch Zone Yarn/Color:
          1. Green: Field Green / Beige.
          2. Colors: Matches Turf Color.
       6. Thatch Zone Denier: 5,000 / 8.
       7. Pile Height (Nominal)per ASTM D5823: 1 inch.
       8. Face Weight per ASTM D5848: 58 oz/yd2.
       9. Total Fabric Weight per ASTM D5848: 86 oz/yd2.
       10. Backing: 13 PP / 18 PET 2pt / 22 oz Enviroloc+.
       11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
       12. Secondary Coating Weight: 22 oz per sq yd.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 30 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: 348.57 in/hr.
       21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Field Green.
      2. Color: Blue.
      3. Color: White.
      4. Color: Yellow.
      5. Color: Gold.
      6. Color: \_\_\_\_\_\_\_\_.
      7. Color: As determined by the Architect.
    1. Basis of Design Product: SYNLawn SYNSPORT.
       1. Test Data: ASTM D2859, F1292, F1551, F1951, CAL 1350, IPEMA.
       2. Features: Sanitized, DualChill, StatBlock, EnviroLoc+, SuperDrain+, Deluster, UV Stabilizers.
       3. Grass Zone Yarn: Nylon+PE. Yarn Shape: Legend.
          1. Constructed: Tufted.
          2. Color: Field, Olive, Apple.
       4. Grass Zone Denier: 10,800 / 6.
       5. Thatch Zone Yarn/Color: PE / Field Green / Beige.
       6. Thatch Zone Denier: 5,000 / 8.
       7. Pile Height (Nominal)per ASTM D5823: 1 inch.
       8. Finished Pile Weight per ASTM D5848: 58 oz/yd2.
       9. Total Weight per ASTM D5848: 86 oz/yd2.
       10. Backing: 13 PP / 18 PET 2pt / 22 oz Enviroloc+.
       11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
       12. Secondary Coating Weight: 22 oz per sq yd.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 15800 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 30 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/8 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: Greater than 1000 in/hr.
       21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required or delete basis of design options not required.

* 1. SYNPLAY COLLECTION
     1. Basis of Design Product: SYNLawn SYNPLAY 48 No Pad.
        1. Test Data: ASTM D2859, E648, F1292, F1951, IPEMA, PFA-Free.
        2. Features: Deluster, UV Stabilizers.
        3. Grass Zone Yarn: Polyethylene. Yarn Shape: Textured Diamond.
           1. Constructed: Tufted.
        4. Grass Zone Denier: 5,400 / 8.
        5. Thatch Zone Yarn/Color: N/A.
        6. Thatch Zone Denier: N/A.
        7. Pile Height (Nominal)per ASTM D5823: 3/4 inches.
        8. Face Weight per ASTM D5848: 48 oz/yd2.
        9. Total Fabric Weight per ASTM D5848: 74 oz/yd2.
        10. Backing: 13PP/18PET 2pt / 20oz Polyurethane coating.
        11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
        12. Secondary Coating Weight per ASTM D5848: 20 oz/yd2.
        13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
        14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
        15. Total Yarn Linear Density per ASTM D1577: 5,400 Denier.
        16. Elongation to Break per ASTM D2256: Greater than 60 percent.
        17. Yarn Breaking Strength per ASTM D5793: Greater than 19 lbs.
        18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
        19. Flammability per ASTM D2859: Passed.
        20. Water Permeability per ASTM D1551: N/A.
        21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
      2. Color: Fl Blue.
      3. Color: Green.
      4. Color: Gray.
      5. Color: Red.
      6. Color: Red Clay.
      7. Color: White.
      8. Color: \_\_\_\_\_\_\_\_.
      9. Color: As determined by the Architect.
    1. Basis of Design Product: SYNLawn SYNPLAY 48 with Pad.
       1. Test Data: ASTM D2859, E648, F1292, F1951, IPEMA, PFA-Free.
       2. Features: Deluster, UV Stabilizers.
       3. Grass Zone Yarn: Polyethylene. Yarn Shape: Textured Diamond.
          1. Constructed: Tufted.
       4. Grass Zone Denier: 5,400 / 8.
       5. Thatch Zone Yarn/Color: N/A.
       6. Thatch Zone Denier: N/A.
       7. Pile Height (Nominal)per ASTM D5823: 3/4 inches.
       8. Face Weight per ASTM D5848: 48 oz/yd2.
       9. Total Fabric Weight per ASTM D5848: 114 oz/yd2.
       10. Backing: 13PP/18PET 2pt plus 5 mm cushion.
       11. Primary Backing Weight per ASTM D5848: 6 oz/yd2.
       12. Cushion Weight: 60 oz per sq yd.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 5,400 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 60 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 19 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: N/A.
       21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
      2. Color: Fl Blue.
      3. Color: Green.
      4. Color: Gray.
      5. Color: Red.
      6. Color: Red Clay.
      7. Color: White.
      8. Color: \_\_\_\_\_\_\_\_.
      9. Color: As determined by the Architect.
    1. Basis of Design Product: SYNLawn SYNPLAY 60 with Pad.
       1. Test Data: ASTM D2859, E648, F1292, F1951, IPEMA, PFA-Free.
       2. Features: Deluster, UV Stabilizers.
       3. Grass Zone Yarn: Polyethylene. Yarn Shape: Slit Film.
          1. Constructed: Tufted.
       4. Grass Zone Denier: Green: 8040/1. Colors: 10000/1
       5. Thatch Zone Yarn/Color:
          1. Green: Nylon / Turf Green.
          2. Navy: PE / Black.
          3. Colors: Matches Turf Color.
       6. Thatch Zone Denier: 6,000 / 8.
       7. Pile Height (Nominal)per ASTM D5823: 3/4 inches.
       8. Face Weight per ASTM D5848: 58 oz/yd2.
       9. Total Fabric Weight per ASTM D5848: 116 oz/yd2.
       10. Backing: 15 / 18 PP 2-Part / 5 mm cushion.
       11. Primary Backing Weight per ASTM D5848: 60 oz/yd2.
       12. Cushion Weight: 52 oz per sq yd.
       13. Tuft Bind per ASTM D1335: Greater than 8 lbs.
       14. Grab Tear Strength (Average) per ASTM D5034: Greater than 200 lbs.
       15. Total Yarn Linear Density per ASTM D1577: 14,040/16,000 Denier.
       16. Elongation to Break per ASTM D2256: Greater than 30 percent.
       17. Yarn Breaking Strength per ASTM D5793: Greater than 20 lbs.
       18. Tuft Machine Gauge per ASTM D5793: 3/16 inches.
       19. Flammability per ASTM D2859: Passed.
       20. Water Permeability per ASTM D1551: N/A.
       21. Fabric Width 15 ft.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - 1. Color: Black.
      2. Color: Fl Blue.
      3. Color: Green.
      4. Color: Navy.
      5. Color: Red.
      6. Color: Yellow.
      7. Color: White.
      8. Color: \_\_\_\_\_\_\_\_.
      9. Color: As determined by the Architect.

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs in the following article that are not required.

* 1. SUPPLEMENTARY TURF SURFACING MATERIALS.

\*\* NOTE TO SPECIFIER \*\* Tramplezone product is designed for high use (under swings/slides) and to extend life of project for extreme use.

* + 1. High Use Area Package: High density, crush-resistant component, configured for easy replacement without disturbing surrounding turf surfacing.
       1. Product: SYNLawn, TrampleZone.

\*\* NOTE TO SPECIFIER \*\* SynLawn approved underlayments are reviewed annually for safety, performance, and ease of installation. Retain products required to meet Shock Attenuation Value performance requirements for Project.

* + 1. Fall Pad: Rubber, lead, and heavy metal-free non-degradeable porous elastic pad, with permeability of not less than that of specified artificial turf surfacing, composed of 100 percent recycled non-contaminated post-industrial closed cell polyethylene foam, geotextile weed barrier faced on one side.
       1. Product: Brock Powerbase YSR/ Brock Powerbase Play/Schmitz 25mm/Schmitz 55mm

\*\* NOTE TO SPECIFIER \*\* Delete pad thickness and fall height options not required.

* + - 1. Pad Thickness: 1-1/8 inch.
      2. Pad Thickness: 2-1/8 inch.
      3. Pad Thickness: As indicated on Drawings.
      4. IPEMA Fall Height, ASTM F1292: 9.0 feet.
      5. IPEMA Fall Height, ASTM F1292: 10.0 feet.
      6. IPEMA Fall Height, ASTM F1292: As indicated on Drawings.
      7. Accessibility, ASTM F1951: Passes.
      8. Rainfall Capacity, ASTM F1551: Not less than 30 inches per hour.
    1. Turf Spikes: Manufacturer's approved fasteners.
    2. Perimeter Nailer Board: Manufacturer's approved nailer/edger board.
    3. Curbing: Profile and extent as indicated on Drawings. Refer to Section - 3 "Concrete Paving."

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs in the following article that are not required.

* 1. MATERIALS.

\*\* NOTE TO SPECIFIER \*\* Delete infill materials option not required.

* + 1. Infill Material: Silica sand in manufacturer's recommended formula for application to synthetic turf surfacing.
       1. Product: SYNLawn, Envirofill.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: Green.
        2. Color: Brown.
      1. Product: SYNLawn, Optifill.
    1. Infill Material: Synthetic antimicrobial treated silica sand infill in manufacturer's recommended formula for application to synthetic turf surfacing.
    2. Game Lines and Markings: Provide game lines and markers in widths and colors according to requirements indicated on Drawings.
       1. Application Method: Tufted in, to the maximum extent practicable, with remaining lines inlaid.
    3. Paint: For non-tufted lines and markings: Manufacturer's recommended paint for use on synthetic turf surfacing.
    4. Glue, Seaming Fabric, and Thread: As recommended by manufacturer for application.
    5. Aggregate Top Course: Decomposed granite fines.

\*\* NOTE TO SPECIFIER \*\* Delete base course options not required.

* + 1. Aggregate Base Course: Refer to Section - 3 "Aggregate Base Course for Synthetic Turf Surfacing."
    2. Aggregate Base Course: Sound crushed graded stone or gravel complying with ASTM D 448 for Size No. 8.
    3. Aggregate Base Course: Sound crushed graded stone or gravel complying with ASTM D 448 for Size No. 57.

1. EXECUTION
   1. EXAMINATION
      1. Examine synthetic turf surfacing base and perimeter conditions, with Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the Work.
         1. Verify substrate meets profile required.
         2. Confirm base material, compaction of substrate, permeability, and drainage system installation meets requirements.
      2. Proceed with installation only after unsatisfactory conditions have been corrected.

\*\* NOTE TO SPECIFIER \*\* Delete article below id the installation is not for a rooftop.

* 1. BASE SYSTEM INSTALLATION FOR ROOFTOPS
     1. Protection Fabric: Place protection fabric over waterproofing layer in accordance with manufacturer's instructions. Lap seams in direction of drainage.
     2. Drainage Component Layer: Place base system drainage component in accordance with manufacturer's instructions.

\*\* NOTE TO SPECIFIER \*\* Delete Subbase preparation article if installation is for a rooftop.

* 1. SUBBASE PREPARATION

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following paragraphs that is not required.

* + 1. Refer to Section - 3 "Aggregate Base Course for Synthetic Turf Surfacing" for requirements for preparing subbase for Work of this Section.
    2. General: Prepare substrates to receive surfacing products according to synthetic turf surfacing manufacturer's written instructions. Verify that substrates are sound and without high spots, ridges, holes, and depressions. Remove organic debris. Grade soil subgrade level and compact.
       1. Finish grade soil subgrade with slope between 0.5 percent and 1.0 percent toward path of site drainage.
          1. Compact subgrade in both directions with mechanical compacting equipment to achieve specified compaction at 90 percent standard Proctor.
          2. Prepare subgrade to tolerance of within 0.5 inch of design grade.
          3. Prepare subgrade within 0.25 inch in 10 feet in any direction from design grade over entire playing surface.
  1. INSTALLATION
     1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

\*\* NOTE TO SPECIFIER \*\* Delete aggregate Course paragraph if installation is for a rooftop.

* + 1. Aggregate Course:

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following paragraphs that is not required.

* + - 1. Refer to Section - 3 "Aggregate Base Course for Synthetic Turf Surfacing" for requirements for preparing aggregate course for Work of this Section.
      2. Place aggregate base course, compact by tamping with plate vibrator to 90 percent of ASTM D 1557 maximum laboratory density, and screed to depth indicated. Install 4-inch base course unless otherwise indicated.
         1. Slope base course between 0.5 percent and 1.0 percent, measured from the longitudinal center of the installation towards the edges. Grade base course to tolerance of within 0.5 inch of design grade, and with a maximum variation of 0.25 inch in 10 feet in any direction.

\*\* NOTE TO SPECIFIER \*\* Delete perimeter nailer board paragraph if installation is for a rooftop.

* + 1. Perimeter Nailer Board: Install as indicated on approved shop drawings, using soil nails of size, and spacing indicated.
    2. Synthetic Turf:
       1. General: Comply with synthetic turf surfacing manufacturer's written installation instructions. Install synthetic turf surfacing over area and in thickness indicated.
       2. Fall Pad: Place fall pads tightly abutted over area to receive synthetic turf surfacing. Tape seams with pad seam tape to secure pads in position prior to installing synthetic turf.
       3. Artificial Turf: Loose-lay artificial turf and allow fabric to relax for period recommended by manufacturer. Stretch carpet and attach at perimeter in accordance with approved submittals.
       4. Seaming: Form seams flat and snug, with no gaps or fraying. Remove yarns that are trapped within seams. Form seams as recommended in synthetic turf manufacturer's written instructions using manufacturer's provided or recommended materials.
       5. Attachment: Attach turf fabric to perimeter restraint system as recommended by the manufacturer.
    3. Activity Lines and Markers: Install lines in accordance with approved submittals.
    4. Infill: Mix and install infill material components in accordance with manufacturer's requirements for approved system. Groom material and leave surface ready for use.
  1. FIELD QUALITY CONTROL
     1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. PROTECTION
     1. Protect completed installation from damage. Prevent traffic over system prior to acceptance by Owner.
  2. DEMONSTRATION
     1. Instruct Owner's personnel in proper inspection and maintenance of synthetic turf surfacing. Review manufacturer's recommended maintenance procedures and warranty terms and conditions.
  3. CLEANING
     1. Clean products in accordance with the manufacturers recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION