
ADDENDUM 04

DATE: April 11, 2025
TO: Jason Cave
COMPANY: Greystone West Company
PROJECT NAME: Redwood High School Ghilotti Field Site Improvements
DSA APP #: 01-121720
PROJECT NUMBER: TAM23-01
FROM: Tim Skinner (Carducci), Peter Stanley (Carducci), & William Fee (Carducci)
CC: Mike Woolard (Tamalpais Union High School District)
RE: Addendum 04

The Redwood High School Ghilotti Field Site Improvements Project Rebid Addendum 4 clarifies the deletion of Synthetic Landscape Turf from the project. Receipt of this addendum must be acknowledged on the bid form. The established Bid Date is unchanged: April 30, 2025, 2:00 PM.

Clarifications

1. The **RHS Ghilotti Field Project Re- Bid docs 3.28.25 Bid Package** captures the deletion of Synthetic Landscape Turf from the project and replaces it with StreetBond coated asphalt paving as a part of Addendum 3.
2. The Technical Specifications no longer includes 32 18 15 Synthetic Landscape Turf – see attachments.

Attachments

Specifications:

- Table of Contents Document 00 01 10-2
- 32 18 15 Synthetic Landscape Turf

Please direct inquiries regarding the content or files to Jason Cave, Greystone West Company, jason@greystonewest.com.

Division 12 - Furnishings

12 93 05 Site Furnishings

Division 13 – Special Construction

13 12 50 Frame-Type Bleacher

Division 31 – Earthwork

31 00 00 Earthwork
31 25 00 Erosion Control
31 63 29 Drilled Piers

Division 32 - Exterior Improvements

32 11 13 Subgrade Preparation & Base Material
32 11 15 Synthetic Composite Underlayment
32 13 13 Landscape Concrete
32 17 20 Site Signs
32 18 13 Synthetic Turf Playing Field
~~32 18 15 Synthetic Landscape Turf~~
32 90 00 Planting

Division 33 - Utilities

33 40 10 Storm Drainage

AppendicesAppendix A

Miller Pacific Engineering Group, Inc. Geotechnical Engineers and Geologists, "Geotechnical Investigation (REV1) Redwood High School – 2023 Improvements Larkspur, California" for the Tamalpais Union High School District, December 7, 2023.

Appendix B

Geotechnical Engineer Supplemental Letter

Appendix C

Addendum #2 dated February 20, 2025
Addendum #3 dated March 19, 2025

**SECTION 32 18 15
SYNTHETIC LANDSCAPE TURF**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Provide synthetic turf system and the base material installation complete.

1.02 SUSTAINABLE DESIGN REQUIREMENTS

- A. Sustainable Design Requirements:

The Owner requires the Contractor to implement practices and procedures to meet the Project's environmental and wellness performance goals, which include achieving LEED v4 Core and Shell and WELL v2 Core certifications. Refer to Section 018113 – Sustainable Design Requirements for the Project's target certification levels and specific LEED and WELL requirements.

The Contractor shall ensure that the requirements related to the Project's sustainability and wellness design goals are implemented to the fullest extent. Substitutions, or other changes to the work proposed by the Contractor or their Subcontractors, shall not be allowed if such changes compromise the Project's sustainability and wellness goals or LEED and WELL certifications.

1.03 SUBMITTALS

- A. Provisions: Comply with Division 1 Requirements.
- B. Material list, product data and samples of all items proposed to be provided under this Section.
- C. Certificates (certified analysis of certificate of compliance) signed by the material producer.
- D. Certificates (certified analysis of certificate of compliance) signed by the material producer stating that the product is free of lead and in compliance with US Consumer Product Safety Commission requirements.
- E. Prior to starting the installation of the approved synthetic turf, the Contractor shall submit a certification signed by the Contractor, its listed turf subcontractor and drainage system installer, that installed base stone and drainage materials conform to specified requirements and system was successfully checked and tested prior to covering with the synthetic turf system.
- F. Conformance Surveying: The Contractor shall perform a conformance survey on a 20-foot grid after subgrade is complete and prior to placement of stone base. Submit copy of Conformance Survey to Architect.
- G. Conformance Surveying: The Contractor shall perform a conformance survey on a 20-foot grid after stone base is complete and prior to placement of Underlayment and Synthetic Turf. Submit copy of Conformance Survey to Architect.
- H. Permeability testing: submit a report showing permeability of existing field base stone per ASTM F 2898, Standard Test Method for Permeability of Synthetic Turf Sports Field Base Stone and Surface System by Non-confined Area Flood test Method. Testing shall be provided for every 10,000 SF of Synthetic Turf surface.

1.04 QUALITY ASSURANCE

A. Reference Standards

1. Perform all work in accordance with all applicable laws, codes and regulations required by the Federal Government, State of California, City of South San Francisco, and San Mateo County.
2. Perform work in accordance to applicable sections of the Caltrans Standard Specifications.
3. Reference to "Caltrans Standard Specifications" shall mean the Standard Specifications of the State of California, Business and Transportation Agency, Department of Transportation, CALTRANS.

B. Related work specified elsewhere includes:

1. Section 01 45 00 Quality Control
2. Section 31 00 00 Earthwork
3. Section 32 13 13 Landscape Concrete
4. Section 32 40 10 Storm Drainage

C. Stipulations

1. The finished surface of the subgrade, at any point, shall not vary more than 0.05' above or below the elevation indicated on the drawings.
2. Finish Surface Tolerance: 1/4-inch maximum variation in 10 feet.

D. ASTM Standards.

1.05 PROJECT CONDITIONS

- A. Coordination: Coordinate this work with the work of other Sections to avoid delay and interference with other work.

1.06 SOILS REPORT

- A. A soil investigation report has been prepared for the project.
- B. This report is available in the office of the Architect and the Construction Manager for inspection by the Contractor. Unless otherwise specified, it is intended that all work be performed in accordance with the provisions of this report.

1.07 SOILS BORINGS

- A. Subsurface soils investigations have been made at the site and logs of the test holes are available with the soils report. Such investigations have been made for the purposes of design only, and neither the Landscape Architect, the Owner, nor the Soils Engineers guarantee adequacy or accuracy of the data, or that data are representative of all conditions to be encountered. Such information is made available for general information only and shall not relieve the Contractor of the responsibility for making his own investigations.

1.08 PROJECT CONDITIONS

- I. Coordination: Coordinate this work with the work of other Sections to avoid delay and interference with other work.
- J. Protect excavations by shoring, bracing, sheeting, underpinning, or other methods as required to prevent cave-ins or loose dirt from entering excavations. Barricade open excavations and post warning lights at work adjacent to public streets and walks.
- K. Underpin adjacent structure(s), including utility service lines, which may be damaged by excavation operations.
- L. Promptly repair damage to adjacent facilities caused by operations. Cost of repair at Contractor's expense.
- M. Promptly notify the Inspector of unexpected subsurface conditions.
- N. If during the course of operations, an area of pumping or otherwise unstable soil is encountered, the Contractor shall immediately modify his operations in such a way as to limit the frequency and weight of vehicles traveling over the area and promptly notify the Inspector who will contact the Geotechnical Engineer for an evaluation.

1.09 EXISTING CONDITIONS

- A. A topographic survey of the property has been included in the drawings for reference only. Upon beginning the work, Contractor represents that he has inspected the site and satisfied himself as to actual grades and levels and the true conditions under which the work is to be performed.

1.10 PROTECTION

- A. Furnish, place and maintain all supports, shoring and sheet piling which may be disturbed by earthwork operations.
- B. Maintain all benchmarks, monuments, and other reference points. If disturbed or destroyed, replace as directed.
- C. Adequate protection measures shall be provided to protect workmen, passers-by, and the site. Streets and adjacent property shall be fully protected throughout the operations.
- D. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for working conditions on the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.
- E. Any construction review of the Contractor's performance conducted by the Inspector is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.
- F. Adjacent streets, sidewalks, and property shall be kept free of mud, dirt, or similar nuisances resulting from earthwork operations.
- G. Provide for surface drainage during the period of construction in a manner to avoid creating a nuisance to adjacent areas.
- H. Water as required to suppress dust nuisance.
- I. Protection of Existing Improvements

1. Provide barricades, covering, or other types of protection necessary to prevent damage to existing improvements indicated to remain in place. Protect improvements on adjoining properties. Repair damaged existing improvements to original condition as approved by authority having jurisdiction.
- J. Provide erosion control measures as required.
- K. Protection of Other Property: Excavation and other work over, under and adjacent to existing pipelines, cables, conduit runs or structures of any kind shall be procured in such a manner as not to interfere with the safe operation and use of such installations. Should any damage be incurred to existing facilities during the Contractor's operations, the Contractor shall immediately notify the Owner's Representative and authorities, and shall arrange for the immediate repair of same at his own expense.
- L. Underground Obstruction: The locations of existing underground utilities and structures, insofar as they are known from information furnished by the respective utility companies and agencies, have been shown on the drawings. The Owner assumes no responsibility for the accuracy or completeness of said data, which is offered solely for the convenience of the Contractor.
- M. Control of Water: Take measures as may be required and furnish, install and operate such pumps or other devices as may be necessary to remove any seepage, storm water or sewage that may be found or may accumulate in the excavations during the progress of the work. Keep excavations entirely free from water at all times during the construction of the work, and until the Geotechnical Engineer gives permission to cease pumping.
- N. Pavement Restoration: Pavement, bases and compacted subgrade disturbed by trenching operations shall be replaced in an acceptable manner with materials equal to the adjacent compacted subgrade, bases and pavement for a minimum distance of 12" on each side of the trench, and shall conform to the requirements of these Specifications or to local ordinances governing such replacement.

1.11 FIELD QUALITY CONTROL

- A. Contractor shall provide adequate notice, cooperate with, provide access to the work, and assist testing agency and their representatives in execution of their function.
- B. When, during the progress of work, field tests indicate that installed compacted materials do not meet specified requirements, provide additional compaction until specified density is achieved, or remove and replace defective materials with new materials as directed by the Inspector. Cost of additional labor, materials, and testing to attain specified density at Contractor's expense.
- C. The Contractor shall engage a California Registered Civil Engineer or licensed Land Surveyor to perform field engineering.

1.12 TESTING

- A. Testing and Inspection: Testing shall be performed by a qualified independent testing laboratory under the supervision of a registered professional engineer, specializing in soils engineering.
- B. The Owner will direct, provide and pay for initial testing and inspection during operations.
- C. Provide and pay for re-testing and inspection during operations. Laboratory and inspection service shall be acceptable to the Owner.

- D. Where reference is made to relative compaction, it shall be the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, determined by the ASTM D1557 laboratory test procedure. Optimum moisture is the water content that corresponds to the maximum dry density.

- E. Plasticity Index: ASTM 4318-98.

1.13 GENERAL REQUIREMENTS

- A. When rain is forecast, temporary measures to protect areas of the exposed subgrade from saturation by rainfall or runoff shall be taken. These include, but are not limited to, covering grading and sloping of subgrade surfaces to prevent ponding, sealing disturbed, uneven subgrade, surfaces with a smooth drum roller, grading and excavating diversionary swales, trenches or detention basins.
- B. Failure by the Contractor to comply with the above requirements to take reasonable and adequate measures or exercise sound engineering and construction practices to protect the work from damage. All repair work shall be performed at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 SUSTAINABILITY PERFORMANCE REQUIREMENTS

- A. For all permanently installed products and materials related to the work of this Section, provide products and materials that meet the Project's LEED and WELL performance criteria as outlined in PART 2 - PRODUCTS of Section 01 81 13 – Sustainable Design Requirements.

2.02 SYNTHETIC TURF SYSTEM

- A. Synthetic Turf for surfacing, GreenFields IRONTURF Ultra Green, the recyclable version of IRONTURF, certified lead free by independent laboratory testing available from Joshua Sarratt, ASC TURF, 209-914-9131, jsarratt@asc turf.com as follows:

Properties	
Model #	IRONTURF Ultra Green
Turf Content	U.V. resistant XWRD Extreme monofilaments blended with XPS Plus - Each matrix group is built with a total of 80,000 denier (4 bundles of 18,000/6 MS XWR Diamond at 365-microns thick with 4 each 8,000/1 XPS Plus tapes (36 fibrils)) woven with a unique blend of U.V. stable PP and PE fibers for the base structure
Color	Green (Submit samples)
Total Weight	91 ounce per square yard
Tufted Face Weight	59 ounce per square yard
Pile Height	2"
Fiber	Polyethylene
Stability Coating	Recyclable Duraflo polyolefin permeable coating; 16.1 oz/yd
Roll Width	15'
Color Fastness to Light	8-year warranty

Water Permeability	Greater than or equal to 13.2 gal/yd ² /min
Holes for Drainage	¼" diameter holes on 4" on center grid.
Infill	A resilient, dust free, rounded, silica sand and Brock Fill infill system. (Submit cut sheets, MSDS and samples)

- B. Base Stone: 1/4" x Dust Crushed Rock from Clayton/Basalt #4402/SMARA #91-07-0004, available from Cemex, Clayton, CA 925-580-2792 or accepted equal having the following properties:

U. S. Sieve		Percent Passing
3/8"	(9.5 mm)	100
#4	(4.75 mm)	88 +/- 8
#8	(2.36 mm)	60 +/- 9
#16	(1.18 mm)	41 +/- 8
#30	(600 um)	29 +/- 6
#50	(300 um)	21 +/- 4
#100	(150 um)	15 +/- 3
#200	(75 um)	12 +/- 2

Sand Equivalent = 48 +/- 11

Specific Gravity = 2.81

Absorption = 1.0%

- C. Flexible Perforated Drain Pipe: Size as noted on the drawings, and manufactured to meet ASTM 405, or accepted equal.
- D. Drain Inlets & Clean Outs: By Christy, 800-485-7070; Central Precast, 707-546-5016; Hanson Concrete Products, Pleasanton, CA, 925-426-4933 or accepted equal.
- E. Geotextile Liner: Mirafi 140N, or accepted equal.

2.03 CONCRETE CURBING/BORDER

- A. Provide concrete border as indicated on drawings.
- B. Concrete to comply with provisions of Section 32 13 13.

2.04 SYNTHETIC TURF ADHESIVE

- A. Turf Bond Adhesive and Tape, Woodstock, GA 770-926-0004 or Norcoat Adhesive System, Scotch Plains, NJ 908-233-6844 or approved equal.

2.05 OTHER MATERIALS

- A. Provide all other materials, not specifically described but required for complete and proper installation of this work, as selected by the contractor and subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Inspection

1. Prior to work of this section, carefully inspect previously installed work. Verify all such work is complete to the point where this installation may properly commence.
2. Provide sub grade surfaces acceptable to manufacturer: compacted base material.
3. Verify that proper drainage is provided.
4. Verify that work of this section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards, including but not limited to, U.S. Consumer Product Safety Guidelines and ASTM Standards 1487-11 and 1292-09.
5. In the event of discrepancy, immediately notify the Architect.
6. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 CONCRETE CURB INSTALLATION:

A. Preparation

1. Verify sub-grade, base material, conduit, and all other embedded items are properly located. Secure all embedded items against displacement during pour.
2. Verify all grades for pitch and fall prior to pouring pavements.
3. Verify that all cross-fall and ramp criteria comply with all accessibility regulations. Including Title 24 requirements.
4. Verify existing sub grade complies with criteria specified in Section 32 11 13.
5. Notify inspector 48 hours prior to placing. Obtain inspectors approval of subgrade, forming and embedded items prior to placing.

B. Forming

1. Install forms in accordance with specified tolerances.
2. Stake rigidly in place at maximum intervals of 4 feet on center. Secure so as to prevent displacement during pouring and finishing process.
3. Install stretched wires or other device to provide form displacement indication.
4. Thoroughly clean forms. Remove debris, coatings and foreign matter. Coat forms with approved bond breaker.

3.03 AGGREGATE SUB BASE INSTALLATION

- #### **A.**
1. Install base stone and compact.

3.04 SYNTHETIC TURF SYSTEM INSTALLATION

- #### **A.**
1. Manufacturer's Instructions: Comply with the instructions and recommendations of the manufacturer.

B. Examination:

1. Site Verification of Conditions: Verify that substrate conditions are suitable for installation of the synthetic turf system.

2. Do not proceed with installation until unsuitable conditions are corrected. Proper drainage is critical to the longevity of the surfacing system.
- C. Preparation:
 1. Surface Preparation: Ensure that the substrate meets the slope and drainage requirements.
- D. Installation:
 1. Do not proceed with synthetic turf system installation until all applicable site work, including substrate preparation, and other relevant work, has been completed.
 2. Carpet Stretching:

After seams are glued and cured, stretch the carpet to eliminate slack in the carpet so that the surface is free of irregularities.
 3. Borders:
 - a. Secure border as detailed.
- E. Field Quality Control:
 1. Installations shall be completed under the supervision of a certified synthetic turf installer following manufacturer's installation procedures and confirming conformity to the installation procedures by completing manufacturer's documentation.
 2. Tolerances
 - a. Smoothness: 3/16 inch plus or minus, at any point, measured along a 10 foot straight edge.
 - b. Adjacent surfaces: 1/8 inch maximum difference at any point between adjacent surfaces.

3.05 PROTECTION

- A. Protect finished installation under provisions of the General Conditions.
- B. Do not permit traffic over finished surfaces for time frame specified by manufacturer.
- C. Protect the surface from damage resulting from subsequent construction activity on the site.

3.06 MAINTENANCE

- A. Provide direction and training to Owners staff by factory representative, on cleaning, repair, and resurfacing procedures.
- B. Provide recommended list of maintenance products for Owner.

END OF SECTION