

August 6, 2020

SOLICITATION ADDENDUM NO. 1
ITB 20-0001
2020 Cedar Park Field Upgrades

THE FOLLOWING CHANGES/ADDITIONS TO THE ABOVE CITED SOLICITATION ARE ANNOUNCED:

This Addendum modifies the Invitation to Bid (ITB) document(s) only to the extent indicated herein. All other areas not changed or otherwise modified by this Addendum shall remain in full force and effect. This Addendum is hereby made an integral part of the ITB document. Bidder must be responsive to any requirements of this Addendum as if the requirements were set forth in the ITB. Failure to do so may result in Bid rejection. See the ITB regarding requests for clarification or change and protests of this Addendum, and the deadlines for the foregoing.

This addendum is to be acknowledged in the space provided on the Bidder Certification form supplied in the solicitation document. Failure to acknowledge receipt of this addendum may be cause to reject your offer.

The closing date **REMAINS UNCHANGED: August 11, 2020 at 2:00 PM Pacific Time**

CHANGES

1. In Attachment J Specifications, SECTION 32 9113 - SOIL PREPARATION and SECTION 32 9200 - LAWN AND GRASSES of the are hereby replaced with the versions attached to this Addendum 1.
2. SECTION 32 9200 - LAWN AND GRASSES
3. In Attachment J Specifications, under SECTION 32 9500 - ESTABLISHMENT MAINTENANCE, Section 1.1.(A.)(1.) pertaining to "Maintenance of installed work..." is hereby removed from the specifications.
4. In Attachment J Specifications, under SECTION 32 9500 - ESTABLISHMENT MAINTENANCE, Section 3.2(A.)(5.), the requirement to use Reel Mowers is hereby removed. The requirements in SECTION 32 9500 - ESTABLISHMENT MAINTENANCE, Section 3.2(A.)(5.) that the lawn shall be cut at a uniform height, scalping and uneven cutting shall be prevented, excess clippings shall be dispersed and/or collected to prevent damage to existing lawn areas or if it causes an unsightly appearance are not removed.
5. Pollution Liability Insurance requirements are hereby removed from Exhibit E.
6. In ATTACHMENT K Drawings, L300 is hereby replaced with the version attached to this Addendum 1.
7. Attachment L Irrigation Plan has been added to the Solicitation. Attachment L is NOT to be returned with the Bid. Bidders must review the Attachment's content.
8. Attachment B Bid Schedule is hereby replaced with the version attached to this Addendum 1. The Bid Schedule is updated to include Unit Pricing.
9. The requirement that any Bases and Portable Mounds included in Bids must be within the OSAA specs for bases/mounds is hereby added to the Specifications.

CLARIFICATIONS:

Additional Drawings and Specifications have been included.

Question: What size is the quick coupler?

Answer: It is listed in the specifications.

Question: Can you waive the pollution insurance as this seems more like a landscaping project?

Answer: The District has removed the requirement to carry Pollution Liability Insurance (see CHANGES 5. For details). To help mitigate pollution risk, the District has added a requirement for the Contractor to perform a utility locate (see CHANGES 6. For details) and included additional site information (see CHANGES 7.). While the Contractor will not be contractually required to carry pollution insurance, Bidders may wish to review Section 10.5 Spill Responsibility found in the A201-2017 (General Conditions) included in Attachment I to the Solicitation, Exhibit C included in Attachment I, the Specifications, and any other applicable documents/laws/etc.

Question: Is the district going to require the “pollution insurance” as mentioned in documents?

Answer: See above Answer.

Question: What is the engineers estimate?

Answer: \$100,000.00

Question: How long do we have to irrigate, one year or sixty days?

Answer: The requirement to perform maintenance of installed work for one year has been removed. The requirement to perform maintenance of all lawns and grasses for a period of 60 days remains a part of the Specifications, but has been changes to specify 60 days from Final Completion, rather than 60 days from Substantial Completion as originally written (see CHANGES 1. and 3. for details).

Question: Section 32 9200 – 2.15 B it says 60 day maintenance, in section 32 9500 1.1A1 it says 1 year, and at the pre-bid it was said that “Kyle will probably be able to take over maintenance sooner” - please determine length of maintenance requirement.

Answer: See above answer.

Question: Is a double first base required for softball?

Answer: Yes.

Question: How deep is the irrigation?

Answer: See Attachment L Irrigation Plan for additional information about existing irrigation (see CHANGES 7. for details).

Question: Can we get an allowance for possibly hitting the main line or a unit price in the bid schedule?

Answer: Unit Pricing has been added to the Bid Schedule and Drawings (see CHANGES 6. and 8. For details).

Question: Bid docs request a Bid Bond – is that wanted

Answer: Yes, Bids are required to have a Bid Bond, as specified in the Solicitation Documents.

Question: Bid docs request a performance/payment bond, is that required.

Answer: Performance and Payment Bonds are only required for Public Works projects that are over \$50,000 in value and are not exempt (this project is not exempt). As stated in the Solicitation Documents, Performance and Payment Bonds, if required, are due within five days of the Contractor having received a Contract from the District for signature. Therefore, there is no requirement to submit Performance and Payments Bonds with Bids.

Question: General requirements section D requests dust control and HVAC protection. Please clarify the HVAC protection.

Answer: The General Requirement indicates: “Provide dust control and HVAC protection as required to protect the rest of the school from construction debris.” There will not be any HVAC protection required for this project.

Question: 32 9113- Soil Prep – 1.7A mentions site protection from public. Do we need temporary fencing or will what is in place suffice?

Answer: No temporary fencing is required for this project. Contractor may utilize temporary fencing at their discretion to provide protection from public.

Question: Did I understand correctly that if we seed after September 15 but before October 1 there is no temporary irrigation required? Also mentioned in section 1.6H1 of 32 9113

Answer: No, temporary irrigation is required. The Contractor shall utilize temporary irrigation or other means and methods as approved by the Owner’s Representative, to achieve the Satisfactory Establishment and Warranty requirements as identified within this specification. Also, the maintenance of all lawns and grasses shall be for a period of 60 calendar days minimum after written Notice of Final Completion.

Regarding Section 1.6(H.)(1.) of 32 9113, there are no areas that are not subject to temporary irrigation.

Question: Section 32 9200 –2.17 A&B – is it realistic to require a 1-year guarantee on a lawn area that has no irrigation?

Answer: The guarantee may be subject to the District’s performance of manufacturer recommended irrigation after the temporary irrigation period expires.

Question: 32 9500 C – it says and irrigation system will be installed on this project and maintained. Please determine if the district wants temporary above ground irrigation lines that are prone to vandalism or if seeding in September completes project without the irrigation requirement.

Answer: Temporary irrigation is required regardless of the seeding date, and Contractors may choose the mean or method for achieving the required irrigation.

Question: 32 9500 A5 requires “Reel Mowers” for open areas. Are Reel Mowers a requirement for this project - - they are not typically used by maintenance companies.

Answer: The requirement for Reel Mowers has been removed from the Specifications (see CHANGES 4. for details), but the requirements to prevent scalping and uneven cutting and to disperse and/or collect excess clipping to prevent damage to existing lawn areas or cause an unsightly appearance are to remain in the Specifications. Bidders may determine the proper means and methods to achieve these requirements.

Question: 32 9500 A5 H – discusses leaf removal. Are we expected to do leaf removal on the field and area leading up to it?

Answer: No.

Question: Can the size of irrigation “mainline” that we are tapping into be provided?

Answer: See Attachment L Irrigation Plan for additional information about existing irrigation (see CHANGES 7. for details).

Question: What size mainline should be run to the requested Quick Coupler? (We would suggest running the same size as the existing mainline in case the district wants to add on later)

Answer: The suggestion is acceptable.

Question: In the bid docs we are responsible for repairs to the undocumented/ untraceable irrigation lines that no one knows the size or location of. Can there be an alternate or some sort of unit pricing (price per singular break for 2", 2.5", and 3" for example) so that if it isn't necessary the district isn't charged and we aren't scored on guessing about unknowns?

Answer: **Unit Pricing has been added to the Bid Schedule and Specifications (see CHANGES 6. and 8. For details).**

Question: In key notes it mentions contractor to provide bases and portable mound which vary widely in cost can district provide a preferred product?

Answer: **Bases and portable mounds must be within the OSAA specs for bases/mounds. (See CHANGES 9. For details).**

BID SCHEDULE

(Contractor)

TOTAL BASE BID: including the Work as defined in the Project Manual, Drawings and Addenda (if any), the
TOTAL SUM OF:

DOLLARS (\$

)

Mandatory Unit Pricing: Bidders shall use the below Unit Pricing Table to provide Unit Prices for the estimated quantities. As noted in Key Note 2 on ATTACHMENT K Drawings L300 (Addendum 1), unit pricing shall cover the cost per linear foot to repair or replace any irrigation equipment or unforeseen subgrade utilities that may become damaged during deep time aeration, or during the course of any other type of Work performed under the Contract resulting from this Solicitation.

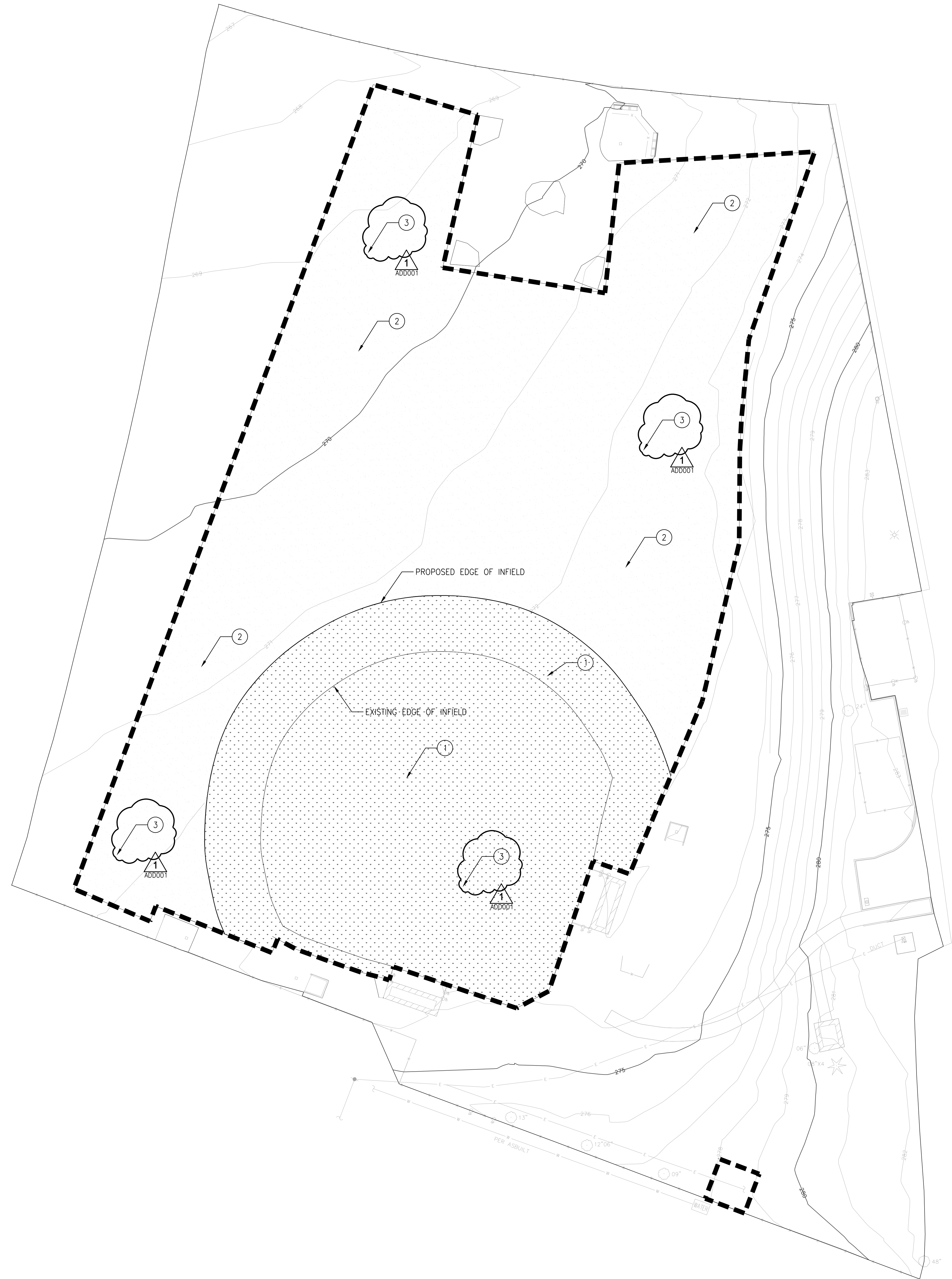
Unit Pricing Table			
Item	Unit Type	Estimated Quantity*	Unit Price
As described above and in L300 Key Note 2	Per Linear Foot	200 Linear Feet	

*Estimated quantity is for bidding purposes only and neither guarantees nor limits the number of units for which any payments will be authorized of made under the Contract resulting form this Solicitation.

NOTES:

- **Contractor will be required to develop a schedule of values for payment and accounting purposes prior to the initial request for payment in a form acceptable to the District.**
- **If any information submitted on this form is contradictory, words prevail over numbers.**

The Contract is intended to be awarded to a single Contractor.

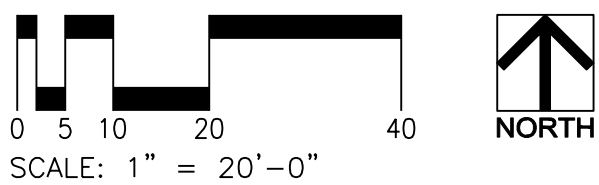


- LEGEND**
- LIMIT OF WORK
 - DEEP TINE AERATION
 - USGA GRADE TOP DRESSING + CALCYNE CLAY

- GENERAL NOTES**
- CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE PLANS AND THE EXISTING CONDITIONS BEFORE STARTING WORK.
 - SEE SPECIFICATION 32 9113 & 32 9200 FOR ADDITIONAL INFORMATION.
 - FINISH GRADE, ROLL COMPACT AND INSTALL CALCYNE CLAY OVER ENTIRE INFIELD.
 - ALL EDGES OF LIMITS OF WORK ARE TO BLEND WITH ADJACENT CONDITIONS WITHOUT CHANGING ADJACENT SITE DRAINAGE PATTERNS.
 - CONTRACTOR TO APPLY ALL HERBICIDES WITHIN CONFORMANCE TO IPM STANDARDS AND SPECIFICATIONS.
 - CONTRACTOR MUST FOLLOW ALL REGULATIONS AS DEFINED IN THE OREGON STATE IPM LAW. THIS INCLUDES POSTING OF WARNING SIGNS ON SITE 24 HOURS BEFORE HERBICIDE APPLICATION AND ON THE DISTRICT'S WEBSITE.

- NOTES FOR DEEP TINE AERATION AREA**
- APPLY BROADLEAF HERBICIDE OVER ENTIRE AREA.
 - CUT, MOW AND BAG EXISTING LAWN TO 1-1/2" MAX. HEIGHT.
 - DEEP TINE AERATION TO BE 1-1/4" PLUG AT 10" DEEP.
 - PRE-SEED LEVEL ENTIRE AERATED AREA.
 - SLICE SEED. SEE SEEDING PLANS.

- KEY NOTES**
- TILL EXISTING SOIL WHILE PERFORMING LASER GRADING. BLEND/TILL SAND TO A DEPTH OF NO MORE THAN 3"
 - REPAIR AND REPLACE ANY IRRIGATION EQUIPMENT OR UNFORESEEN SUBGRADE UTILITIES THAT MAY BECOME DAMAGED DURING DEEP TINE AERATION. CONTRACTOR TO INCLUDE UNIT PRICING FOR UNFORESEEN EQUIPMENT OR UNFORESEEN UTILITIES THAT MAY BECOME DAMAGED WITHIN AREA OF WORK PERFORMED.
 - CONTRACTOR IS RESPONSIBLE AND REQUIRED TO PERFORM A SUBGRADE UTILITY LOCATE WITHIN LIMITS OF WORK



BEAVERTON SCHOOL DISTRICT
16550 SW MERLO ROAD
BEAVERTON, OR 97003

WALKER | MACY

**CEDAR PARK MIDDLE SCHOOL
BASEBALL /
SOFTBALL FIELD
REPAIR**
BEAVERTON, OR



PROJECT NUMBER:	P3681.01
DRAWN BY:	REVIEWED BY:
PHASE:	100% CONSTRUCTION DOCUMENTS
ISSUE DATE:	07/01/2020
REVISIONS:	
1	ADD-001 07/29/2020

**SOIL AMENDMENT
PLAN**

L300

SECTION 32 9113 - SOIL PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Furnish labor, material and equipment required for placement and amendment of topsoil for areas to be planted, and the establishment of finish grades as shown on the Drawings and as specified herein.
- B. Coordinate work with installation of other site work including earthwork, irrigation, seeding.

1.2 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of amended topsoil soil.
- B. Amended Topsoil: Native or imported topsoil or surface soil modified with soil amendments and fertilizers.
- C. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil.
- D. Soil Ripping: Loosening the soil by dragging a ripping shank or chisel thru the soil to the depths and spacing specified, and further defined in this specification.
- E. Soil Tilling: Loosening the surface of the soil to the depths specified with a rotary tine tilling machine, roto tiller, (or spade tiller), and further defined in this specification.

1.3 SUBMITTALS

- A. Product Data. Include Material Safety Data Sheets (MSDS) where applicable: For the following:
 - 1. Fertilizers, including application rates.
 - 2. Soil Amendments.
 - 3. Herbicides.
- B. Product Certificates: For each type of manufactured product, signed by product manufacturer, and complying with the following:
 - 1. Manufacturer's certified analysis for standard products.
 - 2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.

- C. Qualification Data: For testing agencies.
- D. Delivery Slips: Provide delivery slips for each load of delivered material as proof of shipment of specified materials.
- E. Soil Placement Map: Contractor shall provide a plan showing placed location of each load of delivered soil, referenced to delivery slips.

1.4 QUALITY ASSURANCE

- A. Soil Fertility and Agricultural Suitability-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

1. Acceptable Soil Testing Laboratories are:

- a. A & L Western Agricultural Laboratories, (503) 968-9225.
- b. Western Laboratories, Inc, (800) 658-3858.
- c. Soil and Plant Laboratory, Inc., (503) 557-4959.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver packaged materials in manufacturer's unopened containers fully identified by name, brand, type, weight and analysis.
- B. Store and handle packaged materials to prevent damage and intrusion of foreign matter.
- C. Store stockpiled topsoil in area designated by Owner's Representative. Provide erosion control measures for stockpiled topsoil on site to prevent contamination of the soil. Refer to Division 31 Section "Earth Moving" for control of dust and erosion.

1.6 SITE CONDITIONS

- A. Topsoil placement and soil preparation shall not take place during periods where saturated soil or surface water is present in work areas.
- B. Work shall not take place when temperature is less than 32 degrees Fahrenheit, or when frozen soil exists on site.

1.7 COORDINATION

- A. Coordinate soil preparation with Division 31 Section "Earth Moving" such that topsoil, soil amendments and fertilizers are incorporated into ground fill areas in specified lifts

and to specified depths below finish grade for planting and lawn areas. Topsoils shall be amended per recommendations of the Soils Testing Laboratory.

- B. Coordinate soil preparation with timing and procedures for installation of related site work including irrigation, seeding, and planting.

PART 2 - PRODUCTS

2.1 FERTILIZER

- A. Fertilizer composition and rate to be determined based upon soil analysis. For bidding purposes, assume: 10 Nitrogen (N), 10 Phosphorus (P), 10 Potassium (K), 5 Sulfur (S) applied at a rate of 10 pounds per 1000 square feet in all planting beds and seeded areas.
- B. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of [1] [4] percent nitrogen and [10] [20] percent phosphoric acid.
- C. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- D. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.
- E. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium derived from natural organic and inorganic sources in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

2.2 MISCELLANEOUS PRODUCTS

- A. Post-Emergent Herbicide: Select one of the following: "Glyphogan Plus" by Mana, "Envoy Plus" by Valent, "Crossbow" by Dow AgroSciences, "Landmaster BW" by Agri Star or approved equal. Beaverton School District is to review and approve all herbicides prior to application.
- B. Pre-Emergent Herbicide: "Ronstar-G" by Bayer, "Dimension EC," by Dow AgroSciences or equal. Products containing either pendimethalin or DCPA are prohibited.
- C. Contact Herbicide for controlling nutsedges: "SedgeHammer" by Gowan.

PART 3 - EXECUTION

3.1 EXAMINATION OF SITE CONDITIONS

- A. Examine for site conditions that will adversely affect execution, permanence, quality of work, and survival of plant material and grasses.
- B. Identify areas to receive planting and lawn on site.
- C. Verify that subgrades and slopes of lawn and planting areas are acceptable to Owner's Representative prior to commencing work of this Section.
- D. ***Locate subgrade utilities prior to commencing work of this Section. (Addendum 01, 7/30/20)***
- E. Should the Contractor find any discrepancies between the Drawings and the physical conditions, inform the Owner's Representative immediately for clarification.
- F. Begin Work required under this Section only after conditions are satisfactory.

3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, and existing lawns and exterior plants from damage caused by soil preparation operations.
- B. Prepare soils at a time when moisture conditions will permit proper cultivation.
- C. Remove stones over 1-inch diameter, sticks, roots, mortar, concrete, rubbish, debris, and all materials harmful to plant life, and legally dispose of them off Owner's property.
- D. Remove or spray as required to eradicate noxious weed growth and roots.
 - 1. Achieve complete removal or kill of all weeds within all areas receiving new plantings and lawn areas.
 - 2. Apply post-emergent herbicide over all areas of weed or grass growth within landscaped area to eradicate weed growth and roots. Apply in two applications at manufacturer's maximum recommended rate, as follows:
 - a. First application: Apply 7 days prior to performing soil preparation.
 - b. Second application (to kill new vegetation): Apply after soil preparation has been completed and minimum of 48 hours prior to planting.
 - c. Observe manufacturer's recommended period prior to working in treated areas.
 - 3. Apply contact herbicide directly onto foliage of nutsedges. In areas of established lawn grasses infested with nutsedge, apply herbicide by wicking. Do not spray.

- E. Locate and securely mark or flag irrigation sprinkler heads, area drains, catch basins, clean outs, manholes, valve boxes, and other site improvements not extending above finish grade.
- F. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, in accordance with City of Beaverton and Beaverton School District requirements.

3.3 SOIL PREPARATION FOR SEEDED LAWNS

- A. This article pertains to new lawns and grasses as shown on Drawings and existing lawn and grass areas disturbed by construction activities.
- B. Lawn area subgrade preparation:
 - 1. See sheet notes on L300 & L400.
- C. Leveling Rolling: Drag with flexible tine harrow (or approved equipment) to remove ridges and fill depressions, as required to meet finish grades. Roll areas (minimum roller weight 10 pounds per square inch) in two opposing directions.
- D. Repeat rolling procedures and drag lightly to establish a smooth uniform compacted surface free of rocks and other extraneous matter. Provide compaction to 80 **[85]** percent relative density or as indicated in Division 31 Section "Earth Moving."
- E. Water lightly and allow planting mix to settle. Add additional material at mixture indicated in paragraph above to bring soil level to grades shown on the Drawings with allowance at pavement edges. Provide compaction to 80 percent relative density
- F. Meet lines, grades and elevations shown, after light rolling and natural settlement. Fine grade lawn areas to smooth even surface with loose, uniformly fine texture. Rake and drag lawn areas removing ridges and filling depressions to obtain firm finished grades for receipt of lawn planting.
- G. Remove stones over 1/2-inch in any dimension and sticks, roots, rubbish and other extraneous matter.
- H. Finish Grading: Grade lawn areas to smooth, even surface with a loose uniformly fine texture. Finish grade of soil shall be 1/2 inch below adjacent pavement. Limit preparation to areas which will be planted promptly after preparation.
- I. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
- J. Prior to commencing seeding operations restore seed beds to their finish grade condition if eroded, hardened or glazed or disturbed in any other manner following completion of finish grading. Restoration of seed bed areas shall be considered incidental to the project Work and performed at no additional cost to the Owner.

3.4 FINE GRADING

- A. Finish grade after full settlement including mulch, shall be 1 inch below tops of curbs, walks, or existing grades in shrub areas and 3/4 inch lower in lawn areas.
- B. Slope all areas to prevent puddling and drain surface water toward catch basins, drains, curbs, or off-site as shown on Drawings.
- C. Soil in all areas shall be thoroughly settled, with a smooth surface free of humps and hollows, and shall be firm enough to resist undesirable impressions when stepped upon.
- D. Use levels, screens, drags, or any other equipment necessary to establish and verify grades and surfaces.
- E. Finish grade lawn, grass and planting areas to smooth, even surface with loose, uniformly fine texture.
- F. Roll, rake, and drag lawn areas, remove ridges and fill depressions with amended topsoil to obtain firmness and finish grades as indicated.
- G. Notify Owner's Representative 36 hours in advance to review fine grading of lawn, grass and planting areas. Finish grades shall be prepared to the satisfaction of the Owner's Representative prior to planting.

3.5 CLEAN-UP

- A. Clean up excess materials and debris from project site upon completion of work or sooner if directed by the Owner's Representative.
- B. Leave in neat and tidy condition daily.
- C. ***Contractor shall be liable for correction of all pollution related events occurring due to construction activities and responsible for clean-up or mitigation requirements at no additional cost to owner. (Addendum 01, 7/30/20)***

3.6 DISPOSAL

- A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 32 9113

SECTION 32 9200 - LAWN AND GRASSES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Seeding.
2. Herbicides.

1.2 GENERAL REQUIREMENTS

- A. Comply with governing regulations applicable to landscape materials.
- B. Do not make substitutions. If specified landscape material is not obtainable, submit to the Owner's Representative proof of non-availability and material proposed for use as equivalent material.
- C. Proceed with and complete the landscape work as rapidly as portions of the site become available, working within seasonal limitations for each kind of landscape work required.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Submit the following within 30 days from Award of Contract:
1. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
 2. Vendor's proof of order for each seed mix specified. Deliver the seed bag tags to Owner's Representative.
 3. Fertilizers: Submit manufacturer's guaranteed analysis.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn, and sports field turf establishment.

1. Installer's Field Supervision: Installer shall maintain an experienced full-time supervisor on the Project site when planting is in progress.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

1.6 PROJECT CONDITIONS

- A. Coordinate work with installation of other site work including irrigation and planting.
- B. Verify soil preparation has been completed. Identify conditions not indicated on the Drawings and those which will adversely affect the execution this work. Notify the Owner's Representative of unsatisfactory conditions immediately.
- C. The Contractor shall utilize temporary irrigation or other means and methods as approved by the Owner's Representative, to achieve the Satisfactory Establishment and Warranty requirements as identified within this specification.
- D. The Owner's Representative shall determine areas beyond those indicated on the Drawings which require preparation and seeding due to construction disturbance. This work shall be performed by the Contactor at no additional cost to the Owner.
- E. Notify the Owner's Representative of conditions unfavorable to the propagation and growth of lawn such as; rubble, construction debris, rock fill, glazed soil, hardened soil or adverse drainage conditions before commencing planting or adding soil amendments. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Owner's Representative.
- F. Environmental Requirements: Do not place, spread, or roll fill materials during unfavorable weather conditions. When work is interrupted by adverse weather conditions, do not resume fill operations until moisture content and density of fill are satisfactory.
- G. Protection of subgrade: Do not allow equipment to pump or rut subgrade, stripped areas, footing excavations or other areas prepared for the Project. Protect subgrades, fills and excavation areas from surface waters flowing into the work areas.
- H. Continuity of Soil Preparation and Seed Application: Prepared soil conditions shall not be allowed to lie fallow. Seeding operations shall commence within 72 hours of approval of finish grading. Should precipitation in excess of 0.25-inches occur within this time period, the soil surface shall be examined upon drying, areas greater than 6-inches in any dimension which are smooth or glazed in appearance shall be re-cultivated. If glazing is evident in multiple portions of the seedbed, the entire bed shall be re-cultivated to establish a friable soil surface. If for any reason, seeding does not occur within the designated 72 hours, the soil shall be re-cultivated and raked prior to seeding to achieve a

finish grade condition as identified within the “Soil Preparation” specifications. Any and all re-raking and supplemental cultivation procedures shall be considered incidental to the project Work and performed at no additional cost to the Owner.

1. Season: Seeding shall take place between April 1st and September 15th, and be performed during normal weather and temperatures appropriate and typical for such work. Non-irrigated areas shall be seeded between April 1st and April 15 or between September 15 and October 1.
2. Seeding on other dates or during adverse conditions is at the risk of the Contractor and will require additional site inspections to determine seed establishment, areas of seed re-application and the extension of the maintenance and warranty periods as determined by the Owner’s Representative. All required inspections, labor & materials to execute this work shall be at the Contractor’s expense and performed in accordance with the requirements of this specification section.

1.7 PROTECTION

- A. Provide adequate measures to protect workers and passers-by the site. Execute all work in an orderly and careful manner with due consideration for any and all surrounding areas, plantings, or structures which are to remain. Protect all adjacent property and improvements from work damage, and replace any portions damaged.
- B. Any structures or facilities damaged due to Work of this Section shall be restored equal to or better than their original condition at the Contractor's expense and to the satisfaction of the Owner’s Representative, at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 SEED

- A. General: Provide fresh, clean, new-crop seed complying with tolerance for purity and germination established by Official Seed Analysts of North America.
- B. Grass Seed Mix: Subject to compliance with requirements, provide the following proprietary seed mixes:
 1. Out Field Seed: Wilbur-Ellis Co. “Fairway Supreme” Willsonville, Oregon (503) 964-7659. Application rate: **10** pounds per 1000 square feet
 2. Or approved equal to a 3-way mix of: 33% Pavillion Perrenial Ryegrass, 33% Fiesta 4 Perrenial Ryegrass, 33% Banfield Perrenial Ryegrass.

2.2 TOPSOIL

- A. Topsoil: See Division 32 Section “Soil Preparation.”

2.3 INORGANIC SOIL AMENDMENTS

- A. Inorganic Soil Amendments: See Division 32 Section “Soil Preparation.”

2.4 ORGANIC SOIL AMENDMENTS

- A. See Division 32 Section “Soil Preparation.”

2.5 TOP DRESSING

- A. Top dressing for hand seeding small areas where machine seeding is not feasible (not needed with seeding machine).
 - 1. Peat: Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed peat moss, having a water-absorbing capacity of 1100 to 2000 percent.
 - 2. Compost: See Division 32 Section “Soil Preparation.”

2.6 HERBICIDES

- A. Post-Emergent Herbicides: EPA registered and approved, of type recommended by manufacturer for selective weed eradication. “Glyphogan Plus Round-Up” by Mana, “Envoy Plus” by Valent, “Crossbow” by Dow AgroSciences, “Landmaster BW” by Agri Star or approved equal.
- B. Pre-Emergent Herbicides: EPA registered and approved, of type recommended by manufacturer for selective weed prevention. “Ronstar-G” by Bayer, “Dimension EC” by Dow AgroScience, or equal. Products containing either pendimethalin or DCPA are prohibited.

2.7 FERTILIZER

- A. Meet requirements of applicable State fertilizer laws. Fertilizers shall be uniform in composition, dry and free flowing. Deliver to the site in original unopened containers each bearing manufacturer's guaranteed analysis.
- B. Composition and rate of fertilizer used to amend topsoil is to be determined by soil analyses. Refer to Division 32 Section “Soil Preparation” for soil fertility testing requirements.
- C. Commercial Fertilizer: Slow release, granular fertilizer that is derived from natural organic and inorganic sources.

1. Starter Fertilizer: Woodburn Fertilizer 'Perfection Mix #29' 15-15-15 w/Minors, as available from Woodburn Fertilizer, Woodburn; Oregon; Tel.: 1-503 981 3521, or equal
2. Maintenance Fertilizer: Woodburn Fertilizer 'Regal Green' 21-4-21 with 50 percent of the nitrogen controlled release from superior Duration™ Type II, as available from Woodburn Fertilizer, Woodburn, Oregon; Tel.: 1-503 981 3521, or equal.

2.8 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Peat Mulch: Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed peat moss, having a water-absorbing capacity of 1100 to 2000 percent.
- C. Compost Mulch: See Division 32 Section "Soil Preparation."
- D. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic; free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 2.8 to 6.8.
 1. Non-Irrigated Lawns and Grasses: Interlocking crimped polyester fibers combined with wood fibers and cross-linked tackifier, Profile Products, LLC "Conwed Fibers Flexterra HP-FGM" or equal.
- E. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application with seed, mulch and fertilizer; nontoxic and free of plant-growth or germination inhibitors.

2.9 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with specification requirements and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Confirm irrigation coverage test has been performed, all irrigation trenches have been backfilled and compacted and soil preparation has been performed in accordance with procedures outlined in the Soil Preparation specification.

2.10 PREPARATION

- A. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

2.11 LAWN AREA PREPARATION

- A. See Division 32 Section "Soil Preparation."

2.12 HERBICIDE APPLICATION

- A. Spray herbicides as required to eradicate **and prevent emergence of** noxious weed growth.
 - 1. Apply] herbicides over all areas of weed or grass growth within landscaped area to eradicate weed growth. Apply in single application at manufacturer's maximum recommended rate, as follows:
 - a. Apply after soil preparation has been completed and approved by Owner's Representative.
 - b. [Do not till pre-emergent herbicide into soil.]
 - c. Observe manufacturer's recommended period prior to working and seeding in treated areas.

2.13 SEEDING NEW LAWNS

- A. Notify Owner's Representative for approval of seed bed prior to seeding.
- B. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.
- C. Apply Starter Fertilizer at a rate of 1 pound of actual Nitrogen per 1,000 square feet immediately prior to sowing seed. Do not sow seed and fertilizer simultaneously.
 - 1. Include Starter Fertilizer in hydrosurry mix.
- D. Sow seed using a slice seeding machine that places seed into soil. Do not seed when wind velocity exceeds 5 miles per hour. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
 - 1. For small areas where seeding machine is not feasible, use seed broadcaster and hand rake seed into soil.
 - 2. For slope areas greater than 3 to 1 gradient of slope, use hydroseeding application.
- E. Sports Fields: sow seed mixture at 10 lbs. per 1,000 Square feet; water thoroughly.

1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

- F. Reseeding: Reseed areas failing to show uniform stands of grass at 10-day intervals until a satisfactory stand is achieved.

2.14 LAWN RENOVATION

- A. Renovate existing lawn.
- B. Renovate existing lawn damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 1. Reestablish lawn where settlement or washouts occur or where minor regrading is required.
 2. Prepare planting soil as specified in Division 32 Section "Soil Preparation."
- C. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new planting soil.
- D. Mow, dethatch, core aerate, and rake existing lawn.
- E. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- F. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and lawn, and legally dispose of them off Owner's property.
- G. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- H. Apply soil amendments and initial fertilizers required for establishing new lawns and mix thoroughly into top 6 inches of existing soil. Provide new planting soil to fill low spots and meet finish grades.
- I. Apply seed and protect with mulch as required for new lawns.
- J. Water newly planted areas and keep moist until new lawn is established.

2.15 LAWN MAINTENANCE

- A. Maintain and establish lawn by watering, fertilizing, weeding, mowing, edging, trimming, replanting and other operations necessary to establish a Satisfactory Lawn.
- B. The maintenance of all lawns and grasses shall be for a period of 60 calendar days minimum after written Notice of ~~Substantial Completion or until Final Acceptance~~ **Completion**, ~~whichever is later~~. Maintenance of seeded lawns and grasses shall

commence after observation and ~~approval~~ **final acceptance** of the seed bed by the Owner's Representative. (*Addendum 01, 07/30/20*)

- C. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.
 - 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
 - 2. Protect lawns and grasses from damage including vandalism and adverse weather conditions.
- D. Weed Eradication: Remove germinated lawn seed in planting areas without harming other plant material. Spray under and 6 inches outside of fences with "Roundup" to kill all grasses and weeds.
- E. If lawns have not achieved a Satisfactory Lawn condition before the dormant period, maintenance shall recommence after the dormant period for a minimum of 60 calendar days and continue until achieving Satisfactory Lawn status. The dormant period is November 15th to March 1st.
- F. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water lawn with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.
- G. Mowing: Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. All grass clippings shall be collected and disposed of off-site in a legal manner. Schedule initial and subsequent mowings to maintain the following grass height:
 - 1. Sports Lawn: Once growth has reached 4 inches, mow and cut no more than 1/3 total height of grass. Mow weekly thereafter to maintain a height of 2 inches. Maintain until Final Acceptance.
- H. Lawn Post-Fertilization: Apply fertilizer after initial mowing and when grass is dry.
 - 1. Fertilize lawns at end of 30 days with Maintenance Fertilizer at the rate of 1 pound per 1,000 square feet.
 - 2. Continue fertilizing lawns at 30 days intervals with Maintenance Fertilizer at the rate of 1 pound per 1,000 square feet until the end of the Maintenance Period.

2.16 SATISFACTORY LAWNS

- A. Lawn installations shall have achieved the following Satisfactory Lawn criteria for Final Acceptance; as determined by the Owner's Representative.
 - 1. Satisfactory Seeded Lawn: A healthy, uniform, even colored, dense stand of grass has been established, free of weeds and surface irregularities, humps and depressions, with coverage exceeding 95 percent over any 10 sq. ft. and bare spots not exceeding 2 by 2 inches.
- B. Areas of work which do not meet the criteria for Satisfactory Lawns shall be replaced using the specified materials and methods to re-establish lawn. Maintenance shall continue until a Satisfactory Lawn has been achieved.
- C. Seeded lawns shall have achieved Satisfactory Lawn status prior to November 15th. Seeded lawns which are not satisfactorily established at this time; as determined by the Owner's Representative, shall be sodded at no additional cost to the Owner.

2.17 LAWNS AND GRASSES WARRANTY

- A. Guarantee all seeded lawns and grasses in writing for a period of 1 year after Final Acceptance, or till the end of one full growing season after date of Final Acceptance, whichever is longer.
- B. During and at the end of the warranty period, remove and replace lawns and grasses which are dead, in unhealthy condition or exhibit low germination and growth rates. Provide new lawns and grasses which comply with the Drawings and Specifications, at no additional cost to the Owner. Guarantee replacement lawns and grasses for 1 year from the date of the work.
- C. All replacement work shall be executed by the Contractor within 14 days of receiving notification from the Owner's Representative, weather permitting. If repairs are not executed within 14 days, the Owner without further notice may provide materials and labor to perform such repairs at the expense of the Contractor.

2.18 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris, created by lawn work, from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from foot and vehicular traffic and to protect against trespassing and damage. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.

- C. Remove non-degradable erosion-control measures after grass establishment period.

END OF SECTION 32 9200

