

CITY OF HENDERSONVILLE
REQUEST FOR QUOTES # 221525001
FOUR SEASONS BLVD POLLINATOR
BED PROJECT
January 2022

The City of Hendersonville, North Carolina (City) is requesting quotes for implementing a pollinator bed on Four Seasons Blvd. Contractors interested in providing landscape installation services in Hendersonville need to respond to this request with a bid.

The proposed project is a pollinator bed. The scope of work includes herbicide application, disc-tilling, adding mulch and compost, erosion control, adding fertilizer and/or lime, testing soil, watering, planting perennials, shrubs, grasses, trees, and weeding. The pollinator bed is located at the point of the triangle island that is encompassed by Four Seasons Blvd (HWY 64 W), 7th Avenue, and Duncan Hill Road in Hendersonville, NC, hereinafter "Project." The area consists of several commercial businesses and public roads. The physical location of the project is shown in green below:



The following item(s) have already been obtained by the City for this project:

Planting Plan (Appendix A)
Planting Notes dated 7-6-20 (Appendix B)
NCDOT Encroachment Agreement (Appendix C)
Initial Soil Test Report (Appendix D)

The City has established the following timeline for bidding and construction of the project:

- RFQ Submission – November 16, 2022
- Vendor Questions Deadline – December 1, 2022 at 3:00 PM
- Proposal Deadline – December 15, 2022 at 3:00 PM
- Proposal Review –December15 – 18, 2022
- Firm Selection – December 19, 2022
- Contract Negotiation –December 19-20, 2022
- City Council Approval – Jan 5, 2023
- Construction Notice to Proceed – January 6, 2022
- Final Completion – 4/20/2023

The successful firm will demonstrate proficiency and experience in landscaping, adherence to all applicable building codes and local ordinances, management, preparation of package, construction inspection, and administration services. Anticipated services include, but are not limited to:

- Compile and evaluate existing information regarding the project and site, including solicitation of input from City Staff and other parties as deemed necessary.
- Provide planning and site analysis, condition assessment, and any additional necessary permitting.
- Perform all necessary coordination with the City, Henderson County, utilities, and any other interested party.
- Obtain all necessary permits/approvals required to construct the project.

Companies interested in performing these services must exhibit relevant experience with this type of work and should emphasize both the experience and capability of the personnel who will actually perform the work. At a minimum, all interested firms are required to submit a statement of qualifications and experience containing the following information:

Summary:

- A summary should provide a brief but thorough overview of how the firm can provide these services to the City.
- Include an introductory statement and a summary of the firm's experience with the work described above.
- Provide firm name, address, telephone number, email address, and main contact person(s).
- Provide the year in which firm was established and any former names under which the firm operated.

Experience:

- Provide a list of (3) projects of similar size and scope completed by the firm within the past ten (10) years. This shall list the following as a minimum:
 - Owner's name and contact information (mailing address, email addresses and phone numbers).
 - Name, location, and detailed description of the project.
 - Design and construction cost of each project and number of change orders, including monetary impact of each.
 - Summary of project actual costs compared to original and revised project budget(s)/estimate(s).
 - Project start and completion dates.
 - Project staff and their role(s).

References:

- Provide at least three (3) references that the City may contact to verify your qualifications, experience and involvement in the stated engineering activities and projects.
- Job title, telephone numbers, e-mail address and for each reference listed should be included in your statement of qualifications.

The attached qualification statement evaluation (Appendix E) will be used in the selection process. The City intends to award the project to the firm or team that is determined to be best qualified.

A clear, well-defined scope of services and price for the work will be negotiated with the apparently most qualified firm (or partnered firms). If these negotiations are unsuccessful, the City will negotiate with the next-most qualified firm (or partnered firms). The City will continue in like manner until negotiations are successful. The successful firm/partnered firms will be required to enter into the City's standard professional services agreement. Notwithstanding the foregoing, the City may elect to terminate the process at any time.

Submissions must be sent in PDF format and emailed to twooten@hvlnc.gov by 3:00 PM July Eastern Time (EST) on Thursday, December 15, 2022. PDF files must contain the signatures of company representatives who are authorized to execute documents on behalf of the firm. Submissions received after the deadline will not be considered. The City reserves the right to reject any and all submissions received and to waive minor informalities. Incomplete proposal responses will not be considered. The selected firm(s) will be expected to enter into an agreement with the City as soon as possible following notification.

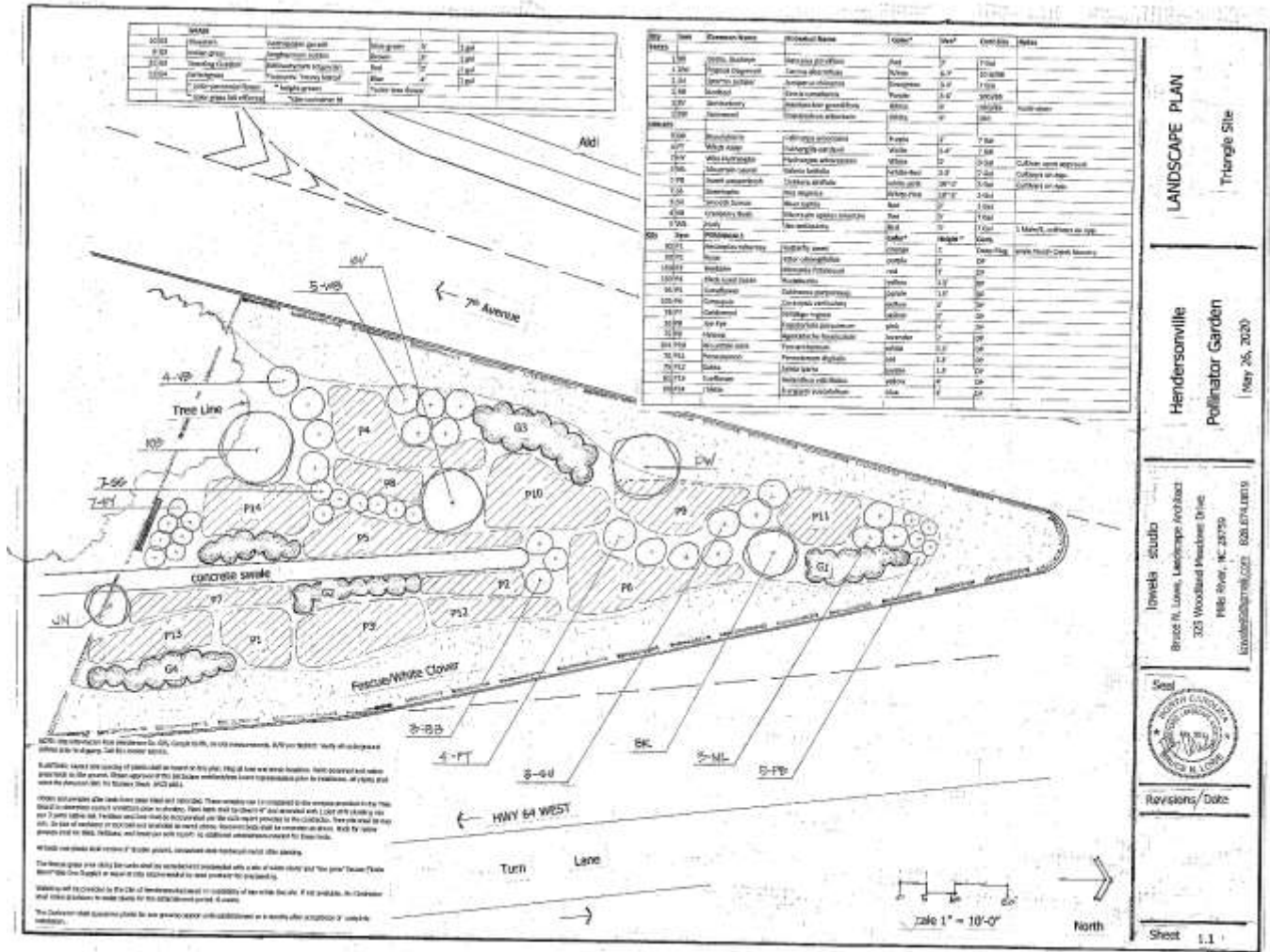
Any questions regarding this request should be directed to Tom Wooten at twooten@hvlnc.gov. Written requests for clarifications to this RFQ will be accepted until 3:00 PM on Thursday, December 1, 2022. If necessary, the City will issue a written addendum on the City website to clarify any issues raised.

The City of Hendersonville accepts no responsibility for any expense related to preparation or delivery of qualification statements. All materials and documents submitted by the firm or design team in response to this RFQ or any additional requests for materials and documents made by the City for evaluation pursuant to this RFQ will become the property of the City and will not be returned. The selected firm(s) shall be responsible for all costs incurred during negotiations.

It is the policy of the City of Hendersonville that all original documents, reports, studies, and other data produced as a direct result of the services performed under the contract shall become the property of the City of Hendersonville. Any copyrighting of material produced, and data compiled because of the services performed by the successful firm(s) shall be in the City of Hendersonville's name. Where licensed material is incorporated as an integral component of the services provided the firm shall register the City as a licensed user and shall provide the City with one complete copy of the licensed material.

Selection of a firm shall include the use of good faith efforts by the public entity to notify minority firms of the opportunity to submit qualifications for consideration by the public entity. It is the practice of the City to make a good faith effort to procure the submission of proposals by historically underutilized businesses as part of the selection process. The City seeks to provide all persons and businesses a fair and equal opportunity to participate in all aspects of its contracting and procurement programs and to prohibit all discrimination against persons or businesses in pursuit of these opportunities. The City of Hendersonville is an Equal Employment Opportunity Employer.

Appendix A:



LANDSCAPE PLAN
Triangle Site

Hendersonville
Pollinator Garden
May 26, 2020

Invels studio
Bruce H. Lowe, Landscape Architect
323 Woodland Meadows Drive
Hillsboro, NC 27549
lowell@invels.com | 919.828.6744

Revisions/Date

Sheet 1.1

Appendix B:



Pollinator Gardens, Hendersonville Tree Board- Planting Notes 7-6-20

1. Soil test- read results for each site
2. Call 811 to locate utilities
3. Check with NCDOT and City of Hvl for any permits, approvals
4. Mow site low, kill weeds, disc-till site
5. For Spring planting 2021, let site freeze/thaw then til again in early Spring 2021
6. Lightly mulch, straw or plant cover crop and install erosion control as needed
7. Add leaf or other compost from Hvl
8. Add fertilizer, lime per soil test and til entire site
9. Soil test to check results of amendments
10. Install water tap/ meter or make provisions for watering
11. Layout planting areas using flags or stakes for trees and shrubs, paint out bed areas for shrub masses, native grasses and perennial beds.
12. Layout all trees and shrubs first, then begin layout of grasses and shrub bed areas. Finally, layout perennials. Some locations may change from plan so beds may have to be modified- this is usual.
13. Planting- dig tree and shrub pits 2x the root or container size. Backfill with a mix of 3 parts existing soil from hole and 1 part planting mix. Planting mix recommended is AMY's Planting Mix (Asheville mulch yard). Water in plants during backfill to eliminate air pockets, lightly tamp soil to firm.
14. Form a water berm around trees and shrubs and mulch with 2" double ground aged hardwood or pine mulch. (Cason's, Avl Mulch yard, or City of Hvl)
15. Make provisions for watering and weeding during the grow in period. Mulch entire site with 3" of specified mulch.

Appendix C:



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

July 20, 2020

Encroachment No.: 202045029
Location: US 64 at Seventh Avenue
County: Henderson
District Engineer: Lonnie Watkins, PE

Mr. Tom Wooten
Public Works Director
305 Williams St.
Hendersonville, NC 28792

Dear Mr. Wooten:

Attached for your files is a copy of a contract which has been properly executed for the encroachment on NCDOT right-of-way designated as US 64 at Seventh Avenue within the island to install vegetation/plantings within the NCDOT ROW, as shown on the attached plan.

NOTE The plantings shall be installed and maintained by the City of Hendersonville. Any new trees shall not exceed 12 feet at full maturity to avoid existing utility lines.

If you have any questions please contact Carl Ownbey, Engineering Technician III, whom you can reach at the District Engineer's office at (828) 891-7911.

Sincerely,

A handwritten signature in cursive script that reads "Lonnie Watkins".

Lonnie Watkins, PE
District Engineer
Brian Burch, PE
Division Engineer

for

BB/LW/co

ROUTE HWY 64 PROJECT Landscape COUNTY OF Henderson STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY ENCROACHMENT AGREEMENT
FOR NON-UTILITY ENCROACHMENTS ON
PRIMARY AND SECONDARY HIGHWAYS

-AND-

City of Hendersonville

305 Williams St.
Hendersonville, NC 28742

THIS AGREEMENT, made and entered into this the 20th day of July 20 20, by and between the Department of Transportation, party of the first part; and City of Hendersonville

party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as Route(s) HWY 64, located Triangle area between HWY 64, 7th Avenue, and Duncan Hill Road

with the construction and/or erection of: Small trees within the forested area and convert the grass area to landscaped area (at the East end of the triangle). City shall maintain all new plantings. The new trees should not be more than twelve feet high At maturity to avoid any utility lines, where applicable.

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities; that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

It is clearly understood by the party of the second part that the party of the first part will assume no responsibility for any damage that may be caused to such facilities, within the highway rights of way limits, in carrying out its construction and maintenance operations.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Division Engineer of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Division Engineer of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Division Engineer of the party of the first part.

That the party of the second part agrees to have available at the encroaching site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Division Engineer of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

R/W (161A) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161A) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

DEPARTMENT OF TRANSPORTATION

BY: Donnie Walburn
Asst. Manager of Right of Way
DISTRICT ENGINEER

ATTEST OR WITNESS:

Tom Woolen
Director of Public Works

City of Hendersonville
Second Party

INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the Manager of Right of Way. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the proposed encroachment.
4. Length and type of encroachment.
5. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
6. Drainage structures or bridges if affected by encroachment.
7. Typical section indicating the pavement design and width, and the slopes, widths and details for either a curb and gutter or a shoulder and ditch section, whichever is applicable.
8. Horizontal alignment indicating general curve data, where applicable.
9. Vertical alignment indicated by percent grade, P.I. station and vertical curve length, where applicable.
10. Amount of material to be removed and/or placed on NCDOT right of way, if applicable.
11. Cross-sections of all grading operations, indicating slope ratio and reference by station where applicable.
12. All pertinent drainage structures proposed. Include all hydraulic data, pipe sizes, structure details and other related information.
13. Erosion and sediment control.
14. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
15. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.
16. Method of handling traffic during construction where applicable.
17. Scale of plans, north arrow, etc.

STANDARD SPECIAL PROVISIONS FOR ENCROACHMENTS
REVISED - FEBRUARY 2011

1. Notify the District Engineer's office at least 3 day's prior to commencing work and again upon completion of work. (828- 891-7911)
2. Traffic control devices and procedures shall be installed to ensure public safety and shall comply with the latest edition of the Manual on Uniform Traffic Control Devices and the N.C. Department of Transportation's Standards and Specifications for Roads and Structures.
3. Contact the appropriate Utility Company(ies) involved and make satisfactory arrangements to adjust any utilities in conflict with the proposed work prior to construction.
4. Any drainage structure disturbed or damaged shall be restored to its original condition as directed by the District Engineer. Drainage structures shall not be blocked with excavation, construction or other materials. In addition, any drainage pattern that is altered must be repaired / modified. This work must meet NCDOT standards, and result in proper and adequate drainage of disturbed area. This includes but is not limited to culverts, ditches, shoulders, or drainage structures. The District Office is to be notified of any changes made.
5. Trenching, bore pits and/or other excavations shall not be left open or unsafe to pedestrian or vehicular traffic overnight or during holidays and weekends and shall comply with all O.S.H.A regulations and requirements.
6. All fill areas/backfill shall be compacted to 95% density in accordance with AASHTO T99 as Modified by NCDOT. All material to a depth of 8.0" below the finished surface of the sub-grade shall be compacted to a density equal to at least 100.0% density in accordance with AASHTO T99 as modified by NCDOT. The sub-grade shall be compacted at a moisture content which is approximately the required to produce the maximum density indicated by the above test method. The contractor shall dry or add moisture to the sub-grade when required to provide a uniformly compacted and acceptable sub-grade.
7. Proper temporary and permanent measures shall be installed and maintained for the duration of the encroachment to control erosion sedimentation in accordance with local, State and Federal regulations.
8. Materials and workmanship shall conform to the N.C. Department of Transportation's Standards and Specifications for Road and Structures and Roadway Standard Drawings.
9. Strict compliance with The Policies and Procedures for Accommodating Utilities on Highway Rights of Way shall be required.
10. Silt basins shall be removed as soon as possible and shall not infringe on the roadway or components of the roadway including required clear recovery areas or any other areas traversable by vehicles.
11. It is the encroaching party's responsibility to determine if any permits are required by other local, state and federal governments to perform the work described in the encroachment and to secure such permits before any construction begins.
12. Any work requiring equipment or personnel within 5.0' of the edge of the travel lane shall require a lane closure in accordance with NCDOT Standards and Specifications for Roads and Structures and Roadway Standard Drawings manuals and the latest edition of the MUTCD or supplements thereof.
13. No material or equipment storage will be allowed within 30.0' of the edge of the travel lane without the permission of the Engineer. Absolutely no material or equipment storage will be allowed within 15.0' of the edge of the travel lane.
14. NCDOT does not guarantee the right of way on these roads, nor will it be responsible for any claim for damages brought by any property owner by reason of this installation.
15. If any blasting is required, the maximum peak particle velocity shall be limited to 4.0 in./sec. As measured at the closest structure extremity.

16. Any changes to the encroachment must be submitted in writing to the Engineer for review and comment. Failure to request changes may result in cancellation of the encroachment agreement.
17. All disturbed right of way monuments shall be reset by a NC licensed Surveyor in accordance with NCDOT Standards and Specifications for Roads and Structures and Roadway Standard Drawings manuals.
18. No lane closures will be allowed prior to 8:30 AM or after 4:30 PM (time changes can be approved on a case by case basis). No lane closures will be allowed on Sundays or on State observed holidays (without prior approval).
19. All manhole lids, water valves/meters and applicable concrete encasements shall be set flush with the natural ground elevation and should be located so as to minimize interference with highway drainage. All fire hydrants must be located a minimum 5.0' behind the ditch line.
20. All longitudinal installations of proposed encroachments shall be located as close to the outside edge of the Right of Way and as far away from the outside edge of the nearest travel lane as possible to the satisfaction of the District Engineer.
21. All manholes and vaults shall be of a design approved by the State Design Services Engineer. A list of previously "Approved Manholes and Vaults" may be obtained from the State Design Services Engineer.
22. All driveways altered during construction shall be at a minimum returned to a state comparable with the condition of the driveways prior to construction.
23. An Executed copy of this Encroachment agreement will be present at the construction site at all times during construction. If safety or traffic conditions warrant such an action, NCDOT reserves the right to further limit, restrict or suspend operations within the right of way.
24. All roadway signs which are removed due to construction shall be reinstalled as soon as possible.
25. Ingress and egress shall be maintained to all business and dwellings affected by the project. Special attention shall be paid to police and fire stations, fire hydrants and hospitals.
26. Vegetative cover shall be established on all disturbed and damaged areas to the satisfaction of the District Engineer in accordance with the attached Seeding and Mulching guidelines. The N.C. Department of Transportation reserves the right to modify the guidelines for unique situations or as recommended by the Area Roadside Environmental Engineer.

SEEDING AND MULCHING GUIDELINES

MATERIAL	May 1 – Aug. 31	Sept. 1 – April 30
Kentucky 31 Fescue	100 Lb./Ac.	100 Lb./Ac.
OR		
Hard Fescue	15 Lb./Ac.	15 Lb./Ac.
Fertilizer	500 Lb./Ac.	500 Lb./Ac.
Limestone	4000 Lb./Ac.	4000 Lb./Ac.
Rye grain	-----	25 Lb./Ac.
German Millet	25 Lb./Ac.	-----
Mulch with grain straw	40 bales/Ac.	40 bales/Ac.

NOTES

- A. Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application is adjusted to provide the same amount of nutrients as the 10-20-20 analysis.
- B. Hard Fescue may be substituted for Kentucky 31 Fescue and Vice Versa however see the above table as the rate of application for the two materials is different.
- C. Seeding and mulching operations shall be adapted to various weather or soil conditions as necessary for the successful establishment and growth of the grasses and legumes as directed by the Engineer.

27. The encroaching party shall comply with all applicable federal, state, and local environmental regulations, and shall obtain all necessary federal, state, and local environmental permits, including but not limited to, those related to sediment control, storm water, wetland, streams, endangered species, and historical sites.
28. Excavation within 1000 feet of a signalized intersection will require notification by the party of the second part to the Division Traffic Engineer at telephone number 828-631-1185. All traffic signal or detection cables must be located prior to excavation.
29. With directional boring, under no condition shall jetting alone or wet boring with water of utility pipelines be allowed. Directional boring using jetting with a Bentonite (or equivalent material) slurry is approved at a minimum depth of ten (10) feet below the pavement surface (fifteen feet below the surface of controlled access roads) and five (5') below any ditch line. Any parallel installation utilizing the directional boring shall be made at a minimum depth of three (3') feet (cover) below the ground surface except where the parallel installation crosses a paved roadway. The tip of the drill string shall have a cutter head. Any changes shall be submitted to the District Engineer for approval prior to construction. An overbore shall not be more than two (2") inches greater than the diameter of the pipe or encasement will be considered. If the encroachment agreement includes a statement signed and sealed by a North Carolina Registered Professional Engineer, indicating that an over bore in excess of two (2") inches of the pipe or encasement will arch and no damage will be done to the pavement or subgrade.
30. Any open cut pavement must be repaired / replaced with an NCDOT approved Bituminous material within 48 hours. NCDOT will not be responsible for damages incurred to the traveling public where the pavement has been cut.
31. That the party of the second part agrees to provide traffic control devices, lane closures, road closures, positive protection and/or any other warning or positive protection devices necessary for the safety of motorists and workers during construction and any subsequent maintenance. This shall be performed in conformance with the latest NCDOT Roadway Standard Drawings and Standard Specifications for Roads and Structures and Amendments or Supplements thereto. When there is no guidance provided in the Roadway Standard Drawings and Specifications, comply with the Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplement thereto. Information as to the above rules and regulations may be obtained from the Division Engineer of the party of the first part.
32. As part of any utility encroachment where structures will be installed above ground, the following conditions shall apply. "Any and all components of this utility encroachment that extend vertically beyond ground elevation must be provided with a 3 foot radius that is regularly maintained or kept clear of vegetation for the purpose of visibility. This includes poles, guy wires and anchors, pedestals, cabinets, etc. All utility owners are to place visible sleeves on all guy wires. Failure to comply with this condition will forfeit the utility owner's right to reimbursement for damages from NCDOT resulting from future mowing operations."
33. NCDOT WORK ZONE TRAFFIC CONTROL QUALIFICATIONS AND TRAINING PROGRAM:
 - a. Effective July 1, 2010, all flagging operations within NCDOT Right of Way requires qualified and trained Work Zone Flaggers.
 - b. Effective July 1, 2011, qualified and trained Work Zone Traffic Control Supervisors will be required on Significant Projects.
 - c. Training for this certification is provided by NCDOT approved training sources and by private entities that have been pre-approved to train themselves. If you have questions, contact our web site at <https://connect.ncdot.gov/projects/WZTC/Pages/Training.aspx> or NCDOT Work Zone Safety Program at 919-707-2660.

Appendix D:

NCD&CS Agronomic Division		Phone: (919) 733-2666	Website: www.ncagr.gov/agronomi		Report No.	FY20-SL028368	
Sample ID: 01TR1 <i>TRANSLE</i>	Crop 1- Shrubs Crop 2-		Lime Recommendations 35.0 lb per 1,000 sq ft 0.0 lb per 1,000 sq ft		N-P-K Fertilizer Recommendations* 20 lbs per 1,000 sq ft 5-10-10 Group A		
Lime History:	Test Results: pH = 4.9		Optimum pH range 5.8 - 6.5		Phosphorus Index (P-I) = 16 Potassium Index (K-I) = 27		
Bruce Lowe	Additional Test Results:				*If you cannot find the fertilizer recommended here, choose one from the same Group (A, B, C or D) listed on the last page of this report. Note: This soil test does not measure nitrogen (N) levels. N fertilizer recommendations are based only on needs of the designated crop.		
Soil Class	HM%	WV	CEC	Mn-I	Zn-I	Cu-I	S-I
Mineral	0.27	1.05 g/cm ³	2.5 meq/100 cm ³	248	72	27	34

NCD&CS Agronomic Division		Phone: (919) 733-2666	Website: www.ncagr.gov/agronomi		Report No.	FY20-SL028368																								
Bruce Lowe					Page 3 of 3																									
Understanding the Soil Report																														
<p>Lime</p> <p>Application of lime at the recommended rate will raise soil pH to the optimum range. Do not apply too much lime. When soil pH becomes too high, lowering it is very difficult. Often, the best solution then is to choose plants that can tolerate a high pH. Choosing dolomitic lime can be advantageous because it contains the nutrients calcium and magnesium. Pelleted lime is easier to spread uniformly than powdered lime.</p> <p>Lime can be applied at any time of year, but because it reacts slowly, it is best to apply it several months before a new planting. Mixing it into the soil will speed the reaction time. Lime applied to the soil surface takes much longer to correct soil pH.</p> <p>A surface application should not exceed 60 lb per 1,000 sq ft. If a soil report recommends more than this, apply 60 lb per 1,000 sq ft initially and the rest in similar increments every 6-9 months until the full rate is applied.</p> <p>Fertilizer</p> <p>Soil tests do not measure nitrogen (N) since it is very unstable in soils; the N recommendations provided on the soil report are based on plant needs. If soil-test P-I and K-I values are adequate (>50), only nitrogen is recommended- Group D below. A mixed (N-P-K) fertilizer is recommended if P-I and K-I values are less than optimum- Groups A - C below. Although a specific fertilizer grade may be recommended (e.g., 5-10-10), other equivalent options are likely to be available (e.g., any fertilizer in Group A from Table 1).</p> <p>Tips on Fertilizer Application</p> <ul style="list-style-type: none"> To determine how much fertilizer to buy, estimate (in feet) the length (L) and width (W) of the area to be treated: L x W = sq ft. Square off curves to make estimates easier. If the recommendation is 20 lb per 1,000 sq ft and your area is 5,000 sq ft, then you need 100 lb (20 x 5) for your 5,000-sq-ft area. Calibrate your spreader according to manufacturer settings. Apply half the total rate in one direction; apply the rest at a 90° angle. This cross-hair pattern provides a more uniform application. After application, sweep up any fertilizer on hard surfaces and apply to fertilized areas so rainfall does not carry fertilizer to a storm drain. <p>Table 1. Groups of equivalent fertilizers that supply 1 lb of N per 1,000 sq ft.*</p> <table border="1"> <thead> <tr> <th>Group A: low P-I + low K-I</th> <th>Group B: low P-I + high K-I</th> <th>Group C: high P-I + low K-I</th> <th>Group D: N only</th> </tr> </thead> <tbody> <tr> <td>5-10-10 @ 20 lb</td> <td>5-10-5 @ 20 lb</td> <td>8-0-24 @ 12 lb</td> <td>15-0-0 @ 7 lb</td> </tr> <tr> <td>3-6-9 @ 30 lb</td> <td>18-46-0 @ 6 lb</td> <td>15-0-14 @ 7 lb</td> <td>21-0-0 @ 5 lb</td> </tr> <tr> <td>10-10-10 @ 10 lb</td> <td>15-24-10 @ 6 lb</td> <td>6-6-18 @ 18 lb</td> <td>16-0-0 @ 6 lb</td> </tr> <tr> <td>11-15-11 @ 10 lb</td> <td>9-13-7 @ 11 lb</td> <td>5-5-15 @ 20 lb</td> <td>28-0-4 @ 4 lb</td> </tr> <tr> <td>8-10-8 @ 12 lb</td> <td>9-17-8 @ 11 lb</td> <td>10-0-14 @ 10 lb</td> <td>12-8-8 @ 8 lb</td> </tr> </tbody> </table>				Group A: low P-I + low K-I	Group B: low P-I + high K-I	Group C: high P-I + low K-I	Group D: N only	5-10-10 @ 20 lb	5-10-5 @ 20 lb	8-0-24 @ 12 lb	15-0-0 @ 7 lb	3-6-9 @ 30 lb	18-46-0 @ 6 lb	15-0-14 @ 7 lb	21-0-0 @ 5 lb	10-10-10 @ 10 lb	15-24-10 @ 6 lb	6-6-18 @ 18 lb	16-0-0 @ 6 lb	11-15-11 @ 10 lb	9-13-7 @ 11 lb	5-5-15 @ 20 lb	28-0-4 @ 4 lb	8-10-8 @ 12 lb	9-17-8 @ 11 lb	10-0-14 @ 10 lb	12-8-8 @ 8 lb	<p>Report Abbreviations</p> <p>CEC cation exchange capacity Cu-I copper index HM% percent humic matter Mn-I manganese index pH soil pH S-I sulfur index SS-I soluble salt index WV weight per volume Zn-I zinc index</p> <p>Time Fertilizer Application to Coincide with Plant Growth Cycle: Bermudagrass: May, July, Sept Centipedegrass: May St. Augustine grass: May, August Tall fescue: Sept, Nov, Feb Zoysia: May, July Flowers/shrubs: prior to planting or during the growing season Vegetables: prior to planting</p> <p>A Homeowner's Guide to Fertilizer Note 4: Fertilization of Lawns, Gardens & Ornamentals Caring for Your Lawn & Environment Carolina Lawns Soil Acidity and Liming: Basic Information for Farmers & Gardeners</p>		
Group A: low P-I + low K-I	Group B: low P-I + high K-I	Group C: high P-I + low K-I	Group D: N only																											
5-10-10 @ 20 lb	5-10-5 @ 20 lb	8-0-24 @ 12 lb	15-0-0 @ 7 lb																											
3-6-9 @ 30 lb	18-46-0 @ 6 lb	15-0-14 @ 7 lb	21-0-0 @ 5 lb																											
10-10-10 @ 10 lb	15-24-10 @ 6 lb	6-6-18 @ 18 lb	16-0-0 @ 6 lb																											
11-15-11 @ 10 lb	9-13-7 @ 11 lb	5-5-15 @ 20 lb	28-0-4 @ 4 lb																											
8-10-8 @ 12 lb	9-17-8 @ 11 lb	10-0-14 @ 10 lb	12-8-8 @ 8 lb																											
* Since these rates supply 1 lb N per 1,000 sq ft, use half the rate if centipede is the grass type.																														

Appendix E:

Firm Name:

Four Seasons Blvd Pollinator Bed - Proposal Review

Scoring Sheet 1

Evaluation Criteria	Scoring Weight	Your Score	Range	Notes
1) Reputation, Quality and Experience of the Firm - What work experience, if any, do they have on similar projects? - Was their role in past projects comparable to the proposed role for this project? - Does the scale of past experience compare to the scale of this project? - How does their experience compare to others?	25%		(Score 1-25)	Criteria 1 - Does the firm provide a sufficient and detailed explanation of their approach to accomplishing the tasks? Did references give a report?
2) Experience of Proposed Team - Are there multiple firms working together to fulfill the scope of the project? - What education and certifications does the firm have? - How does the experience of this firm compare to others?	15%		(Score 1-15)	Criteria 2 - Is this a single firm or group? Are they qualified?
3) Past work history - Has the firm worked with the City of Hendersonville before and if so what was it a positive experience?	15%		(Score 1-15)	Criteria 3 - If group has not worked with the City of Hendersonville before it will receive maximum score.
4) Timeline - Is the firm available for the proposed timeframe? Can the firm acquire the appropriate plants in the allotted time frame?	15%		(Score 1-15)	Criteria 4
5) Pricing - Has the firm quoted a price that fairly represents the project scope?	30%		(Score 1-30)	Criteria 5 - Fair and competitive pricing?
Total	100%	0		