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| A1   | <b><u>PROJECT NORTH MAINTENANCE SPECIFICATIONS</u></b>  |                         |
| A1.1 | <b>GENERAL COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES INFORMATION</b>   | <b>Bidders Initials</b> |
| A1.2 | Township Entry services include, but are not limited to Turf Maintenance, Landscape Maintenance, Tree maintenance, Irrigation Maintenance and Chemical applications. Currently there are 308 entries in the North. Additional entries may be added from time to time. The Contractor shall perform site inspections (QSA's) after each service.   |                         |
| A1.3 | Township Entries to be serviced in this Project are (See Exhibit M for GIS layers): <ul style="list-style-type: none"> <li>• The Woodlands Community Entries with monument signage</li> <li>• Village and Neighborhood Entries with monument signage</li> <li>• Enhanced Intersections and Medians</li> </ul>   |                         |
| A1.4 | <p><b>Boundary</b> – Township Entries consists of turf, groundcover, shrubs, bedding plants, irrigation, and forested areas.</p> <ul style="list-style-type: none"> <li>• The Woodlands Community Entries: Contractor shall generally maintain entries from the beginning curb line to the first street intersection and median end. At the entry wings the contractor will mow approximately 20 to 100 feet out from the outside curb up to the forest reserve, right of way boundary, irrigated edge, or adjacent property line.</li> <li>• Village and Neighborhood Entries: Contractor shall generally maintain entries from the beginning curb line to the first street intersection and median end. At the entry wings the contractor will mow approximately 20 to 40 feet from the outside curb to the forest reserve, right of way boundary, irrigated edge, or adjacent property line.</li> <li>• Enhanced Intersection and Medians: Contractors shall generally maintain intersections and medians from the beginning curb line to the first street intersection and median end. At the intersection wings the contractor will mow approximately 20 feet out from the outside curb up to the forest reserve, right of way boundary, irrigated edge, or adjacent property line. This specification varies by each site.</li> </ul> <p>Specifications vary based on each site. Please review Exhibit M.</p> |                         |
| A1.5 | Streetscape operations may occur between the hours of 7 a.m. and 6 p.m. Monday through Friday. The contractor shall notify The Township if work is to be performed after hours or on Saturday or Sunday.  |                         |
| A1.6 | Refer to section 4.3 of the bid document for work order definitions and priority scale.   |                         |
| A1.7 | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIAN ENTRIES TURF SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A1.8 | <b>Turf Specifications</b> - All turf in Streetscape areas shall be maintained in a healthy, green, vigorous condition during the growing season. Outside of the growing season which can range from December through February (approximately 13 weeks) the contractor will be required to complete base level services such as: tree trimming and pruning, leaf drop removal, trash, and litter removal.   |                         |

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| A1.9  | The Woodlands Community Entries - turf areas shall be mowed fifty-two times per year, thirty-eight (38) times during the growing season and fourteen (14) times per year during the winter while ryegrass is established. Services should be no more than 7 calendar days apart. In the event of a work stoppage, Community Entries will be prioritized so that all services are met.   |  |
| A1.10 | Village and Neighborhood Entries - turf areas shall be mowed twenty-four (24) times per year during the growing season. Services should be no more than 14 calendar days apart.   |  |
| A1.11 | Enhanced Intersections and Medians - turf areas shall be mowed twenty-four (24) times per year during the growing season. Services should be no more than 14 calendar days apart.   |  |
| A1.12 | Contractors will follow best practices and horticulturally sound turf grass maintenance practices to achieve clean, green and safe turf given the high visibility of the turf and landscape for the streetscape areas.  |  |
| A1.13 | All turf is to be litter, debris, hole and thatch free. Holes are defined as a depression causing a safety hazard or area bare of grass.  |  |
| A1.14 | A rotary type zero turn finish mower may be used for all areas. Mower blades shall be sharp and maintained appropriately as not to "tear" the grass blades. Any mower that has been used in an area of disease must immediately be cleaned prior to use in another turf area to not spread disease. Mowing height is generally at two (2) inches. A lower or higher height may be requested during season changes to promote growth during transition periods. Height of cut may be adjusted if turf grass desires higher cut, but this must be noted by Contractor. Do not mow excessively wet areas where equipment will track up or damage the turf. Use a string trimmer in such areas. If the Contractor damages turf due to scalping, improper chemical usage, etc., they will be required to resod at their own cost |  |
| A1.15 | No more than 1/3 of the grass blade may be removed at any given mow or trim cycle unless conditions warrant otherwise and is approved by the Township. The height of turf between mowing services shall not exceed more than 3 inches, unless justified.  |  |
| A1.16 | Contractors shall alternate mowing patterns to promote health of the turf and limit compaction caused by machinery.   |  |
| A1.17 | A string trimmer must be used in areas around structures, fences, valve boxes, signs, rocks, light posts, etc. on a schedule that maintains a neat and professional appearance. In areas where turf meets landscape an edged gap of no more than 6 inches shall be maintained.  |  |
| A1.18 | An edger shall be used in all areas where grass and concrete meet to maintain a neat and professional appearance.   |  |
| A1.19 | Blowing clippings is required. Any clumping or piles of grass shall be raked, mulched, or removed to keep a clean, green, and safe appearance. Contractors will avoid leaving excess clippings from lying on turf, hardscapes, concrete, or structures. The contractor is responsible for ensuring a complete and thorough removal of all debris and litter including grass clippings at the completion of all mowing occurrences. The blowing of clippings into a ditch, storm drain, or private property is not permitted. Blowing clippings and leaf debris into the reserve is allowed, but debris needs to be mulched and dispersed evenly to look natural and aesthetically pleasing.   |  |

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| A1.20        | Specified areas shall be over-seeded with Perennial Ryegrass one (1) time per year, typically around mid to late October, depending upon weather and seasonal conditions. at a rate of 8 lb./1,000 sq. ft. (See Exhibit M for locations). The cost of the rye grass seed shall be included in the base bid price. Reseeding at the cost of the contractor, will be needed if seed does not germinate and it is determined that the Contractor is at fault. Additional seeding may be requested by the Township for services outside the scope, based on the unit price in the bid tab form. Scalping turf over a period of time prior to seeding will be required to encourage seed to soil contact.   |                         |
| A1.21        | Rye grass areas will be mowed during the Fall and Winter generally between December, January, and February. Rye grass turf areas shall be mowed fourteen (14) times per year during the growing season. (Services should be no more than 7 calendar days apart). Rye grass areas shall not exceed 4 inches in grass height during the span between mowing services.  |                         |
| <b>A1.22</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES LANDSCAPE BED SPECIFICATIONS</b>   | <b>Bidders Initials</b> |
| A1.23        | Entry Landscapes shall be serviced during every site visit. Community Entries receive maintenance fifty-two (52) times per year. Village, Neighborhood and Enhanced Intersections and Medians receive twenty-four (24) services per year. Services should be no more than seven (7) calendar days apart for the Community Entries and fourteen (14) calendar days apart for the remaining entries.   |                         |
| A1.24        | All landscape beds shall remain free of litter, debris, and weeds. Weeds sprayed with herbicide must be manually removed after brown out. Any damage to desirable plants caused by Contractor's application of any chemical or pesticide will be replaced at the cost of the Contractor.   |                         |
| A1.25        | Trimming/Deadheading of bedding plants and ground covers shall be performed to achieve a smooth, manicured appearance within established bed boundaries twenty-four (24) times per year. Any necessary restructuring shall be reviewed and approved by The Woodlands Township. Only experienced, trained personnel with proper abilities shall perform trimming/deadheading. Sizes and shapes of the respective shrubs shall be appropriate for the species and consistent throughout the property. Excess vertical growth of ground cover shall be pruned to maintain a neat appearance. Excess horizontal growth shall be pruned to stay within the boundaries of the beds or curb line. Signage is to remain free of vegetative growth. Letters on monument signs shall be visible for emergency personnel and residents. Monument lights shall be unobstructed by plants. Pruning shears or trimming tools shall be cleaned between uses to prevent the spread of disease. |                         |
| A1.26        | Plants of color such as those with flowers, foliage, or fruit are to be pruned per best practices and horticulturally sound standards for maximum beauty.  |                         |
| A1.27        | Ornamental grasses and other plants shall receive an annual pruning/cutback each year. This process shall start around February 14 <sup>th</sup> and be completed before April 1 <sup>st</sup> , depending upon weather and seasonal conditions. This includes, but is not limited to, Muhly Grass, Katie Ruellia, Bi-color iris, Dianella, Miscanthus, and Roses but is not limited to those varieties. If a plant should die during the year, the contractor shall remove the dead plant during the service and propose the planting of its replacement within 72 hours.   |                         |

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| A1.28        | A string trimmer must be used in areas around structures, fences, valve boxes, signs, rocks, light posts, etc. on a schedule that maintains a neat and professional appearance. In areas where turf meets landscape an edged gap of no more than 6 inches shall be maintained and defined by a bed re-definer or manually with shovels.  |                         |
| A1.29        | Groundcover should not be pruned lower than eight (8) inches. Groundcovers will be trimmed at the curb line, ensuring that there are no gaps/empty space.  |                         |
| <b>A1.30</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES MULCHING SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A1.31        | Mulch is required in specific landscape Community and Village areas listed in Exhibit M, once (1) per year. Mulch will be required with new landscape plants or beds that are installed. The cost of mulch is to be included with the installation cost in the Additional Services Tab Form (Exhibit D).   |                         |
| A1.32        | Mulch shall be non-colored Native Hardwood Mulch, at least double-ground and aged, and applied at rate of 3-inch depth at all specified areas and other areas as required. Natural areas are not to be mulched unless specified by the Township.   |                         |
| A1.33        | Mulch shall be installed 4 inches to 6 inches away from the root flare or root collar of tree. "Volcano" mulch rings are not acceptable. Any compacted mulch/soil needs to be de-compacted. Any excess mulch would need to be removed before new mulch is applied.   |                         |
| A1.34        | Pine Straw is required in specific landscape Community and Village areas listed in Exhibit M, once (1) per year at a depth of 2 inches. This cost should be figured into the cost in the Bid tab form (Exhibit B).   |                         |
| A1.35        | Contractor shall not store or stage landscape materials such as mulch, sand, fertilizer, etc. within the Streetscape zones due to traffic flow and spacing.  |                         |
| <b>A1.36</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES HARDSCAPE SPECIFICATIONS</b>   | <b>Bidders Initials</b> |
| A1.37        | Hardscape areas including public pathways shall be blown clean during maintenance. Washout out areas that leave any sand, silt, or mulch shall be swept or blown clean as they occur. Decomposed granite and Black Star Gravel or similar areas are to be redressed when needed. A unit cost for materials will be identified in the Additional Service price form, Exhibit D. |                         |
| A1.38        | Any and all weeds found growing in hardscape (i.e., concrete, brick, decomposed granite aggregate, pavers, etc.), expansion joints, transformers, utility boxes, light pole bases, cracks, grout, etc. shall be chemically removed and controlled during maintenance.  |                         |
| A1.39        | Contractors shall report any damage or flaws in the hardscape areas such as broken pavers, uneven pavers, settling (trip hazards), damaged curbs, etc. on the QSA report.  |                         |
| <b>A1.40</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES TREE AND SHRUB PRUNING SPECIFICATIONS (Specimen/Shrub Pruning, Clearance Pruning, Visibility Pruning)</b>  | <b>Bidders Initials</b> |
| A1.41        | Only trained and experienced personnel with proper abilities shall perform pruning. Relative sizes and shapes of the respective shrubs shall be appropriate for the species and consistent throughout the defined area. Pruning shears or trimming tools shall be cleaned between uses to prevent the spread of disease.   |                         |

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| A1.42 | Contractors must perform tree services according to the <b>ANSI A300 Standards</b> . Specimen tree and visibility pruning shall take place once a year. Shrub and clearance pruning shall take place on an as needed basis, i.e. shaping wax myrtles, and pruning yaupon from growing over the curb.   |  |
| A1.43 | All debris from pruning shall be removed from the site and legally disposed of at no cost to the Township.   |  |
| A1.44 | Tree stakes will be maintained to achieve their intended purpose. Stakes shall be removed one year after the installation of a tree or shrub, even if the tree/shrub was installed by others. Stakes that are no longer serving a structural purpose shall be removed. Dark green or brown colored stakes and ties are preferred. Bright colored objects are not to be used when staking a tree. Proper tree staking needs to conform to ANSI A300 (Part 3 & 6) standards. |  |
| A1.45 | <b>Specimen/Shrub Pruning</b> - Pruning of indigenous species shall create a uniformly dense plant. Contractors shall selectively thin and tip back annually and prune to enhance natural branching effect of plants but not change shape of shrubs by pruning.  |  |
| A1.46 | Contractor shall prune regularly, as required to remove dead wood, overgrowth and aesthetically balance the planting following basic horticultural practices. All suckers and undesired growth shall routinely and regularly be removed.   |  |
| A1.47 | Crape myrtles shall be pruned regularly to remove sucker growth and protruding limbs from curb lines and to remove intersecting growth with another tree or shrub.<br><b>Dehorning is NOT permitted.</b>   |  |
| A1.48 | Pruning of formal shrub plantings is needed when applicable throughout the Streetscape system. Shrub pruning shall be completed as needed to promote a smooth, manicured appearance at no additional cost.   |  |
| A1.49 | Contractors shall remove branches or sucker sprouts that interfere with safe maintenance practices as needed.  |  |
| A1.50 | Small or young trees are to be pruned (trained) during the fall and winter season.   |  |
| A1.51 | <b>Clearance Pruning</b> - Tree and shrub branches should be pruned away from all structures, signs, light poles, electrical equipment, pathways, etc. to prevent encroachment or damage to the structure and maintain access to structures. All minor pruning under eight (8) feet should be completed on a regular basis by maintenance crews.   |  |
| A1.52 | All trees and shrubs in entries abutting a roadway (median tips, entry medians, esplanades, wings) shall be pruned at least six (6) inches away from the edge of the roadway and to a height of thirteen (13) feet above ground level or top of curb. Broken or hanging limbs that will impede pedestrian/vehicle passage shall be removed immediately.  |  |
| A1.53 | All trees and shrubs along entry pathways shall be pruned three (3) feet away from the edge of the pathway, when applicable, and to a height of eight (8) feet to give adequate and safe passage to its users.   |  |
| A1.54 | Any vines that are impeding a landscape area or tree shall be cut at ground level and at a height of at least 6 feet.  |  |
| A1.55 | <b>Visibility Pruning</b> - Understory pruning/trimming shall be completed at least one time per year to maintain proper sightlines for traffic and pedestrian safety. Please see Exhibit O for sample picture.  |  |

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| A1.56        | <p>"Natural" areas are to remain in their natural native conditions except for pruning for visibility and safety. Natural areas are those areas where selective trimming (pencil) has been done to maintain or enhance view corridors and safety sightlines. Trimming of woody vegetation shall be conducted on an as needed basis to ensure limbs/foliage are at least thirteen (13) feet above the ground or top of curb and at least six (6) inches inside the curb lines.</p>   |                             |
| <b>A1.57</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED<br/>INTERSECTION/MEDIANS ENTRIES IRRIGATION SPECIFICATIONS</b>   | <b>Bidders<br/>Initials</b> |
| A1.58        | <p>A licensed irrigator(s) shall perform or oversee routine inspections and assessments of the irrigation systems. An irrigation inspection report shall be submitted daily. The inspection report shall consist of:</p> <ul style="list-style-type: none"> <li>• Location</li> <li>• Date and time</li> <li>• Inspectors' name</li> <li>• Zones and station number</li> <li>• Current programming (Run day &amp; time)</li> <li>• Brand, model, and location of controller</li> <li>• Comment box to describe issues</li> <li>• Visual back up battery inspection</li> <li>• Rain sensor present and operating</li> <li>• Associated Backflow Device</li> </ul> <p>Repairs, adjustments performed and related cost to the Township if applicable.</p>                      |                             |
| A1.59        | <p>The Community Entries – A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted thirty-eight times (38) per year. One (1) inspection in January, February and December (thirty (30) business days apart) and thirty-five (35) inspections weekly from March through November (seven (7) business days apart). These sites are over-seeded with perennial ryegrass. Adjustments to sprinkler heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.</p> |                             |
| A1.60        | <p>Village and Neighborhood Entries - A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted nine (12) times per year no more than 30 business days apart during the irrigation season which typically ranges from March - November. Adjustments to heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.</p>   |                             |
| A1.61        | <p>Enhanced Intersections and Medians - A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted nine (12) times per year no more than 30 business days apart during the irrigation season which typically ranges from March - November. Adjustments to heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray</p>  |                             |

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|       | water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.   |  |
| A1.62 | Irrigation system breaks, leaks, and malfunctions of unknown and uncontrollable sources will be submitted to The Woodlands Township for approval and repair. All critical repairs required to properly operate the system shall be reported immediately to the Township for determination /approval to make the repair immediately. Routine non-critical repairs such as nozzle replacements, that cost less than \$50 per occurrence can be repaired by the Contractor without prior approval. All irrigation repairs will be made with Rainbird products (or an approved equal). Missing or damaged valve box lids are to be replaced by the Contractor as a high priority due to safety issues. A Unit Price will be identified in the Additional Services form for the replacement of damaged valve box lids. See maps for the Irrigation's meter, controller, and backflow locations. |  |
| A1.63 | Once approved, all irrigation repairs will need to be completed within 7 calendar days. If this timeline cannot be met, the Contractor must notify the Township and work will be outsourced to a third party.  |  |
| A1.64 | Flat rate pricing shall be given for all repairs. The flat rate pricing shall include the cost of materials, supplies, labor, markup, and any other associated costs with the particular repair. Drive time cannot be billed as labor hours.   |  |
| A1.65 | Any irrigation repairs not listed in Exhibit D, shall receive cost plus pricing based on the cost for material, supplies, labor, markup, and any other associated costs for irrigation repairs. Contractor's markup percentage will be identified in the Bid Tabulation Form. A verification of cost of materials (wholesale price) shall be provided for all irrigation materials and supplies  |  |
| A1.66 | Vandalism or accidental damage not caused by the Contractor shall be reported immediately to The Woodlands Township. Upon approval of The Woodlands Township, Contractor shall provide the labor and materials necessary to repair the damage at an additional expense to the Township. Irrigation damage or repairs caused by the Contractor shall be the Contractor's responsibility and incidental to the contract.   |  |
| A1.67 | Contractor shall have the ability to perform a yearly back flow preventer assembly inspection as required by the State and/or respective Municipal Utility District (MUD) for each irrigation system, within one month (30 days) of receiving notice for the inspection. This service is an Additional Service based on the Unit Price. Contractor shall provide written documentation of the back-flow assembly inspection for each device per the requirements of the respective MUD, Counties and or State of Texas reporting requirements. Failure to conduct this task within 30 days of notification will result in liquidated damages. <b>This service will be provided by a third-party contractor, but the Township may need to supplement services in the future.</b>  |  |
| A1.68 | Emergency calls (calls outside of normal business hours) regarding broken or malfunctioning sprinkler heads, valves, lines, or controllers shall be responded to immediately by the Contractor if a critical condition exists in which water is running freely or in which the Township requests immediate attention for safety reasons. Emergency pricing will be identified in the Bid Tabulation Form.  |  |
| A1.69 | Contractor shall notify the Township of an irrigation system malfunction via email or phone call as soon as possible but no later than twenty-four (24) hours of identifying the problem.  |  |

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| A1.70        | Contractor will be responsible for the programming of the irrigation systems as approved by the Township per any defined irrigation schedule prescribed by a MUD. Programming includes the adjustments necessary to conserve water during weather events such as rain delays and any seasonal shutdowns (winter/freeze preparation). Winter and Freeze preparation includes but is not limited to draining the backflow, insulating exposed parts, and shutting systems down prior to a hazardous weather event. Programming cost shall be included in the irrigation inspection pricing in the Bid Tab Form (Exhibit B). Any programming changes needed for the system should be approved by the Township. Certain irrigation controllers operate both Streetscape areas and Township parks. The contractor shall notify the Township before any repairs to the irrigation system or zones for a related park that are affecting the operation of a Streetscape irrigation system.  |                         |
| A1.71        | Contractors shall monitor weather forecasts during the months of subfreezing temperatures and shall shut down and drain irrigation systems to prevent freeze damage to systems. Winter and Freeze preparation includes but is not limited to draining the backflow and insulating exposed parts. All freeze related irrigation system damage shall be repaired at Contractor's expense.  |                         |
| A1.72        | Hand watering may be necessary in some areas without irrigation or during times when water use is suspended due to damage. A Unit Cost is identified in the additional services pricing form.  |                         |
| A1.73        | A "cup test" or other method of irrigation audit may be performed at the Township's expense. See maps for meter, controller, and backflow locations.   |                         |
| <b>A1.74</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES CHEMICAL SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A1.75        | Contractors shall provide an annual comprehensive, environmentally sensitive CHEMICAL ACTION SCHEDULE that incorporates the use of a synthetic and/or organic approach, describing the application of fertilizer, pesticides/insecticides/ herbicides, fungicides that maintain turf and landscape in a healthy, vigorous, growing condition with no weeds, disease, or insects creating a dense crop of turf and healthy landscape. The Chemical Action Schedule (CAS) shall be reviewed and mutually agreed to by The Woodlands Township prior to implementation. The Chemical Action Schedule shall be due to the Township no later than January 15 <sup>th</sup> of each contract year, except in the first year of the contract, which shall be no later than February 15. The CAS shall outline the chemical type, analysis, timeline for application, and intended application rates. The Township shall have 14 days to review and approve the CAS. All chemicals must be applied by or supervised by a Licensed Applicator in accordance with label directions. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) and labels of all materials must be provided to the Township with the CAS. |                         |
| A1.76        | The Township reserves the right to purchase any or all fertilizers/chemicals for the contractor for systemwide applications. Materials purchased by The Township may be delivered to the Township Maintenance building or directly to the contractors. Fertilizers and pre-emergent purchased by the contractor will be eligible for a price markup, See Exhibit D. <b>Labor costs associated for each service will be listed in Exhibits B, C and D. Chemicals for spot treatments (post emergent herbicides, insecticides, fungicides) shall be purchased by the contractor. Labor costs for spot</b>  |                         |

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|       | <b>treatments will be part of the maintenance service and shall be included in the turf and landscape bed maintenance pricing.</b>   |  |
| A1.77 | <b>Fertilizer Specifications</b> – Granular fertilizer purchased by the Contractor shall be billed with an additional markup. Fertilizer application labor and mobilization shall be billed per occurrence. Additional fertilizations may be warranted or requested, and the Contractor should include those service prices in the Additional Services Form. A fertilizer with a 3-1-2 ratio balance shall be applied in most scenarios which takes into consideration the time of year, condition of the soil at the time of the application, and yearly soil tests. Soil tests are to be performed in the fall at eight (8) locations that the Contractors and Township agree upon. Soil tests results are due along with the Chemical Action Schedule by January 15 <sup>th</sup> of each year, except for the first year of the contract which will be due no later than February 15. Soil testing will be performed by standards established by Texas A&M AgriLife Services or other approved equal.  |  |
| A1.78 | Turf Fertilizer - All turf areas in all Entries shall receive a minimum of three (3) applications of fertilizer per year at a rate of one (1) lb. of Nitrogen per 1,000 square feet of turf. Entries that don't receive ryegrass application should receive one (1) fertilizer analysis without nitrogen, focusing on phosphorus, potassium and micro- nutrients during the winter. Entries that get overseeded with ryegrass in the Winter, should receive one (1) fertilizer application with Nitrogen. <u>Micro-nutrients shall be included in the fertilizer mix based on the results of the most recent Soil Test and sound turf grass management practices.</u> Fertilizers and pre-emergent may be blended together to maximize application efficiency. Unit pricing of the lesser service will be used for invoicing.  |  |
| A1.79 | Landscape Fertilizer - Community and Village Entries shall receive a minimum of three (3) fertilizer applications per year. Fertilizer analysis will depend on Soil Testing results. Both applications shall be applied with a 100% slow-release fertilizer. Organic products are acceptable.  |  |
| A1.80 | <b>Insecticide Specifications</b> - The insecticide program shall maintain all turf and landscapes free of insects harmful to turf and ornamental landscape materials including, but not limited to, mole crickets, army worms, sod web worms, fire ants, cutter ants, grubs, chinch bugs, wasps, hornets, and other invasive damaging insects. The Chemical Action Schedule (CAS) should include preventative applications as well as reactive applications. The costs for insecticides, application and mobilization shall be included in the Base Bid. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b> All insecticides and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards. |  |
| A1.81 | <b>Herbicide Specifications</b> - The herbicide program shall maintain all turf and landscapes free of noxious weeds including but not limited to, dollar weed, black medic, purslane, clover, goosegrass, nut sedge, button weed, chickweed, and other invasive damaging weeds. All applications should follow the manufacturers' recommendations per the label and abide by the re-entry interval. A pre-emergent herbicide shall be applied in the turf and landscape beds for a minimum of four (4) times per year according to the label, however the first application shall generally be made no later than February 15 <sup>th</sup> of each contract year. The following three (3) pre-   |  |

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|              | emergent applications should be scheduled every ninety (90) days thereafter. The sites that receive ryegrass overseeding shall have their applications dates modified to ensure seed germination.   |                         |
| A1.82        | Landscape beds shall receive two (2) pre-emergent applications per year.  |                         |
| A1.83        | Pre-emergent herbicides purchased by the Contractor shall be billed with an additional markup. Pre-emergent application labor and mobilization shall be billed per occurrence.  |                         |
| A1.84        | Post emergent applications should be applied proactively based on weekly inspections. All herbicides and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards.  |                         |
| A1.85        | The costs for post-emergent herbicides, application and mobilization shall be included in the Base Bid. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b>   |                         |
| A1.86        | <b>Fungicide Specifications</b> - The disease control program shall maintain all turf and landscapes to be free of diseases including but not limited to, brown patch, powdery mildew, St. Augustine decline, Pythium fungus, root fungus, and other damaging diseases. Preventative and reactive application costs shall be included in the Base Bid pricing. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b> All fungicides and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards. |                         |
| A1.87        | All chemical applications shall be logged in to the Tracker for all sites daily.  |                         |
| <b>A1.88</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES TRASH &amp; LITTER SPECIFICATIONS</b>   | <b>Bidders initials</b> |
| A1.89        | Trash and litter removal at Community Entries shall occur fifty-two (52) times per year or every seven (7) calendar days. Trash and litter removal at Village, Neighborhood, and Intersections/Medians with Enhanced Landscapes shall occur twenty-four (24) times per year or every fourteen (14) calendar days. Trash and litter removal at the I-45 and 242 Underpass shall occur twelve (12) times per year or every fourteen (30) calendar days.   |                         |
| A1.90        | Contractors shall ensure a complete and thorough removal of all trash, litter, and debris from all areas. Trash/Litter removal includes, but is not limited to, the removal of all visible trash from landscape or turf areas and retrieval of visible trash inside forested medians and forested areas that border a Streetscape zone. Removal of Micro Litter (i.e., cigarette butts, bottle caps, bits of paper) shall also be performed at intervals for the corresponding areas. Bandit Signs should be reported to the Township for County authorized removal.  |                         |
| A1.91        | All trash, litter, and green waste shall be removed from each site and legally disposed of at the Contractor's expense. The Township's dumpsters are not available for use by the Contractor.   |                         |

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| A1.92        | All equipment required for trash and litter removal shall have the appropriate safety markings, and safety equipment in accordance with the Texas Department of Transportation standards and regulations and comply with the Traffic Code.  |                             |
| A1.93        | The Contractor shall not remove flagging and markings associated with underground utility locates unless a Township representative has dictated removal, the respective utility company has approved the removal, or two weeks of non - activity by the associated company requesting the utility locates has passed. Contractor's trash and litter personnel will be responsible for removing such flagging and proper disposal.   |                             |
| <b>A1.94</b> | <b>242 &amp; INTERSTATE 45 UNDERPASS SPECIFICATIONS</b>   | <b>Bidders<br/>Initials</b> |
| A1.95        | Underpass maintenance services shall occur monthly, 12 times per year during the first week of each month. The Service Area includes the intersection of SH 242 (College Park Dr.) and Interstate 45 (see Exhibit Q for boundaries). Services include blowing, weed removal, weed treatments, trash, litter, rubbish removal, and debris removal.   |                             |
| A1.96        | Underpass weed services shall occur monthly Weed control includes the chemical control and mechanical removal of weeds from all designated areas within the underpass boundaries. Weeds sprayed with herbicide must be manually removed after brown out.  |                             |
| <b>A1.97</b> | <b>NORTH RIGHT OF WAY SPECIFICATIONS</b>  |                             |
| <b>A1.98</b> | <b>NORTH RIGHT OF WAY MAINTENANCE SPECIFICATIONS</b>  | <b>Bidders<br/>Initials</b> |
| A1.99        | Road right of way maintenance services include, but are not limited to mowing, trimming, blowing, edging, herbicide treatments, rut and hole repair, and trash and debris removal across the 555 acres of North road right of ways. Right of way service areas include street medians, boulevards, roadside drainage ditches, and various open space reserves and forested areas identified in the Township GIS platform (Exhibit M). Right of way maintenance services generally take place from March through November weather depending.   |                             |
| A1.100       | The Contractor shall perform monthly site inspections (12 times per year). Reports shall include verification of services performed, conditions of the grounds (i.e. turf appearance and health), and issues of concern. Reports shall be in the form of a time and date stamp, spreadsheet, location map, and GPS log. Software programs like "Smartsheets" or "L.M.N." that allow information sharing are encouraged. The Contractor and the Township shall mutually agree as to the format of the Monthly Inspection Reports. Monthly Reports shall be submitted with the Monthly Invoice.   |                             |
| A1.101       | The Township has established a Wildflower program in the road rights of ways throughout the Streetscape System. See Exhibit M for Wildflower areas. At the discretion of the Township the Contractor will be required to mow only certain portions of the right of ways identified as "Sculpture Mowing". Sculpture mowing shall occur two (2) cycles annually, usually beginning in March and is performed to maintain stands of viable wildflowers. Sculpture Mowing is not a full cycle of right of way maintenance. The Contractor will charge the Township an allocated amount of a full cycle according to the percentage of areas that were maintained during that program time, which equates to 75% of a full cycle. During the mowing season if temperatures rise and growth is stunted Township staff may determine at any point that mowing cycles are not needed during that period. A Sculpture Mowing cycle will be completed within fourteen (14) |                             |

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|        | calendar days from the start date of the cycle. Any alterations to that schedule shall be reported to Township in writing. Failure of the contractor to meet the cycle deadline may result in liquidated damages. Failure of the contractor to meet the cycle deadline may result in liquidated damages after fourteen (14) calendar days.  |  |
| A1.102 | Upon completion of the sculpture mowing cycles, full right of way mowing cycles (100% of streetscape ROW mowing) shall occur thirteen (13) times annually usually starting around the middle of April. Right of way operations may take place during the days of Monday – Friday, unless otherwise agreed to in writing by the Township. During these days mowing operations shall occur between 7 a.m. and 6 p.m. Right of ways mowing cycles will be completed within fourteen (14) calendar days from the start date of the cycle. Any alterations to that schedule shall be reported to Township in writing. Failure of the contractor to meet the cycle deadline may result in liquidated damages after fourteen (14) calendar days. |  |
| A1.103 | The Contractor shall mow and maintain the identified town-wide and collector streets on a consistent schedule. After any weather events, or delays in operations the Contractor shall report where operations ended prior to the interruption.  |  |
| A1.104 | Right of way mowing shall be inclusive of the grounds between the roadside and the forest line in the medians, and roadside drainage ditches. Any open areas without dense vegetation, or underbrush are considered part of the right of way mowing area. The Contractor will be expected to use specialized equipment, such as zero turn mower, push mower, string trimmer, offset mower decks, etc. for any areas that a tractor cannot reach. Any areas left unmaintained will result in a call back at the Contractor’s expense.  |  |
| A1.105 | Right of way string trimming shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and the full right of way mowing cycles. Trimming shall consist of but not be limited to around fixed objects, structures, signs, fire hydrants, flush valves, traffic lights, streetlights, drainage structures, tops, etc. Trimming shall be completed the same day as the right of way mowing. Any areas left unmaintained will result in a call back at the Contractor’s expense.  |  |
| A1.106 | Right of way blowing shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and right of way mowing cycles. Contractors will avoid leaving excess clippings in the right of way areas and remove debris that has been ejected onto the roadway. Blowing shall be completed the same day as the right of way mowing and trimming. Any areas left unmaintained will result in a call back at the Contractor’s expense.   |  |
| A1.107 | Right of way edging shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and right of way mowing cycles. Edging shall consist of any method to eliminate grass from growing onto roadway, whether it’s a curb, concrete or asphalt. Edging shall be completed the same day as the right of way mowing and trimming. Any areas left unmaintained will result in a call back at the Contractor’s expense.  |  |
| A1.108 | Right of way weed treatment (including a non-selective herbicide and pre-emergent) shall be performed on all weeds in cracks, expansion joints and hardscape areas during the months of April, June, and August three (3) times per year to control weed emergence on the town-wide and collector streets (Exhibit P). A yellow marker dye shall be used to identify areas that haven’t received the application. A report of the   |  |

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|        | <p>applications will be submitted to Township after each application. The report should include the areas sprayed, what products were used, and the rate at which the products were applied. Spraying units and vehicles shall have the appropriate safety markings and safety equipment in accordance with TCEQ and the Texas Department of Transportation standards and regulations. The report shall be included in the Monthly Report with the Monthly Invoice.</p>  |  |
| A1.109 | <p>Right of way equipment not suitable to produce the quality of work required shall not be permitted to operate on the contract work. All equipment shall be subject to the approval of the Township prior to use. All equipment shall have the appropriate safety markings and safety equipment in accordance with the Texas Department of Transportation standards and regulations, and/or in accordance with the local and county regulations and requirements.</p>  |  |
| A1.110 | <p>Right of way equipment must be well maintained and in good working conditions. Equipment should be marked clearly with the company information, and a contact number. Equipment operators must be identified with a legible, brightly colored shirts or vests with the company information displayed.</p>   |  |
| A1.111 | <p>Right of way mowers shall be capable of towing a PTO driven mower deck for vegetative cutting. <b>Contractors should have the ability to mow under shrub branches.</b> At least one mower deck measuring 96 inches (8ft.) in width, or like machine, should be utilized for reaching/mowing under overgrowth. Decks should be complete with sharp blades, chains, or deflection devices to prevent flying debris. Mulching units are required to minimize the quantity of grass clippings left behind. The percentage of thatch left on top of the surface canopy shall be minimal. Tractors should have 4x4 capabilities due to the terrain of the right of way areas.</p> |  |
| A1.112 | <p>Mower deck cutting height shall be set to three (3) inches at the lowest, or as directed by the Township or as mutually agreed. Seasonal adjustments may be requested based on conditions.</p>  |  |
| A1.113 | <p>Wildflower seeding takes place during the Fall. At the direction of the Township, the Contractor will be notified of when to apply the seed to the designated wildflower areas. The seed shall be applied using a slit seeding machine, generally PTO driven and pulled behind a tractor or the use of an approved equal. The Contractor shall include the cost to apply the wildflower seed in the Base Bid. <b>The cost of wildflower seed will be at the Township's expense.</b></p>   |  |
| A1.114 | <p>The cost to slit seed wildflowers will be an additional Service and based on a per 1000 square foot analysis. See Exhibit D. Township staff will dictate the wildflower areas, which are seeded on a rotational basis each year, See Exhibit M.</p>   |  |
| A1.115 | <p>During the offseason months of December, January, and February, the Contractor will generally perform annual visibility trimming and pruning. This will be considered an additional service cost identified in the bid tab form. Visibility trimming consists of pruning back the forested areas that border a Township, Community or Neighborhood entry zone or a forested median at an intersection. The purpose of this task is to open the sightlines for pedestrians and vehicle traffic to enhance safety. Visibility trimming services will be based on a per hour or per eight-hour day cost identified in the Additional Services Tabulation Form.</p>             |  |

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| A1.116 | Contractors shall use ArcGIS online to share tracking of the lead mower. The map with the tracks shall be submitted with that cycles billing. The ArcGIS license will be provided by The Township. The cost of the smartphone should be included in the base bid costs. |  |
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| A2   | <b>PROJECT SOUTH MAINTENANCE SPECIFICATIONS</b>   |                         |
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| A2.1 | <b>GENERAL COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES INFORMATION</b>   | <b>Bidders Initials</b> |
| A2.2 | Township Entry services include, but are not limited to Turf Maintenance, Landscape Maintenance, Tree maintenance, Irrigation Maintenance and Chemical applications. Currently there are 208 entries in the South. Additional entries may be added from time to time. The Contractor shall perform site inspections (QSA's) after each service.   |                         |
| A2.3 | Township Entries to be serviced in this Project are (See Exhibit M for GIS layers):<br>The Woodlands Community Entries with monument signage<br>Village and Neighborhood Entries with monument signage<br>Enhanced Intersections and Medians  |                         |
| A2.4 | <b>Boundary</b> – Township Entries consists of turf, groundcover, shrubs, bedding plants, irrigation, and forested areas.<br>The Woodlands Community Entries: Contractor shall generally maintain entries from the beginning curb line to the first street intersection and median end. At the entry wings the contractor will mow approximately 20 to 100 feet out from the outside curb up to the forest reserve, right of way boundary, irrigated edge, or adjacent property line.<br>Village and Neighborhood Entries: Contractor shall generally maintain entries from the beginning curb line to the first street intersection and median end. At the entry wings the contractor will mow approximately 20 to 40 feet from the outside curb to the forest reserve, right of way boundary, irrigated edge, or adjacent property line.<br>Enhanced Intersection and Medians: Contractors shall generally maintain intersections and medians from the beginning curb line to the first street intersection and median end. At the intersection wings the contractor will mow approximately 20 feet out from the outside curb up to the forest reserve, right of way boundary, irrigated edge, or adjacent property line. This specification varies by each site.<br>Specifications vary based on each site. Please review Exhibit M. |                         |
| A2.5 | Streetscape operations may occur between the hours of 7 a.m. and 6 p.m. Monday through Friday. The contractor shall notify The Township if work is to be performed after hours or on Saturday or Sunday.  |                         |
| A2.6 | Refer to section 4.3 of the bid document for work order definitions and priority scale.   |                         |
| A2.7 | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIAN ENTRIES TURF SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A2.8 | <b>Turf Specifications</b> - All turf in Streetscape areas shall be maintained in a healthy, green, vigorous condition during the growing season. Outside of the growing season which can range from December through February (approximately 13 weeks) the contractor will be required to complete base level services such as: tree trimming and pruning, leaf drop removal, trash, and litter removal.   |                         |
| A2.9 | The Woodlands Community Entries - turf areas shall be mowed fifty-two times per year, thirty-eight (38) times during the growing season and fourteen (14) times per year during the winter while ryegrass is established. Services should be no more than 7 calendar  |                         |

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|       | days apart. In the event of a work stoppage, Community Entries will be prioritized so that all services are met.  |  |
| A2.10 | Village and Neighborhood Entries - turf areas shall be mowed twenty-four (24) times per year during the growing season. Services should be no more than 14 calendar days apart.   |  |
| A2.11 | Enhanced Intersections and Medians - turf areas shall be mowed twenty-four (24) times per year during the growing season. Services should be no more than 14 calendar days apart.   |  |
| A2.12 | Contractors will follow best practices and horticulturally sound turf grass maintenance practices to achieve clean, green, and safe turf given the high visibility of the turf and landscape for the streetscape areas.   |  |
| A2.13 | All turf is to be litter, debris, hole and thatch free. Holes are defined as a depression causing a safety hazard or area bare of grass.  |  |
| A2.14 | A rotary type zero turn finish mower may be used for all areas. Mower blades shall be sharp and maintained appropriately as not to “tear” the grass blades. Any mower that has been used in an area of disease must immediately be cleaned prior to use in another turf area to not spread disease. Mowing height is generally at two (2) inches. A lower or higher height may be requested during season changes to promote growth during transition periods. Height of cut may be adjusted if turf grass desires higher cut, but this must be noted by Contractor. Do not mow excessively wet areas where equipment will track up or damage the turf. Use a string trimmer in such areas. If the Contractor damages turf due to scalping, improper chemical usage, etc., they will be required to resod at their own cost |  |
| A2.15 | No more than 1/3 of the grass blade may be removed at any given mow or trim cycle unless conditions warrant otherwise and is approved by the Township. The height of turf between mowing services shall not exceed more than 3 inches, unless justified.  |  |
| A2.16 | Contractors shall alternate mowing patterns to promote health of the turf and limit compaction caused by machinery.   |  |
| A2.17 | A string trimmer must be used in areas around structures, fences, valve boxes, signs, rocks, light posts, etc. on a schedule that maintains a neat and professional appearance. In areas where turf meets landscape an edged gap of no more than 6 inches shall be maintained.  |  |
| A2.18 | An edger shall be used in all areas where grass and concrete meet to maintain a neat and professional appearance.   |  |
| A2.19 | Blowing clippings is required. Any clumping or piles of grass shall be raked, mulched, or removed to keep a clean, green, and safe appearance. Contractors will avoid leaving excess clippings from lying on turf, hardscapes, concrete, or structures. The contractor is responsible for ensuring a complete and thorough removal of all debris and litter including grass clippings at the completion of all mowing occurrences. The blowing of clippings into a ditch, storm drain, or private property is not permitted. Blowing clippings and leaf debris into the reserve is allowed, but debris needs to be mulched and dispersed evenly to look natural and aesthetically pleasing.   |  |
| A2.20 | Specified areas shall be over-seeded with Perennial Ryegrass one (1) time per year, typically around mid to late October, depending upon weather and seasonal conditions. at a rate of 8 lb./1,000 sq. ft. (See Exhibit M for locations). The cost of the rye grass seed shall be included in the base bid price. Reseeding at the cost of the contractor, will be needed if seed does not germinate and it is determined that the Contractor is at fault. Additional seeding may be requested by the Township for  |  |

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|              | services outside the scope, based on the unit price in the bid tab form. Scalping turf over a period of time prior to seeding will be required to encourage seed to soil contact.  |                         |
| A2.21        | Rye grass areas will be mowed during the Fall and Winter generally between December, January, and February. Rye grass turf areas shall be mowed fourteen (14) times per year during the growing season. (Services should be no more than 7 calendar days apart). Rye grass areas shall not exceed 4 inches in grass height during the span between mowing services.  |                         |
| <b>A2.22</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES LANDSCAPE BED SPECIFICATIONS</b>   | <b>Bidders Initials</b> |
| A2.23        | Entry Landscapes shall be serviced during every site visit. Community Entries receive maintenance fifty-two (52) times per year. Village, Neighborhood and Enhanced Intersections and Medians receive twenty-four (24) services per year. Services should be no more than seven (7) calendar days apart for the Community Entries and fourteen (14) calendar days apart for the remaining entries.   |                         |
| A2.24        | All landscape beds shall remain free of litter, debris, and weeds. Weeds sprayed with herbicide must be manually removed after brown out. Any damage to desirable plants caused by Contractor's application of any chemical or pesticide will be replaced at the cost of the Contractor.   |                         |
| A2.25        | Trimming/Deadheading of bedding plants and ground covers shall be performed to achieve a smooth, manicured appearance within established bed boundaries twenty-four (24) times per year. Any necessary restructuring shall be reviewed and approved by The Woodlands Township. Only experienced, trained personnel with proper abilities shall perform trimming/deadheading. Sizes and shapes of the respective shrubs shall be appropriate for the species and consistent throughout the property. Excess vertical growth of ground cover shall be pruned to maintain a neat appearance. Excess horizontal growth shall be pruned to stay within the boundaries of the beds or curb line. Signage is to remain free of vegetative growth. Letters on monument signs shall be visible for emergency personnel and residents. Monument lights shall be unobstructed by plants. Pruning shears or trimming tools shall be cleaned between uses to prevent the spread of disease. |                         |
| A2.26        | Plants of color such as those with flowers, foliage, or fruit are to be pruned per best practices and horticulturally sound standards for maximum beauty.  |                         |
| A2.27        | Ornamental grasses and other plants shall receive an annual pruning/cutback each year. This process shall start around February 14 <sup>th</sup> and be completed before April 1 <sup>st</sup> , depending upon weather and seasonal conditions. This includes, but is not limited to, Muhly Grass, Katie Ruellia, Bi-color iris, Dianella, Miscanthus, and Roses but is not limited to those varieties. If a plant should die during the year, the contractor shall remove the dead plant during the service and propose the planting of its replacement within 72 hours.   |                         |
| A2.28        | A string trimmer must be used in areas around structures, fences, valve boxes, signs, rocks, light posts, etc. on a schedule that maintains a neat and professional appearance. In areas where turf meets landscape an edged gap of no more than 6 inches shall be maintained and defined by a bed redefiner or manually with shovels.   |                         |
| A2.29        | Groundcover should not be pruned lower than eight (8) inches. Groundcovers will be trimmed at the curb line, ensuring that there are no gaps/empty space.  |                         |
| <b>A2.30</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES MULCHING SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A2.31        | Mulch is required in specific landscape Community and Village areas listed in Exhibit M, once (1) per year. Creekside Park Village Center trees will need mulch on an as   |                         |

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|              | needed basis. This site will be an additional service. Mulch will be required with new landscape plants or beds that are installed. The cost of mulch is to be included with the installation cost in the Additional Services Tab Form (Exhibit D).  |                         |
| A2.32        | Mulch shall be non-colored Native Hardwood Mulch, at least double-ground and aged, and applied at rate of 3-inch depth at all specified areas and other areas as required. Natural areas are not to be mulched unless specified by the Township.   |                         |
| A2.33        | Mulch shall be installed 4 inches to 6 inches away from the root flare or root collar of tree. "Volcano" mulch rings are not acceptable. Any compacted mulch/soil needs to be de-compacted. Any excess mulch would need to be removed before new mulch is applied.   |                         |
| A2.34        | Pine Straw is required in specific landscape Community and Village areas listed in Exhibit M, once (1) per year at a depth of 2 inches. This cost should be figured into the cost in the Bid tab form (Exhibit B).   |                         |
| A2.35        | Contractor shall not store or stage landscape materials such as mulch, sand, fertilizer, etc. within the Streetscape zones due to traffic flow and spacing.  |                         |
| <b>A2.36</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES HARDSCAPE SPECIFICATIONS</b>   | <b>Bidders Initials</b> |
| A2.37        | Hardscape areas including public pathways shall be blown clean during maintenance. Washout out areas that leave any sand, silt, or mulch shall be swept or blown clean as they occur. Decomposed granite and Black Star Gravel or similar areas are to be redressed when needed. A unit cost materials will be identified in the Additional Service price form, Exhibit D.   |                         |
| A2.38        | Any and all weeds found growing in hardscape (i.e., concrete, brick, decomposed granite aggregate, pavers, etc.), expansion joints, transformers, utility boxes, light pole bases, cracks, grout, etc. shall be chemically removed and controlled during maintenance.  |                         |
| A2.39        | Contractors shall report any damage or flaws in the hardscape areas such as broken pavers, uneven pavers, settling (trip hazards), damaged curbs, etc. on the QSA report.  |                         |
| <b>A2.40</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES TREE AND SHRUB PRUNING SPECIFICATIONS (Specimen/Shrub Pruning, Clearance Pruning, Visibility Pruning)</b>  | <b>Bidders Initials</b> |
| A2.41        | Only trained and experienced personnel with proper abilities shall perform pruning. Relative sizes and shapes of the respective shrubs shall be appropriate for the species and consistent throughout the defined area. Pruning shears or trimming tools shall be cleaned between uses to prevent the spread of disease.   |                         |
| A2.42        | Contractors must perform tree services according to the <b>ANSI A300 Standards</b> . Specimen tree and visibility pruning shall take place once a year. Shrub and clearance pruning shall take place on an as needed basis, i.e. shaping wax myrtles, and pruning yaupon from growing over the curb.   |                         |
| A2.43        | All debris from pruning shall be removed from the site and legally disposed of at no cost to the Township.   |                         |
| A2.44        | Tree stakes will be maintained to achieve their intended purpose. Stakes shall be removed one year after the installation of a tree or shrub, even if the tree/shrub was installed by others. Stakes that are no longer serving a structural purpose shall be removed. Dark green or brown colored stakes and ties are preferred. Bright colored objects are not to be used when staking a tree. Proper tree staking needs to conform to ANSI A300 (Part 3 & 6) standards. |                         |

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| A2.45        | <b>Specimen/Shrub Pruning</b> - Pruning of indigenous species shall create a uniformly dense plant. Contractors shall selectively thin and tip back annually and prune to enhance natural branching effect of plants but not change shape of shrubs by pruning.  |                         |
| A2.46        | Contractor shall prune regularly, as required to remove dead wood, overgrowth and aesthetically balance the planting following basic horticultural practices. All suckers and undesired growth shall routinely and regularly be removed.   |                         |
| A2.47        | Crape myrtles shall be pruned regularly to remove sucker growth and protruding limbs from curb lines and to remove intersecting growth with another tree or shrub.<br><b>Dehorning is NOT permitted.</b>   |                         |
| A2.48        | Pruning of formal shrub plantings is needed when applicable throughout the Streetscape system. Shrub pruning shall be completed as needed to promote a smooth, manicured appearance at no additional cost.   |                         |
| A2.49        | Contractors shall remove branches or sucker sprouts that interfere with safe maintenance practices as needed.  |                         |
| A2.50        | Small or young trees are to be pruned (trained) during the fall and winter season.   |                         |
| A2.51        | <b>Clearance Pruning</b> - Tree and shrub branches should be pruned away from all structures, signs, light poles, electrical equipment, pathways, etc. to prevent encroachment or damage to the structure and maintain access to structures. All minor pruning under eight (8) feet should be completed on a regular basis by maintenance crews.   |                         |
| A2.52        | All trees and shrubs in entries abutting a roadway (median tips, entry medians, esplanades, wings) shall be pruned at least six (6) inches away from the edge of the roadway and to a height of thirteen (13) feet above ground level or top of curb. Broken or hanging limbs that will impede pedestrian/vehicle passage shall be removed immediately.  |                         |
| A2.53        | All trees and shrubs along entry pathways shall be pruned three (3) feet away from the edge of the pathway, when applicable, and to a height of eight (8) feet to give adequate and safe passage to its users.   |                         |
| A2.54        | Any vines that are impeding a landscape area or tree shall be cut at ground level and at a height of at least 6 feet.  |                         |
| A2.55        | <b>Visibility Pruning</b> - Understory pruning/trimming shall be completed at least one time per year to maintain proper sightlines for traffic and pedestrian safety. Please see Exhibit O for sample picture.  |                         |
| A2.56        | "Natural" areas are to remain in their natural native conditions except for pruning for visibility and safety. Natural areas are those areas where selective trimming (pencil) has been done to maintain or enhance view corridors and safety sightlines. Trimming of woody vegetation shall be conducted on an as needed basis to ensure limbs/foliage are at least thirteen (13) feet above the ground or top of curb and at least six (6) inches inside the curb lines. |                         |
| <b>A2.57</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES IRRIGATION SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A2.58        | A licensed irrigator(s) shall perform or oversee routine inspections and assessments of the irrigation systems. An irrigation inspection report shall be submitted daily. The inspection report shall consist of:<br>Location<br>Date and time<br>Inspectors' name<br>Zones and station number<br>Current programming (Run day & time)   |                         |

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|       | <p>Brand, model, and location of controller</p> <p>Comment box to describe issues</p> <p>Visual back up battery inspection</p> <p>Rain sensor present and operating</p> <p>Associated Backflow Device</p> <p>Repairs, adjustments performed and related cost to the Township if applicable.</p>   |  |
| A2.59 | <p>The Community Entries – A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted thirty-eight times (38) per year. One (1) inspection in January, February and December (thirty (30) business days apart) and thirty-five (35) inspections weekly from March through November (seven (7) business days apart). These sites are over-seeded with perennial ryegrass. Adjustments to sprinkler heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.</p>   |  |
| A2.60 | <p>Village and Neighborhood Entries - A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted nine (12) times per year no more than 30 business days apart during the irrigation season which typically ranges from March - November. Adjustments to heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.</p>   |  |
| A2.61 | <p>Enhanced Intersections and Medians - A full assessment of the irrigation system including drip lines, sprinkler heads, spray patterns, valves, backflow devices, meters and controllers shall be conducted nine (12) times per year no more than 30 business days apart during the irrigation season which typically ranges from March - November. Adjustments to heads and spray patterns shall be made at no additional cost to the Township. Spray patterns shall be adjusted to irrigate the target areas and not spray water onto adjacent streets, roads, pathways, etc. Inspections reports shall be submitted Daily.</p>   |  |
| A2.62 | <p>Irrigation system breaks, leaks, and malfunctions of unknown and uncontrollable sources will be submitted to The Woodlands Township for approval and repair. All critical repairs required to properly operate the system shall be reported immediately to the Township for determination /approval to make the repair immediately. Routine non-critical repairs such as nozzle replacements, that cost less than \$50 per occurrence can be repaired by the Contractor without prior approval. All irrigation repairs will be made with Rainbird products (or an approved equal). Missing or damaged valve box lids are to be replaced by the Contractor as a high priority due to safety issues. A Unit Price will be identified in the Additional Services form for the replacement of damaged valve box lids. See maps for the Irrigation’s meter, controller, and backflow locations.</p> |  |
| A2.63 | <p>Once approved, all irrigation repairs will need to be completed within 7 calendar days. If this timeline cannot be met, the Contractor must notify the Township and work will be outsourced to a third party.</p>  |  |
| A2.64 | <p>Flat rate pricing shall be given for all repairs. The flat rate pricing shall include the cost of materials, supplies, labor, markup, and any other associated costs with the particular repair. Drive time cannot be billed as labor hours.</p>   |  |

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| A2.65 | Any irrigation repairs not listed in Exhibit D, shall receive cost plus pricing based on the cost for material, supplies, labor, markup, and any other associated costs for irrigation repairs. Contractor's markup percentage will be identified in the Bid Tabulation Form. A verification of cost of materials (wholesale price) shall be provided for all irrigation materials and supplies.  |  |
| A2.66 | Vandalism or accidental damage not caused by the Contractor shall be reported immediately to The Woodlands Township. Upon approval of The Woodlands Township, Contractor shall provide the labor and materials necessary to repair the damage at an additional expense to the Township. Irrigation damage or repairs caused by the Contractor shall be the Contractor's responsibility and incidental to the contract.  |  |
| A2.67 | Contractor shall have the ability to perform a yearly back flow preventer assembly inspection as required by the State and/or respective Municipal Utility District (MUD) for each irrigation system, within one month (30 days) of receiving notice for the inspection. This service is an Additional Service based on the Unit Price. Contractor shall provide written documentation of the back-flow assembly inspection for each device per the requirements of the respective MUD, Counties and or State of Texas reporting requirements. Failure to conduct this task within 30 days of notification will result in liquidated damages. <b>This service will be provided by a third-party contractor, but the Township may need to supplement services in the future.</b>   |  |
| A2.68 | Emergency calls (calls outside of normal business hours) regarding broken or malfunctioning sprinkler heads, valves, lines, or controllers shall be responded to immediately by the Contractor if a critical condition exists in which water is running freely or in which the Township requests immediate attention for safety reasons. Emergency pricing will be identified in the Bid Tabulation Form.   |  |
| A2.69 | Contractor shall notify the Township of an irrigation system malfunction via email or phone call as soon as possible but no later than twenty-four (24) hours of identifying the problem.   |  |
| A2.70 | Contractor will be responsible for the programming of the irrigation systems as approved by the Township per any defined irrigation schedule prescribed by a MUD. Programming includes the adjustments necessary to conserve water during weather events such as rain delays and any seasonal shutdowns (winter/freeze preparation). Winter and Freeze preparation includes but is not limited to draining the backflow, insulating exposed parts, and shutting systems down prior to a hazardous weather event. Programming cost shall be included in the irrigation inspection pricing in the Bid Tab Form (Exhibit B). Any programming changes needed for the system should be approved by the Township. Certain irrigation controllers operate both Streetscape areas and Township parks. The contractor shall notify the Township before any repairs to the irrigation system or zones for a related park that are affecting the operation of a Streetscape irrigation system. |  |
| A2.71 | Contractors shall monitor weather forecasts during the months of subfreezing temperatures and shall shut down and drain irrigation systems to prevent freeze damage to systems. Winter and Freeze preparation includes but is not limited to draining the backflow and insulating exposed parts. All freeze related irrigation system damage shall be repaired at Contractor's expense.   |  |
| A2.72 | Hand watering may be necessary in some areas without irrigation or during times when water use is suspended due to damage. A Unit Cost is identified in the additional services pricing form.   |  |
| A2.73 | A "cup test" or other method of irrigation audit may be performed at the Township's expense. See maps for meter, controller, and backflow locations.  |  |

| A2.74 | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES CHEMICAL SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
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| A2.75 | Contractors shall provide an annual comprehensive, environmentally sensitive CHEMICAL ACTION SCHEDULE that incorporates the use of a synthetic and/or organic approach, describing the application of fertilizer, pesticides/insecticides/ herbicides, fungicides that maintain turf and landscape in a healthy, vigorous, growing condition with no weeds, disease, or insects creating a dense crop of turf and healthy landscape. The Chemical Action Schedule (CAS) shall be reviewed and mutually agreed to by The Woodlands Township prior to implementation. The Chemical Action Schedule shall be due to the Township no later than January 15 <sup>th</sup> of each contract year, except in the first year of the contract, which shall be no later than February 15. The CAS shall outline the chemical type, analysis, timeline for application, and intended application rates. The Township shall have 14 days to review and approve the CAS. All chemicals must be applied by or supervised by a Licensed Applicator in accordance with label directions. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) and labels of all materials must be provided to the Township with the CAS. |                         |
| A2.76 | The Township reserves the right to purchase any or all fertilizers/chemicals for the contractor for systemwide applications. Materials purchased by The Township may be delivered to the Township Maintenance building or directly to the contractors. Fertilizers and pre-emergent purchased by the contractor will be eligible for a price markup, See Exhibit D. <b><u>Labor costs associated for each service will be listed in Exhibit B, C and D. Chemicals for spot treatments (post emergent herbicides, insecticides, fungicides) shall be purchased by the contractor. Labor costs for spot treatments will be part of the maintenance service and shall be included in the turf and landscape bed maintenance pricing.</u></b>  |                         |
| A2.77 | <b>Fertilizer Specifications</b> – Granular fertilizer purchased by the Contractor shall be billed with an additional markup. Fertilizer application labor and mobilization shall be billed per occurrence. Additional fertilizations may be warranted or requested, and the Contractor should include those service prices in the Additional Services Form. A fertilizer with a 3-1-2 ratio balance shall be applied in most scenarios which takes into consideration the time of year, condition of the soil at the time of the application, and yearly soil tests. Soil tests are to be performed in the fall at eight (8) locations that the Contractors and Township agree upon. Soil tests results are due along with the Chemical Action Schedule by January 15 <sup>th</sup> of each year, except for the first year of the contract which will be due no later than February 15. Soil testing will be performed by standards established by Texas A&M AgriLife Services or other approved equal.  |                         |
| A2.78 | Turf Fertilizer - All turf areas in all Entries shall receive a minimum of three (3) applications of fertilizer per year at a rate of one (1) lb. of Nitrogen per 1,000 square feet of turf. Entries that don't receive ryegrass application should receive one (1) fertilizer analysis without nitrogen, focusing on phosphorus, potassium and micro- nutrients during the winter. Entries that get overseeded with ryegrass in the Winter, should receive one (1) fertilizer application with Nitrogen. <u>Micro-nutrients shall be included in the fertilizer mix based on the results of the most recent Soil Test and sound turf grass management practices.</u> Fertilizers and pre-emergent may be blended together to maximize application efficiency. Unit pricing of the lesser service will be used for invoicing.  |                         |
| A2.79 | Landscape Fertilizer - Community and Village Entries shall receive a minimum of three (3) fertilizer applications per year. Fertilizer analysis will depend on Soil Testing results.   |                         |

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|       | Both applications shall be applied with a 100% slow-release fertilizer. Organic products are acceptable.  |  |
| A2.80 | <p><b>Insecticide Specifications</b> - The insecticide program shall maintain all turf and landscapes free of insects harmful to turf and ornamental landscape materials including, but not limited to, mole crickets, army worms, sod web worms, fire ants, cutter ants, grubs, chinch bugs, wasps, hornets, and other invasive damaging insects. The Chemical Action Schedule (CAS) should include preventative applications as well as reactive applications. The costs for insecticides, application and mobilization shall be included in the Base Bid. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b> All insecticides and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards.</p> |  |
| A2.81 | <p><b>Herbicide Specifications</b> - The herbicide program shall maintain all turf and landscapes free of noxious weeds including but not limited to, dollar weed, black medic, purslane, clover, goosegrass, nut sedge, button weed, chickweed, and other invasive damaging weeds. All applications should follow the manufacturers' recommendations per the label and abide by the re-entry interval. A pre-emergent herbicide shall be applied in the turf and landscape beds for a minimum of four (4) times per year according to the label, however the first application shall generally be made no later than February 15<sup>th</sup> of each contract year. The following three (3) pre-emergent applications should be scheduled every ninety (90) days thereafter. The sites that receive ryegrass overseeding shall have their applications dates modified to ensure seed germination.</p>   |  |
| A2.82 | Landscape beds shall receive two (2) pre-emergent applications per year.  |  |
| A2.83 | Pre-emergent herbicides purchased by the Contractor shall be billed with an additional markup. Pre-emergent application labor and mobilization shall be billed per occurrence.  |  |
| A2.84 | Post emergent applications should be applied proactively based on weekly inspections. All herbicides and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards.  |  |
| A2.85 | The costs for post-emergent herbicides, application and mobilization shall be included in the Base Bid. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b>   |  |
| A2.86 | <p><b>Fungicide Specifications</b> - The disease control program shall maintain all turf and landscapes to be free of diseases including but not limited to, brown patch, powdery mildew, St. Augustine decline, Pythium fungus, root fungus, and other damaging diseases. Preventative and reactive application costs shall be included in the Base Bid pricing. <b>Unit pricing will be requested since it will be used as a deduction from the monthly invoice for services not rendered. In the event that a third party is needed to supplement services, the contractor will credit the Township any overages/difference of the third party's cost to perform said service.</b> All fungicides</p>  |  |

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|              | and other chemicals must be applied by or supervised by a Commercial Applicator licensed in the State of Texas in accordance with label directions and T.D.A standards.   |                         |
| A2.87        | All chemical applications shall be logged in to the Tracker for all sites daily.  |                         |
| <b>A2.88</b> | <b>COMMUNITY, VILLAGE, NEIGHBORHOOD AND ENHANCED INTERSECTION/MEDIANS ENTRIES TRASH &amp; LITTER SPECIFICATIONS</b>   | <b>Bidders initials</b> |
| A2.89        | Trash and litter removal at Community Entries shall occur fifty-two (52) times per year or every seven (7) calendar days. Trash and litter removal at Village, Neighborhood, and Intersections/Medians with Enhanced Landscapes shall occur twenty-four (24) times per year or every fourteen (14) calendar days.   |                         |
| A2.90        | Contractors shall ensure a complete and thorough removal of all trash, litter, and debris from all areas. Trash/Litter removal includes, but is not limited to, the removal of all visible trash from landscape or turf areas and retrieval of visible trash inside forested medians and forested areas that border a Streetscape zone. Removal of Micro Litter (i.e., cigarette butts, bottle caps, bits of paper) shall also be performed at intervals for the corresponding areas. Bandit Signs should be reported to the Township for County authorized removal.                          |                         |
| A2.91        | All trash, litter, and green waste shall be removed from each site and legally disposed of at the Contractor's expense. The Township's dumpsters are not available for use by the Contractor.   |                         |
| A2.92        | All equipment required for trash and litter removal shall have the appropriate safety markings, and safety equipment in accordance with the Texas Department of Transportation standards and regulations and comply with the Traffic Code.  |                         |
| A2.93        | The Contractor shall not remove flagging and markings associated with underground utility locates unless a Township representative has dictated removal, the respective utility company has approved the removal, or two weeks of non - activity by the associated company requesting the utility locates has passed. Contractor's trash and litter personnel will be responsible for removing such flagging and proper disposal.   |                         |
| <b>A2.94</b> | <b><u>SOUTH RIGHT OF WAY SPECIFICATIONS</u></b>   |                         |
| <b>A2.95</b> | <b>SOUTH RIGHT OF WAY MAINTENANCE SPECIFICATIONS</b>  | <b>Bidders Initials</b> |
| A2.96        | Road right of way maintenance services include, but are not limited to mowing, trimming, blowing, edging, herbicide treatments, rut and hole repair, and trash and debris removal across the 624 acres of South road right of ways. Right of way service areas include street medians, boulevards, roadside drainage ditches, and various open space reserves and forested areas identified in the Township GIS platform (Exhibit M). Right of way maintenance services generally take place from March through November weather depending.   |                         |
| A2.97        | The Contractor shall perform monthly site inspections (12 times per year). Reports shall include verification of services performed, conditions of the grounds (i.e. turf appearance and health), and issues of concern. Reports shall be in the form of a time and date stamp, spreadsheet, location map, and GPS log. Software programs like "Smartsheets" or "L.M.N." that allow information sharing are encouraged. The Contractor and the Township shall mutually agree as to the format of the Monthly Inspection Reports. Monthly Reports shall be submitted with the Monthly Invoice. |                         |
| A2.98        | The Township has established a Wildflower program in the road rights of ways throughout the Streetscape System. See Exhibit M for Wildflower areas. At the discretion of the Township the Contractor will be required to mow only certain portions  |                         |

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|        | <p>of the right of ways identified as “Sculpture Mowing”. Sculpture mowing shall occur two (2) cycles annually, usually beginning in March and is performed to maintain stands of viable wildflowers. Sculpture Mowing is not a full cycle of right of way maintenance. The Contractor will charge the Township an allocated amount of a full cycle according to the percentage of areas that were maintained during that program time, which equates to 75% of a full cycle. During the mowing season if temperatures rise and growth is stunted Township staff may determine at any point that mowing cycles are not needed during that period. A Sculpture Mowing cycle will be completed within fourteen (14) calendar days from the start date of the cycle. Any alterations to that schedule shall be reported to Township in writing. Failure of the contractor to meet the cycle deadline may result in liquidated damages. Failure of the contractor to meet the cycle deadline may result in liquidated damages after fourteen (14) calendar days.</p> |  |
| A2.99  | <p>Upon completion of the sculpture mowing cycles, full right of way mowing cycles (100% of streetscape ROW mowing) shall occur thirteen (13) times annually usually starting around the middle of April. Right of way operations may take place during the days of Monday – Friday, unless otherwise agreed to in writing by the Township. During these days mowing operations shall occur between 7 a.m. and 6 p.m. Right of ways mowing cycles will be completed within fourteen (14) calendar days from the start date of the cycle. Any alterations to that schedule shall be reported to Township in writing. Failure of the contractor to meet the cycle deadline may result in liquidated damages after fourteen (14) calendar days.</p>   |  |
| A2.100 | <p>The Contractor shall mow and maintain the identified town-wide and collector streets on a consistent schedule. After any weather events, or delays in operations the Contractor shall report where operations ended prior to the interruption.</p>  |  |
| A2.101 | <p>Right of way mowing shall be inclusive of the grounds between the roadside and the forest line in the medians, and roadside drainage ditches. Any open areas without dense vegetation, or underbrush are considered part of the right of way mowing area. The Contractor will be expected to use specialized equipment, such as zero turn mower, push mower, string trimmer, offset mower decks, etc. for any areas that a tractor cannot reach. Any areas left unmaintained will result in a call back at the Contractor’s expense.</p>  |  |
| A2.102 | <p>Right of way string trimming shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and the full right of way mowing cycles. Trimming shall consist of but not be limited to around fixed objects, structures, signs, fire hydrants, flush valves, traffic lights, streetlights, drainage structures, tops, etc. Trimming shall be completed the same day as the right of way mowing. Any areas left unmaintained will result in a call back at the Contractor’s expense.</p>  |  |
| A2.103 | <p>Right of way blowing shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and right of way mowing cycles. Contractors will avoid leaving excess clippings in the right of way areas and remove debris that has been ejected onto the roadway. Blowing shall be completed the same day as the right of way mowing and trimming. Any areas left unmaintained will result in a call back at the Contractor’s expense.</p>   |  |
| A2.104 | <p>Right of way edging shall occur up to fifteen (15) times coterminous with the sculpture mowing cycles and right of way mowing cycles. Edging shall consist of any method to eliminate grass from growing onto roadway, whether it’s a curb, concrete or asphalt. Edging shall be completed the same day as the right of way mowing and trimming. Any areas left unmaintained will result in a call back at the Contractor’s expense.</p>  |  |

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| A2.105 | Right of way weed treatment (including a non-selective herbicide and pre-emergent) shall be performed on all weeds in cracks, expansion joints and hardscape areas during the months of April, June, and August three (3) times per year to control weed emergence on the town-wide and collector streets (Exhibit P). A yellow marker dye shall be used to identify areas that haven't received the application. A report of the applications will be submitted to Township after each application. The report should include the areas sprayed, what products were used, and the rate at which the products were applied. Spraying units and vehicles shall have the appropriate safety markings and safety equipment in accordance with TCEQ and the Texas Department of Transportation standards and regulations. The report shall be included in the Monthly Report with the Monthly Invoice. |  |
| A2.106 | Right of way equipment not suitable to produce the quality of work required shall not be permitted to operate on the contract work. All equipment shall be subject to the approval of the Township prior to use. All equipment shall have the appropriate safety markings and safety equipment in accordance with the Texas Department of Transportation standards and regulations, and/or in accordance with the local and county regulations and requirements.   |  |
| A2.107 | Right of way equipment must be well maintained and in good working conditions. Equipment should be marked clearly with the company information, and a contact number. Equipment operators must be identified with a legible, brightly colored shirts or vests with the company information displayed.  |  |
| A2.108 | Right of way mowers shall be capable of towing a PTO driven mower deck for vegetative cutting. <b>Contractors should have the ability to mow under shrub branches.</b> At least one mower deck measuring 96 inches (8ft.) in width, or like machine, should be utilized for reaching/mowing under overgrowth. Decks should be complete with sharp blades, chains, or deflection devices to prevent flying debris. Mulching units are required to minimize the quantity of grass clippings left behind. The percentage of thatch left on top of the surface canopy shall be minimal. Tractors should have 4x4 capabilities due to the terrain of the right of way areas.  |  |
| A2.109 | Mower deck cutting height shall be set to three (3) inches at the lowest, or as directed by the Township or as mutually agreed. Seasonal adjustments may be requested based on conditions.   |  |
| A2.110 | Wildflower seeding takes place during the Fall. At the direction of the Township, the Contractor will be notified of when to apply the seed to the designated wildflower areas. The seed shall be applied using a slit seeding machine, generally PTO driven and pulled behind a tractor or the use of an approved equal. The Contractor shall include the cost to apply the wildflower seed in the Base Bid. <b>The cost of wildflower seed will be at the Township's expense.</b>  |  |
| A2.111 | The cost to slit seed wildflowers will be an additional Service and based on a per 1000 square foot analysis. See Exhibit D. Township staff will dictate the wildflower areas, which are seeded on a rotational basis each year, See Exhibit M.  |  |
| A2.112 | During the offseason months of December, January, and February, the Contractor will generally perform annual visibility trimming and pruning. This will be considered an additional service cost identified in the bid tab form. Visibility trimming consists of pruning back the forested areas that border a Township, Community or Neighborhood entry zone or a forested median at an intersection. The purpose of this task is to open the sightlines for pedestrians and vehicle traffic to enhance safety. Visibility trimming services will be based on a per hour or per eight-hour day cost identified in the Additional Services Tabulation Form.  |  |

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| A2.113 | Contractors shall use ArcGIS online to share tracking of the lead mower. The map with the tracks shall be submitted with that cycles billing. The ArcGIS license will be provided by The Township. The cost of the smartphone should be included in the base bid costs. |  |
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| <b>A3</b> | <b>PROJECT TOWNSHIP STREET SWEEPING MAINTENANCE</b>   |                     |
| A3.1      | <b>TOWNSHIP STREET SWEEPING SPECIFICATIONS</b>  | Bidders<br>Initials |
| A3.2      | Street sweeping shall occur on all Village, Town wide and Collector streets 3 times per month with the services being no more than 10 days apart for a total of thirty-six (36) cycles per year. Refer to Exhibit P for Town wide roads and Collector streets. The areas listed in the Exhibit include approximately 212 center line miles. The Contractor is responsible for any measurements needed for accurate bidding.   |                     |
| A3.3      | Street sweeping shall occur on all Town Center Collector streets 4 times per month and with the services being no more than 7 days apart for a total of forty-eight (48) cycles per year in the Town Center district. Refer to Exhibit P for Town Center collector streets. The areas listed in the Exhibit include approximately 10 center line miles. The Contractor is responsible for any measurements needed for accurate bidding.   |                     |
| A3.4      | Contractor shall provide a report after each service or cycle. Reports shall be in the form of a time and date stamp, check in log, spreadsheet, location map, and GPS log. Software programs like “Smartsheets” or “L.M.N.” that allow information sharing are encouraged. The Contractor and the Township shall mutually agree as to the format of these inspection reports. The reports shall be submitted with the Monthly Report and the monthly invoice.  |                     |
| A3.5      | The street sweeping operation is considered a “curb to curb” method. If a curb is not present the Contractor is expected to sweep to the edge of the road shoulder. The street sweepers shall leave designated areas free of dirt, litter, debris, obstructions, smears, and visual dust. Any refuse or debris not able to be consumed by the sweeping unit shall be reported so that arrangements can be made for removal. Any obstructions such as low-hanging branches, vehicles, structures, etc. that prevent the sweeping unit to fully complete sweeping of a contracted area should be reported to Township staff as soon as possible and indicted in the report. |                     |
| A3.6      | Street sweeping hours of operation shall be confined between 8 p.m. and 5 a.m. Sunday through Friday. The Township may ask for additional sweepings due to special events, weather, or unforeseen circumstances. the Contractor shall include a per hour cost for additional sweepings in the Additional Services Price Form (Exhibit D).   |                     |
| A3.7      | Street blowing operations are considered a “curb to curb” method. Street blowing is on an as needed basis or when requested by the Township. Street blowing is considered a Supplemental Service only if the street sweeping machine is unable to pick up certain materials or debris due to weather or storm related affects. A Unit price will be provided in Exhibit B for a per service cost for street blowing.  |                     |
| A3.8      | Equipment not suitable to produce the quality of work required shall not be permitted to operate on the contract work. All equipment shall be subject to the approval of the Township prior to use. Sweeper trucks used for the purpose of this contract shall be approved by the Township. All sweeping equipment shall have the appropriate safety markings and safety equipment in accordance with the Texas Department of Transportation standards and regulations, and/or in accordance with the local county regulations.   |                     |
| A3.9      | Equipment shall be clearly marked with the company name and contact info on either side of the machine  |                     |

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| A3.10 | Equipment must be well maintained and in good working condition. Mechanical brushes and brooms shall be maintained in proper condition and shall be replaced as recommended by the manufacturer. The use of a steel plate on the sweeper wheel will <b>not</b> be permitted to prevent tire scuffing against curbs. The sweeping unit shall include a dust control unit to minimize dust and dirt agitated by the machine's operation.   |  |
| A3.11 | All repairs and maintenance costs to machinery used in this operation should be included as a part of the Base Bid. The contractor will own, lease or be able to otherwise obtain a sufficient number of street sweeping machines and equipment to perform the Work/Project according to the Specifications and frequencies herein will little to no frustration on the part of the Township.  |  |
| A3.12 | Sweepers must be equipped with GPS systems that track sweepers locations as well as provide reports for sweeping services. A report shall be provided to the Township with the Monthly Report and monthly invoice. Invoices will not be processed without this report. Contractor shall provide access to the GPS program at the request of the Township at no cost to the Township. Contractors shall use ArcGIS online to share tracking of the Street sweeper. The map with the tracks shall be submitted with that cycles billing. The ArcGIS license will be provided by The Township. The cost of the smartphone should be included in the base bid costs. |  |
| A3.13 | Contractor is responsible for the legal disposal of sweeping refuse. Any disposal of debris, trash, litter, etc. will be coordinated by the Contractor in accordance with local, state, and federal regulations.   |  |
| A3.14 | Contractor is responsible for the cost of water necessary for machine sweeper operation. Contractor shall provide the Township proof of approvals that may be required by the Municipal Utility Districts for use of a metered fire hydrant or flush valve.  |  |
| A3.15 | Contractor shall operate the sweepers at a speed no higher than 8 miles per hour, unless Contractor can demonstrate the sweeper can operate at higher speeds and maintain its designed effectiveness and safety.   |  |
| A3.16 | Complaints, claims or issues regarding street sweeper operations which the Township determines to be justifiable and the responsibility of the Contractor will be referred to the Contractor for immediate attention. The Contractor will provide the Township reports on the course of action taken to resolve the complaint, claim or issue.   |  |
| A3.17 | Additional Services will be classified as any work s outside the specified basic monthly services. The Contractor shall include a service cost in the B id Tabulation Form for each relating item. Additional Services may include but are not limited to street sweeping due to construction, accidents, special events, weather events, etc. Refer to section 4.3 of the bid document for work order definitions and priority scale.   |  |
| A3.18 | Emergency Services - the Contractor will respond to the Township's request for Emergency Services as soon as possible but in no event more than four (4) hours. An emergency services cost will be identified in the Bid Tabulation Form.  |  |
| A3.19 | At any time, the Township deems the streets inadequately swept, the Contractor shall return to the specified area within 24 hours of notification to re-sweep the area, at No additional cost to or payment by the Township. The Contractor will be expected to maintain the regular sweeping schedule even in the event of a call-back or liquated damages may be assessed.   |  |
| A3.20 | Contractor is required to maintain all necessary licenses and training required by local, state and federal agencies at no extra expense to the Township.  |  |

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| A4    | <b>PROJECT TOWNSHIP TREE CARE MAINTENANCE</b>   |                     |
| A4.1  | <b>TOWNSHIP TREE CARE GENERAL INFORMATION</b>   | Bidders<br>Initials |
| A4.2  | The Woodlands Township has 2,417 Streetscape and Waterway Trees. Of these trees, 1,050 (Waterway, Town Center Entries and Creekside Village Green) are wrapped with Christmas lights.   |                     |
| A4.3  | A Tree Maintenance Action Schedule shall be submitted for review and mutually agreed to by the Township prior to implementation. This plan shall incorporate all trees along The Waterway and excludes trees in reserve areas.  |                     |
| A4.4  | The Tree Maintenance Action Schedule shall be due to the Township no later than February 1 of each contract year, which will cover the period from February 1 to January 31 for the following year. Draft versions may be discussed sooner, where appropriate. Plan must incorporate major Town Center events as will be communicated by Township staff at least a week prior to the event. |                     |
| A4.5  | The plan shall outline the chemical type, analysis, timeline for application, and intended application rates necessary to maintain healthy, green, vigorous, weed free and pest free properties year-round.   |                     |
| A4.6  | The plan shall outline a tree trimming and pruning schedule that incorporates the pruning of trees wrapped in lights during August and September.   |                     |
| A4.7  | Plan must also incorporate major Town Center events as will be communicated by Township staff at least a week prior to the date of event.   |                     |
| A4.8  | All chemicals in the Tree Maintenance Action Plan must be applied by, or supervised by, a licensed applicator in accordance with label directions.  |                     |
| A4.9  | All other aspects of the Tree Maintenance Action Schedule will be considered an additional service and should not be included in the base bid.  |                     |
| A4.10 | <b>TOWNSHIP TREE PRUNING SPECIFICATIONS</b>   | Bidders<br>Initials |
| A4.11 | Only trained and experienced personnel with proper abilities shall perform pruning. Pruning shears or trimming tools shall be cleaned between uses to prevent the spread of disease.  |                     |
| A4.12 | Contractors must perform services according to the <b>ANSI A300 standards</b> .   |                     |
| A4.13 | All debris from pruning shall be removed from the site and legally disposed of at no cost to the Township.  |                     |
| A4.14 | Contractors shall remove all debris (logs, limbs, stumps, crowns, etc.) and legally discard material on a <b>daily basis</b> that is a result of their operation. If Contractor fails to comply with this obligation, Contractor will be back charged for work performed by The Township's personnel or contractor for such removal.  |                     |
| A4.15 | Contractor shall have an ISA Certified Arborist on staff (inclusive of a contracted Arborist) that can respond daily if requested by the Township. <b><u>Include a copy of the certification with the bid response.</u></b>   |                     |
| A4.16 | Transportation of staff, equipment, and debris shall be done by vehicles marked with contractor's company logo. Vehicles shall be capable of loading trees and limb debris  |                     |

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|       | gathered from tree removal and stump grinding on a <b><i>daily basis. Debris from stump grinding must be level with the surrounding</i></b>  |  |
| A4.17 | Tree pruning unit price includes cutting, removing related debris from the site by using industry standard means and equipment   |  |
| A4.18 | All work must be performed with a minimum of disruption to existing vegetation.  |  |
| A4.19 | Tree stakes will be maintained to achieve their intended purpose. Stakes shall be removed one year after the installation of a tree or shrub, even if the tree/shrub was installed by others. Stakes that are no longer serving a structural purpose shall be removed. Dark green or brown colored stakes and ties are preferred. Bright colored objects are not to be used when staking a tree. Proper tree staking needs to conform to ANSI A300 (Part 3 & 6) standards. |  |
| A4.20 | <b>Specimen Pruning</b> - Pruning of indigenous species shall create a uniformly dense plant. Contractors shall selectively thin and tip back annually and prune to enhance natural branching effect of plants but not change shape of shrubs by pruning. The Township will provide a list of trees (Liberty Square, Kendrick Pines, Creekside Park Shopping Center, Riva Row, specimen park trees, etc.) that will be pruned on a three (3) year rotation.                |  |
| A4.21 | Contractors shall prune to remove dead wood and aesthetically balance the planting following basic horticultural practices. All suckers and undesired growth shall routinely and regularly be removed.   |  |
| A4.22 | Crape myrtles shall be pruned regularly to remove sucker growth and protruding limbs from curb lines and to remove intersecting growth with another tree or shrub.<br><b>Dehorning is NOT permitted.</b>   |  |
| A4.23 | Contractors shall remove branches or sucker sprouts that interfere with safe maintenance practices as needed.  |  |
| A4.24 | Small or young trees are to be pruned (trained) during the fall and winter season.   |  |
| A4.25 | <b>Clearance Pruning</b> - Tree and shrub branches should be pruned away from all structures, signs, light poles, electrical equipment, pathways, etc., to prevent encroachment or damage to the structure and maintain access to and proper of structures.  |  |
| A4.26 | All trees along roadways or trolley pathways shall be pruned to a height of thirteen (13) feet above ground level or top of curb.  |  |
| A4.27 | All trees along pathways shall be pruned to a height of eight (8) feet to give adequate and safe passage to its users.   |  |
| A4.28 | Broken or hanging limbs that will impede pedestrian/vehicle passage shall be removed immediately.  |  |
| A4.29 | Waterway and Town Center Entries – The 1,050 wrapped trees shall be pruned per the specifications during the designated window specified in section A5.6.  |  |
| A4.30 | The Township system includes 1,367 street lined trees outside of the wrapped Waterway and Town Center trees that will be pruned on rotational schedule.  |  |
| A4.31 | <b>TREE CARE CHEMICAL SPECIFICATIONS</b>   |  |
| A4.32 | The contractor shall perform a Tree Health Assessment of the trees along The Waterway twice a year by an ISA certified arborist. Specified reserve areas shall receive a Tree Health Assessment on an annual basis.  |  |
| A4.33 | The Contractor shall provide a markup percentage for fertilizer, insecticide and fungicide for purchasing products in Exhibit D.   |  |

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| A4.34 | The contractor shall provide labor costs for fertilizer, insecticide and fungicide in Exhibit D. Line items will include Root drenching, deep root injections, trunk injections and tree canopy spraying. |  |
| A4.35 | Contractors shall anticipate fertilizing The Waterway twice annually on a labor + material cost per tree basis. As needed as directed, cost based on 50 trees per service.                                |  |
| A4.36 | Contractors shall anticipate treating for insects once annually on a labor + material cost per tree basis. Tree Spray is preferred. As needed as directed, cost based on 50 trees per service.            |  |
| A4.37 | Contractors shall treat for disease (fungus) on an as needed basis on a labor + material cost per tree basis. Root Drench is preferred. As needed as directed, cost based on 50 trees per service.        |  |
| A4.38 | <b>Waterway Crape Myrtles shall receive scale treatments on an annual basis. All other Crape Myrtles will receive treatments on an as needed basis.</b>   |  |