

NATIVE TREE & SHRUB PLANTING COST-SHARE PROGRAM

Thank you for your interest in the Village’s Native Tree & Shrub Planting Cost-Share Program. The program requirements are authorized by "An Ordinance Providing for Ecological Cost-Share Programs in the Village of Riverwoods" and are subject to such ordinance, as from time to time amended. Note: an Ecological Consultation and approval from the Village Ecologist is required prior to applying for the Native Tree & Shrub Planting Program. Canopy & subcanopy thinning and/or invasive shrub removal may also be required before planting trees & shrubs to promote transplant survival. Attached you will find the Application and Contractor Specifications.

Please read all requirements carefully and complete the checklist before submitting your completed application. The applicant must use native trees and/or shrubs appropriate for the ecological community and from the attached lists as approved by the Village Ecologist. The trees and shrubs can be obtained from any nursery of choice. The Native Tree & Shrub Planting Program is a 1-year 50/50 cost-share program. The Village’s share limit is \$2,000. There is a \$100 non-refundable application fee. Once approved for the program, the applicant is allowed to re-apply one time each fiscal year (January 1) if desired. Note: the Village will not reimburse an applicant who performs the work themselves rather than hiring a qualified contractor.

The intent of the Native Tree & Shrub Planting Program is to provide an incentive for all residents, whether they own wooded property or not, to plant native trees and shrubs that will increase the native species composition in the Village. It requires an assessment by the Village Ecologist of the existing conditions and preparation of a map that includes general locations of the proposed native trees and shrubs. The applicant is required to hire a qualified contractor to plant the native trees and shrubs per the attached Contractor Specifications and Performance Standards.

To be eligible to participate in the program, the applicant must certify that they will comply with all requirements set forth in this packet. The property owner is responsible for property locations and staking their property lines if necessary. The Owner and/or Contractor is responsible for calling J.U.L.I.E. Note: This program does not apply to planting non-native or cultivar varieties of trees and shrubs unless approved by the Village Ecologist.

After the application is approved by the Village Ecologist, the applicant will receive a permit from the Village to proceed with the work as proposed in the Application. After the work is completed, notify the Village and the Village Ecologist will conduct a site visit to verify the work has been completed per the approved Application, Contractor Specifications, and Performance Standards. The reimbursement request is then forwarded to the Village Board for approval. Reimbursement can be expected in 1 to 3 months following the approval of work. Note: the tree/shrub supplier may have guarantees on the survivability of plant material.

Checklist for Native Tree & Shrub Planting Program:

1. Conduct the required Ecological Consultation (to generally locate proposed trees/shrubs) with the Village Ecologist.
2. Receive map and Contractor Specifications (completed by Village Ecologist) including Native Tree & Shrub Planting Program information packet and application from the Village. The Application form is attached but can also be obtained from Village Hall or by downloading from the Village Website.
3. Conduct canopy & subcanopy tree thinning and/or invasive shrub removal (if determined necessary by Village Ecologist) prior to planting.
4. Select native trees and shrubs from lists provided below and as determined by Village Ecologist. All canopy trees and understory trees must be at least 1.5- inch caliper. All shrubs must be at least 3.8 gallon.
5. Prior to planting, call J.U.L.I.E. locator service to locate potential utilities.

- 6. Receive permit from Village then hire qualified contractor to install trees and shrubs per the provided map and Contractor Specifications.
- 7. Submit a copy of the paid contractor invoice to the Village Hall and request a final inspection by the Village Ecologist. The Village Ecologist will inspect the survivability, work, review the contractor invoice, and contact the applicant, if necessary, for clarification and approve the payment of reimbursement from the Village. The Village Board will then approve the reimbursement payment to the applicant. Reimbursement by the Village can be expected approximately 1 to 3 months after approval of work.

How to Maintain Newly Planted Trees & Shrubs

After the native trees and/or shrubs are planted, they will require some care before becoming established.

Watering:

Each tree and/or shrub should be watered once per week during the growing season if there has not been 1” of rainfall during the week. Be careful not to under or over-water the new trees and shrubs. Their roots need both air and water to function properly. An easy way to measure the amount of water being applied is to set up a sprinkler to water the area and place an empty can in the area being watered.

Mulch:

Maintain the mulch to an approximate depth of 2” - 4”. Mulch should be kept at least 2” from the trunk of the tree to prevent roots from forming above the root ball and keep small animals from burrowing and gnawing on the bark.

Pruning:

Dead limbs or branch tips can be pruned back to the first live branch or bud. If an entire branch dies, remove it back to the trunk.

Tree Trunk Protection:

Tree trunk protection from deer browsing can be installed around single trunk trees. See “Tree Trunk Protection Detail” in Contractor Specifications section. Shrubs and small trees can also be protected using a variety of caging methods.

**RIVERWOODS APPROVED:
FLATWOODS (WET WOODLAND) CANOPY & SUBCANOPY TREES & UNDERSTORY SHRUBS**

SPECIES		LIGHT REQUIREMENTS			NATURAL COMMUNITY/MOISTURE			Description	Mature Size
Botanical Name	Common Name	Full Sun	Part Shade	Shade	Wet	Mesic	Dry-Mesic		
CANOPY TREES									
<i>Acer rubrum</i>	Red Maple	X	X		X	X		Red maple is known for its red fall color. Does well in variety of conditions including wet and partially shaded areas.	30' - 40' h, 40' - 50' w
<i>Juglans nigra</i>	Black Walnut	X	X		X	X	X	Grows 18" - 20" per year. Produces large fruit popular with squirrels.	50' - 60' h, 40' - 50' w
<i>Platanus occidentalis</i>	Sycamore	X			X	X		One of the fastest growing trees (3' - 4' per year is common when planted near streams) and the largest tree (at mature size) east of the Mississippi River. Distinctive white and brown mottled bark.	75' h, 50' w
<i>Quercus bicolor</i>	Swamp White Oak	X	X		X	X		Preferred choice for flatwoods. Similar to white oak, but more tolerant of wet soils such as wet woodlands. Likes acidic soils. Transplants well and is among the most highly recommended oaks for various landscapes.	50' - 80' h, 40' - 60' w
<i>Quercus macrocarpa</i>	Bur Oak	X				X	X	Bur oak is the dominant tree in a savanna and very tolerant of heavy clay soil, high pH and open areas. It is a very adaptable tree as it occurs in the wild in upland and bottomland areas. The combination of the bark texture and massive branches makes a dramatic winter statement. However, bur oak does not always transplant well.	50' - 80' h, 50' - 80' w
<i>Quercus palustris</i>	Pin Oak	X	X		X	X		An oak that does well in wet woodland areas and is somewhat tolerated shade. Transplants well.	40' - 50' h, 40' - 50' w
SUBCANOPY TREES									
<i>Carpinus caroliniana</i>	Blue Beech/Musclewood	X	X	X	X	X	X	A mid-sized tree with smooth gray flute/muscular bark. The blue beech is part of the birch family. The flowers are in the form of catkins and are not highly visible. The fruit hangs in four to six inch clusters. Fall color can be red, yellow and orange.	15' - 20' h, 10' - 15' w
UNDERSTORY SHRUBS									
<i>Cephalanthus occidentalis</i>	Buttonbush		X	X	X			Ornamental shrub suited to wet soils in shade to part shade. Also a good wildlife food source.	6' - 12' h, 6' - 10' w
<i>Cornus</i>	Red Osier Dogwood	X	X		X	X		Beautiful red-stemmed shrub that can tolerate wet conditions and prefers full sun.	5' - 10' h, 5' - 8' w
<i>Ilex verticillata</i>	Winterberry Holly		X	X	X	X		Prefers acid soils. Small shrub that can be found growing around borders of wet woodlands. Known for its bright red berries that persist into early winter if not eaten by birds first.	5' - 8' h, 5' - 8' w
<i>Lindera benzoin</i>	Spicebush		X	X	X	X		Medium shrub with yellow flowers. Exhibits scarlet colored fruit in fall.	6' - 10' h, 6' - 10' w
<i>Sambucus canadensis</i>	Elderberry	X	X		X	X		Shrub found in wet sunny areas with edible purple-black fruit in late summer.	6' - 10' h, 6' - 10' w
<i>Stapylea trifolia</i>	Bladdernut		X	X	X			Heavy branching shrub with smooth, striped, greenish bark that grows in low lying wet shady areas. Exhibits greenish white, bell shaped flowers.	8' - 12' h, 8' - 12' w
<i>Spiraea alba</i>	Meadowsweet	X			X	X		Small shrub that prefers moist sunny locations. Forms white flowers in cone shaped clusters.	3' - 4' h, 3' - 4' w

**RIVERWOODS APPROVED:
MESIC WOODLAND CANOPY & SUBCANOPY TREES & SHRUBS & UNDERSTORY SHRUBS**

SPECIES		LIGHT REQUIREMENTS			NATURAL COMMUNITY/MOISTURE			Description	Mature Size
Botanical Name	Common Name	Full Sun	Part Shade	Shade	Wet	Mesic	Dry-Mesic		
CANOPY TREES									
<i>Acer rubrum</i>	Red Maple	X	X		X	X		Red maple is known for its red fall color. Does well in variety of conditions including wet and partially shaded areas.	30' - 40' h, 40' - 50' w
<i>Carya cordiformis</i>	Bitternut Hickory	X	X			X	X	Also called yellowbud for its conspicuous yellow buds in winter. Young trees are shade tolerant. Should be grown in half day sun. Yellow fall color.	40' - 60' h, 30' - 40' w
<i>Carya ovata</i>	Shagbark Hickory	X	X	X		X	X	Initially a slow growing tree, bark develops a shaggy appearance after 15 - 20 years. Does well in full sun, although likes shade for 1/2 day on mesic to dry soil. Yellow fall color.	40' - 60' h, 25' - 35' w
<i>Juglans nigra</i>	Black Walnut	X	X		X	X	X	Grows 18" - 20" per year. Produces large fruit popular with squirrels.	50' - 60' h, 40' - 50' w
<i>Pinus strobes</i>	Eastern White Pine	X					X	One of very few evergreens native to northern Illinois. MUST be grown in dry open area with full sun.	50' - 100' h, 40' - 70' w
<i>Platanus occidentalis</i>	Sycamore	X			X	X		One of the fastest growing trees (3' - 4' per year is common when planted near streams) and the largest tree (at mature size) east of the Mississippi River.	75' h, 50' w
<i>Quercus alba</i>	White Oak	X				X	X	White oak is the dominant tree in a dry-mesic woodland. It exhibits russet red fall color. In youth, the leaves tend to be persistent in winter. As the tree ages, the leaves fall off in autumn. White oak is mildly tolerant of shade (needs	50' - 80' h, 50' - 80' w
<i>Quercus bicolor</i>	Swamp White Oak	X	X		X	X		Similar to white oak, but more tolerant of wet soils such as wet woodlands. Likes acidic soils. Transplants well and is among the most highly recommended oaks for various landscapes.	50' - 80' h, 40' - 60' w
<i>Quercus imbricaria</i>	Shingle Oak	X				X	X	Shingle oak is an uncommon oak, but is found in a wide variety of soils (gravel, sand, heavy clay). Requires full sun. Shingle oak leaves have no lobes or teeth. Fall color can be red orange but more often is brown.	40' - 50' h, 40' - 50' w
<i>Quercus macrocarpa</i>	Bur Oak	X				X	X	Bur oak is the dominant tree in a savanna and very tolerant of heavy clay soil, high pH and open areas. It is a very adaptable tree as it occurs in the wild in upland and bottomland areas. The combination of the bark texture and massive branches makes a dramatic winter statement. However, bur oak does not always transplant well.	50' - 80' h, 50' - 80' w
<i>Quercus muehlenbergii</i>	Chinquapin Oak	X				X	X	In the wild Chinquapins are found on very shallow soils that overlay limestone. It is tolerant of high pH and drought resistant. The leaves are not lobed, but have serrated teeth along the margin (edge). Grows small, sweet flavored acorns.	50' - 80' h, 50' - 60' w
<i>Quercus palustris</i>	Pin Oak	X	X		X	X		An oak that does well in wet woodland areas and is somewhat tolerated shade. Transplants well.	40' - 50' h, 40' - 50' w
<i>Quercus rubra</i>	Red Oak	X	X	X		X	X	Red oak is the dominant tree in a mesic woodland and one of the most shade tolerant of the oak group. A few hours of sun per day is all it needs to grow. Fall color is an outstanding red. Transplants well and is a highly valued landscape	50' - 80' h, 40' - 80' w
SUBCANOPY TREES & SHRUBS									
<i>Aesculus glabra</i>	Ohio Buckeye	X	X	X		X	X	Shade tolerant tree with large brown seeds in fall. Likes well-drained, slightly acidic soils. Prone to leaf blotch and early leaf drop.	20' - 40' h, 20' - 40' w
<i>Amelanchier arborea</i>	Downy Serviceberry	X	X			X	X	Multi-stemmed understory tree (or large shrub). White flowers in early spring. Berries consumed by many birds and are edible to humans. Yellow, red and orange foliage in fall.	10' - 25' h, 10' - 12' w
<i>Amelanchier laevis</i>	Allegheny Serviceberry	X	X			X	X	Similar to Downy Serviceberry, but with bronze-colored new foliage.	15' - 25' h, 15' - 25' w

Village of Riverwoods

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<i>Crataegus crusgalli</i>	Hawthorn	X	X		X	X	X	Small to medium tree preferring mostly sunny areas. Has thorns and produces creamy white flowers in spring followed by fruit in fall.	15' - 20' h, 15' - 20' w
<i>Carpinus caroliniana</i>	Blue Beech/Musclewood	X	X	X	X	X	X	A mid-sized tree with smooth gray flute/muscular bark. The blue beech is part of the birch family. The flowers are in the form of catkins and are not highly visible. The fruit hangs in four to six inch clusters. Fall color can be red, yellow and orange.	15' - 20' h, 10' - 15' w
<i>Cercis canadensis</i>	Eastern Redbud	X	X			X	X	Known for early pink flowers in the spring. Growth rate is moderate to fast with yellow fall color.	15' -20' h, 10' -15' w
<i>Cornus alternifolia</i>	Pagoda Dogwood		X	X	X	X		Horizontal branching structure, white flowers in spring, followed by bluish-black fruit in late summer that attract a variety of native birds.	10' -15' h, 10-15' w
<i>Crataegus crusgalli</i> <i>Crataegus mollis</i>	Cockspur Hawthorn Downy Hawthorn		X	X		X	X	Small to medium tree preferring mostly sunny areas. Has thorns and produces creamy white flowers in spring followed by fruit in fall.	15' - 20' h, 15' - 20' w
<i>Ostrya virginiana</i>	Ironwood		X	X		X	X	A superb understory tree with yellow fall color that persists through winter. Fruits resemble hops. One of the most common understory trees in oak woodlands.	20' - 30' h, 20' - 30'
UNDERSTORY SHRUBS									
<i>Aronia melanocarpa</i>	Chokeberry	X				X		Slow growing shrub with blackish-purple fruit, red fall color. Tends to develop profuse sucker growth and will colonize.	4' - 6' h, 4' - 6' w
<i>Corylus Americana</i>	American Hazel	X	X			X	X	Medium sized shrub of the prairie-savanna landscape. Excellent red, yellow, and orange fall color. Nuts cherished by wildlife.	5' - 8' h, 5' - 6' w
<i>Diervilla prolifera</i>	Grape Honeysuckle	X	X	X		X	X	A low-growing deciduous shrub, good for mass-planting. Small yellow flowers in summer. Exhibits red, orange, and yellow fall color.	2' - 3' h, 2' - 3' w
<i>Euonymus atropurpureus</i>	Eastern Wahoo		X	X	X	X	X	A large shrub that can resemble a small tree. Exhibits beautiful crimson fruit and has excellent fall color.	6' - 10' h, 6' - 10' w
<i>Hamamelis virginiana</i>	Common Witch-Hazel		X	X		X		Multi-stemmed shrub found in moist woodlands with shade. One of few species that flowers in fall while also producing excellent yellow fall color.	10' -15' h, 10-15' w
<i>Hydrangea quercifolia</i>	Oakleaf hydrangea		X	X		X	X	Low growing shrub with fast growth rate. Ornamental flowers.	3' - 5' h, 3' - 5' w
<i>Hypericum prolificum</i>	Shrubby St. John's Wort	X	X			X	X	Relatively small dense shrub with exfoliating bark and bright yellow flowers.	3' - 4' h, 3' - 4' w
<i>Lindera benzoin</i>	Spicebush		X	X	X	X		Medium shrub with yellow flowers. Exhibits scarlet colored fruit in fall.	6' - 10' h, 6' - 10' w
<i>Physocarpus opulifolius</i>	Common Ninebark	X	X			X	X	Spreading form shrub with reddish colored fruit in fall. Exfoliating bark on older branches.	6' - 10' h, 6' - 10' w
<i>Prunus virginiana</i>	Chokecherry		X	X		X	X	Tolerant of wet and dry locations. Beautiful white flowers in spring with fruit in fall enjoyed by wildlife.	6' - 10' h, 6' - 10' w
<i>Rhus glabra</i>	Smooth Sumac	X				X	X	Unique looking shrub with excellent fall color and flowering heads.	6' - 10' h, 6' - 10' w
<i>Rhus typhina</i>	Staghorn Sumac	X	X			X	X	Loose, spreading form shrub with flat crown. Forms colonies via root suckers. Excellent fall color. Can be aggressive.	10' - 16' h, 6' - 10' w
<i>Ribes americanum</i>	Wild Black Currant		X			X	X	Low hedge shrub that is tough and adaptable with small white flowers in spring and purple berries in late summer.	2' - 3' h, 2' - 2' w
<i>Viburnum acerifolium</i>	Maple Leaf Viburnum		X	X		X	X	Low, sparsely branching shrub with white flower clusters in spring. Produces small black fruit eaten by wildlife.	4' - 6' h, 4' - 6' w
<i>Viburnum dentatum</i>	Arrowwood Viburnum	X	X			X	X	Reliable medium multi-stemmed shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	6' - 10' h, 5' - 8' w
<i>Viburnum lentago</i>	Nannyberry Viburnum	X	X			X	X	Large shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	10' - 15' h, 10' - 15' w
<i>Viburnum prunifolium</i>	Blackhaw Viburnum	X	X	X		X	X	Very versatile shrub that produces creamy white flowers in spring followed by edible purple flowers in late summer. Also exhibits excellent fall color.	8' - 12' h, 8' - 12' w
<i>Viburnum trilobum</i>	High-Bush Cranberry	X	X			X	X	Works well for screening. Exhibits white flowers in spring and red berries in late summer.	8' - 12' h, 8' - 12' w

**RIVERWOODS APPROVED:
DRY- MESIC WOODLAND CANOPY & SUBCANOPY TREES & SHRUBS & UNDERSTORY SHRUBS**

SPECIES		LIGHT REQUIREMENTS			NATURAL COMMUNITY/MOISTURE			Description	Mature Size
Botanical Name	Common Name	Full Sun	Part Shade	Shade	Wet	Mesic	Dry-Mesic		
CANOPY TREES									
<i>Carya ovata</i>	Shagbark Hickory	X	X	X		X	X	Initially a slow growing tree, bark develops a shaggy appearance after 15 - 20 years. Does well in full sun, although likes shade for 1/2 day on mesic to dry soil. Yellow fall color.	40' - 60' h, 25' - 35' w
<i>Pinus strobes</i>	Eastern White Pine	X					X	One of very few evergreens native to northern Illinois. MUST be grown in dry open area with full sun.	50' - 100' h, 40' - 70' w
<i>Quercus alba</i>	White Oak	X				X	X	White oak is the dominant tree in a dry-mesic woodland. It exhibits russet red fall color. In youth, the leaves tend to be persistent in winter. As the tree ages, the leaves fall off in autumn. White oak is mildly tolerant of shade.	50' - 80' h, 50' - 80' w
<i>Quercus bicolor</i>	Swamp White Oak	X	X		X	X		Similar to white oak, but more tolerant of wet soils such as wet woodlands. Likes acidic soils. Transplants well and is among the most highly recommended oaks.	50' - 80' h, 40' - 60' w
<i>Quercus imbricaria</i>	Shingle Oak	X				X	X	Shingle oak is an uncommon oak, but is found in a wide variety of soils (gravel, sand, heavy clay). Requires full sun. Shingle oak leaves have no lobes or teeth. Fall color can be red orange but more often is brown.	40' - 50' h, 40' - 50' w
<i>Quercus macrocarpa</i>	Bur Oak	X				X	X	Bur oak is the dominant tree in a savanna and very tolerant of heavy clay soil, high pH and open areas. It is a very adaptable tree as it occurs in the wild in upland and bottomland areas. The combination of the bark texture and massive branches makes a dramatic winter statement. However, bur oak does not always transplant well.	50' - 80' h, 50' - 80' w
<i>Quercus muehlenbergii</i>	Chinquapin Oak	X				X	X	In the wild Chinquapins are found on very shallow soils that overlay limestone. It is tolerant of high pH and drought resistant. The leaves are not lobed, but have serrated teeth along the margin (edge). Grows small, sweet flavored acorns.	50' - 80' h, 50' - 60' w
<i>Quercus rubra</i>	Red Oak	X	X	X		X	X	Red oak is the dominant tree in a mesic woodland and one of the most shade tolerant of the oak group. A few hours of sun per day is all it needs to grow. Fall color is an outstanding red. Transplants well and is a highly valued landscape	50' - 80' h, 40' - 80' w
SUBCANOPY TREES & SHRUBS									
<i>Aesculus glabra</i>	Ohio Buckeye	X	X	X		X	X	Shade tolerant tree with large brown seeds in fall. Likes well-drained, slightly acidic soils. Prone to leaf blotch and early leaf drop.	20' - 40' h, 20' - 40' w
<i>Amelanchier arborea</i>	Downy Serviceberry	X	X			X	X	Multi-stemmed understory tree (or large shrub). White flowers in early spring with edible berries. Yellow, red and orange foliage in fall.	10' - 25' h, 10' - 12' w
<i>Amelanchier laevis</i>	Allegheny Serviceberry	X	X			X	X	Similar to Downy Serviceberry, but with bronze-colored new foliage.	15' - 25' h, 15' - 25' w
<i>Carpinus caroliniana</i>	Blue Beech/Musclewood	X	X	X	X	X	X	A mid-sized tree with smooth gray flute/muscular bark. The blue beech is part of the birch family. The flowers are in the form of catkins and are not highly visible. The fruit hangs in four to six inch clusters. Fall color can be red, yellow and orange.	15' - 20' h, 10' - 15' w
<i>Cercis canadensis</i>	Eastern Redbud	X	X			X	X	Known for early pink flowers in the spring. Growth rate is moderate to fast with yellow fall color.	15' - 20' h, 10' - 15' w
<i>Cornus alternifolia</i>	Pagoda Dogwood		X	X	X	X		Horizontal branching structure, white flowers in spring, followed by bluish-black fruit in late summer that attract a variety of native birds.	10' - 15' h, 10' - 15' w
<i>Crataegus crusgalli</i> <i>Crataegus mollis</i>	Cockspur Hawthorn Downy Hawthorn		X	X		X	X	Small to medium tree preferring mostly sunny areas. Has thorns and produces creamy white flowers in spring followed by fruit in fall.	15' - 20' h, 15' - 20' w
<i>Ostrya virginiana</i>	Ironwood		X	X		X	X	A superb understory tree with yellow fall color that persists through winter. Fruits resemble hops. One of the most common understory trees in oak woodlands.	20' - 30' h, 20' - 30' w

UNDERSTORY SHRUBS

<i>Aronia melanocarpa</i>	Chokeberry	X			X		Slow growing shrub with blackish-purple fruit, red fall color. Tends to develop profuse sucker growth and will colonize.	4' - 6' h, 4' - 6' w
<i>Corylus Americana</i>	American Hazel	X	X		X	X	Medium sized shrub of the prairie-savanna landscape. Excellent red, yellow, and orange fall color. Nuts cherished by wildlife.	5' - 8' h, 5' - 6' w
<i>Diervilla prolifera</i>	Grape Honeysuckle	X	X	X	X	X	A low-growing deciduous shrub, good for mass-planting. Small yellow flowers in summer. Exhibits red, orange, and yellow fall color.	2' - 3' h, 2' - 3' w
<i>Hamamelis virginiana</i>	Common Witch-Hazel		X	X	X		Multi-stemmed shrub found in moist woodlands with shade. One of few species that flowers in fall while also producing excellent yellow fall color.	10' - 15' h, 10' - 15' w
<i>Hydrangea quercifolia</i>	Oakleaf hydrangea		X	X	X	X	Low growing shrub with fast growth rate. Ornamental flowers.	3' - 5' h, 3' - 5' w
<i>Hypericum prolificum</i>	Shrubby St. John's Wort	X	X		X	X	Relatively small dense shrub with exfoliating bark and bright yellow flowers.	3' - 4' h, 3' - 4' w
<i>Lindera benzoin</i>	Spicebush		X	X	X	X	Medium shrub with yellow flowers. Exhibits scarlet colored fruit in fall.	6' - 10' h, 6' - 10' w
<i>Physocarpus opulifolius</i>	Common Ninebark	X	X		X	X	Spreading form shrub with reddish colored fruit in fall. Exfoliating bark on older branches.	6' - 10' h, 6' - 10' w
<i>Prunus virginiana</i>	Chokecherry		X	X	X	X	Tolerant of wet and dry locations. Beautiful white flowers in spring with fruit in fall enjoyed by wildlife.	6' - 10' h, 6' - 10' w
<i>Rhus glabra</i>	Smooth Sumac	X			X	X	Unique looking shrub with excellent fall color and flowering heads.	6' - 10' h, 6' - 10' w
<i>Rhus typhina</i>	Staghorn Sumac	X	X		X	X	Loose, spreading form shrub with flat crown. Forms colonies via root suckers. Excellent fall color. Can be aggressive.	10' - 16' h, 6' - 10' w
<i>Ribes americanum</i>	Wild Black Currant		X		X	X	Low hedge shrub that is tough and adaptable with small white flowers in spring and purple berries in late summer.	2' - 3' h, 2' - 2' w
<i>Viburnum acerifolium</i>	Maple Leaf Viburnum		X	X	X	X	Low, sparsely branching shrub with white flower clusters in spring. Produces small black fruit eaten by wildlife.	4' - 6' h, 4' - 6' w
<i>Viburnum dentatum</i>	Arrowwood Viburnum	X	X		X	X	Reliable medium multi-stemmed shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	6' - 10' h, 5' - 8' w
<i>Viburnum lentago</i>	Nannyberry Viburnum	X	X		X	X	Large shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	10' - 15' h, 10' - 15' w
<i>Viburnum prunifolium</i>	Blackhaw Viburnum	X	X	X	X	X	Very versatile shrub that produces creamy white flowers in spring followed by edible purple flowers in late summer. Also exhibits excellent fall color.	8' - 12' h, 8' - 12' w
<i>Viburnum trilobum</i>	High-Bush Cranberry	X	X		X	X	Works well for screening. Exhibits white flowers in spring and red berries in late summer.	8' - 12' h, 8' - 12' w

**RIVERWOODS APPROVED:
SAVANNA CANOPY & SUBCANOPY TREES & UNDERSTORY SHRUBS**

SPECIES		LIGHT REQUIREMENTS			NATURAL COMMUNITY/MOISTURE			Description	Mature Size
Botanical Name	Common Name	Full Sun	Part Shade	Shade	Wet	Mesic	Dry-Mesic		
CANOPY TREES									
<i>Carya cordiformis</i>	Bitternut Hickory	X	X			X	X	Also called yellowbud for its conspicuous yellow buds in winter. Young trees are shade tolerant. Should be grown in half day sun. Yellow fall color.	40' - 60' h, 30' - 40' w
<i>Carya ovata</i>	Shagbark Hickory	X	X	X		X	X	Initially a slow growing tree, bark develops a shaggy appearance after 15 - 20 years. Does well in full sun, although likes shade for 1/2 day on mesic to dry soil. Yellow fall color.	40' - 60' h, 25' - 35' w
<i>Pinus strobes</i>	Eastern White Pine	X					X	One of very few evergreens native to northern Illinois. MUST be grown in dry open area with full sun.	50' - 100' h, 40' - 70' w
<i>Quercus alba</i>	White Oak	X				X	X	White oak is the dominant tree in a dry-mesic woodland. It exhibits russet red fall color. In youth, the leaves tend to be persistent in winter. As the tree ages, the leaves fall off in autumn. White oak is mildly tolerant of shade.	50' - 80' h, 50' - 80' w
<i>Quercus bicolor</i>	Swamp White Oak	X	X		X	X		Similar to white oak, but more tolerant of wet soils such as wet woodlands. Likes acidic soils. Transplants well and is among the most highly recommended oaks.	50' - 80' h, 40' - 60' w
<i>Quercus imbricaria</i>	Shingle Oak	X				X	X	Shingle oak is an uncommon oak, but is found in a wide variety of soils (gravel, sand, heavy clay). Requires full sun. Shingle oak leaves have no lobes or teeth. Fall color can be red orange but more often is brown.	40' - 50' h, 40' - 50' w
<i>Quercus macrocarpa</i>	Bur Oak	X				X	X	Bur oak is the dominant tree in a savanna and very tolerant of heavy clay soil, high pH and open areas. It is a very adaptable tree as it occurs in the wild in upland and bottomland areas. The combination of the bark texture and massive branches makes a dramatic winter statement. However, bur oak does not always transplant well.	50' - 80' h, 50' - 80' w
<i>Quercus muehlenbergii</i>	Chinquapin Oak	X				X	X	In the wild Chinquapins are found on very shallow soils that overlay limestone. It is tolerant of high pH and drought resistant. The leaves are not lobed, but have serrated teeth along the margin (edge). Grows small, sweet flavored acorns.	50' - 80' h, 50' - 60' w
<i>Quercus rubra</i>	Red Oak	X	X	X		X	X	Red oak is the dominant tree in a mesic woodland and one of the most shade tolerant of the oak group. A few hours of sun per day is all it needs to grow. Fall color is an outstanding red. Transplants well and is a highly valued landscape	50' - 80' h, 40' - 80' w
SUBCANOPY TREES									
<i>Amelanchier arborea</i>	Downy Serviceberry	X	X			X	X	Multi-stemmed understory tree (or large shrub). White flowers in early spring. Berries consumed by many birds and are edible to humans. Yellow, red and orange foliage in fall.	10' - 25' h, 10' - 12' w
<i>Amelanchier laevis</i>	Allegheny Serviceberry	X	X			X	X	Similar to Downy Serviceberry, but with bronze-colored new foliage.	15' - 25' h, 15' - 25' w
<i>Cercis canadensis</i>	Eastern Redbud	X	X			X	X	Known for early pink flowers in the spring. Growth rate is moderate with yellow fall color.	15' - 20' h, 10' - 15' w
<i>Crataegus crusgalli</i> <i>Crataegus mollis</i>	Cockspur Hawthorn Downy Hawthorn		X	X		X	X	Small to medium tree preferring mostly sunny areas. Has thorns and produces creamy white flowers in spring followed by fruit in fall.	15' - 20' h, 15' - 20' w
UNDERSTORY SHRUBS									
<i>Aronia melanocarpa</i>	Chokeberry	X				X		Slow growing shrub with blackish-purple fruit, red fall color. Tends to develop profuse sucker growth and will colonize.	4' - 6' h, 4' - 6' w
<i>Corylus Americana</i>	American Hazel	X	X			X	X	Medium sized shrub of the prairie-savanna landscape. Excellent red, yellow, and orange fall color. Nuts cherished by wildlife.	5' - 8' h, 5' - 6' w
<i>Diervilla prolifera</i>	Grape Honeysuckle	X	X	X		X	X	A low-growing deciduous shrub, good for mass-planting. Small yellow flowers in summer. Exhibits red, orange, and yellow fall color.	2' - 3' h, 2' - 3' w

Village of Riverwoods

Native Tree & Shrub Planting Program

<i>Hamamelis virginiana</i>	Common Witch-Hazel		X	X		X		Multi-stemmed shrub found in moist woodlands with shade. One of few species that flowers in fall while also producing excellent yellow fall color.	10' -15' h, 10-15' w
<i>Hydrangea quercifolia</i>	Oakleaf hydrangea		X	X		X	X	Low growing shrub with fast growth rate. Ornamental flowers.	3' - 5' h, 3' - 5' w
<i>Hypericum prolificum</i>	Shrubby St. John's Wort	X	X			X	X	Relatively small dense shrub with exfoliating bark and bright yellow flowers.	3' - 4' h, 3' - 4' w
<i>Physocarpus opulifolius</i>	Common Ninebark	X	X			X	X	Spreading form shrub with reddish colored fruit in fall. Exfoliating bark on older branches.	6' - 10' h, 6' - 10' w
<i>Prunus virginiana</i>	Chokecherry		X	X		X	X	Tolerant of wet and dry locations. Beautiful white flowers in spring with fruit in fall enjoyed by wildlife.	6' - 10' h, 6' - 10' w
<i>Rhus glabra</i>	Smooth Sumac	X				X	X	Unique looking shrub with excellent fall color and flowering heads.	6' - 10' h, 6' - 10' w
<i>Rhus typhina</i>	Staghorn Sumac	X	X			X	X	Loose, spreading form shrub with flat crown. Forms colonies via root suckers. Excellent fall color. Can be aggressive.	10' - 16' h, 6' - 10' w
<i>Ribes americanum</i>	Wild Black Currant		X			X	X	Low hedge shrub that is tough and adaptable with small white flowers in spring and purple berries in late summer.	2' - 3' h, 2' - 2' w
<i>Viburnum dentatum</i>	Arrowwood Viburnum	X	X			X	X	Reliable medium multi-stemmed shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	6' - 10' h, 5' - 8' w
<i>Viburnum lentago</i>	Nannyberry Viburnum	X	X			X	X	Large shrub that is good for screening. Produces white flower clusters and purple berries in late summer.	10' - 15' h, 10' - 15' w
<i>Viburnum prunifolium</i>	Blackhaw Viburnum	X	X	X		X	X	Very versatile shrub that produces creamy white flowers in spring followed by edible purple flowers in late summer. Also exhibits excellent fall color.	8' - 12' h, 8' - 12' w
<i>Viburnum trilobum</i>	High-Bush Cranberry	X	X			X	X	Works well for screening. Exhibits white flowers in spring and red berries in late summer.	8' - 12' h, 8' - 12' w

**RIVERWOODS APPROVED:
FLOODPLAIN FOREST CANOPY TREES, SUBCANOPY SHRUBS, & UNDERSTORY SHRUBS**

SPECIES		LIGHT REQUIREMENTS			NATURAL COMMUNITY/MOISTURE			Description	Mature Size
Botanical Name	Common Name	Full Sun	Part Shade	Shade	Wet	Mesic	Dry-Mesic		
CANOPY TREES									
<i>Acer rubrum</i>	Red Maple	X	X		X	X		Red maple is known for its red fall color. Does well in variety of conditions including wet and partially shaded areas.	30' - 40' h, 40' - 50' w
<i>Carya cordiformis</i>	Bitternut Hickory	X	X			X	X	Also called yellowbud for its conspicuous yellow buds in winter. Young trees are shade tolerant. Should be grown in half day sun. Yellow fall color.	40' - 60' h, 30' - 40' w
<i>Celtis occidentalis</i>	Common Hackberry	X	X		X	X	X	Hackberries often resemble elm trees when they reach 3" caliper. Very adaptable tree, growing in both wet and dry soils in full sun. Produce a purple-black fruit popular with birds.	50' - 60' h, 40' - 50' w
<i>Juglans nigra</i>	Black Walnut	X	X		X	X	X	Grows 18" - 20" per year. Produces large fruit popular with squirrels.	50' - 60' h, 40' - 50' w
<i>Platanus occidentalis</i>	Sycamore	X			X	X		One of the fastest growing trees (3' - 4' per year is common when planted near streams) and the largest tree (at mature size) east of the Mississippi River. Distinctive white and brown mottled bark.	75' h, 50' w
<i>Quercus bicolor</i>	Swamp White Oak	X	X		X	X		Preferred choice for flatwoods. Similar to white oak, but more tolerant of wet soils such as wet woodlands. Likes acidic soils. Transplants well and is among the most highly recommended oaks for various landscapes.	50' - 80' h, 40' - 60' w
<i>Quercus macrocarpa</i>	Bur Oak	X				X	X	Bur oak is very tolerant of heavy clay soil, high pH and open areas. It is a very adaptable tree as it occurs in the wild in upland and bottomland areas. The combination of the bark texture and massive branches makes a dramatic winter	50' - 80' h, 50' - 80' w
<i>Quercus palustris</i>	Pin Oak	X	X		X	X		An oak that does well in wet woodland areas and is somewhat tolerated shade. Transplants well.	40' - 50' h, 40' - 50' w
SUBCANOPY SHRUBS									
<i>Betula nigra</i>	River Birch	X			X	X		Exhibits exfoliating bark and is moderately adapted to wet conditions.	15 - 25' h, 10' - 15' w
<i>Carpinus caroliniana</i>	Blue Beech/Musclewood	X	X	X	X	X	X	A mid-sized tree with smooth gray flute/muscular bark. The blue beech is part of the birch family. The flowers are in the form of catkins and are not highly visible. The fruit hangs in four to six inch clusters. Fall color can be red, yellow and orange.	15' - 20' h, 10' - 15' w
<i>Crataegus crusgalli</i> <i>Crataegus mollis</i>	Cockspur Hawthorn Downy Hawthorn		X	X		X	X	Small to medium tree preferring mostly sunny areas. Has thorns and produces creamy white flowers in spring followed by fruit in fall.	15' - 20' h, 15' - 20' w
UNDERSTORY SHRUBS									
<i>Cephalanthus occidentalis</i>	Buttonbush		X	X	X			Ornamental shrub suited to wet soils in shade to part shade. Also a good wildlife food source.	6' - 12' h, 6' - 10' w
<i>Cornus sericea</i>	Red Osier Dogwood	X	X		X	X		Beautiful red-stemmed shrub that can tolerate wet conditions and prefers full sun.	5' - 10' h, 5' - 8' w
<i>Ilex verticillata</i>	Winterberry Holly		X	X	X	X		Prefers acid soils. Small shrub that can be found growing around borders of wet woodlands. Known for its bright red berries that persist into early winter if not eaten by birds first.	5' - 8' h, 5' - 8' w
<i>Euonymus atropurpureus</i>	Eastern Wahoo		X	X	X	X	X	A large shrub that can resemble a small tree. Exhibits beautiful crimson fruit and has excellent fall color.	6' - 10' h, 6' - 10' w
<i>Lindera benzoin</i>	Spicebush		X	X	X	X		Medium shrub with yellow flowers. Exhibits scarlet colored fruit in fall.	6' - 10' h, 6' - 10' w
<i>Sambucus Canadensis</i>	Elderberry	X	X		X	X		Shrub found in wet sunny areas with edible purple-black fruit in late summer.	6' - 10' h, 6' - 10' w
<i>Spiraea alba</i>	Meadowsweet	X			X	X		Small shrub that prefers moist sunny locations. Forms white flowers in cone shaped clusters.	3' - 4' h, 3' - 4' w
<i>Stapylea trifolia</i>	Bladdernut		X	X	X			Heavy branching shrub with smooth, striped, greenish bark that grows in low lying wet shady areas. Exhibits greenish white, bell shaped flowers.	8' - 12' h, 8' - 12' w



**Village of Riverwoods
Native Tree & Shrub Planting Cost-Share Program Application**

Owner's Name:	Owner's Telephone:	For Village Use	Permit Number	Fee \$100	Issue Date	Exp. Date
Owner's Address:		Comments:				
Contractor's Name:	Contractor's Telephone:					
Contractor's Address:						
Contractor's e-mail:						
Contact Person (normal hours and emergency):						

Attach copy of Contractor's Certificate of Insurance.

Native Tree & Shrub Selection (Select Species, Quantity, & Size)

Canopy Trees		Understory Trees		Shrubs	
Species	Quantity & Size	Species	Quantity & Size	Species	Quantity & Size
Eastern White Pine		River Birch		Black Chokeberry	
Red Maple		Downy Serviceberry		Red Osier Dogwood	
Bitternut Hickory		Allegheny Serviceberry		American Hazel	
Shagbark Hickory		Common Witch-Hazel		Bush Honeysuckle	
Hackberry		Hawthorn		Eastern Wahoo	
Black Walnut		Blue Beech/Musclewood		Bottonbush	
Sycamore		Redbud		Oakleaf Hydrangea	
White Oak		Pagoda Dogwood		Winterberry Holly	
Swamp White Oak		Ironwood		Spicebush	
Shingle Oak		Ohio Buckeye		Common Ninebark	
Bur Oak				Chokecherry	
Chinquapin Oak				Smooth Sumac	
Red Oak				Staghorn Sumac	
Pin Oak				Elderberry	
Eastern White Pine				Meadowsweet	
				Bladdernut	
				Maple Leaf Viburnum	
				Nannyberry Viburnum	
				Blackhaw Viburnum	
				High-bush Cranberry Viburnum	

Contractor Contract & Applicant Reimbursement

1) Total amount of contract	\$
2) Total amount of Village reimbursement requested (50% limit \$2,000)	\$
3) Attach copy of executed contract	

Owner Statement of Certification and Village Approval

I, owner of the property shown on the drawing in Riverwoods, Illinois, do hereby state that I am familiar with and certify that all work will be completed in accordance with the Program Eligibility Map/Plan and Contractor Specifications.	For Village Use	Approved by Village:	
Owner Signature:	Date:	Permit Sign Off Signature:	Date:
		Performance Standard Sign Off Signature:	Date:
Owner Printed Name:	Printed Name:		

CONTRACTOR SPECIFICATIONS FOR NATIVE TREE & SHRUB PLANTING & CARE

PART 1.GENERAL

- 1.1 DESCRIPTION
- A. THIS SECTION INCLUDES PLANTING OF NATIVE TREES AND SHRUBS.
- 1.2 QUALITY ASSURANCE
- A. QUALIFICATIONS OF WORKMEN: PROVIDE AT LEAST ONE PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK, WHO SHALL BE THOROUGHLY FAMILIAR WITH THIS TYPE OF WORK AND THE TYPE OF MATERIALS BEING USED. SAID PERSON SHALL BE COMPETENT AT PLANTING TREES AND SHRUB. SAID PERSON SHALL ALSO DIRECT ALL WORK PERFORMED UNDER THIS SECTION.
- B. THE VILLAGE MUST HAVE APPROVED THE PROPOSED WORK.
- C. STANDARDS: ALL MATERIALS USED DURING THIS PORTION OF THE WORK SHALL MEET OR EXCEED APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL LAWS AND REGULATIONS.
- 1.3 SUBMITTALS
- A. NATIVE TREE & SHRUB SUBSTITUTIONS MUST BE APPROVAL BY THE VILLAGE ECOLOGIST.

PART 2.PRODUCTS

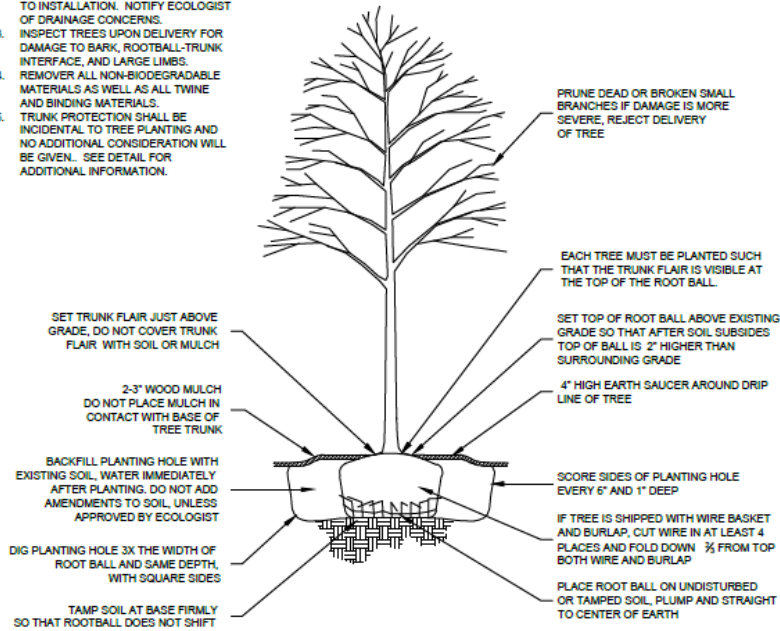
- 2.1 MATERIALS
- A. VILLAGE ECOLOGIST APPROVED NATIVE TREES AND SHRUBS MEETING ANSI STANDARDS.
- B. ALL TREES MUST BE AT LEAST 1.5" CALIPER.
- C. ALL SHRUBS MUST BE AT LEAST 3.8 GALLON.
- D. TREES AND SHRUBS MUST BE EITHER BALLED AND BURLAPED (B&B) OR CONTAINER GROWN ACCORDING TO SPECIFICATIONS INCLUDING CALIPER, HEIGHT, AND CONTAINER.
- E. THE ORIGINAL PARENT GENERATION OF PLANTS SHALL BE FROM WITHIN 250-MILE RADIUS OF THE PROJECT SITE UNLESS APPROVED BY THE VILLAGE ECOLOGIST.
- F. TREE AND SHRUB SPECIES SHALL BE TRUE TO THEIR SCIENTIFIC NAME AND SPECIFIED.
- G. CULTIVAR SPECIES SHALL NOT BE USED UNLESS APPROVED BY THE VILLAGE ECOLOGIST.

PART 3.EXECUTION

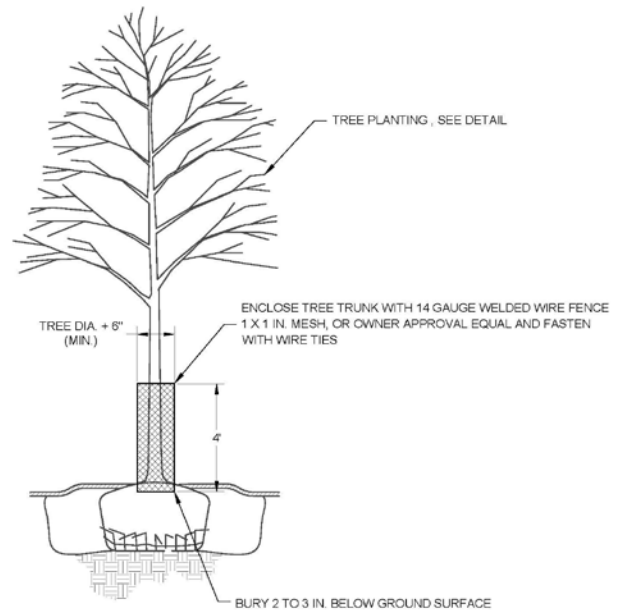
- 3.1 METHOD
- A. CONTRACTOR SHALL MARK ALL TREE AND SHRUB LOCATIONS PRIOR TO PLANTING AND CONTACT J.U.L.I.E. PRIOR TO PLANTING.
- B. PLANTING OF TREES OR SHRUBS SHALL PREFERENTIALLY OCCUR BETWEEN MARCH 15 AND MAY 31, OR BETWEEN SEPTEMBER 15 AND NOVEMBER 31.
- C. IDENTIFICATION TAGS SHALL REMAIN ON TREES OR SHRUBS UNTIL VILLAGE APPROVAL.
- D. FOR TREES AND SHRUBS, DIG A HOLE 2× THE WIDTH OF THE ROOT BALL OR CONTAINER. SET THE TREE, AND REMOVE ALL WIRE OR SYNTHETIC TWINE & PULL BURLAP DOWN 2/3. FILL HOLE ¾ HIGH WITH SOIL. WATER TO FILL REMAINING ½ OF HOLE AND ALLOW TO DRAIN; FILL HOLE WITH REMAINING SOIL AND MOUND SOIL 4-6 INCHES HIGH AROUND EDGES OF HOLE WHILE LEAVING THE TRUNK FLARE THREE INCHES ABOVE GRADE. APPLY 2-4 INCHES OF MULCH, STAYING A MINIMUM OF 2 INCHES FROM THE TRUNK FLARE. WATER THOROUGHLY AFTER PLANTING. IN WET AREAS, THE ROOT BALL SHOULD BE ELEVATED AT LEAST THREE INCHES ABOVE INUNDATION LEVELS.
- 3.2 INSPECTION, ACCEPTANCE, AND PERFORMANCE STANDARD
- A. FOLLOWING COMPLETION OF NATIVE TREE AND/OR SHRUB PLANTING, THE APPLICANT SHALL SCHEDULE WITH THE VILLAGE AN ACCEPTANCE INSPECTION.
- C. PERFORMANCE STANDARD: **THE CONTRACTOR GUARANTEES THAT NATIVE TREES AND SHRUBS ARE PLANTING IN ACCORDANCE WITH ALL SPECIFICATIONS IN SECTIONS 1, 2 & 3 ABOVE AND PLANTING DETAILS BELOW AT THE TIME OF VILLAGE INSPECTION.**

NOTES:

1. SET TREE PLUMB IN PLANTING PIT. MAINTAIN PLUMB CONDITION THROUGHOUT GUARANTEE PERIOD.
2. TEST TREE PIT FOR DRAINAGE PRIOR TO INSTALLATION. NOTIFY ECOLOGIST OF DRAINAGE CONCERNS.
3. INSPECT TREES UPON DELIVERY FOR DAMAGE TO BARK, ROOTBALL-TRUNK INTERFACE, AND LARGE LIMBS.
4. REMOVE ALL NON-BIODEGRADABLE MATERIALS AS WELL AS ALL TWINE AND BINDING MATERIALS.
5. TRUNK PROTECTION SHALL BE INCIDENTAL TO TREE PLANTING AND NO ADDITIONAL CONSIDERATION WILL BE GIVEN. SEE DETAIL FOR ADDITIONAL INFORMATION.



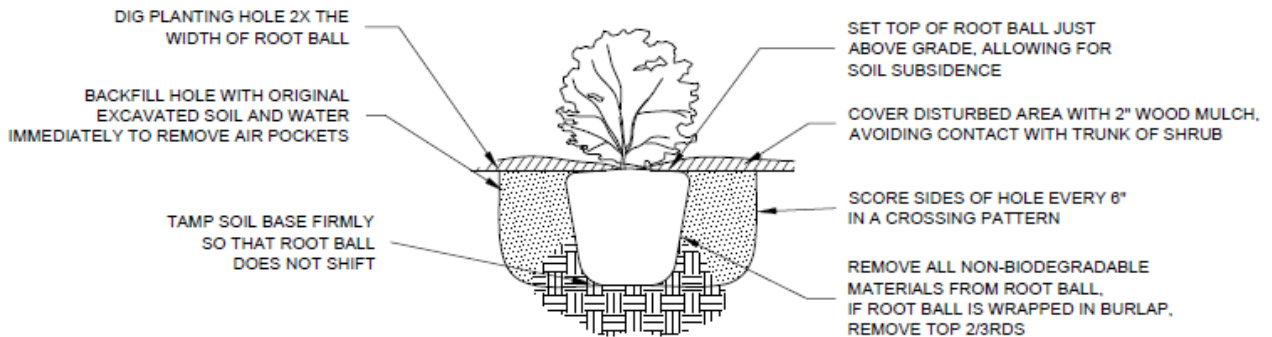
TREE PLANTING DETAIL
NOT TO SCALE



TREE TRUNK PROTECTION DETAIL
NOT TO SCALE

NOTES:

TOP OF BALL TO BE 1" ABOVE ADJACENT FINISHED GRADE AFTER SETTLEMENT OF SOIL. PLANT SHRUB EXPECTING AMOUNT OF SOIL SUBSIDENCE COMMON TO AREA.



SHRUB PLANTING DETAIL
NOT TO SCALE