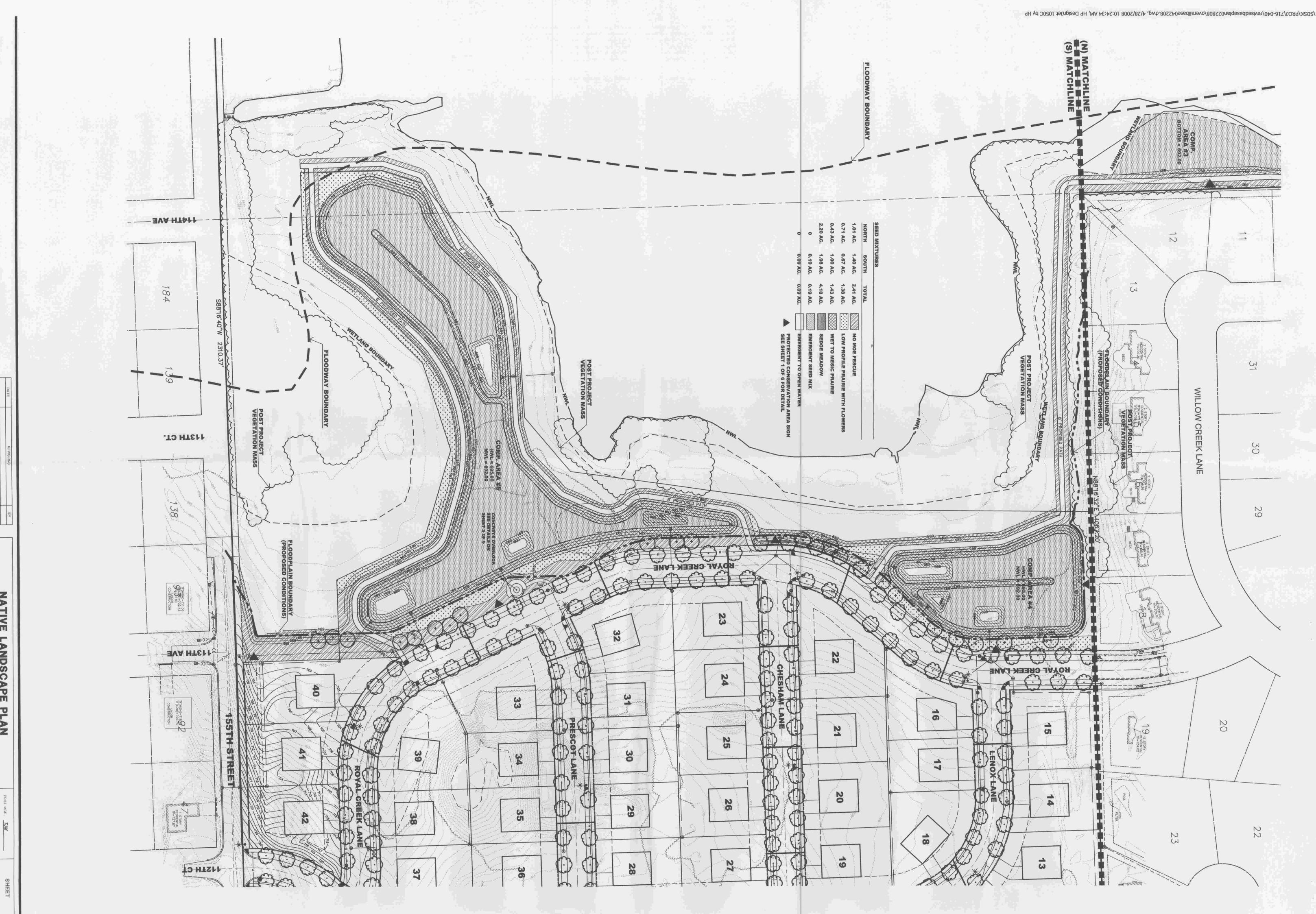


GALLAGHER & HENRY

ORLAND PARK,

9



GALLAGHER & HENRY LANDSCAPE PLAN ORLAND PARK,

N 9

NATIVE LANDSCAPE PLAN SPECIFICATIONS (4.18.08)

1.0 INTRODUCTION

The purpose of this plan is to establish native plant communities within stormwater management facilities at the Doctor East residential development. The areas to be planted consist of 5 compensatory storage areas identified as Comp Areas #1-5 on sheets 1 and 2. Comp Areas 4 and 5 will function as stormwater detention as well as compensatory storage.

2.0 CONTRACTOR QUALIFICATIONS

The Native Landscape Contractor chosen for the establishment and enhancement of the natural areas must be experienced in the restoration, installation, and management of said areas. They must have a minimum of five years experience in the field. There shall be a supervisor available at all times that can identify non-native and native plants by genus and species. The goal of installing successful native plant communities is a longterm process. Therefore, it is imperative that a qualified Native Landscape Contractor perform the initial installation and maintenance.

3.0 QUALITY AND CONDITION

- 1. Native seed shall be obtained from sources east of the Mississippi River within the same EPA Level III Ecoregion as the project site (Central Corn Belt Plains). Plant origins outside of the Ecoregion shall be approved by the Wetland Consultant.
- 2. Native seeds shall be blended by the vendor, and the mixture and ratio shall be guaranteed in writing to be as specified. The amount of seed indicated on the specifications shall mean the total amount of pure live seed (PLS) per acre for all species listed. It is the sole responsibility of the Native Landscape Contractor to provide approved seed that meets industry-standard PLS requirements.
- 3. Native Landscape Contractor shall provide the Wetland Consultant with the name and location of the seed supplier, origin of the various kinds of plants, and a statement of the purity of the seed.
- 4. Seed shall conform to applicable State and Federal regulations as in effect on the date of letting. Unless otherwise specified, seed shall not contain in excess of 1 percent weed seeds; 0 percent is desirable.
- 5. All storage requirements, stratification, and scarification considerations shall be the sole responsibility of the Native Landscape Contractor.
- 6. Mycorrhizal inoculants shall be palletized and mixed at 1 lb. per acre with the fine seeds before installation. The inoculants shall contain a diverse mixture of Glomales fungal species (Glomus spp.) in palletized form.
- 7. Under no circumstances shall Wheat (Triticum aestivum), Cereal Rye (Secale cereale), Perennial Rye (Lolium perenne), or Barley (Hordeum vulgare) be used as a temporary cover crop.

4.0 HANDLING

- 1. Native Landscape Contractor shall be solely responsible for the proper handling and storage of the seed according to the best seed handling and storage practices, including fungicide treatments and stratification considerations. Owner shall make no compensation for damage to the seed because of improper storage, cleaning, threshing, or screening operations.
- 2. All native seeds shall be packed and covered in such a manner as to ensure adequate protection against damage and maintain dormancy while in transit, storage, or during planting operations.
- 3. Seed shall be kept dry and unopened until needed for use. Seed shall not be stored or temporarily stored in locations or vehicles where the temperature will be in excess of 90 degrees F.

5.0 SITE PREPARATION

- The General Contractor and Native Landscape Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding. All areas must be properly prepared before seeding begins. Underground utility location maps and plans should be reviewed prior to work. Equipment having low unit pressure ground contact shall be utilized within the planting areas.
- 2. Unless the Wetland Consultant agrees to another approach, the seedbed shall be prepared by working the topsoil to a depth of 3 inches. Site preparation equipment shall be of a design that can be utilized efficiently by the Native Landscape Contractor to meet the requirements for the work specified. The equipment proposed for use by the Native Landscape Contractor for disking and herbicide applications shall be subject to approval by the Wetland Consultant.
- 3. Prior to seeding, at least 6 inches of topsoil shall be present and free of all clods, stones, roots, sticks, rivulets, gullies, crusting, and cracking. The soil aggregate size will be no greater than 2 inches in the largest diameter.
- 4. If present, compacted soils shall be disked or raked prior to seeding. Remedial measures for the access area may, at the direction of the Wetland Consultant, involve ripping from 12 to 18 inches of the soil horizon prior to disking. If compaction is not a concern and the seedbed needs to be loosened prior to seeding to ensure good seedsoil contact, disking or raking shall be performed using equipment and the approach recommended by the Native Landscape Contractor, subject to approval by the Wetland Consultant.
- 5. If needed, cultivation shall occur within 24 hours prior to seeding. Seeding should occur immediately after the last cultivation preferably before a rain.

6.0 PLANT MATERIALS

Table 1. Now Mow Fescue	
Scientific Name	Common
Festuca brevipila	Hard Fes
Fact on andma	Charma

Scientific Name	Common Name		Lbs/
Festuca brevipila	Hard Fescue		51.
Festuca ovina	Sheeps Fescue		45.
Festuca rubra	Longfellow II Fescue		65.
Festuca rubra sub. Fallax	Chewing Fescue		54.
		Total	215.

Table 2. Temporary Matrix Seed Mix - to be installed within the Low Profile Prairie, Wet to Mesic prairie, and sedge meadow planting zones planting zones.

cientific Name	Common Name		Lbs/Ac
vena sativa	Seed Oats		32.0
ymus virginicus	Virginia Wild Rye		4.0
lium multiflorum	Annual Rye		4.0
month fridance do n		Total	40.0

Table 3. Low Profile Prairie

Scientific Name	Common Name	Lbs/Acre
Agropyron trachycaulum	Slender Wheat Grass	1.000
Allium cernuum	Nodding Wild Onion	0.125
Amorpha canescens	Leadplant	0.125
Andropogon (Schizachyrium) scoparius	Little Bluestem	4.000
Anemone sp.	Anemone	0.063
Asclepias tuberosa	Butterfly weed	0.063
Asclepias verticillata	Whorled Milkweed	0.063
Aster azureus (oolentangiensis)	Sky Blue Aster	0.031
Aster laevis	Smooth Blue Aster	0.063
Aster nova angliae	New England Aster	0.063
Astragalus canadensis	Canada Milk Vetch	0.031
Bouteloua curtipendula	Side Oats Gramma	5.000
Carex bicknellii	Bicknell's Sedge	0.125
Cassia (Chamaecrista) fasciculata	Partridge Pea	0.500
Cassia (Senna) marilandica	Maryland Senna	0.063
Coreopsis lanceolata	Sand Coreopsis	0.500
Coreopsis palmata	Prairie Coreopsis	0.015
Echinacea pallida	Pale Coneflower	0.125
Echinacea purpurea	Purple Coneflower	0.500
Elymus virginicus	Virginia Wild Rye	1,000
Eryngium yuccifolium	Rattlesnake Master	0.125
Heliopsis helianthoides	Early Sunflower	0.063
Lespedeza capitata	Roundhead Bushclover	0.031
Liatris aspera	Button Blazing Star	0.015
Parthenium integrifolium	Wild Quinine	0.125
Penstemon digitalis	Foxglove Beardtongue	0.125
Petalostemum (Dalea) candidum	White Prairie Clover	0.015
Petalostemum (Dalea) purpureum	Purple Prairie Clover	0.063
Potentilla arguta	Prairie Cinquefoil	0.031
Pycnanthemum Species	Mt. Mint 6	0.031
Rudbeckia hirta	Black-eyed Susan	0.500
Rudbeckia subtomentosa	Sweet Coneflower	0.015
Silphium integrifolium	Rosinweed	0.125
Solidago (Euthamia) graminifolia	Grass-leaved Goldenrod	0.015
Solidago nemoralis	Old-field Goldenrod	0.046
Solidago (Oligoneuron) rigida	Stiff Goldenrod	0.125
Tradescantia ohiensis	Ohio Spiderwort	0.063
Verbena stricta	Hoary Vervain	0.125
Zizia aurea	Golden Alexander	0.063
LILIA GUICA		Total
		10.156

19.156

Table 4. Wet Mesic Prairie

Scientific Name	Common Name	Lbs/Ac
Andropogon (Schizachyrium) scoparius	Little Bluestem	2.000
Asclepias Species	Milkweed	0.063
Aster laevis	Smooth Blue Aster	0.016
Aster novae-angliae	New England Aster	0.031
Calamagrostis canadensis	Blue Joint Grass	0.031
Carex annectens xanthocarpa	Yellow Sedge	0.063
Carex bebbii	Bebb's Sedge	0.063
Carex bicknellii	Bicknell's Sedge	0.500
Carex normalis	Normal Sedge	0.063
Carex vulpinoidea	Fox Sedge	0.250
Cassia fasciculata	Partridge Pea	0.188
Elymus canadensis	Canadian Wild Rye	1.000
Elymus virginicus	Virginia Wild Rye	1.000
Epilobium coloratum	Cinnamon Willow Herb	0.015
Eupatorium perfoliatum	Boneset	0.015
Glyceria striata	Fowl Manna Grass	0.063
Hypericum pyramidatum	Great St. John'swort	0.063
Iris virginica shrevei	Blue Flag Iris	0.125
Juncus tenuis	Path Rush	0.031
Juncus torreyi	Torrey's Rush	0.031
Leersia oryzoides	Rice Cut Grass	0.031
Liatris pycnostachya	Prairie Blazingstar	0.313
Liatris spicata	Spike Blazingstar	0.188
Lobelia siphilitica	Blue Lobelia	0.031
Mimulus ringens	Monkey Flower	0.031
Monarda fistulosa	Bergamol	0.016
Panicum virgatum	Switch Grass	0.031
Parthenium integrifolium	Wild Quinine	0.125
Petalostemum (Dalea) purpureum	Purple Prairie Clover	0.250
Physostegia virginiana	False Dragonhead	0.063
Poa palustris	Marsh Blue Grass	0.063
Pycnanthemum virginicum	Common Mt. Mint	0.016
Ratibida pinnata	Yellow Coneflower	0.250
Rudbeckia hirta	Black-eyed Susan	0.250
Scirpus atrovirens	Dark Green Rush	0.500
Silphium laciniatum	Compass Plant	0.188
Silphium perfoliatum	Cup Plant	0.125
Solidago (Oligoneuron) riddellii	Riddell's Goldenrod	0.063
Solidago (Oligoneuron) rigida	Stiff Goldenrod	0.125
Spartina pectinata	Cord Grass	0.250
Sporobolus heterolepis	Dropseed	0.500
Verbena hastata	Blue Vervain	0.063
Vernonia fasciculata	Common Ironweed	0.018
Veronicastrum virginicum	Culver's Physic	0.063
Zizia aurea	Golden Alexander	0.031
	Total	ol 12 100

Table 5. Sedge Meadow/Wet Meadow

Calantilla Nama

Scientific Name	Common Name		Lbs/Ac	
Aster novae-angliae	New England Aster		0.125	
Aster puniceus	Swamp Aster		0.031	
Bidens cernua	Nodding Bur Marigold		0.250	
Cacalia suaveolens	Sweet Indian Grass Plantain		0.031	
Calamagrostis Species	Blue Joint Grass Reed Grass	es	0.031	
Carex annectens xanthocarpa	Yellow-fruited Sedge		0.125	
Carex comosa	Bottlebrush Sedge		0.188	
Carex granularis	Meadow Sedge		0.031	
Carex hystericina	Porcupine Sedge		0.250	
Carex lupuliformis	Knobbed Hop Sedge		0.125	
Carex projecta	Necklace Sedge		0.125	
Carex retrorsa	Retrorse Sedge		0.063	
Carex utriculata	Yellow Lake Sedge		0.031	
Carex vulpinoidea	Fox Sedge		1.000	
Eleocharis Species	Spike Rush Species		0.125	
Elymus canadensis	Canada Wild Rye		1.000	
Elymus virginicus	Virginia Wild Rye		2.000	
Eupatorium maculatum	Spotted Joe Pye Weed		0.063	
Eupatorium perfoliatum	Boneset		0.031	
Gentiana andrewsii	Bottle Gentian		0.125	
Helenium autumnale	Sneezeweed		0.063	
Juncus dudleyi	Dudley's Rush		0.063	
Juncus effusus	Common Rush		0.063	
Juncus torreyi	Torrey's Rush		0.063	
Liatris spicata	Spiked Gayfeather		0.125	
Leersia oryzoides	Rice Cut Grass		0.125	
Lycopus americanus	Common Water Horehound		0.063	
Lysimachia hybrida	River Loosestrife		0.031	
Lythrum alatum	Winged Loosestrife		0.015	
Mimulus ringens	Monkey Flower		0.015	
Monarda fistulosa	Bergamot		0.125	
Onoclea sensibilis	Sensitive Fern		0.031	
Penstemon digitalis	Foxglove Beardtongue		0.125	
Penthorum sedoides	Ditch Stonecrop		0.031	
Physostegia virginiana	False Dragonhead		0.063	
Poa palustris	Marsh Blue Grass		0.375	
Polygonum Species	Smart Weed Species		0.750	
Pycnanthemum virginianum	Common Mt. Mint		0.031	
Rosa palustris	Swamp Rose		0.015	
Rudbeckia subtomentosa	Sweet Coneflower		0.094	
Scirpus atrovirens	Dark Green Rush		0.500	
Scirpus cyperinus	Wool Grass		0.031	
Solidago gigantea	Late Goldenrod		0.015	
Solidago (Oligoneuron) ohioensis	Ohio Goldenrod		0.015	
Solidago (Oligoneuron) riddellii	Riddell's Goldenrod		0.125	
Spartina pectinata	Cord Grass		0.500	
Sphenopholis intermedia	Slender Wedge Grass		0.063	
Thalictrum dasycarpum	Purple Meadow Rue		0.188	
Verbena hastata	Blue Vervain		0.188	
Vernonia fasciculata	Common Ironweed		0.125	
Zizia aurea	Golden Alexander		0.063	
	See a second second	Total	9.829	
Table 6. Emergent Seed Mix		2 5.5	0.000	

Common Name

Scientific Name	Common Name	Lbs/Ac	
Acorus americanus	Sweet Flag	0.250	
Alisma subcordatum	Water Plantain	0.094	
Carex comosa	Bottlebrush Sedge	0.375	
Cephalanthus occidentalis	Button Bush	0.125	
Echinochloa crusgalli	Barnyard Grass	2.000	
Eleocharis palustris	Marsh Spike Rush	0.063	
Eleocharis Species	Spikerush Species	0.063	
Glyceria grandis	Reed Manna Grass	0.031	
Hibiscus laevis	Halberd-leafed Rose Mallow	0.063	
Iris virginica shrevei	Blue Flag Iris	0.250	
Juncus Species	Rush Species	0.188	
Leersia oryzoides	Rice Cut Grass	0.500	
Polygonum Species	Smart Weed Species	1.500	
Pontederia cordata	Pickerelweed	0.063	
Sagittaria latifolia	Common Arrowhead	0.500	
Scirpus (Schoenoplectus) acutus	Hard Stem Bulrush	0.063	
Scirpus fluviatilis	River Bulrush	0.125	
Scirpus pungens	Chairmakers Rush	0.125	
Scirpus validus	Great Bulrush	0.250	
Sparganium eurycarpum	Bur Reed	1.000	
Spartina pectinata Cord	Grass	0.375	
September 100 and 100	Total		

7.0 SEED INSTALLATION

- 1. Wetland Consultant shall be notified at least 24 hours prior to beginning the seeding
- Except where site conditions preclude their use, seeding shall be performed using a Truax drill, Truax Trillion seeder, or comparable equipment designed specifically for installation of native seed. For areas where site conditions preclude the use of specialized equipment, seed may be installed through hand broadcasting and lightly raking in the seed. Hand broadcast seed shall be spread at twice the specified rate. Other methods of seed installation may be used with prior approval from the Wetland Consultant.

Seasonal Considerations:

November 1 through February 28: Seed must be protected from displacement due to water and wind erosion. Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to

March 1 through June 29. Seeding during this period is appropriate but germination of a portion of the seed may not occur until the following season due to lack of cold stratification to break seed dormancy. Cover crop generally germinates within 2-3 weeks of seeding operation.

June 30 through September 15: Installation of native seed should be suspended unless irrigation can be provided or unseasonably cool conditions persist. Also, any annual forbs planted with the mix during this time period may germinate but not have sufficient time to flower before fall

September 15 through October 31: Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to frost damage.

- 4. Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. In general, the optimum seeding depth is 0.25 inch below the soil surface. Areas where the seed has not been incorporated into the soil to the proper depths will not be accepted, and no compensation for materials or labor for the rejected work will be made by the Owner.
- 5. Equipment shall be operated in a manner to ensure complete, uniform coverage of the entire area to be seeded and to avoid damage to existing woody plants. Any area inadequately covered, as solely determined by the Wetland Consultant, shall be retreated at no additional cost to the Owner.
- 6. Seeding and soil tracking/firming snall not be done during periods of rain, severe drought, high winds, excessive moisture, frozen ground, or other conditions that preclude satisfactory results.
- 7. To achieve best results, seed boxes should be kept more than one-quarter full at all times and ground speed should be no more than 2 to 3 mph.
- 8. Seeding operations must occur when soil moisture is appropriate for seeding
- 9. Native plant seed shall not receive fertilizer.
- Wet seed that is moldy or otherwise damaged in transit or storage shall not be used.
- 11. After seeding operation is completed, install erosion control blanket per manufacturer's specifications as necessary.

8.0 EROSION CONTROL

- 1. The Native Landscape Contractor shall be fully responsible for implementing erosion control measures within prescribed planting areals.
- 2. All areas are recommended to be covered with erosion control blanket; North American Green S150 or equivalent will be used at a minimum. The outlets into the stormwater management facilities shall be stabilized with C-350. Erosion control blanket shall be installed within 24 hours after an area is seeded. See manufacturer's specifications for erosion control blanket composition.

9.0 "NO MOWING AND/OR DUMPING" SIGNAGE

1. "No Mowing and/or Dumping" or other signage approved by the Welland Consultant shall be installed along the perimeter of the native plantings as indicated on the plan to define the boundary of the naturalized areas.

10.0 CLEAN-UP AND PROTECTION

- During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.
- 2. Protect landscape work and materials from damage due to landscape operations or operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed by the Wetland Consultant.

11.0 INSPECTIONS AND ACCEPTANCE

- 1. Owner reserves the right to inspect all seeds and plants either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality or mix proportion.
- 2. Native Landscape Contractor is to keep records of the certificates of composition or invoices of seed mixtures and integrity of plant materials with respect to species, variety, and source after purchase.
- Native Landscape Contractor is to notify Owner within five days after completing initial and/or supplemental plantings in each area.

MONITORING AND MANAGEMENT PLAN

1.0 MONITORING METHODOLOGY

The naturalized areas will be monitored annually for a three-year period to ensure successful establishment of the desired plant communities. The primary objective of the monitoring program is to track the success of the planted species over the 3-year monitoring period. The monitoring documents changes in plant community composition and reveals the need for management changes, to improve floristic quality. Specific goals of the monitoring are to determine the vegetative species present, the percent cover by vegetation, and identify hydrology and erosion problems.

Monitoring within the naturalized areas shall be conducted annually utilizing a meander survey methodology during August, September, or early October of each year. The meander survey methodology involves reviewing at least 20 percent of each vegetative community, per location. The monitoring shall identify 1) the three most dominant vegetative species within each planting zone, 2) the percent survival of planted species, 3) the approximate total percent of vegetative coverage, 4) the approximate percent vegetative coverage by native, non-invasive species within each designed planting zone. 5) water level or drainage problems, and 6) the presence of bare soil areas larger than 0.25 square-meter. Observations shall be made during the monitoring to identify specific management strategies necessary to reach design goals. Site conditions shall be photo documented during monitoring sessions.

No woody plant materials are proposed within the naturalized areas. Any and all woody plantings within the parkways and other open space areas will be covered under the traditional landscape warranty.

2.0 PERFORMANCE CRITERIA

- 1. By the end of the first full growing season, the planted areas shall exhibit 90% vegetative cover, primarily by species contained in the temporary erosion control seed mix. There shall be no areas greater than 0.25 square meters devoid of vegetation and 25% of the species present as measured by aerial coverage shall be native and non-
- 2. By the end of the second growing season, 80% of the ground as measured by aerial
- 3. By the end of the third growing season, 90% of the ground as measured by aerial
- 4. During all years, none of the three-most dominant species may be non-native or and there are at least two other native, non-weedy perennial species as dominants.
- 5. Seeded areas shall have no rills or gullies greater than four inches wide by four inches deep, and basin shorelines shall not have more than six inches of cut as a result

An annual vegetation monitoring report will be submitted to Gallagher & Henry, U.S. Army Corps of Engineers and the Village of Orland Park by January 31 following the

1. First Year. Mow the planted areas to a height of 6-8 inches 2-4 times during the early growing season and as needed to control non-native and invasive species. Mowing (including weed whipping) shall take place prior to or when non-native and invasive species are flowering so as to prevent seed set. Control undesirable plant species. when present in small quantities, by hand pulling prior to the development and maturity of the plant. Hand removal shall include the removal of all aboveground and belowground stems, roots and flower masses prior to development of seeds. Apply herbicide (as necessary) to non-native and invasive species within the naturalized areas with appropriate herbicide.

Herbicide should be applied by a trained and licensed applicator. Non-selective herbicides can be used but with utmost caution. Non-selective herbicides are absorbed through the plant tissues and work their way into the root system, effectively killing the plant. The only acceptable non-selective herbicides are glyphosate based such as RoundUp, Rodeo, or Razor. The only acceptable selective herbicides (i.e. targeting broad leaf and woody plants) are 2,4-D (2,4-Dichlorophenoxyacetic acid) based or triclopyr based such as Garlon 4.

Debris and litter (e.g. paper, plastic, metal, concrete, grass clippings, brush, etc.) will be removed every other month between 1 March to 31 October to prevent floating materials from clogging the outlet. Debris will be disposed of at an appropriate off-site trash

- 2. Second Year. Control of undesirable plant species during the second growing season shall consist primarily of herbicide application. Mowing (including weed whipping) shall be conducted two to four times during the early growing season and as
- Third Year. Undesirable plant species will be controlled (as necessary) by mowing (including weed whipping), hand pulling, and/or spot herbicide application. At the completion of the third growing season (dependent on fuel availability; dominance of graminoid species, i.e. grasses and sedges, is required for successful burning), fire may be introduced to the planted areas as the primary management tool. Trained professionals experienced in the fuel types present shall conduct burning. State and local permits shall be obtained prior to prescribed burning. Prior to a prescribed burn. surrounding property owners as well as local police and fire departments will be notified. A burn plan designating the preferred wind direction and speed, location of firebreaks, and necessary personnel and equipment shall be prepared and utilized in planning and burn implementation.

quantity and quality of grasses, sedges, and forbs present within the planting area. The burn season runs from November 1 through April 30 and burns shall be conducted whenever conditions are suitable. Generally, a new prairie/wetland area shall be burned annually for two years after the third growing season and then every other year

4. Long Term. As the planted areas mature, required supplemental management will be significantly reduced. The plant communities will stabilize and be effectively managed through prescribed burning. Mowing to prevent seed set of undesirable species and spot herbicide application are recommended when and where applicable.

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coverage shall be vegetated and 30% of the species present, within each planting zone. as measured by aerial coverage shall be native and non-invasive.

coverage shall be vegetated. No more than 25% cover in any plant community shall be individually or collectively dominated by non-native or weedy species or by annuals. The native floristic quality index value (native FQI) must be greater than or equal to 15 as measured over all the planted areas. The floristic quality assessment method is described in Swink and Wilhelm, Plants of the Chicago Region.

weedy, including but not limited to: Canada Thistle (Cirsium arvense), Purple Loosestrife (Lythrum salicaria), Reed Canary Grass (Phalaris arundinacea), Sweet Clover (Melilotus spp.), Kentucky Bluegrass (Poa pratensis), Barnyard Grass (Echinochioa crusgalli), Common Reed (Phragmites australis), or Sandbar Willow (Salix interior) unless otherwise indicated on the approved planting plan. Cattail species (Typha spp.) do not count towards the 25% weed criterion provided they represent no more than 20% cover

of erosion.

3.0 REPORTING

monitoring season each year.

4.0 MANAGEMENT PLAN

needed to a height of 6 to 8 inches to prevent annual weeds from producing seed.

The initial burn shall be dependent on fuel availability that is directly related to the

thereafter, burning approximately 50-75% of the area.

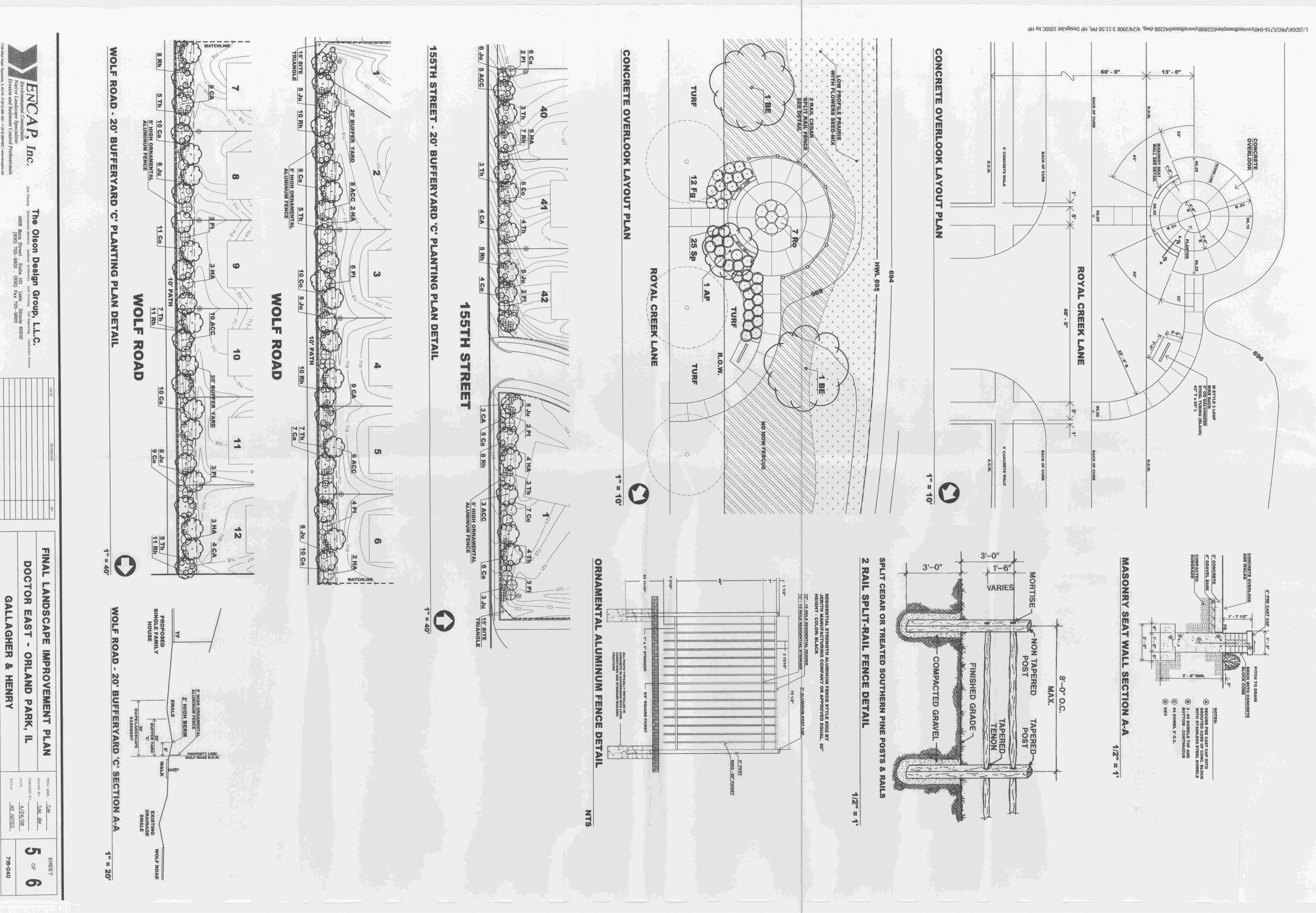
Other potential responsibilities may include, but are not limited to, access restriction enforcement, insect/pest control, erosion repairs, and wildlife management (e.g. control of carp, muskrats, geese, etc. as needed). The need for other management actions will be determined on a quarterly basis when performing general maintenance visits.

:/SDSK/PROJ\716-040\revisedbaseplan022808\overallbase042208.dwg, 4/24/2008 3:12:25 PM, HP DesignJet 1050C by HI 113TH CT. 18 8,4 36 36 2.5" BB 2.5" BB 23 TF(HISH)=718,0 TF(LOW)=709,74 CONSTRUCTION 17 30 35 DOCTOR LANDSCAPE 112TH CT EAST 801.47 51"E 175.00" ORLAND PARK, IL IMPROVMENT PLAN 1 STORY RESIDENTIAL Size 2.5" BB 8' CF 6' BB 6' BB 30"/#5 30"/#5 2.5'/#5 16 16 29 29 30 36 40 50

Inc.

GALLAGHER

HENRY



conditions of the Contract.

MATERIALS

2.1 Topsoil for all seeding and sodding operations will be supplied by the

2.2 Commercial Fertilizer and Delivery - Fertilizer shall be delivered to the site in unopened, original containers, each bearing name and address of the manufacturer, name brand or trademark, and manufacturer's guaranteed analysis. The fertilizer shall contain a minimum basis percantage by weight of the following strength:

Fertilizer Strength - The fertilizer shall be a complete fertilizer containing a minimum basis percentage by weight of the following:

Prior to Seeding and/or Sodding 6-24-24
Nitrogen 6%
Phosphorous 24%
Potash 24%
or as approved by the Landscape Architect

2.3 Grass Seed shall be recleaned seed of the most recent seed crop available. All seed shall meet requirements established by the state and federal seed and weed control laws.

Mixing of Seed - The seed shall be mixed thoroughly in accordance with the following:

Quantity % Furity % Germination
Kentucky Bluegrass 65% 90% 30%

or as approved by Landscaping Architect

2.4 Mulch shall consist of clean straw free from noxious weed seed and other elements harmful to lawns, or any of the commercially used materials available. Where specified on the plans, hydro-mulch shall consist of wood cellulose fiber and shall contain no growth or germination inhibiting factors and shall be dyed green to facilitate metering. The fiber shall have the additional characteristic of dispersing rapidly in water to form a homogeneous slurry and remain in such state white agitated in a hydraulic mulching unit.

2.5 <u>Bluegress Sod</u> shalf comply with state and federal laws with respect to inspection for plant diseases and insect infectation. It shall be fresh cut, five, nursery grown sod, not less than one and one-half (I-I/2") inches thick having well-matted roots. The furf shall be a Kentucky Bluegrass mixture and shall contain no bent or quack grass nor any other noxious weed growth. It shall be of firm, tough texture having a compact growth of grass. The sod sections shall be standard in size (I6 inches wide x 3 feet in length) and each section shall be strong enough to support its own weight. Sod cut for more than 48 hours shall not be used without the approval of the Landscape Architect.

SITE PREPARATION

S.1 <u>Rough Grading</u> - Although grading will be completed by the Owner. This will include the rough forming of earth mounds (if applicable) and the grading and filling of other areas. Owner will also spread black topsoil.

3.2 Finish Grading - The Contractor shall complete all finish grading operations. In all areas, surfaces shall have a smooth continual grade and shall be left in an even and properly compacted condition which, insofar as practicable, will not provide dips and pockets where water may stand. All areas shall be finish graded as needed to correct surface irregularities produced by preceding operations or by any other cause. All finish grades and earth mounds shall be approved by the Landscape Architect or his authorized representative before any planting, seeding or sodding takes place.

3.3 Tilling - Areas to be seeded and sodded shall be thoroughly prepared to the required depth of approximately three inches (3") by disking, harrowing or other approved means. Limited areas as shown on the drawings which are too small to make these operations practicable shall receive special scartification prior to final tilling. Tilling shall continue until the condition of the soit is suitable for the specified type of seeding and/or sodding.

3.4 Clean-Up - After completion of tilling operations, the surface shall be cleared of all stones, stumps and other objects larger than one inch (l') in thickness or diameter and of roots, brush, wire, grade stakes and other objects that may be a hindrance to planting, installation, and maintenance operations. Adjacent paved areas shall be kept clean and soil or other dirt that may be brought upon the surface shall be removed promptly.

3.5 Spreading Fertilizer - Fertilizer shall be distributed uniformly over all areas indicated to be seeded or sodded at the manufacturers recommended rate and shall be incorporated into the soil to the depth of at least two inches (2") by distring, harrowing or other acceptable methods.

SEEDING (Applies to all areas specified for seed on the Contract

Time Limits - The season for sowing seed in lawn areas shall be from April 1 to June 1 and from August 15 to October 1 or at such other times as are approved by the Landscape Architect. All sowing of seed shall be completed after trees and shrubs have been planted.

4.2 Seeding - No seeds shall be sown during high winds. Seed shall be applied at the rate of 5 pounds per 1,000 sq. ft. or 220 pounds per acre by mechanical means. Half the seed shall be sown with the sower moving in one direction and the remainder shall be sown with the sower moving at right angles to the first sowing. The seeded area shall be lightly raked being careful not to rake seed from one area to another, thus, causing an uneven seeding. The seed shall be covered to a depth from 1/8 inch to 1/4 inch. Seeding shall be done by individuals experienced in this type of work. In the event that seeding equipment does not compact, a separate rolling will be required.

4.3 <u>Mulching</u> - Mulching shall be performed immediately after seeding operations and shall consist of a hand or machine application of mulch uniformly to a depth of 2" loose measurement.

Where specified, hydro-mulch shall be applied uniformly with a hydroseeder at the rates of:

Surfaces sloping < 4:1 35 lbs. per 1,000 sq. ft., or 1,500 lbs. per acre Surfaces sloping > 4:1 46 lbs. per 1,000 sq. ft., or 2,000 lbs. per acre

4.4 Required Maintenance - Maintenance shall begin immediately after each seeding operation is complete and shall continue for 60 days through the period from April 1 to November 15. Maintenance periods that are incomplete on November 15 shall be completed beginning May 1 of the following year. Maintain seeded areas by watering, reseeding, Irimming and repair of all erosion and settlement where required to establish a uniform turf. Watering of seeded areas shall be as required to grow healthy turf. The Contractor shall be responsible for maintaining all seeded areas until final acceptance by the Landscape Architect.

4.5 <u>Acceptance of Seeded Areas</u>. When the grass has all been cut a minimum
of three times and a uniform distribution of grass plents is established

without evidence of excessive weed or crab grass infestation, the acceptance of seeded areas will be determined by the inspecting Landscape Architect.

If an infestation of weeds or crabgrass develops prior to acceptance of the lawn, the Contractor shall treat the infestation by hand weeding or chemical control. The chemical control shall be furnished and installed by the Contractor as recommended by the manufacturer. At least two weeks shall etapse after chemical control is applied before a request of inspection for acceptance is made to the Landscape Architect.

Areas having bare spots larger than one (f) square foot will not be accepted. In this situation, the bare spots must be reseeded in accordance with the seeding specifications, when less than fifty percent (50%) of the area contains bare spots. Where more than fifty percent (50%) of the area contains bare spots, the entire area shall be completely reseeded also in accordance with the seeding specifications.

In order to obtain final acceptance of seeded areas, the Contractor shall notify the Landscape Architect by telephone or letter that the work has been completed. The Landscape Architect will then conduct an inspection. His findings will be documented in a written field report which will be forwarded to both the Owner and Contractor. If the Landscape Architect approves the area inspected, the Contractor will then be eligible for final payment for work performed. If the Landscape Architect rejects the inspected area, the Contractor will be required to perform whatever work that is necessary to correct the deficiencies and receive the approval of the Landscape Architect before final payment will be authorized.

The Contractor shall not be held liable for damage incurred to the sodded areas caused by detering compounds, toxic substances, fertilizers, pesticides and other materials not specified or not applied by him or under his supervision, not those damages caused by vandalism or acts of God.

The Contractor shall be responsible for all damage to lewn areas that is caused by the work of his plenting, mulching, plant maintenance or replacement being done after lawn areas are accepted.

SODDING (Applies to all areas specified for sod on the Contract drawings)

5.1 <u>Time Limits</u> - The season for sod installation shall be from Merch I5, when the soil becomes workable and unfrozen sod becomes available, to June I5 and from August I5 to November I or at other times as are approved by the 5.2 <u>Laving</u> - The surface on which the sod is laid shall be firm and free from depressions to allow for positive drainage. During periods of high temperature, the soil shall be lightly moistened immediately prior to laying.

The sod shall be handled and laid by hand. The first row shall be laid in a straight line with subsequent rows placed parallel to and lightly against each other. Lateral joints shall be staggered (i.e. running bond) to promote more uniform growth and strength. Care should be exercised to insure that the sod is not stretched or overlapped and that all joints are butted tightly in order to prevent voids which could cause air drying of the roots and weed growth. On sloping areas where erosion may be a problem (3:1 or greater), sod shall be laid parellel to the contours of the slope with staggered lateral joints and secured by wooded pegs at a minimum of four (4) stakes per square yard and at least one (I) stake per piece of sod. All sod laying on sloping areas should begin at the toe of the slope.

As sodding is completed in any one section, the entire area shall be rolled by the Contractor to insure contact between the sod root system and the prepared sod bed. The Contractor shall water the sod immediately after installation to prevent excessive drying during the progress of the work.

Any disturbed joints or depressions caused by workmen or equipment shall be reworked to conform to the proper grade.

5.3 Required Maintenance - The Contractor shall be responsible for maintaining all sodded areas until such time as these areas are accepted by the Landscape Architect. This acceptance will be granted after the Contractor has established an acceptable stand of turf that has knit to the existing soit.

5.4 Inspection and Acceptance of Sodded Areas - When the sod has all been cut a minimum of three times and has knit to the soil without evidence of excessive weed or crab grass infestation, the ecceptance of sodded areas will be determined by the Landscape Architect.

If an infestation of weeds or crab grass develops prior to acceptance of the lawn, the Contractor shall treat the intestation by hand weeding or chemical control. The chemical control shall be furnished and applied by the Contractor as recommended by the manufacturer. At least two weeks shall elapse after chemical control is applied before a request of inspection for acceptance is made to the Landscape Architect.

Areas which are dead or are in an unhealthy, unsightly or badly impaired condition shall be unacceptable and shall be re-sodded using the same type and source of sod. This shall be repeated until all areas display an acceptable stand of grass.

In order to obtain final acceptance of sodded areas, the Contractor shall notify the Landscape Architect by telephone or letter that the work has been completed. The Landscape Architect will then conduct an inspection. His findings will be documented in a written field report which will be forwarded to both the Owner and Contractor. If the Landscape Architect approves the area inspected, the Contractor will then be eligible for final payment (ten percent withholding). If the Landscape Architect rejects the inspected area, the Contractor will be required to perform whatever work that is necessary to correct the deficiencies and receive the approval of the Landscape Architect before final payment will be authorized.

Upon acceptance by the Owner, the Owner shall assume maintenance of the fawn areas.

The Contractor shall not be held liable for damage incurred to the sodded areas caused by deicing compounds, toxic substances, fertilizers, pesticides and other materials not specified or not applied by him or under his supervision, nor those damages caused by vandalism or acts of God.

The Contractor shall be responsible for all damage to lawn areas that is caused by the work of his planting, mulching, plant maintenance or replacement being done after lawn areas are accepted.

 SOD AND SEED GUARANTEE - The Contractor shall guarantee all work covered by this specification to the extent that all sod shall be uniform in color, quality and coverage and shall be reasonably free of weeds, diseases or other visible imperfections.

TECHNICAL SPECIFICATIONS - LANDSCAPING

SCOPE OF WORK - The work includes furnishing of all plants, materials
and performance of all operations in connection with the planting of frees,
shrubs, evergreens and groundcover in strict conformance with the project
specifications and the applicable drawings which are subject to the terms
and conditions of the Contract.

2. GENERAL REQUIREMENTS - All plant material shall comply with the state of Illinois and federal laws with respect to inspection for plant diseases and insect infestation. The Landscape Architect reserves the right to inspect the plant material at place of growth, but such inspection shall not preclude the right of rejection at the site.

3. MATERIALS (Other than Plant Meterial)

3.1 <u>Prepared Soil</u> for all plant material and planting operations shall be amended as follows:

5% Topsoif
0% Peat
(Minimum of 90% finely shredded organic peat moss)
5% Manure
(Well rotted unleached horse or cow manure, free from chemicals and not more than 60% moisture by weight)

from chemicals and not more than 60% moisture by weight)

3.2 Mulch shall consist of shredded hardwood bark or hardwood chips and shall

be free of leaves, fwigs, and debris.

3.3 <u>Mushroom Compost</u> - Sterlized mixture of horse manure, straw, peat moss and fertilizer which has been used for mushroom growing and composted.

3.4 Fertilizer shall be of the following:

rejected by the Landscape Architect.

for bulbs: Bonemeal, which shall be finely ground commercial bonemeal with a minimum of:

Nitrogen Phosphorous

A commercial fertilizer, which shall be a complete fertilizer with a minimum of:

Nitrogen 6%
Phosphorous 24%
Potash 24%

or as approved by Landscape Architect

Alt fertilizer shall be delivered in standard size, unopened original containers bearing the name of the manufacturer, name brand or trademark as well as the manufacturer's guaranteed analysis. It shall be protected at all times. Any which is damaged or becomes unsuitable for any reason may be

3.5 Wrapping Material for deciduous tree trunks I-W2" in caliper or more shall be first quality burlap or two thicknesses of waterproof crepe paper cemented together with bituminous material and not less than 6" or more than 10"

4. PLANT MATERIALS

for all trees:

4.1 General - The Landscape Architect reserves the right to inspect plants at the place of growth at the nursery, but such inspection shall not preclude the right of rejection at the site. Contractor shall furnish and plant all plants shown on the drawings as specified and in quantities as actually designated on the drawings. The quantities in the plant list are included for convenience purposes only.

4.2 Quality and Size - Plants shall have a habit of growth that is normal for the species and shall be sound, healthy, vigorous and free from Insect pests, their eggs or larvae, plant diseases and injuries.

All plants shall be nursery grown under climatic conditions similar to those which exist in the locality of the site for at least two (2) years and equal or exceed the measurements specified in the plant list. They shall be measured before pruning with branches in normal position. All necessary pruning shall be done only at the time of planting. Trees will not be accepted which have their leaders cut or which have their leaders damaged so that cutting is necessary. Plants larger in size than specified may be used with the approval of the Landscape Architect, but the use of larger plants will make no changes in the contract price. Requirements for the measurement, branching, quality, balling and burlapping of plants on the plant list shall follow the code of standards (260.1-1985) by the American Association of Nurserymen, Inc. All plant material with shriveled dry roots or which is found not to comply with the specifications will be rejected.

All shrubs shall be at least twice transplanted and must have a fully developed fibrous root system typical of the stated species. All shrubs must be freshly dug immediately before shipping. Healed-in plants may be considered only in special cases involving planting during the hot months between the spring and fall planting seasons (Section 5 of the General Conditions). Use of such materials will be allowed only upon the approval of

the Landscape Architect and is subject to this inspection prior to said

4.8 Container Grown - All container grown plants shall have a heavy fibrous root system, or a well developed tap root, that has been developed by proper horticultural practice including transplanting and root pruning. The root system shall have developed sufficiently long for new fibrous roots to develop so that the root mass will retain its shape and hold together when removed from the container. In no case should the container strangle or girdle the natural growth of the plant.

4.4 Bare-Root Plants - Those plants marked BR (Bare Root) shall be dug at the nursery without injury to the fibrous root system necessary for the full recovery of the plant. Roots shall be covered with a suitable packing material immediately after they are dug for protection until delivery and installation.

All bare-root trees shall have a heavy fibrous root system characteristic of the species that has been developed by proper cultural treatment, transplanting and root pruning. The spread of the root system in feel shall equal the trunk diameter in inches, plus an additional six inches.

All bare-root plants shall have been maintained in cold storage at the temperature of approximately 30 degrees prior to being delivered to the site.

4.5 <u>Balled and Burlapped Plants</u> (designated "BB") shall be dug with firm natural balls of earth of diameter indicated hereinbelow and of sufficient depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Plants having balls broken or cracked during delivery or at time of planting will cause the plant to be rejected by the Landscape Architect.

-4.6 <u>Bulbs</u> - All bulbs shall be the top size, as specified in American Standard for Nursery Stock and shall be live, clean, free of rot, bruises or abrasions.

4.7 <u>Deliveries</u> - All precautions that are demanded by good trade practice to insure arrival of the plant material at the stated delivery point in good condition for successful growth and without injury of any nature shall be taken by the Contractor. Plants shall be covered properly to prevent drying, transit diseases or injury.

4.8 Temporary Storage - Insofar as it is practicable, plant material shall be planted on the day of delivery. In the event this is not possible, the Contractor shall protect the unplanted stock from sun and drying winds at all times. All balled and burlapped plants shall be shaded from the sun, have their ball set on the ground and healed in with sawdust, peat, soil or other moisture-holding material and shall be kept moist. Plants should not remain unplanted for longer than three (3) days.

4.9 <u>Substitutions</u> - Substitutions may be permitted. Such substitution may be made only upon written authorization by the Landscape Architect.

4.10 <u>Selection</u> - All plants shall be obtained from reputable nurseries licensed by the State of Illinois and approved by the Landscape Architect. The Landscape Architect reserves the right to accompany the Contractor to the nurseries for the purpose of selecting (tagging) material.

 PLANTING - Planting operations shall be conducted under favorable weather conditions during the season stated in the Contract.

5.1 Preparation of Planting Areas - Before excavations are made, the surrounding turf (if existing) shall be covered in a manner that will satisfactorily protect turfed areas that are to be trucked or hauled over and upon which soil is to be temporarily stocked.

5.2 Excavation for Planting - Excavation for planting shall include the stripping and stockpiling where directed of all acceptable topsoil encountered within the areas to be excavated for tree holes, plant pits and planting bads.

Circular pits with vertical sides shall be excavated for all plants except those plants specifically designated on the plans to be planted in beds. In general, the diameter of pits for trees shall be at least two feet greater than the diameter of the ball or spread of roots. Diameter of pits for shrubs shall be at least one foot greater than the diameter of the ball or the spread

The depth of pits for trees shall be suitable to accommodate the ball or roots when the plant is set to finished grade allowing for six inches of topsoil or prepared soil in bottom of the pit. The use of augers for plant pit excavation in wet day soil conditions should be avoided.

For hedge plantings, a continuous trench instead of separate round pits may be utilized.

Where obstructions below or above ground are encountered, alternate

locations may be selected as approved by the Landscape Architect.

Where locations cannot be changed, removal of underground obstructions shall be the responsibility of the Contractor. All alternate locations shall be approved by the Landscape Architect.

Excavated topsoil or rich loam shall be stockpiled and re-used for

backfilling of pits and all excavated material not suitable for back filling shall be disposed of by the Contractor outside the project property.

5.3 Planting Preparation - After the pit has been dug to the proper size (Section 5.2), the soil at the bottom of the pit shall be loosened to a minimum depth of four (4") inches by spading or other effective methods. The pit shall then be backfilled with a six (6") Inch tayer of compacted, prepared soil. In wet soil conditions, substitute an equal depth of I" diameter washed stone for the compacted soil backfill. If the Contractor should encounter severe drainage problems or soil conditions which he feels could be detrimental to the growth and survival of the specified plant material, he should inform the Landscape Architect immediately by phone of the condition before proceeding with the work. The Landscape Architect will then confer with the Contractor so that a solution to the problem can be quickly agreed upon.

5.4 Settling and Fartilizing Plants - All plants shall be installed in accordance with the following:

a) Balled and Burlapped Plants - "BB" plants being planted in pits or trenches shall be placed in the center of the pit or trench on the six inches of compacted, prepared soil. The soil shall be adjusted so

that the top of the root ball bears the same relationship to finish

grade as it bore to previous finish grade in the nursery.

All twine tied around the tree trunk shall be removed. All treated buriap or plastic wrap shall be rolled down all around the ball. If feasible, it shall be completely removed, along with any wire or other nondecomposible materials. Untreated buriap need not be removed, but should be loosened around the tree trunk.

Backfill the planting pits with prepared soil and fertilizer in 12" layers and temp each layer to fill voids until the planting moture is at final grade. The fertilizer (bonemeal or 6-24-24) should be incorporated in the backfill moture at the rate recommended by the manufacturer.

b) Container Grown Plants - Open and remove potted plants from containers. If the growing medium is comprised of seventy-five percent (75%) or more of peat, perfite, sand, or like material other than sand, pull visible roots away from the conteiner medium so as to leave the roots partielly exposed. Place plants in the plant pit or trench and carefully backfill with prepared soil and fertilizer among the exposed roots. Continue backfilling and lamping in six inch (6") layers until the planting mixture is at final grade.

c) Bare Root Plants - "BR" plants which have been puddled in a mud or peat and water solution shall be placed in the center of the pit or trench. All broken or frayed roots shall be cut off. The roots shall be spread cut in a natural position and moist prepared soil and fertilizer shall be carefully backfilled among the roots in six inch layers until the planting mixture is at final grade.

5.5 Finishing Plant Pits - A shallow saucer shall be formed around each Isolated plant pit with prepared soil to retain water. All plants shall be watered immediately after planting. In all cases, the required fertilizer shall be incorporated into the prepared soil mixture at rates specified by the

5.6 Preparation of Planting Beds. All areas specified for ground cover, annuals or perennials, shall be covered with a two-inch (2") toyer of mushroom manure. This shall be worked into the soil at a minimum depth of nine inches (9") by the use of a nototiller or other mechanism which cultivates. After completion of this operation, the bed shall be mulched in its entirety with an additional three inch (3") tayer of mushroom compost prior to the planting of plants.

5.7 Wreoping - Trees shall be wrapped immediately after planting. Wrap up from bottom to three feet above grade level. Prior to wrapping, the trunks shall be inspected for injury to bark, improper pruning, and evidence of insect or disease infestation.

5.8 Pruning - Upon completion of the planting operations, all new trees and shrubs on the site shall have been pruned. Pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches and to compensate for the loss of roots as a result of the transplanting operation. Pruning shall be done in such manner as not to change the natural habit or shape of the plants. All cuts shall be made flush, leaving no stubs. On all cuts over 3/4" in diameter and bruises and scars on the bark, the injured cambium shall be traced back to living tissue and removed; wounds shall be smoothed and shaped so as not to retain water. Treating such areas with a tree paint is not recommended. Flowering trees shall be pruned only to remove dead or broken branches. In no case shall a leader be

5.9 <u>Stalking</u> - Securing trees via guy wires and stakes shall not be required unless, in the opinion of the Landscape Architect, conditions are such that certiain individual plants require such attention which will be specified on landscape plan drawings. In such cases, the method of staking shall be as follows: stakes shall be of sound, durable, unfinished lumber capable of withinstanding above and below ground conditions during the period of

guarrantee, at 2" or 4" and ranging from 24-30" long. A maximum of 6" of stake shall be exposed above grade level. Guy wire shall be No. 12 gauge galvanized steel wire and hose shall be new two-pty reinforced rubber hose not less than 1/2 inch inside diameter.

At locations without severely compacted sub-grades, no special plant pit preparation shall be required. Whereby severely compacted sub-grades exist, afternate drainage solutions shall be submitted to the Landscape Architect in accordance with Paragraph 5.4 of this section.

Mulching - Plants shall be mulched within 5 days after planting. A three inch (3") layer of approved mulch material shall be used to cover a concentric area equivalent to the size of the tree pit. Planting beds shall be mulched in their entirety.

Watering - All plants shall be watered immediately after installation.
 During the summer planting season or other times of extreme heat, all evergreen and deciduous trees shall receive a minimum of 10 gallons of water per tree. Availability of water must be checked by the Contractor as described under the Special Conditions.

 Temporary Maintenance of Plant Material - All plant material shall be maintained until all planting operations, including seed and/or sod maintenance, are performed and approved.

Acceptance - The Contractor shall notify the Landscape Architect by phone or in writing at the conclusion of all planting operations so that the Landscape Architect can determine acceptability by way of a field inspection. In order for an area to be accepted, it shall conform to the

 a) All plant material shall be in conformance with the Drawings with respect to quantity, quality, size, species and location, except those items accepted or revised in the field by the Landscape Architect.

b) All plant material shall be in a healthy condition.

forwarded to both the Owner and Contractor.

c) All construction items shall be in accordance with the Drawings with respect to material type, quantity and location, as well as construction method.

d) All items shall appear to be in general conformance with the specifications.

 e) All debris created by the Contractor shall be removed from the site.

If the above conditions have been met, the Contractor becomes eligible for the specified ninety percent (90%) payment. If the Landscape Architect rejects the inspected area, an amount equal to the rejected portion will be withheld from the ninety percent payment until such a time as that portion is acceptable. All findings will be documented in a field report which will be

At completion of the planting, and upon proper notification of the Landscape Architect of such, a final inspection for the final acceptance will be made.

Prior to the expiration of the one-year (1 year) guarantee, a follow-up inspection will be made to determine replacements as required to be made by the Contractor in accordance with the provisions of those specifications. The Landscape Architect will document his findings in a field report, copies of which will be transmitted to both the Owner and the Contractor.

10. <u>Guarantee</u> - The Contractor shall guarantee for a period of one (1) year the replacement of any plant which has died, or is in a dying condition, or which has failed to flourish in such a manner that its usefulness or appearance had been impaired due to inferior or defective materials or workmanship.

The one year (1 year) period shall begin on the date of final acceptance by the Landscape Architect, as documented in his/her field report. This will be either acceptance of the total project for small jobs or acceptance of a designated phase for large-scale jobs.

The decision of the Landscape Architect and Owner for required replacements shall be conclusive and binding upon the Contractor. The Contractor shall also be responsible for repairing darriage to persons and property also caused by defective workmanship and materials. The Contractor shall not be held liable for damage incurred to plant material caused by detering compounds, fertilizers, pasticides and other materials not specified or not applied by him or under his supervision or caused by acts of God or vandalism.

11. Replacements - Plants which have died prior to the final inspection shall be replaced before final acceptance will be given. Plants which die or require replacement for other reasons during the one year (1 year) guarantee period shall be replaced as soon as possible during the acceptable planting seasons outlined in this specifications.

All plants requiring replacement shall be removed as soon as possible and

disposed of off-site. All replacements shall be of the same size and

inspection of the replacements for the purpose of determining final

species as the original plant unless otherwise approved by the Landscape
Architect. The replacements shall be supplied and installed in strict
compliance with the specifications originally applicable to them.

The Contractor shall notify the Landscape Architect at the conclusion of
his replacement program. The Landscape Architect will then conduct an

acceptance in accordance with the specifications.

All replacement plants shall be guaranteed for an extended one year period from date of replacement. If such replacements are not acceptable during or at the end of the extended guarantee period, the Owner may

12: Re-fertilization of all plant material is not part of the Contract, but should be performed by the Owner or under a separate Maintenance Contract. An application of an 18-9-5 commercial fartilizer should be applied to all plant materials in accordance with the manufacturer's specifications during the growing season immediately following that in which the plants were

-DO NOT CUT LEADER -PRUNE 'S OF CROWN, MAINTAINING WRAP TRUNK WITH APPROVED TREE WRAP TO FIRST BRANCH, SET ROOTBALL APPROXIMSTELY B' HIGHER THAN FINISH GRADE. -3" DEEP MULCH, PREPARE A B"MIN. SAUCER AROUND PIT. DISCARD EXCESS EXCAVATED MATERIAL 情期認為這四時中 51180000 bs BACKFILL PIT WITH PLANTING PIT CUT ANY SYNTHETIC CORDS AROUND ROOTBALL AND TRUNK. SET ROOTBALL ON UNDISTURBED DETAIL: **DECIDUOUS TREE** -DO NOT CUT LEADER

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3' MECHER THAN FINISH GRADE.

3" DEEP MULCH.

PREPARE A B'MIN: SAUCER AROUND PIT, DISCARD EXCESS EXCALATED MATERIAL.

PREPARE A B'MIN: SAUCER AROUND PIT, DISCARD EXCESS EXCALATED MATERIAL.

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DETAIL: EVERGREEN SET PLANTS AT SAME LEVEL

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(PROTRIL IF PLANTING BED TO

A COPPTH LI

LIMIT PRUNING TO DEAD AND BROKEN

PREPARE A 3" MIN. SAUCER AROUND

BACKFILL PIT WITH PLANTING PIT

- SUFATON EDGES I BOTTOM OF PIT

CUT ANY SYNTHETIC CORDS AROUND ROOTBALL AND TRUNK.

-UNDISTURBED SUBGRADE

WITH SHOVEL SO SHEFACE IS

-UNDISTURBED SUBGRADE.

SET ROOTBALL ON

PIT. PISCARD EXCESS EXCAVATED MATERIAL

AS FINISHED GRADE.

BRANCHES.

--- B" DEEP MULCH

PERMEABLE

DETAIL:
PERENNIAL/GRASS/GROUNDCOVER

OTE:

DETERMINING QUANTITIES.

- SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST EDITION OF ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION - ALL PLANT MATERIALS SHALL BE GROWN STOCK AND SHALL BE FREE OF ANY

CROOKED/DISFIGURED LEADERS, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED.

- ALL PLANT MATERIALS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ANY MATERIALS INSTALLED WITHOUT

DEFORMITIES, DISEASES OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR

APPROVAL MAY BE REJECTED.

- TREES NOT EXHIBITING A CENTRAL (OR SINGLE) LEADER WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT SCHEDULE AS MULTI-STEM.

- PLANT QUANTITIES SHOWN IN THE PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS SHOWN ON THE PLAN AND SHOULD RELY ON THE PLANT SCHEDULE FOR

Construction Services B22

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