

sym. qty. Landscape Buffer

ABB 10 Abies concolor

ASB 4 Acer saccharum

PGB 10 Picea glauca

PSB 10 Pinus strobus

TCB 5 Tilia tomentosa

COD 19 Cornus amomum

CRD 6 Cornus racemosa

QMD 4 Quercus marcrocarpa

TDD 7 Taxodium distichum

CAB 3 Cornus alternifolia

ACB 6 Amelanchier canadensis

CSB 18 Cornus sericea 'Farrow'

Detention Plantings
ARD 6 Acer rubrum 'October Glory'

POB 30 Physocarpus opulifolius 'Coppertina'

LTB 6 Liriodendron tulipifera

botanical name

Concolor Fir

Serviceberry

Sugar Maple

Tulip Tree

White Spruce

White Pine

Silver Linden

Red Maple

Silky Dogwood

Gray Dogwood

Baldcypress

Bur Oak

Alternate Leaf Dogwood

Artic Fire Dogwood

Coppertina Ninebark

caliper spacing root height price

as shown B&B

as shown cont

as shown B&B

2.0" as shown B&B

3.0" as shown B&B

2.0" as shown B&B

3.0" as shown B&B

3.0" as shown B&B

3.0" as shown B&B

as shown

as shown

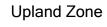
Detention Plantings

Basin Side Slopes - Permanent Water to Bank Full



17,477 s.f.

32.6 lbs. per Acre Application Rate 13.1 lbs. of Storm Water Seed Mix 3"-6" of Topsoil Shall be Placed in this Area.



2,930 s.f.

37.7 lbs. per Acre Application Rate 2.5 lbs. of Low Profile Seed Mix

Seeds Available from Cardno JFNew All Seed Shall be Protected with Mulch Blanket.

Stormwater Seed Mix

Botanical Name	Common Name	PLS (Oz/Acre
Permanent Grasses/Sedges			
Bolboschoenus luviatilis	River Bulrush		0.25
Carex cristatella	Crested Oval Sedge		2.00
Carex Iurida	Bottlebrush Sedge		3.00
Carex vulpinoidea	Brown Fox Sedge		6.00
Elymus virginicus	Virginia Wild Rye		13.50
Glyceria striata	Fow I Manna Grass		1.25
Juncus effusus	Common Rush		2.00
Leersia oryzoides	Rice Cut Grass		1.00
Panicum virgatum	Switch Grass		2.00
Schoenoplectus tabernaemontani	Softstem Bulrush		3.00
Scirpus atrovirens	Dark Green Rush		2.00
Scirpus cyperinus	Wool Grass		1.00
		Total	37.00
Temporary Cover			
Avena sativa	Common Oat		360.00
Lolium multilorum	Annual Rye		100.00
	,	Total	460.00
Forbs			
Alisma spp.	Water Plantain Mix		4.25
Asclepias incarnata	Sw amp Milkw eed		1.50
Bidens spp.	Bidens Mix		2.00
Helenium autumnale	Sneezew eed		2.00
Iris virginica	Blue Flag		4.00
Lycopus americanus	Common Water Horehound		0.25
Mimulus ringens	Monkey Flow er		1.00
Oligoneuron riddellii	Riddell's Goldenrod		0.50
Penthorum sedoides	Ditch Stonecrop		0.50
Polygonum spp.	Pinkw eed Mix		4.00
Rudbeckia subtomentosa	Sw eet Black-Eyed Susan		1.00
Rudbeckia triloba	Brown-Eyed Susan		1.50
Sagittaria latifolia	Common Arrow head		1.00
Senna hebecarpa	Wild Senna		1.00
Symphyotrichum novae-angliae	New England Aster		1.50
Thalictrum dasy carpum	Purple Meadow Rue		2.00
• •		Total	28.00

Low Profile Seed Mix

Botanical Name	Common Name	Ounces/Acr
Permanent Grasses:		
Bouteloua curtipendula	Side Oats Grama	16.
Carex spp.	Prairie Carex Mix	4.
Elymus canadensis	Canada Wild Rye	32.
Koeleria pyramidata	June Grass	1.
Panicum virgatum	Switch Grass	1.
Schizachyrium scoparium	Little Bluestem	36.
	Tota	I 90.
Temporary Cover:		
Avena sativa	Common Oat	360.
Lolium multiflorum	Annual Rye	100.
	Tota	I 460.
Forbs:		
Amorpha canescens	Lead Plant	0
Anemone cylindrica	ThimbleWeed	0.
Asclepias syriaca	Common Milkweed	2.
Asclepias tuberosa	Butterfly MilkWeed	2.
Baptisia alba	White Wild Indigo	2
Chamaecrista fasciculata	Partridge Pea	12.
Coreopsis lanceolata	Sand Coreopsis	5.
Coreopsis palmata	Prairie Coreopsis	1.
Dalea candida	White Prairie Clover	1.
Dalea purpurea	Purple Prairie Clover	1.
Desmanthus illinoensis	Illinois Sensitive Plant	3.
Echinacea purpurea	Broad-Leaved Purple Coneflower	7.
Eryngium yuccifolium	Rattlesnake Master	3.
Lespedeza capitata	Round-Head Bush Clover	2
Liatris aspera	Rough Blazing Star	0
Lupinus perennis	Wild Lupine	4.
Monarda fistulosa	Wild Bergamot	0.
Oligoneuron rigidum	Stiff Goldenrod	1.
Parthenium integrifolium	Wild Quinine	1.
Penstemon digitalis	Foxglove Beard Tongue	0.
Penstemon hirsutus	Hairy Beard Tongue	0
Pycnanthemum virginianum	Common Mountain Mint	1.
Ratibida pinnata	Yellow Coneflower	4.
Rudbeckia hirta	Black-Eyed Susan	5.
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.
Silphium terebinthinaceum	Prairie Dock	0.
Solidago speciosa	Showy Goldenrod	0.
Symphyotrichum ericoides	Heath Aster	0.
Symphyotrichum laeve	Smooth Blue Aster	1.
Symphyotrichum novae-angliae	New England Aster	0.
Tradescantia ohiensis	Common Spiderwort	0.
Verbena stricta	Hoary Vervain	1.
Vernonia spp.	Ironweed (Various Mix)	1.
Veronicastrum virginicum	Culvers Root	0.

caliper spacing root height price total

\$ 200.00 \$ 2,800.00

\$ 425.00 \$ 2,550.00

\$ 425.00 \$ 4,675.00

\$ 425.00 \$ 3,825.00

4,000.00

\$ 425.00 \$

\$ 425.00 \$

\$ 200.00 \$

\$ 200.00 \$

\$ 200.00 \$

\$ 425.00 \$

\$ 425.00 \$

15' \$ 425.00 \$

10' \$ 300.00 \$

10' \$ 300.00 \$

as shown B&B 2.5" as shown B&B

3.0" as shown B&B

3.0" as shown B&B

2.5" as shown B&B

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3.0" as shown B&B

as shown B&B

as shown B&B

as shown B&B

common name

Concolor Fir

Serviceberry

Sugar Maple

Redbud

Tulip Tree

White Pine

Red Oak

Shingle Oak

Regal Prince Oak

White Spruce

River Birch, Multi-Stem

Alternate Leaf Dogwood

Cornelian Cherry Dogwood

Red Maple

AB 39 Abies concolor

BN 10 Betula nigra

CM 39 Cornus mas

PG 35 Picea glauca

PS 59 Pinus strobus

CA 20 Cornus alternifolia

LT 18 Liriodendron tulipifera

1,200.00

1,700.00

600.00

2,550.00

3,000.00

950.00

300.00

1,500.00

\$ 200.00 \$

\$ 425.00 \$

\$ 200.00 \$

\$ 425.00 \$

\$ 425.00 \$ 2,125.00

\$ 425.00 \$ 2,550.00

30" \$ 50.00 \$

10' \$ 300.00 \$

36" \$ 50.00 \$

36" \$ 50.00 \$

as shown B&B 10' \$ 300.00 \$ 3,000.00

as shown cont 30" \$ 50.00 \$

3.0" as shown B&B \$ 425.00 \$ 1,700.00 as shown B&B 10' \$ 300.00 \$ 2,100.00

AC 14 Amelanchier canadensis

AR 22 Acer rubrum 'October Glory'

Cercis canadensis

6 Quercus imbricaria

Quercus x warei 'Long'

120 2.5" Omamental Credits (80 trees X 1.5)

214 3.0" Deciduous Credits (107 trees X 2.0)

266 10' Evergreen Credits (133 trees X 2.0)

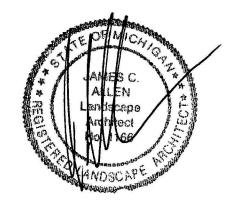
9 Quercus rubra

11 Tilia americana

600 Total Credits

AS 28 Acer saccharum 'Green Mountain'

Seal:



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Email: jca@wideopenwest.com

Landscape Plan

Project:

The Groves Rochester Hills, Michigan

Prepared for:

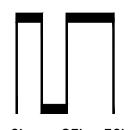
Pulte Group 2800 Livernois Road, Building D, Suite 320 Troy, MI 48083

Revision:	Issued
Submission	April 15, 20
Revised	May 11, 20
Revised	July 29, 20

Job Number:

20-021

Drawn By: Checked By:





1"=50'

Sheet No.

Know what's **below. Call** before you dig.



Landscape Buffer 'D' - East Property Line

Buffer Length

Trees Required

Trees Provided

Evergreens Required

Evergreens Proposed

Ornamentals Required

Ornamentals Provided

Detention Pond Type 'A'

Evergreens Required

Evergreens Provided

Woodland Replacement Tree Credits Required

Remaining 2.0" Credits

Shrubs Required

Shrubs Provided

Bank Full Length

Trees Required

Trees Provided

Shrubs Required

Shrubs Provided

Credits Provided

Utility Maintenance Statement:

If, in the event, Utility Maintenance Results in the

Removal of Landscaping, as Shown on this Plan,

it Will be the Owner's Responsibility to Repair and

Rather than pay into the City Tree fund, applicant proposes to

areas or locations can not be agreed, Pulte may pay into the

plant all replacement trees on the Rochester University

campus in locations TBD mutually agreed with Rochester

University, Pulte and City Forester. If there are not enough

Replace Shrubs and Trees that are Located

Overhead Line Statement:

Woodland Credits Note:

tree fund to satisfy their obligation.

within the Utility Easements.

No Overhead Lines Exist

15 Trees (605 / 100) x 2.5

30 Trees (605 / 100) x 5

9 Trees (605 / 100) x 1.5

48 Shrubs (605 / 100) x 8

9.4 Trees (627 / 100) x 1.5

6.3 Trees (627 / 100) x 1

25 Shrubs (627 / 100) x 4

15 Trees

30 Trees

9 Trees

7 Trees

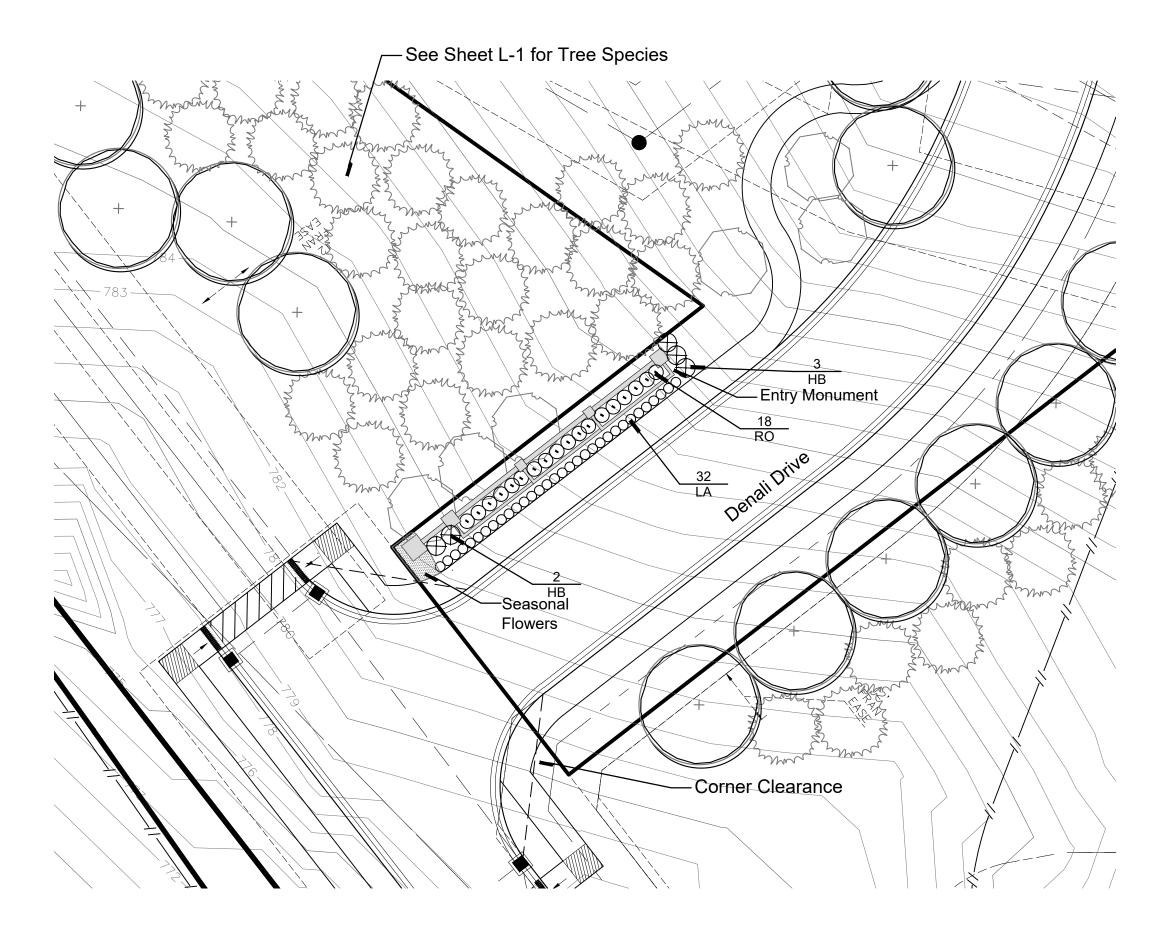
25 Shrubs

702 Credits

600 Credits

102 Credits

48 Shrubs



Entry

Plant List

sym.	qty.	botanical name	common name	caliper	spacing	root	height	p	orice	total
Genera	al Plan	itings								
HB	5	Hydrangea p. 'Bobo'	Bobo Hydrangea		as shown	cont	36"	\$	50.00	\$ 250.00
LA	32	Lavandula angustifolia 'Dwarf Blue'	Dwarf Blue Lavender		24" o.c.	cont.	#2	\$	20.00	\$ 640.00
RO	18	Rosa 'Drift Rose'	Drift Roses		as shown	cont	#3	\$	35.00	\$ 630.00
							Total			\$ 1,520.00



Jameson 6' Recycled Plastic Bench Brown / Surface Mount

Seating



Timber Frame Stick or Kit Built

Gazebo

/— 4" ht. Precast/Limestone Wall Cap, typ. Precast/Limestone — Decorative Planter, typ. ____ Decorative Precast/Limestone Cap, typ. Decorative Cap ___ Stone Veneer, typ. Dry-stacked Retaining Wall, typ. Decorative Light — Sign Panel -Area: 20 s.f. — Brick Soldier Course, typ. Brick Veneer, typ. +/- 6'-6"≖

View from Southeast

Sign Ordinance Notes
- Allowable Height: 7'
- Proposed Height: 7'
- Allowable Area: 20 s.f.
- Proposed Area: 20 s.f.

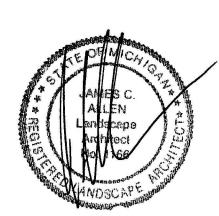
Entry Elevation

Know what's **below**. **Call** before you dig.

1/4"=1'-0"

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Seal:



Title:

Landscape Plan

Project:

The Groves

Rochester Hills, Michigan

Prepared for:

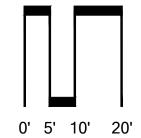
Pulte Group 2800 Livernois Road, Building D, Suite 320 Troy, MI 48083

Revision: Issued: Submission April 15, 2020 May 11, 2020 Revised July 29, 2020 Revised

Job Number:

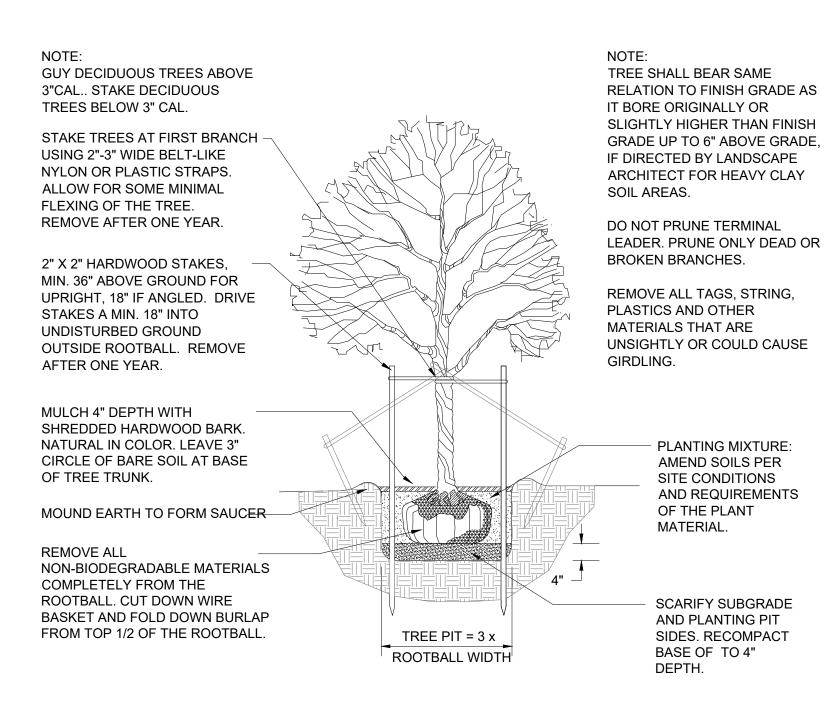
20-021

Checked By: Drawn By: jca jca

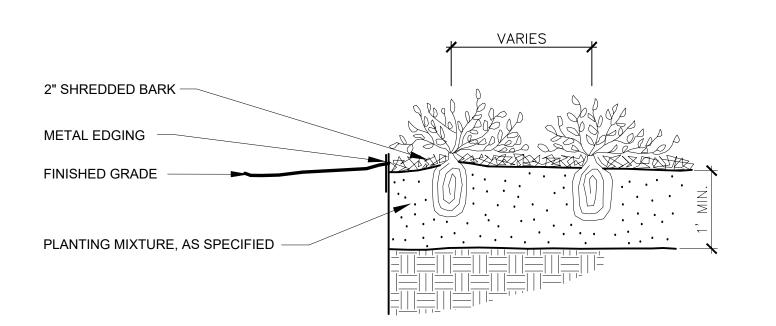


NORTH 1"=20'

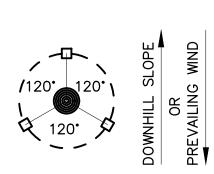
Sheet No.



DECIDUOUS TREE PLANTING DETAIL



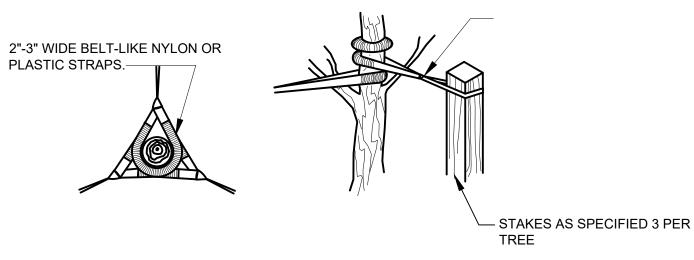
PERENNIAL PLANTING DETAIL



ORIENT STAKING/GUYING TO PREVAILING WINDS, EXCEPT ON SLOPES GREATER THAN 3:1 ORIENT TO SLOPE.

USE SAME STAKING/GUYING ORIENTATION FOR ALL PLANTS WITHIN EACH GROUPING OR AREA

STAKING/GUYING LOCATION

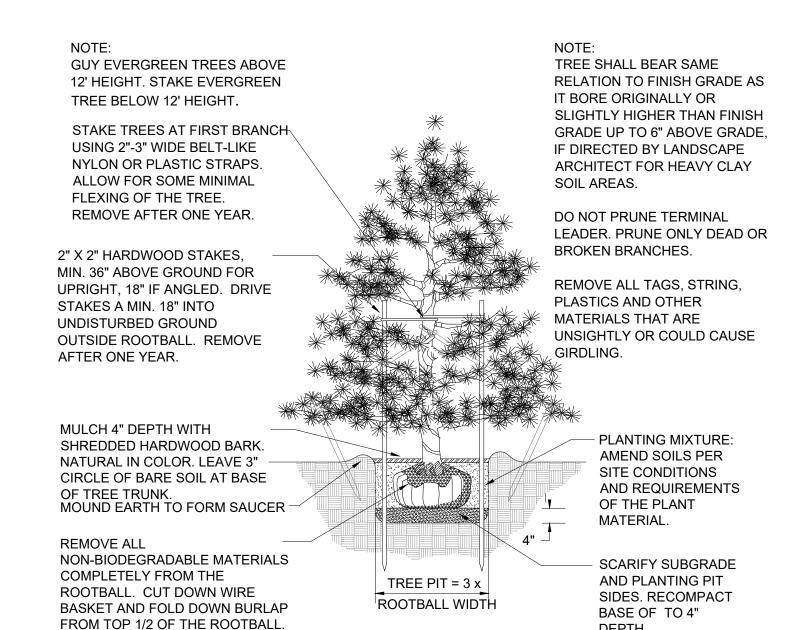


GUYING DETAIL

STAKING DETAIL

TREE STAKING DETAIL

Not to scale



EVERGREEN TREE PLANTING DETAIL

MAINTENANCE NOTES

SECTION 138-12.109 - Maintenance

The owner of the property shall be responsible for all maintenance of site landscaping, as follows:

A. Landscaping shall be kept in a neat, orderly and healthy growing condition, free from debris and refuse.

- B. Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.
- C. All dead, damaged, or diseased plant material shall be removed immediately and replaced within six months after it dies or in the next planting season, whichever occurs first. For purposes of this Section, the planting season for deciduous plants shall be between March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close as practical to the size of the material it is intended to replace. The City may notify property owners of the need to replace dead, damaged, or diseased material.
- D. The approved landscape plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to or removal of plant materials, or non-compliance with the maintenance requirements of this Section 138-12.109 will place the parcel in non-conformity with the approved landscape plan and be a violation of this ordinance.
- E. If protected trees are damaged, a fine shall be issued on an inch-by-inch basis at a monetary rate as defined by the

MULCH 3" DEPTH WITH BRANCHES. SHREDDED HARDWOOD BARK. NATURAL IN COLOR. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE PLANTING MIXTURE: AMEND SOILS PER GIRDLING. SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MOUND EARTH TO FORM SAUCER REMOVE COLLAR OF ALL FIBER -POTS. POTS SHALL BE CUT TO PROVIDE FOR ROOT GROWTH. REMOVE ALL NONORGANIC CONTAINERS COMPLETELY SCARIFY SUBGRADE REMOVE ALL AND PLANTING PIT NON-BIODEGRADABLE MATERIALS SIDES. RECOMPACT COMPLETELY FROM THE BASE OF TO 4" ROOTBALL. FOLD DOWN BURLAP DEPTH. FROM TOP $\frac{1}{3}$ OF THE ROOTBALL

TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

PRUNE ONLY DEAD OR BROKEN

UNSIGHTLY OR COULD CAUSE

SHRUB PLANTING DETAIL

LANDSCAPE NOTES

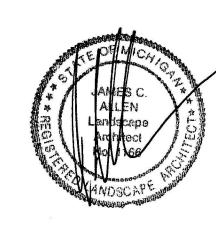
- 1. All plants shall be north Midwest American region grown, No. 1 grade plant materials,
- and shall be true to name, free from physical damage and wind burn. 2. Plants shall be full, well-branched, and in healthy vigorous growing
- 3. Plants shall be watered before and after planting is complete
- 4. All trees must be staked, fertilized and mulched and shall be guaranteed to exhibit a normal growth cycle for at least two (2) full years following
- City approval. 5. All material shall conform to the guidelines established in the most recent
- edition of the American Standard for Nursery Stock.
- 6. Provide clean backfill soil, using material stockpiled on site. Soil shall be
- screened and free of any debris, foreign material, and stone. "Agriform" tabs or similar slow-release fertilizer shall be added to the
- planting pits before being backfilled. 8. Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand and 1/3 peat, mixed well and spread to the depth as indicated in planting details.
- All plantings shall be mulched per planting details located on this sheet.
- 10. The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
- 11. No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect.
- 12. The Landscape Architect shall be notified of any discrepancies between
- the plans and field conditions prior to installation. 13. The Landscape Contractor shall be responsible for maintaining all plant
- material in a vertical condition throughout the guaranteed period.
- 14. The Landscape Architect shall have the right, at any stage of the installation, to reject any work or material that does not meet the requirements of the plans and specifications, if requested by owner.
- 15. Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a
- discrepancy, the quantities on the plans shall prevail. 16. The Landscape Contractor shall seed and mulch or sod (as indicated on plans)
- all areas disturbed during construction, throughout the contract limits. 17. A pre-emergent weed control agent, "Preen" or equal, shall be applied
- uniformly on top of all mulching in all planting beds. 18. All landscape areas shall be provided with an underground automatic
- sprinkler system.
- 19. Sod shall be two year old "Baron/Cheriadelphi" Kentucky Blue Grass grown in a sod

ADDITIONAL NOTES

- 1. All Landscaped Areas Shall be Irrigated with an Automatic, Underground System.
- 2. Islands Shall be Sod. 3. Owner Shall be Responsible for Replacing Damaged
- Plant Material Due to Utility Maintenance.
- 4. Prior to the release of the Performance Bond, the City of Rochester Hills Forestry Division needs to inspect all trees, existing or planted, to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove and possibly replace, any such trees.
- 5. These requirements are incorparated into the plan.
- 6. Prior approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted 10' from the edge of the public road. (Trees must be planted at least 15' away from the curb or road edge where the speed limit is more than 35 mph). Shade trees and shrubs must be planted at least 5' from the edge of the public walkway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public walkway. No trees or shrubs may be planted within the triangular area formed at the intersection of any street right-of-way at a distance along each line of 25' from their point intersection. No trees or shrubs may be planted within the triangular area formed at the intersection of any driveway with a public walkway at a distance along each line of 15' from their point of intersection. All trees and shrubs must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the City's Landscape Architect requires a greater distance.
- 7. No substitutions or changes of location or plant types shall be made without the approval of the developer and the City of Rochester Hills Landscape Architect. City's Landscape Architect has Final Right of Approval for the the Release of the Performance and Maintenance Bonds.
- 8. The developer and/or the City of Rochester Hills Landscape Architect shall have the right, at any stage of the installation, to reject any work or material that does not meet the requirements of the plans or specifications.
- 9. Replacement trees may not be planted within the drip line of existing trees. 10. Trees may not be planted within 4' of any property line.
- 11. Irrigation Shall Only Occur Between the Hours of 12am and 5 am
- in Accordance with the City's Watering Ordinances
- 12. Irrigation overspray shall not broadcast onto the City pathways.

Know what's **below**. Call before you dig. 557 CARPENTER • NORTHVILLE, MI 48167 248 467 4668 • Fax 248 349 0559 Email: jca@wideopenwest.com

Seal:



Title:

Landscape Details

Project:

The Groves Rochester Hills, Michigan

Prepared for:

Revised

Pulte Group 2800 Livernois Road, Building D, Suite 320 Troy, MI 48083

Revision: Issued: Submission April 15, 2020 May 11, 2020 Revised

July 29, 2020

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Drawn By: Checked By:

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