

landscape requirements and calculations

ght-of-way landscape	REQUIRED	PROVIDED
		18
ONE (I) DECIDUOUS OR EVERGREEN TREE PER 35 LIN. FT ONE (I) ORNAMENTAL TREE PER 60 LIN. FT.	5	5
OTAL LIN. FT. OF R.O.W. FRONTAGE GRAVEL RIDGE ROAD	135'+	
ONE (I) DECIDUOUS OR EVERGREEN TREE PER 35 LIN. FT.		4
ONE (I) ORNAMENTAL TREE PER 60 LIN. FT.	З	З
reet tree requirement	REQUIRED	PROVIDED
ONE (I) DECIDUOUS TREE PER LOT	13	CITY
etention pond	REQUIRED	PROVIDED
OTAL LIN. FT. OF DETENTION POND FREE BOARD	323' <u>+</u>	
ONE & ONE HALF (1.5) DECIDUOUS TREE PER 100 LIN. FT.	4.85	5
ONE (I) EVERGREEN TREE PER 100 LIN. FT.	3.23	З
FOUR (4) DECIDUOUS OR EVERGREEN SHRUBS PER 100 LIN. FT	12.92	דו
ee replacement	REQUIRED	PROVIDED
OTAL REGULATED TREE REMOVED ON SITE	40	
UNSOUND OR POOR CONDITION TREE	20	
OTAL TREE REPLACEMENT CREDIT REQUIRED	20	40
landaaana maintananaa nataa		

₽ NTACT THE	13. ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.	
TE DRG SHALL IONE, NY LITY OF I OTHER	 14. PLANT TREES AND SHRUBS GENERALLY NO CLOSER THEN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS AND PARKING STALLS: a). SHADE TREES	
ER PRIOR	15. NO TREES OR EVERGREENS TO BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE ENGINEERING PLANS FOR LOCATION AND DETAILS.	
GTED ON	16. ALL LAWN AREAS AND LANDSCAPE BEDS IN JOHN R ROAD GREENBELT AND BUFFER AREA BETWEEN CHURCH PARKING AND PROPOSED LOTS TO BE FULLY IRRIGATED WITH A AUTOMATIC UNDERGROUND SYSTEMS. IRRIGATION SYSTEM TO HAVE SEPARATE ZONES FOR LAWN AREAS, PARKING ISLANDS, AND SHRUB BEDS WITH DIFFERENT CONTROL MOISTURE LEVEL ADJUSTMENT PER ZONE AS REQUIRED	
	17. UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN TO	

RECIEVE EDGING, EDGING SHALL BE 4" × 1/8" METAL (FINISH BLACK OR GREEN) OR APPROVED EQUAL AND TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 32" O.C. OR PER MANUFACTERER'S SPECIFICATION. 18. ALL NEW PARKING ISLANDS AND LANDSCAPE BEDS ADJACENT AND NEXT

TO BUILDING SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS A MIN. OF 16"-18" DEPTH. BACK FILL WITH GOOD, MEDIUM TEXTURED PLANTING SOILS. ADD A MIN. 4" OF TOPSOIL OVERFILL TO FINISH GRADE.

19. WATERING OF ALL PLANTS AND TREES TO BE PROVIDED IMMEDIATELY AND MULCHING WITHIN 24 HOURS AFTER INSTALLATION.

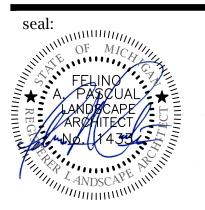
PLANTING. PROVIDE APPROPERATES DRAINAGE SYSTEM AS REQUIRED IF THE TREE PIT DOES NOT DRAIN SUFFICIENTLY.

21. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE PLANT MATERIALS AND IRRIGATION INSTALLATION FOR A PERIOD OF TWO YEAR BEGINNING AFTER THE COMPLETION OF LANDSCAPE INSTALLTION DATE APPROVED BY THE CITY OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE TOWNSHIP OR LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER. 22. ALL LANDSCAPE AREAS TO BE IRRIGATED. THE WATERING OF LANDSCAPE

AREAS WILL OCCUR BETWEEN THE HOURS OF 12:00 AM AND 5:00 AM.

FELINO A. PASCUAI

and ASSOCIATES **Community Land Planner** and registered Landscape Architect 24333 Orchard Lake Rd, Suite G Farmington Hills, MI 48336 ph. (248) 557-5588 fax. (248) 557-5416



client: **Crestline Homes** 2553 23 Mile Rd Shelby Township, MI 48316 ph. (586) 822-3944

project:

BERKSHIRE

project location: City of Rochester Hills Michigan John R Road and Gravel Ridge Road

sheet title: GENERAL PLANTING

PLAN

job no./iss	sue/r	evision date:
LS17.083.07	SPA	7-05-2017
LS17.083.08	SPA	8-01-2017
LS17.083.09	SPA	9-21-2017
LS17.083.11	SPA	11-29-2017
LS18.079.05	SPA	05-29-2018
LS18.079.06	SPA	06-11-2018

JP, CS	
checked by:	
FP, OG	
date:	
5-29-2018	
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	3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 tion of public utility lines

project no:

LS18.079.05



TREE TO REMAIN CORNER SIGHT DISTANCE(BIKE)

OBSERVATION POINT/SIGHT DISTANCE IS 140' BOTH DIRECTION @ 18' FROM EDGE OF SIDEWALK/PATHWAY.

CORNER SIGHT DISTANCE(AUTOMOBILE): OBSERVATION POINT/SIGHT DISTANCE IS 280' BOTH DIRECTION @ 10' FROM EDGE - GRAVEL ROAD. (GRAVEL RIDGE ROAD-2 LANE, @ 25 MPH)

5' PEDESTRIAN WALK

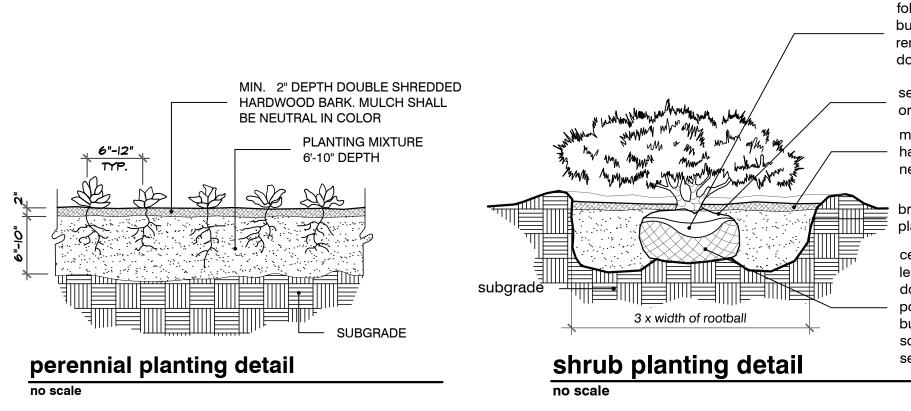
EXISTING UTILITY POLE TO BE RELOCATED PER DETROIT EDISON. ANY PROPOSED SHADE OR EVERGREEN TREES TO BE INSTALLED A MIN. 15' AWAY FROM NEW POLE AND OVERHEAD WIRE LOCATION.

25' VEHICULAR CLEARVIEW LINE

DETENTION BASIN - SEE ENGINEERING PLANS FOR LOCATION, SIZE, SIDE SLOPES, WATER ELEVATION, TOP OF BANK AND DETAILS.

plant material list

key	quant. LS-1	botanical name	common name	unit cost	size	total cost	comments
		LARGE AND SMALL DECIDUOUS TREES					
AF	10	ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE RED MAPLE	\$350	3" BB	\$3,500	
QB	4	QUERCUS BICOLOR		\$35Ø	3" BB	\$1,400	
LS	2	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEET GUM	\$35Ø	2" BB	\$700	
AC	6	AMELANCHIER X.G. 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	\$25Ø	10' BB	\$1,500	MULTI-STEM
MR	2	MALUS 'ROYALTY'		\$25Ø	2" BB	\$5 <i>00</i>	
		SHRUBS					
VMK	27	VIBURNUM X.B 'MOHAWK	MOHAWK VIBURNUM	\$ 5Ø	3 1/2' B.B.	1,350	
CS	17	CORNUS STOLONIFERA	RED TWIG DOGWOOD	\$50	3 1/2' B.B.	\$85Ø	
HA	2	HYDRANGEA ANNEBELLE	ANNABELLE HYDRANGEA	45Ø	#5 CONT.	\$100	
		LARGE AND SMALL EVERGREENS					
JS	23	JUNIPERUS SABINA 'TAMARISCIFOLIA'	TAM'S JUNIPER	\$50	24" BB	\$1,150	42" O.C. SPACIN
AW	16	ABIES CONCOLOR		\$325	8' BB	\$5,200	
AWL	14	ABIES CONCOLOR	CONCOLOR WHITE FIR	\$400	10' BB ()	15,200	
P9	2	PINUS STROBUS	EASTERN WHITE PINE	\$325	8' BB	\$650	
PSL	1	PINUS STROBUS	EASTERN WHITE PINE	\$400	10' BB ()	\$400	
PP	12	PICEA ABIES	NORWAY SPRUCE	\$400	10' BB	\$4,800	
PPL	10	PICEA ABIES	NORWAY SPRUCE	\$450	12' BB O	\$4,500	
			SOD (170 S.Y.)	16 S.Y.		\$4,620	
			HYDRO-SEED (2,850 S.Y.)	\$3 S.Y.		\$8,550	
			IRRIGATION	¥6,000		\$6,000	
					TOTAL	#51,370	



Plant Material List, Planting Details, and Notes

City of Rochester Hills notes:

PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC R/W. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST IO' FROM THE EDGE OF THE PUBLIC ROAD. (TREES MUST BE PLANTED AT LEAST 15' AWAY FROM 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 R/W LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN 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 IO' 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.

PRIOR TO THE RELEASE OF THE PERFORMANCE BOND: A. THE CITY OF ROCHESTER HILLS WILL INSPECT ALL LANDSCAPE PLANTINGS INCLUDED ON THE PLANS.

B. THE CITY OF ROCHESTER HILLS FORESTRY DIVISION WILL INSPECT ALL TREES, EXISTING OR PLANTED, TO IDENTIFY ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC R.O.W. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

detention basin seed mix:

	ge Meadow Mix: (Edge Zone)	1	Aste
	nix of sedges, grasses and wildflowers recommended	1	Aste
	ils that are saturated during most of the growing	3	Cas
seaso	on. Use just above the normal waterline in the	2	Eup
capill	ary zone in our Lake Edge Enhancement System.	2	Eup
Sade	na Maadaw Mix az/aara	2	Hele
J Seu	ge Meadow Mix oz/acre Carex comosa (Bristly Sedge)	2	Liatr
1		1	Lobe
-	Carex cristatella (Crested Sedge)	1	Lobe
6	Carex frankii (Frank's Sedge)	2	Pens
2	Carex hystericina (Porcupine Sedge)	1	Pycr
4	Carex lurida (Lurid Sedge)	3	Rud
2	Carex stipata (Awl-Fruited Sedge)	4	Rud
2	Carex tribuloides (Pointed Oval Sedge)	3	Rud
6	Carex vulpinoidea (Fox Sedge)	2	Silpl
64	Elymus virginicus (Virginia Wild Rye)	2	Silpl
6 Glyceria striata (Fowl Manna Grass)		2	Silpl
8 Leersia oryzoides (Rice Cut Grass)		1	Solid
8	Panicum virgatum (Switchgrass)	2	Solid
2	Scirpus atrovirens (Dark Green Bulrush)	2	Verb
112		2	Verr
Forb	s oz/acre	1	Verd
	Alisma subcordatum (Water plantain)	1	Zizia
	Angelica atropurpurea (Angelica)	48	7
	Aster novae-angliae (New England Aster)		_
	Components per acre		
Sedge	e Meadow 8 lbs grasses and sedges, 3 lbs f	orbes	
20011	al cover: (Edge, Upland & Dry Upland Zone	ac)	
	Temporary Grasses: will contain two of the following sp	ecles.	
	l Oats Avena sativa		
	Ial Rye Lolium multiflorum		
	er Wheat Triticum aestivum		
Ame	rican Slough Grass Beckmannia syzigachne		

do not prune terminal leader or branch tips. prune away dead or broken branches only.

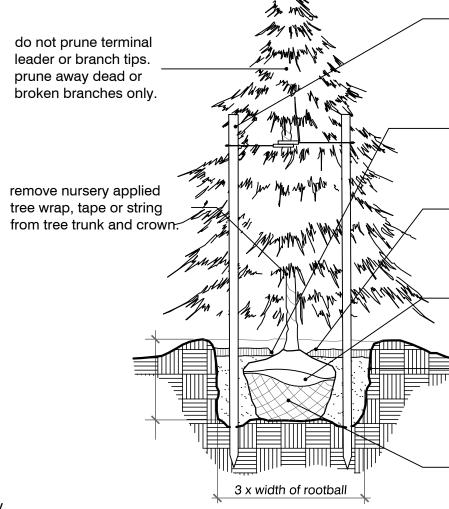
fold down or pull back string, burlap or plastic exposing rootball. remove all non-degradable materials. tree wrap, tape or string do not remove soil from the rootball from tree trunk and crown.

set top of rootball level with grade or slightly above grade if in clay soil mulch 2"-3" depth with shredded

hardwood bark.mulch shall be neutral in color.

break up (scarify) sides of planting hole.

center rootball in planting hole. leave bottom of planting hole firm. do not amend soil unless planting in poor or severely disturbed soil or building rubble. use water to settle soil and remove air pockets and firmly set shrub. gently tamp if needed.



evergreen planting detail no scale

stake with 2x2 hardwood stakes or approved equal driven 6"-8" outside of rootball.loosely stake tree trunk to allow for trunk flexing.stake trees just below first branch with 2"-3" wide belt-like, fabric straps (2 per tree on opposite sides of tree, connect from tree to stake horizontally. do not use rope wire thru a hose.). remove all staking materials after 1 year.

set top of rootball level with grade or slightly above grade if in clay soil.

mulch 2"-3" depth with shredded hardwood bark. mulch shall be neutral in color. leave 3" circle of bare soil at base of tree trunk.

fold down or pull back string, burlap or plastic exposing rootball. remove all non-degradable materials. do not remove soil from the rootball.

break up (scarify) sides of planting hole.

center rootball in planting hole. leave bottom of planting hole firm. do not amend soil unless planting in poor or severely disturbed soil or building rubble.use water to settle soil and remove air pockets and firmly set tree. gently tamp if needed.

do not prune terminal leaderor branch tips. prune away dead or broken branches only.

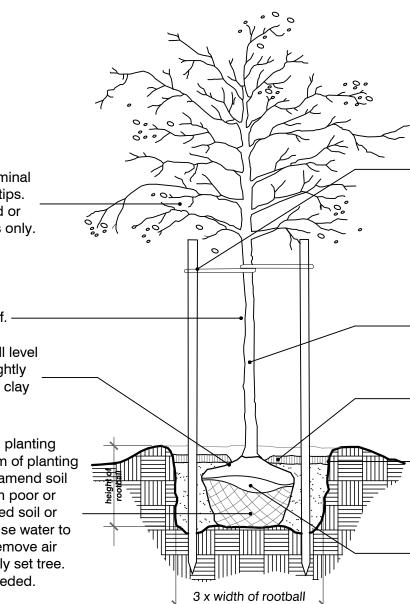
prune suckers off. -

set top of rootball level with grade or slightly above grade if in clay soil.

center rootball in planting hole.leave bottom of planting hole firm.do not amend soil unless planting in poor or severely disturbed soil or building rubble.use water to settle soil and remove air pockets and firmly set tree. gently tamp if needed.

ter puniceus (Swamp Aster) ter umbellatus (Flat-topped Aster) ssia hebecarpa (Wild Senna) patorium maculatum (spotted Joe-Pye Weed) patorium perfoliatum (Boneset) lenium autumnale (Autumn Sneezeweed) atris spicata (Dense Blazing Star) belia cardinalis (Cardinal Flower) belia siphilitica (Great Blue Lobelia) nstemon digitalis (Foxglove Beardtongue) cnanthemum virginianum (Mountain Mint) dbeckia fulgida speciosa (Showy Black-Eyed Susan) dbeckia hirta (Black-Eyed Susan) dbeckia subtomentosa (Sweet Black-Eyed Susan) phium integrifolium (Rosinweed) phium perfoliatum (Cupplant) phium terebinthinaceum (Prairie Dock) lidago patula (Swamp Goldenrod) idago riddellii (Riddell's Goldenrod) rbena hastata (Blue Vervain) rnonia fasciculata (Smooth Ironweed) ronicastrum virginicum (Culver's Root) zia aurea (Golden Alexanders)

SOURCE: NATIVESCAPE L.L.C P.O. BOX 122 MANCHESTER, MICHIGAN 48158 ph: 517.456.9696 www.nativescape.net



tree planting detail

no scale

do not stake trees unless in heavy clay soil, windy conditions, 3" or greater diameter tree trunk or large crown. if staking is needed due to these conditions:- stake with 2x2 hardwood stakes or approved equal driven 6"-8" outside of rootball.- loosely stake tree trunk to allow for trunk flexing. - stake trees just below first branch with 2"-3" wide belt-like, fabric straps (2 per tree on opposite sides of tree, connect from tree to stake horizontally. do not use rope wire thru a hose.).- remove all staking materials after 1 year.

remove nursery applied tree wrap, tape or string from tree trunk and crown. remove any tags or labels.

mulch 2"-3" depth with shredded hardwood bark. mulch shall be neutral in color. leave 3" circle of bare soil at base of tree trunk.

break up (scarify) sides of planting hole.

fold down or pull back string, burlap or plastic exposing rootball. remove all non-degradable materials. do not remove soil from the rootball.



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seal:

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project:

BERKSHIRE

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sheet title: PLANT MATERIAL AND PLANTING

DETAILS

job no./issue/revision date:				
LS17.083.07	SPA 7-05-2017			
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LS17.083.11	SPA 11-29-2017			
LS18.079.05	SPA 05-29-2018			
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drawn by: JP, CS

checked by: FP, OG date:

5-29-2018

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Do Not scale drawings. Use figured dimensions only



The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarante is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no:

LS18.079.05

