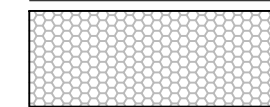


STORMWATER DETENTION NATIVE GRASSES AND WILDFLOWER SEED:



APPLY THE SEED MIX BELOW AT THE RATE OF 35 PLS POUNDS PER ACRE. 60 DAYS BEFORE SEEDING, PROVIDE A WRITTEN DESCRIPTION OF THE DETENTION SEED MIXTURE SHOWING THE PERCENTAGE BY WEIGHT OF EACH KIND OF SEED FOR THE ENGINEER'S APPROVAL. INCLUDE THE FOLLOWING WITH THE DESCRIPTION:
 -NAME AND LOCATION OF SEED SUPPLIER
 -ORIGIN AND DATE OF HARVEST OF EACH KIND OF SEED
 -A STATEMENT OF THE PURITY AND GERMINATION OF EACH SEED
 -TESTING DATE FOR EACH SEED TYPE
 -HOW AND WHEN THE SEEDS WERE MIXED

STORM WATER DETENTION POND SEED MIX (VENDOR JFNEW OR EQUIV.)

BOTANICAL NAME	COMMON NAME	PLS OUNCES/ACRE
PERMANENT GRASSES/SEDES/RUSHES:		
CAREX CRISATELLA	CRESTED OVAL SEDGE	1.00
CAREX LURIDA	BOTTLEBRUSH SEDGE	2.00
CAREX VULPINOIDEA	BROWN FOX SEDGE	6.00
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	12.00
GLYCERIA STRIATA	FOWL MANNA GRASS	1.25
JUNCUS EFFUSUS	COMMON RUSH	1.00
JUNCUS TORREYI	TORREY'S RUSH	0.25
LEERSIA ORYZOIDES	RICE CUT GRASS	1.00
PANICUM VIRGATUM	WITCH GRASS	8.00
SCIRPUS ATROVIRENS	DARK GREEN RUSH	1.00
SCIRPUS CYPERNUS	WOOL GRASS	0.50
SCIRPUS FLUVIATILIS	RIVER BULRUSH	0.25
SCIRPUS VALUOSUS	GREAT BULRUSH	6.00
	TOTAL	40.25
TEMPORARY COVER:		
AVENA SATIVA	COMMON OAT	360.00
LOLIUM MULTIFLORUM	ANNUAL RYE	100.00
	TOTAL	460.00
FORBS & SHRUBS:		
AULISMA SPP.	WATER PLANTAIN (VARIOUS MIX)	4.25
ASCLEPIAS INCARNATA	SWAMP MILKWEED	1.50
BIDENS SPP.	BIDENS (VARIOUS MIX)	2.00
HELENIUM AUTUMNALE	SNEEZEWEED	2.00
LYCOPUS AMERICANUS	WATER HOREHOUND	0.25
MIMULUS RINGENS	MONKEY FLOWER	1.00
PENTHORUM SEDOIDES	DITCH STONECROP	0.50
POLYGONUM PENNSYLVANICUM	PINKWEED	4.00
RUDBECKIA SUBTOMENTOSAS.	BLACK-EYED SUSAN	1.00
SAGITTARIA LATIFOLIA	COMMON ARROWHEAD	1.00
SENNA HEBACARPA	WILD SENNA	1.00
THALICTRUM DASycARPUM	PURPLE MEADOW RUE	2.00
	TOTAL	20.50

NO-MOW (3:1) NATIVE GRASSES AND WILDFLOWER SEED:



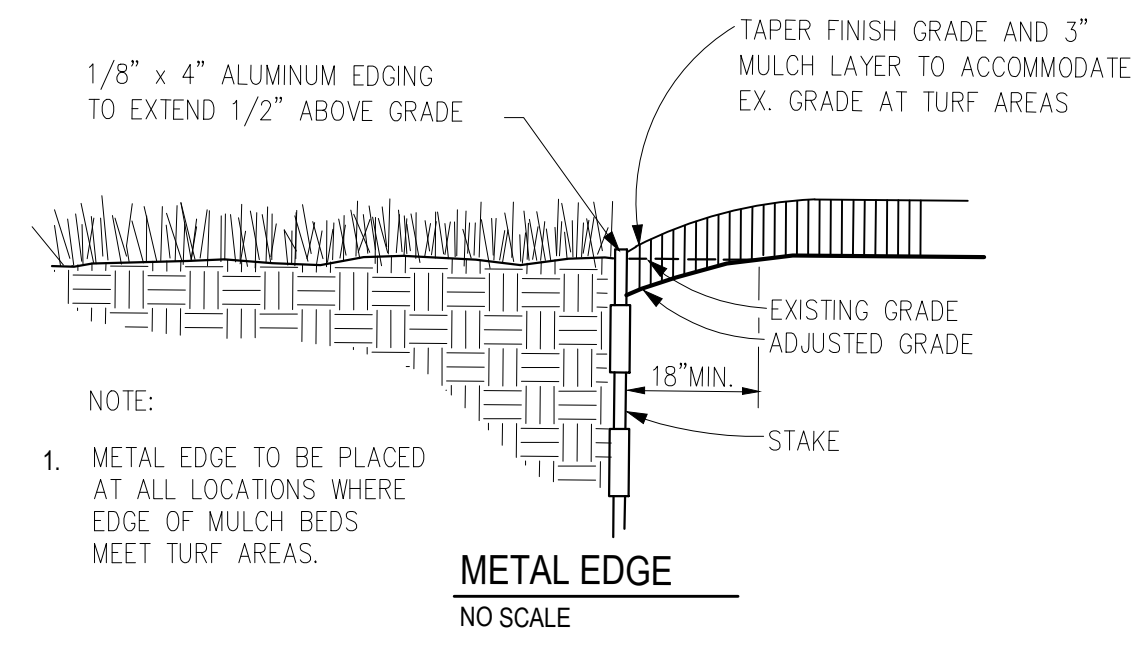
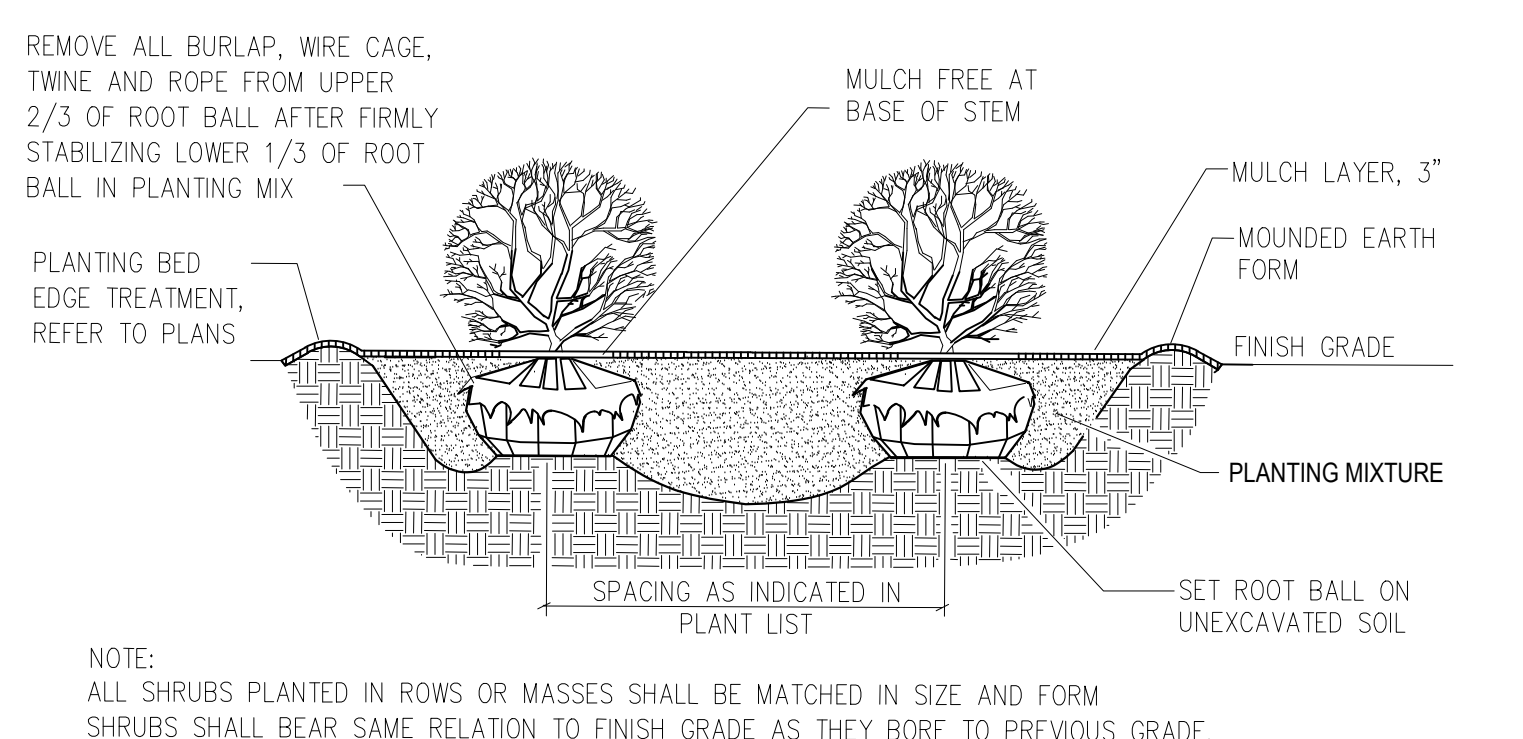
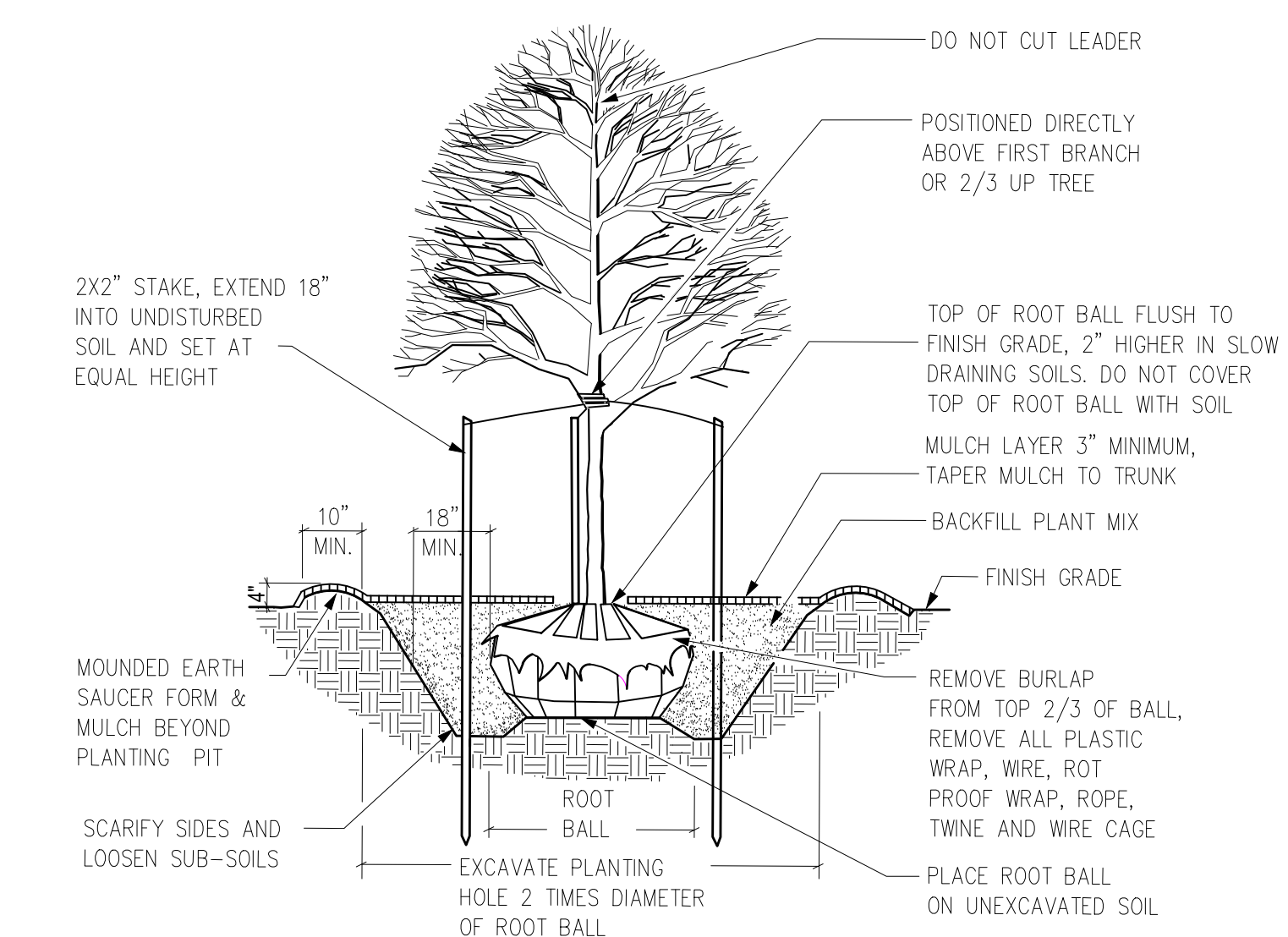
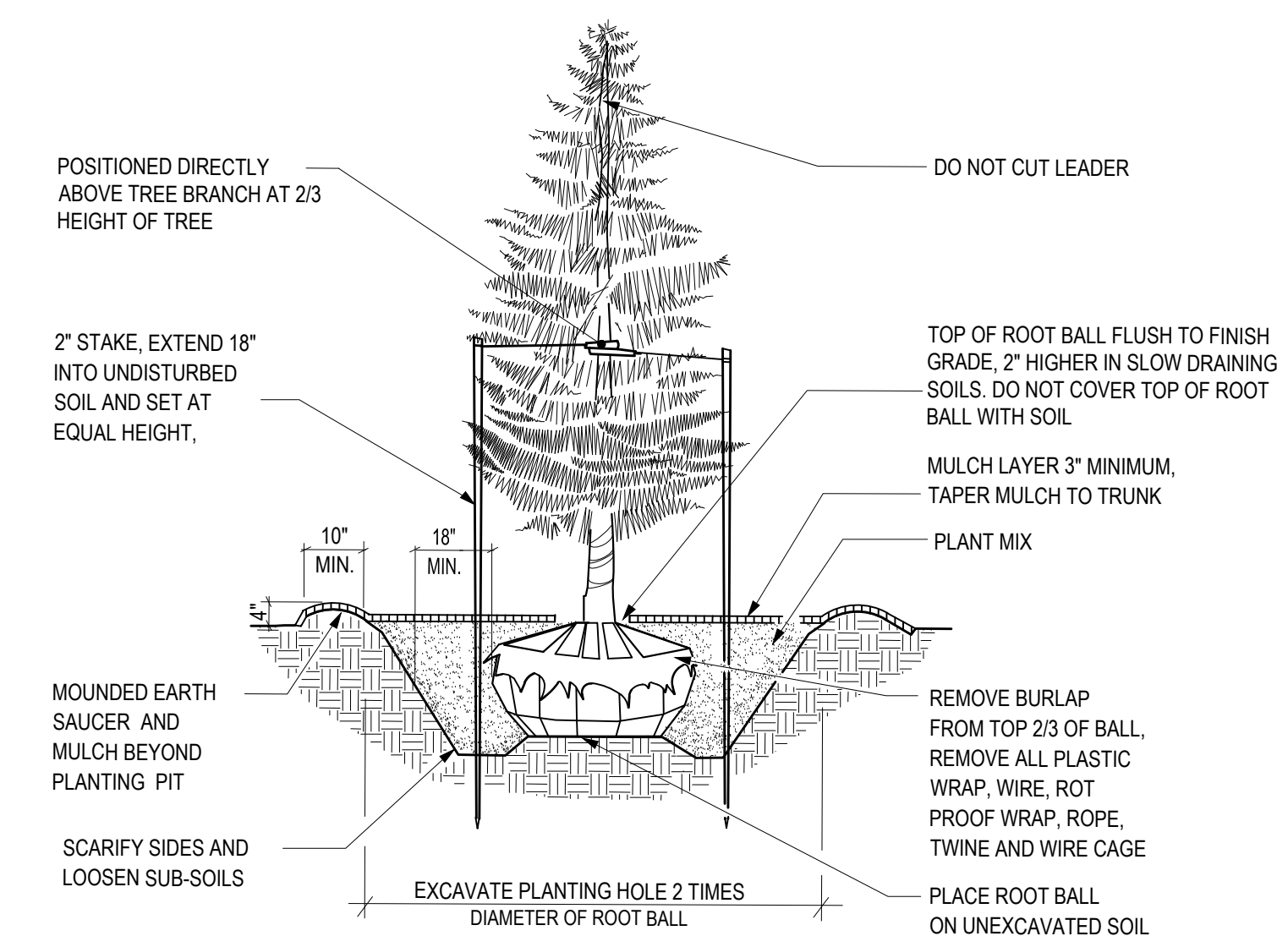
APPLY THE SEED MIX BELOW AT THE RATE OF 40 PLS POUNDS PER ACRE. 60 DAYS BEFORE SEEDING, PROVIDE A WRITTEN DESCRIPTION OF THE PRAIRIE SEED MIXTURE SHOWING THE PERCENTAGE BY WEIGHT OF EACH KIND OF SEED FOR THE ENGINEER'S APPROVAL. INCLUDE THE FOLLOWING WITH THE DESCRIPTION:
 -NAME AND LOCATION OF SEED SUPPLIER
 -ORIGIN AND DATE OF HARVEST OF EACH KIND OF SEED
 -A STATEMENT OF THE PURITY AND GERMINATION OF EACH SEED
 -TESTING DATE FOR EACH SEED TYPE
 -HOW AND WHEN THE SEEDS WERE MIXED

NO-MOW LOW-PROFILE PRAIRIE SEED MIX (VENDOR JFNEW OR EQUIV.)

BOTANICAL NAME	COMMON NAME	PLS OUNCES/ACRE
PERMANENT GRASSES:		
BOULELOUJA CURTIPENDULA	SIDE OATS GRAMA	10.00
CAREX SPP.	PRAIRIE CAREX MIX	4.00
ELYMUS CANADENSIS	CANADA WILD RYE	32.00
KOELERIA CRISATA	JUNE GRASS	1.00
PANICUM VIRGATUM	SWITCH GRASS	1.00
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	32.00
	TOTAL	80.00
TEMPORARY COVER:		
AVENA SATIVA	COMMON OAT	360.00
LOLIUM MULTIFLORUM	ANNUAL RYE	100.00
	TOTAL	460.00
FORBS:		
ANEMONE CYLINDRICA	THIMBLEWEED	0.50
ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED	2.00
ASTER ERICOIDES	HEATH ASTER	0.25
ASTER LAEVIS	SMOOTH BLUE ASTER	0.75
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.25
BAPTISIA LACTEA	WHITE WILD INDIGO	2.00
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	14.00
COREOPSIS LANCEOLATA	SAND COREOPSIS	5.00
COREOPSIS PALMATA	PRAIRIE COREOPSIS	1.00
DALEA CANDIDA	WHITE PRAIRIE CLOVER	1.50
DALEA PURPUREA	PURPLE PRAIRIE CLOVER	1.50
ECHINACEA PURPUREA	B. LEAVED P. CONEFLOWER	7.00
ERYNGIUM YUCCIFOLIUM	RATTLESNAKE MASTER	2.50
LESPEDEZA CAPITATA	ROUND-HEAD BUSH CLOVER	2.00
Liatris ASPERA	ROUGH BLAZING STAR	0.50
LUPINUS PERENNIS	WILD LUPINE	2.00
MONARDA FISTULOSA	WILD BERGAMOT	0.75
PARthenium INTCRIFOLIUM	WILD QUININE	1.00
PENSTEMON DIGITALIS	FOXGLOVE BEARD TONGUE	0.50
PYCNANTHEMUM VIRGINIANUM	MOUNTAIN MINT	1.00
RATIBIDA PINNATA	YELLOW CONEFLOWER	4.00
RUDBECKIA HIRTA	BLACK-EYED SUSAN	5.00
RUDBECKIA SUBTOMENTOSA	S. BLACK-EYED SUSAN	1.00
SILPHIUM INTCRIFOLIUM	ROBIN WEEED	3.00
SILPHIUM TEREBINTHINACEUM	PRAIRIE DOCK	0.50
SOLIDAGO NEMORALIS	OLD-FIELD GOLDENROD	0.50
SOLIDAGO RIGIDA	STIFF GOLDENROD	1.00
TRADESCANTIA OHIENSIS	COMMON SPIDERWORT	0.75
VERNONIA SPP.	IRONWEED (VARIOUS MIX)	1.75
VERONICASTRUM VIRGINIANUM	CULVERS ROOT	0.25
	TOTAL	63.75

GENERAL LANDSCAPE NOTES

- THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS AND VEGETATION PROPOSED WITHIN THE LANDSCAPING PLAN. ANY TREES, SHRUBS, GROUND COVER OR OTHER VEGETATION PLANTED AS PART OF THIS PROJECT THAT DO NOT SURVIVE ONE YEAR FROM PLANTING SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES 3 WORKING DAYS IN ADVANCE OF ANY DIGGING. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF ANY UTILITIES.
- REFER TO THE LANDSCAPE SCHEMATIC PLAN FOR ADDITIONAL NOTES. LANDSCAPE IMPROVEMENTS SHALL CONFORM TO THE LATEST EDITION OF MDOT CONSTRUCTION AND MATERIAL SPECIFICATIONS AND CITY OF DETROIT ORDINANCES.
- ALL PLANTING MATERIALS: EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE BROKEN, LOW HANGING AND OTHER UNDESIRABLE GROWTH TO ENSURE HEALTHY AND SYMMETRICAL NEW GROWTH.
- 661.10 PLANTING BEDS. ONE MONTH BEFORE CULTIVATION AND AFTER DAYTIME TEMPERATURES HAVE WARMED TO 60° CONSISTENTLY, TREAT ALL PLANTING BEDS THAT ARE TO BE DEVELOPED IN AREAS OF EXISTING TURF WITH PRE-EMERGENT AND POST-EMERGENT TYPE HERBICIDES. USE A STATE-LICENSED PESTICIDE APPLICATOR TO APPLY THE HERBICIDE. REPEAT HERBICIDE APPLICATION TWO WEEKS LATER AND UNTIL ALL HERBACEOUS MATERIALS HAVE BEEN KILLED. BEFORE PLANTING, TOP DRESS ALL PLANTING BEDS WITH A MINIMUM OF 12 INCHES OF BACKFILL MIX, THEN CULTIVATE PLANTING AREA TO A DEPTH OF 6 INCHES USING A PLOW, DISC, OR ROTO-TILLER.
- 661.11 BACKFILL MIX. FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:
 A. ONE PART TOPSOIL.
 B. ONE PART EPA RATED CLASS IV COMPOST.
 C. A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD (3 KG/M3) TO THE BACKFILL MIX.
 D. IF SOIL AREAS ARE OF HIGH PH (GREATER THAN 6.5), APPLY 1.25 POUNDS OF ELEMENTAL SULFUR PER CUBIC YARD OF BACKFILL MIX.
 NOTE: CONTRACTOR SHALL SUPPLY A DETAILED SOIL ANALYSIS PRIOR TO ALL PLANT BED PREPARATION. ANALYSIS SHALL INDICATE SOIL PH, TEXTURE, MAJOR NUTRIENTS, SALTS, ETC. SOIL ANALYSIS SHALL BE FROM A REPUTABLE, INDEPENDENT LAB. SOIL AMENDMENTS SHALL BE INCORPORATED INTO BACKFILL/ PLANT MIX AS RECOMMENDED BY THE INDEPENDENT LAB.
- 661.13 MULCH. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH THESE AREAS WITH A 3-INCH (100 MM) LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE & SIZE. USE SHREDDED HARDWOOD BARK AGED MIN. ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 3 INCHES. AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 100 SQUARE FEET. DO NOT ALLOW FERTILIZER TO CONTACT THE STEMS, BRANCHES, ROOTS OR LEAVES.
- 661.17 PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1. DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING PROGRAMS (AROUND TREES, GUY STAKES, SHRUBS, AND BED EDGES) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER, ON OR ABOUT AUGUST 15. THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.
- RESTORATION OF DISTURBED AREAS:
 ALL LANDSCAPE AREAS DISTURBED BY CONTRACTOR OPERATIONS SHALL BE PREPARED FOR GRASS SEED. LOOSEN RUTS AND WORK THE SOIL AREAS TO A MINIMUM OF 12" DEEP PRIOR TO FINE GRADING AND SEEDING WORK. AREAS TO RECEIVE GRASS SEED SHALL HAVE A MIN. 4" TOPSOIL PLACED, SEEDING AND A STRAW/MULCH BLANKET COVER PLACED OVER THE SEEDING AREAS PER MDOT SPECIFICATIONS.
- LANDSCAPE TREES, SHRUBS AND PERENNIAL WATERING:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, DELIVERING, APPLYING, MEASURING AND SCHEDULING A SUFFICIENT AMOUNT OF WATER NECESSARY TO KEEP EACH PLANT IN A HEALTHY GROWING CONDITION THROUGHOUT THE PERIOD OF ESTABLISHMENT. THE CONTRACTOR SHALL APPLY 1" OF WATER PER WEEK TO ALL NEW PLANTS. THE CONTRACTOR SHALL INSTALL & MAINTAIN SUPPLEMENTAL DRIP WATERING TREE BAGS (SUCH AS 20 GALLON TREE GATOR WATER BAG) TO PROVIDE ADEQUATE, SLOW RELEASE OF WATER. WATER BAGS SHALL BE REMOVED AT THE END OF THE SECOND GROWING SEASON.
- TURF GROUND COVER (SODDING, SEEDING AND SEED MULCHING):
 SEED AT 6 LBS/1000 SF WITH THE FOLLOWING SEED MIXTURE:
 TITAN TALL-TYPE TURF FESCUE 70%
 SR 4100 PERENNIAL RYEGRASS 20%
 MERIT KENTUCKY BLUEGRASS 10%
 REFER TO MDOT SPECIFICATIONS FOR SEEDING METHODS AND DATES FOR BROADCAST AND HYDRO SEEDING METHODS. REFER TO MDOT SPECIFICATIONS FOR SODDING MATERIALS, PREPARATION AND PLACEMENT.



NATIVE WILDFLOWER & SEED INSTALLATION

SOIL PREPARATION
 SCARIFY SOIL SURFACE THROUGH SHALLOW TILLING OR RAKING. IF TILLING ADJACENT TO A WET AREA, ASSESS THE POTENTIAL FOR EROSION AND RUNOFF WHEN DISTURBING THE SOIL. IN LOWER ELEVATIONS, WHERE WATER LEVELS ARE DEEPER, SOW SEED THAT IS PACKAGED WET. SOW DRY-PACKAGED SEED ON THE HIGHER ELEVATIONS; THIS SEED CAN OVERLAP INTO WET-SEED AREAS. PRESS SEED FIRMLY INTO SOIL USING A ROLLER, CULTIPACKER, OR SIMILAR EQUIPMENT. LIGHT RAKING IS AN ACCEPTABLE ALTERNATIVE, BUT BE CAREFUL NOT TO COVER SEED MORE THAN 1/4-INCH DEEP. INSTALL EROSION FABRIC OVER AREAS WHERE WATER IS LIKELY TO FLOW AND DISPLACE SEED. SLOWLY RESTORE WATER LEVEL OR WAIT FOR RAINFALL TO BRING WATER LEVEL UP AFTER SEEDING. USE OUTLET CONTROLS TO MAINTAIN WATER LEVEL DEPTHS BETWEEN 1/2 INCH AND 6 INCHES UNTIL SEED GERMINATES AND WETLAND VEGETATION IS WELL ESTABLISHED.

BROADCASTING SEEDING
 FOR SMALL (TYPICALLY TWO ACRES OR LESS) OR IRREGULARLY SHAPED AREAS, SEED CAN BE PLANTED BY HAND BROADCASTING. TO AID SEED DISTRIBUTION, COMBINE THE SEED MIX WITH FILLER MATERIALS, SUCH AS SANDUST, PEAT MOSS, OR VERMICULITE. MIX THE MATERIAL EVENLY INTO THE FILLER MATERIAL, WHICH SHOULD BE SLIGHTLY DAMP SO THAT THE SEED STICKS TO IT. IF NOT ALREADY INCLUDED IN THE SEED MIX, PLANT A TEMPORARY COVER CROP ALONG WITH THE SEED, TO STABILIZE THE SOIL WHILE THE PERMANENT NATIVE SPECIES GERMINATE AND BECOME ESTABLISHED, ESPECIALLY IN HIGHLY-ERODIBLE AREAS. DO NOT USE A HEAVY AMOUNT OF COVER CROP SEED, WHICH COULD SMOTHER THE NATIVE SEED AND INHIBIT GERMINATION. USING A HAND-CRANK OR TOW-BEHIND BROADCASTER, START WITH HALF OF THE SEED AND TRY TO COVER THE ENTIRE AREA WITH THAT AMOUNT OF SEED. TAKE THE REMAINING HALF OF THE SEED, GO TO THE OPPOSITE END OF THE SITE AND COVER IT AGAIN. THIS APPROACH HELPS PREVENT RUNNING OUT OF SEED, A COMMON OCCURRENCE. AFTER BROADCASTING IS COMPLETE, IT IS IMPORTANT TO USE A CULTIPACKER OR ROLLER OVER THE AREA TO MAKE GOOD SEED-TO-SOIL CONTACT. IF A ROLLER IS NOT AVAILABLE, TRACTOR TIRES CAN BE USED INSTEAD. DO NOT COVER SEED MORE THAN 1/4-INCH DEEP.

NO-TILL DRILL SEEDING
 FOR LARGER AREAS AND SITES WITH EXISTING VEGETATION, USE A NO-TILL SEED DRILL, WHICH DOES NOT REQUIRE THE SOIL TO BE TILLED BEFORE PLANTING, RESULTING IN MINIMAL SOIL DISTURBANCE. NO-TILL DRILLS PLANT SEED IN ROWS BY OPENING SLITS IN THE SOIL, INTO WHICH SEED IS DEPOSITED. SEVERAL BRANDS OF NO-TILL DRILLS ARE AVAILABLE TO PLANT PRAIRIE FORBS AND GRASSES. IF USING A NO-TILL DRILL, CARDNO RECOMMENDS FOLLOWING THE SPECIFIC MANUFACTURER'S RECOMMENDATIONS. BECAUSE THE DIVERSITY OF SEED SIZES MAKES DRILL CALIBRATION A CHALLENGE, PERFORM A FEW TEST AREAS FIRST TO HELP PREVENT RUNNING OUT OF SEED.

POST-PLANTING PROTECTION
 PLANTINGS MAY NEED TO BE PROTECTED AFTER INSTALLATION. USE PHYSICAL BARRIERS SUCH AS CHICKEN WIRE, NETTING, OR TWINE OBSTACLES TO KEEP OUT GEESSE, MUSKRATS, DEER, AND OTHER ANIMALS. VARIOUS REPELLANTS CAN ALSO BE APPLIED DIRECTLY TO THE PLANTS, BUT THEY OFTEN NEED TO BE RE-APPLIED PERIODICALLY.

MANUFACTURER'S REQUIREMENTS
 FOLLOW ANY ADDITIONAL REQUIREMENTS AS SPECIFIED BY THE SEED PROVIDER.

NO.	1	DATE	03/31/2022	BY	KCC	DESCRIPTION	CITY PERMIT
65 CADILLAC SQUARE SUITE 3311 DETROIT, MI 48226 TEL: 313.961.9800 FAX: 313.961.9809							PROJECT NO.: 5192020 DRAWN BY: KHV CHECKED BY: DAR
<p>TECHNICAL SPIRIT. CREATIVE GROUP</p> <p>PREPARED FOR: JOHN EDMUND STREET, LLC 20520 VERNIER RD. HARPER WOODS, MI 48225 313-655-8583</p>							
PROPOSED PARKING PLAN #115 EDMUND CARLTON CONDOMINIUM CITY OF DETROIT, MICHIGAN							
LANDSCAPING DETAILS							
L2							