

**LANDSCAPE NOTES:**

- ALL DISTURBED AREAS SHALL BE SEEDED, SODDED, MULCHED OR LANDSCAPED UNLESS INDICATED OTHERWISE.
- REFER TO PLANS/LIMITS OF DISTURBANCE FOR SEEDING LIMITS, SEED MIXES AND APPLICATION RATES. ALL PERMANENT SEEDING SHALL BE INSTALLED AFTER FINAL GRADES ARE MET AND APPROVED AND PRIOR TO INSTALLATION OF EROSION CONTROL BLANKETS AS SPECIFIED.
- PROTECT STRUCTURES, UTILITIES, PAVED SURFACES AND OTHER EXISTING IMPROVEMENTS INCLUDING LAWNS/VEGETATED AREAS AND PLANT MATERIAL FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, RESTORE AND REPLACE DAMAGED MATERIALS IN KIND OR AS APPROVED BY THE OWNER.
- PRECAUTIONS SHALL BE TAKEN DURING CONSTRUCTION TO ENSURE THE PROTECTION OF ALL EXISTING TREES TO REMAIN. THESE EFFORTS SHALL ENSURE THAT EQUIPMENT DOES NOT DAMAGE TREE TRUNKS OR BRANCHES, ROOT ZONES ARE NOT COMPACTED BY VEHICLES OR CONSTRUCTION MATERIAL, AND THAT GRADE LEVEL WITHIN THE RIP RAP LINE OF EXISTING TREES IS NOT CHANGED UNLESS APPROVED OTHERWISE.
- ALL TREES AND SHRUBS TO BE REMOVED SHALL BE MECHANICALLY REMOVED IF IN CONFLICT WITH PROPOSED WORK OR PLANTINGS, UNLESS INDICATED OTHERWISE.
- CONTRACTOR SHALL VERIFY FINISHED GRADES ARE MET/PROPER DRAINAGE SHALL OCCUR PRIOR TO LAYOUT OF PLANT MATERIAL AND PLANTING. LANDSTUDIES, INC. SHALL BE CONTACTED TO APPROVE FINAL GRADES PRIOR TO PLANTING.
- ALL PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
- REQUIREMENTS FOR PLANT MATERIAL INCLUDING BUT NOT LIMITED TO MEASUREMENT, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING, SHALL CONFORM TO THE STANDARDS RECOMMENDATIONS AND STANDARDS LISTED IN THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1, CURRENT EDITION AS AMENDED, PUBLISHED BY AMERICANHORT (FORMALLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION OR ANLA)
- ALL PLANTINGS AND PLANTING PROCEDURES INCLUDING STAKING AND GUYING OF TREES SHALL CONFORM TO GOOD NURSERY AND LANDSCAPE PRACTICE AND THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- UNLESS OTHERWISE SPECIFIED, ALL PLANT MATERIAL SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, HAVE WELL DEVELOPED BRANCHES, BE DENSELY FOLIATED, VIGOROUS IN GROWTH, AND BE POSSESS HEALTHY ROOT SYSTEMS. ALL PLANT MATERIAL SHALL BE FREE OF DISEASE, INSECTS, INSECT EGGS AND LARVAE. PROVIDE SINGLE TRUNK STANDARD TREES UNLESS NOTED OTHERWISE.
- ALL CONTAINER GROWN NURSERY STOCK SHALL BE HEALTHY, VIGOROUS, WELL ROOTED, AND ESTABLISHED IN THE CONTAINER IN WHICH IT IS GROWING. CONTAINER GROWN NURSERY STOCK SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL WHEN THE CONTAINER IS REMOVED, BUT SHALL NOT HAVE EXCESSIVE ROOT GROWTH ENCRUING THE INSIDE OF THE CONTAINER
- ALL PLANTS TO BE NURSERY GROWN IN A CLIMATE SIMILAR TO THAT OF THE PROJECT.
- CONTRACTOR SHALL VERIFY ALL PLANT COUNTS AND LOCATIONS PRIOR TO ORDERING MATERIALS. LANDSTUDIES AND THE OWNER ACCEPT NO RESPONSIBILITY FOR TYPOGRAPHICAL ERRORS OR QUANTITY MISCOUNTS. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL PLANTINGS AS INDICATED/REQUIRED, AND SHALL NOTIFY LANDSTUDIES OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.
- TREES AND SHRUBS SHALL BE PLANTED DURING APPROVED TIMES OF THE YEAR. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY ANY SPECIES ON THE PLANT LIST THAT REQUIRE PLANTING DURING SPECIFIC TIMES OF THE YEAR AND OBTAIN APPROVAL BY THE OWNER AND LANDSTUDIES PRIOR TO PLANTING. PLANT DURING PERIODS NORMAL FOR OPTIMUM GROWTH, AS DETERMINED BY SEASON, WEATHER CONDITIONS, AND ACCEPTED PRACTICE. DO NOT PERFORM PLANTING WHEN GROUND IS FROZEN, SNOW COVERED, OR IN AN UNSATISFACTORY CONDITION.
- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, POOR SOILS OR OBSTRUCTIONS, NOTIFY THE OWNER'S REPRESENTATIVE BEFORE PLANTING.
- LAYOUT INDIVIDUAL TREE AND SHRUB LOCATIONS, AND ADJUST LOCATIONS WHEN REQUESTED AND OBTAIN LANDSTUDIES, INC. ACCEPTANCE OF LAYOUT PRIOR TO PLANTING.
- BIOPLEX 5-IN-1, OR APPROVED EQUAL, SHALL BE APPLIED TO ALL PLANTS DURING INSTALLATION IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
- ALL PLANTS SHALL BE PLANTED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS.
- ALL PLANTING AREAS AND PLANTING FITS TO BE MULCHED SHALL BE MULCHED (AS SPECIFIED AND DETAILED) TO FILL THE ENTIRE PLANTING BED AREA OR PIT. INDIVIDUAL PLANTS NOT LOCATED WITHIN A BED SHALL HAVE A MULCHED CIRCLE. THE SIZE OF THE MULCHED CIRCLE SHALL BE DETERMINED ACCORDING TO THE OVERALL PLANT SIZE OR CALIPER AS DETAILED. CONSULT LANDSTUDIES FOR CLARIFICATION IF REQUIRED. NO MULCH SHALL BE APPLIED AGAINST THE FOLIAGE, STEM, OR TRUNK OF ANY PLANT. MULCH SHALL BE ORGANIC, NATURAL, SHREDDED HARDWOOD BARK, UNLESS APPROVED OTHERWISE.
- PLANTING LOCATED WITHIN FLOODPLAIN SEEDING AREA SHALL NOT BE MULCHED.
- MAINTAIN PROPER WATERING REQUIREMENTS TO ENSURE PLANT ESTABLISHMENT.
- HERBACEOUS PLANTS OF THE SAME SPECIES SHALL NOT BE PLANTED IN GROUPS THAT EXCEED 7 PLANTS UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- PLANT LAYOUT SHALL BE ADJUSTED BASED ON CONSTRUCTED SOIL AND HYDROLOGICAL CONDITIONS BY PROJECT DESIGNER TO BEST MATCH SPECIES WITH CONDITIONS.
- ALL DISTURBED AREAS NOT IDENTIFIED TO RECEIVE SEEDING OR PLANTINGS SHALL BE PERMANENTLY SEEDED WITH THE TURF GRASS SEED MIX AS SPECIFIED.

**SHRUB PLANTING**

BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
ALNUS SERRULATA	SMOOTH ALDER	15	#2	8' OC
ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	BLACK CHOKEBERRY	14	#2	8' OC
ARONIA MELANOCARPA	RED CHOKEBERRY	14	#2	8' OC
CORNUS RACEMOSA	GRAY DOGWOOD	15	#2	8' OC
CORNUS SERICEA	RED-OSIER DOGWOOD	15	#2	8' OC
ILEX VERTICILLATA	WINTERBERRY	14	#2	8' OC
ITEA VIRGINICA	VIRGINIA SWEETSPICE	14	#2	8' OC
LINDERA BENZOIN	SPICEBUSH	15	#2	8' OC
VIBURNUM DENTATUM	ARROWWOOD	14	#2	8' OC
VIBURNUM PRUNIFOLIUM	BLACK HAW	14	#2	8' OC
		<b>TOTAL:</b>	<b>144</b>	

- NOTES:**
- SHRUB SPECIES SHALL BE EQUALLY DIVIDED AND SPREAD ACROSS THE ENTIRE PROJECT AREA PLACED WITHIN THE SHRUB PLANTING AREAS.
  - SHRUBS OF THE SAME SPECIES SHALL BE PLANTED IN GROUPS OF MIN. 3 PLANTS BUT NOT BE PLANTED IN GROUPS THAT EXCEED 7 PLANTS

**FLOODPLAIN SEED MIX**

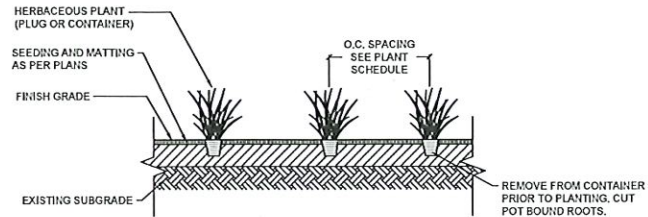
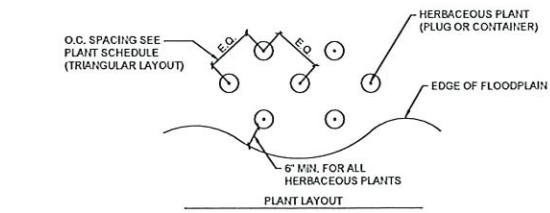
%	BOTANICAL NAME	COMMON NAME
37.75	ELYMUS VIRGINICUS	VIRGINIA RYE
26.43	ELYMUS RIPARIUS	RIVER BANK WILD RYE
7.70	ZIZIA AUREA	GOLDEN ALEXANDER
5.60	TRIDENS FLAVUS	PURPLETOP
5.59	CAREX BICKNELLII	PRAIRIE SEDGE
4.40	ASCLEPIAS INCARNATA	SWAMP MILKWEED
2.64	CAREX VULPINOIDEA	FOX SEDGE
2.11	CAREX NORMALIS	SPREADING OVAL SEDGE
1.38	CAREX CRINITA	FRINGED SEDGE
1.22	PENSTEMON DIGITALIS	WHITE BEARDTONGUE
1.14	VERBENA HASTATA	BLUE VERVAIN
0.86	PHYCANTHEMUM VIRGINIANUM	MOUNTAIN MNT
0.69	CHELONE GLABRA	WHITE TURTLEHEAD
0.69	EUPATORIUM COELESTINUM	MSTFLOWER
0.60	CAREX STRICTA	TUSsock SEDGE
0.42	LOBELIA SIPHILITICA	GREAT BLUE LOBELIA
0.25	EUPATORIUM PURPUREUM	PURPLE JOE-PYE WEED
0.18	HYPERICUM PUNCTATUM	DOTTED ST. JOHNS WORT
0.16	JUNCUS EFFUSUS	COMMON RUSH
0.10	PHYCANTHEMUM MUTICUM	BIG LEAF MOUNTAIN MNT
0.09	EUTHAMIA CAROLINIANA	SLENDER GOLDENTOP
100.00		

SEEDING RATE: 26 LBS PER ACRE

**HERBACEOUS FLOODPLAIN PLUG PLANTING**

BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
ASCLEPIAS INCARNATA	SWAMP MILKWEED	300	DP50	24" OC
CHELONE GLABRA	WHITE TURTLEHEAD	300	DP50	24" OC
EUPATORIUM COELESTINUM	MSTFLOWER	300	DP50	24" OC
EUPATORIUM PURPUREUM	PURPLE JOE-PYE WEED	300	DP50	24" OC
EUTHAMIA CAROLINIANA	SLENDER GOLDENTOP	300	DP50	24" OC
HYPERICUM PUNCTATUM	DOTTED ST. JOHNS WORT	300	DP50	24" OC
LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	250	DP50	24" OC
PENSTEMON DIGITALIS	WHITE BEARDTONGUE	250	DP50	24" OC
PHYCANTHEMUM MUTICUM	BIG LEAF MOUNTAIN MNT	250	DP50	24" OC
PHYCANTHEMUM VIRGINIANUM	MOUNTAIN MNT	250	DP50	24" OC
VERBENA HASTATA	BLUE VERVAIN	300	DP50	24" OC
ZIZIA AUREA	GOLDEN ALEXANDER	300	DP50	24" OC
		<b>TOTAL:</b>	<b>3,400</b>	

- NOTES:**
- QUANTITY ASSUMES 25% OF PROPOSED FLOODPLAIN SEEDING AND PLUG PLANTING AREA TO BE HERBACEOUS PLUGS
  - PLUGS TO BE INSTALLED POST SEEDING AND MATTING IN WETTEST LOCATION WITH SPACING NO CLOSER THAN 24" O.C.
  - SPECIES SHALL BE UNIFORMLY DISTRIBUTED, WITH NO LESS THAN 5 SPECIES PER 100 SQUARE FEET OF PLANTED AREA.



- L-1 HERBACEOUS PLUG PLANTING**
- NOT TO SCALE
- PLUG PLANTINGS ARE INTENDED TO PROVIDE ADDITIONAL HERBACEOUS COVER WITHIN THE FLOODPLAIN IMMEDIATELY FOLLOWING CONSTRUCTION.
  - PLUGS PLANTINGS SHALL BE CONCENTRATED IN THE MOST SATURATED AREAS WHERE SEED ESTABLISHMENT MAY BE MORE DIFFICULT.
  - FINAL PLANTING LOCATIONS MAY BE ESTABLISHED AT THE DIRECTION OF THE PLAN PREPARER BASED ON SITE CONDITIONS AND IN ACCORDANCE WITH THE DETAIL.

**UPLAND SEED MIX**

%	BOTANICAL NAME	COMMON NAME
21.50	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
20.10	BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA
20.00	ELYMUS VIRGINICUS	VIRGINIA RYE
7.10	ERYNGIUM YUCCIFOLIUM	RATTLESNAKE MASTER
6.50	ECHINACEA PURPUREA	PURPLE CONEFLOWER
5.20	ECHINACEA PALLIDA	PALE PURPLE CONEFLOWER
2.80	TRIDENS FLAVUS	PURPLETOP
2.50	ZIZIA AUREA GOLDEN ALEXANDER	GOLDEN ALEXANDER
2.30	PARTHENIUM INTEGRIFOLIUM	WILD QUINNE
1.40	CAREX BICKNELLII	COPPER OVAL SEDGE
1.40	CAREX BREVIOR	PLAINS OVAL SEDGE
1.40	CAREX VULPINOIDEA	FOX SEDGE
1.40	ASCLEPIAS TUBEROSA	BUTTERFLY WEED
1.40	LESPEDEZA CAPITATA	ROUND-HEADED BUSH CLOVER
1.10	ASTER LAEVIS (SYMPHOTRICHUM)	SMOOTH ASTER
1.10	SOLIDAGO RIGIDA (OLIGONEURON)	STIFF GOLDENROD
0.60	PENSTEMON DIGITALIS	WHITE BEARDTONGUE
0.40	RATIBIDA PINNATA	YELLOW CONEFLOWER
0.40	RUDBECKIA HIRTA	BLACK EYED SUSAN
0.40	RUDBECKIA TRILOBA	THIN-LEAF CONEFLOWER
0.40	SOLIDAGO JUNCEA	EARLY GOLDENROD
0.20	HELENIUM FLEXUOSUM	HELEN'S FLOWER
0.20	HYPERICUM PUNCTATUM	DOTTED ST. JOHNS WORT
0.20	MONARDA FISTULOSA	WILD BERGAMOT
100.00		

**TREE PLANTING**

KEY	BOTANICAL NAME	COMMON NAME	QTY	SIZE	CONDITION	NOTES
BN	BETULA NIGRA	RIVER BIRCH	9	#7	CONT.	MULTISTEM
NS	NYSSA SYLVATICA	BLACK GUM	4	#7	CONT.	
PO	PLATANUS OCCIDENTALIS	SYCAMORE	5	#7	CONT.	
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	4	#7	CONT.	
			<b>TOTAL:</b>	<b>22</b>		

**LIVE STAKE PLANTING**

BOTANICAL NAME	COMMON NAME	QTY	SIZE	SPACING
CORNUS AMOMUM	SILKY DOGWOOD	139	3'	3' OC
CORNUS SERICEA	RED-OSIER DOGWOOD	139	3'	3' OC
CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	140	3'	3' OC
		<b>TOTAL:</b>	<b>418</b>	

- NOTES:**
- LIVESTAKES TO BE INSTALLED IN LOCATIONS AND QUANTITIES AS SPECIFIED ON THE PLANS.
  - RANDOM DISTRIBUTION OF SPECIES SHALL OCCUR WITH NO SINGLE SPECIES ACCOUNTING FOR MORE THAN 50% OF AN INDIVIDUAL PLANTING AREA.
  - INDIVIDUAL SPECIES GROUPS SHALL NOT EXCEED 25 PLANTS.

**NURSE CROP SEED MIX**

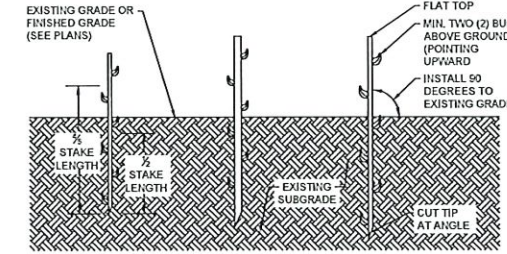
%	BOTANICAL NAME	COMMON NAME	APPLICATION RATE	SEED WINDOW
100	SECALE CEREALE	CEREAL RYE	30 LBS/AC	JULY - OCTOBER
OR				
100	AVENA SATIVA	OATS	20 LBS/AC	APRIL - JUNE

- NOTES:**
- NURSE CROP TO BE SEEDED IN ADDITION TO PERMANENT SEEDING WITH FLOODPLAIN SEED MIX OR UPLAND SEED MIX HATCH ONLY. NURSE CROP IS NOT TO BE SEEDED ANYWHERE THE TURF GRASS SEED MIX IS INSTALLED.

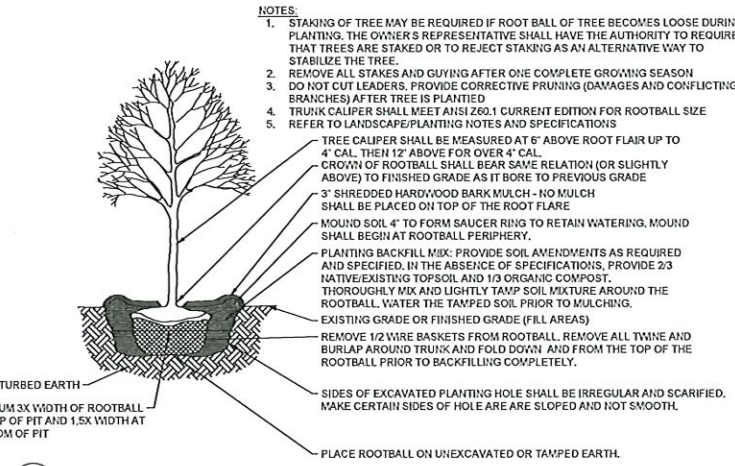
**OVERTIME TALL FESCUE TURF MIX**

%	COMMON NAME
40.00	SIDEWINDER TALL FESCUE
30.00	NINJA 3 TALL FESCUE
30.00	CORTEZ II TALL FESCUE
100.00	

SEEDING RATE: 350 LBS LIVE SEED PER ACRE

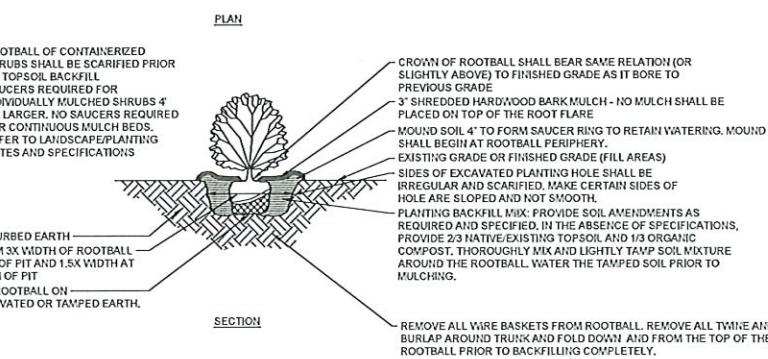
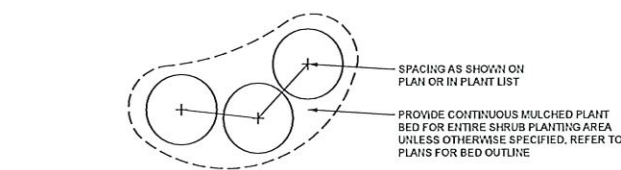


- L-2 LIVE STAKES**
- NOT TO SCALE
- SPACE LIVE STAKES 3' ON CENTER IN LIVE STAKE PLANTING AREAS
  - LIVE STAKES MUST BE BETWEEN 1/2" TO 2" IN DIAMETER AND MUST BE 3' LONG.
  - THE BOTTOM 1/2 OF LIVE STAKES SHALL BE SOAKED IN WATER MIN. 24 HOURS PRIOR TO PLANTING AND SHALL BE INSTALLED DURING DORMANCY PERIOD ONLY (LATE FALL TO EARLY SPRING).
  - PRIOR TO PLANTING, WITH THE BUDS POINTING UPWARD, FRESH CUT THE STAKES WITH AN ANGLE CUT (APPROX. 45 DEGREES) ON THE BOTTOM AND SQUARE (90 DEGREES) ON THE TOP.
  - TRIM ALL SIDE BRANCHES CLEARLY SO THE CUTTING IS ONE STEM.
  - STAKES MUST BE STORED IN A COOL AND MOIST PLACE TO KEEP THEM ALIVE AND DORMANT.
  - USING REBAR OR SIMILAR OBJECT WITH SAME DIA. OR SLIGHTLY LESS THAN LIVE STAKE, CREATE A PILOT HOLE AT A 90 DEGREE ANGLE TO THE SOIL SURFACE BY PUSHING IT INTO THE SOIL AND REMOVING IT. INSERT STAKES PERPENDICULAR TO THE GROUND IN PREPARED PILOT HOLE WITH ANGLED END FIRST AND BUDS FACING UPWARD AT LEAST 1/2 TO 3/4 OF THE TOTAL STAKE LENGTH. KEEP AT LEAST 2 BUDS ABOVE GROUND SURFACE. A RUBBER MALLETT MAY BE NECESSARY TO DRIVE STAKES INTO THE GROUND, BUT MAKE A FRESH CUT ON THE EXPOSED END TO REMOVE MALLETT DAMAGE.
  - DO NOT USE SPLIT STAKES.



**L-3 TREE PLANTING**

NOT TO SCALE



**L-4 SHRUB PLANTING**

NOT TO SCALE

PA 042324  
717-627-4440  
landstudies.com  
land@landstudies.com  
315 North Street  
Lititz, PA 17543

PROJECT: PERKIOMEN CREEK TRIBUTARY  
PERKIOMEN TOWNSHIP  
1 TRAPPE ROAD  
COLLEGEVILLE, PA 19426

LANDSCAPE DETAILS

SHEET TITLE

REV	DATE	DESCRIPTION
1	05/20/20	PER EXP

DATE: 09/17/2021  
SCALE: N/A  
PROJECT NUMBER: D-1338-2-20  
DRAWN BY: NPM  
CHECKED BY: RWG  
PLANT TYPE: CONSTRUCTION DRAWINGS  
SHEET NUMBER: 12 OF 13