

MISC. LANDSAPE COSTS

QTY	UNIT	DESCRIPTION	\$/UNIT	\$ TOTAL
100	CY	PLANTING MIX @ 8" DEPTH FOR BEDS & PER PLANTING DETAILS	\$95.00	\$9,500.00
25	CY	SHREDDED HARDWOOD MULCH	\$85.00	\$2,125.00
15,200	SY	IRRIGATION SYSTEM ALLOWANCE	\$4.00	\$60,800.00
1,330	SF	COBBLE & FABRIC	\$5.50	\$7,315.00
700	LF	BLACK, $\frac{3}{16}$ " THK. X 4" HT. STEEL EDGING	\$11.00	\$7,700.00
1	LS	FERTILIZER	\$5,500.0	0 \$5,500.00
1	LS	BULK & PLANT DELIVERIES	\$3,000.0	0 \$3,000.00

LANDSCAPE COST OPINION PROJECT TOTAL (EARTH WORK, LIGHTING, AND UTILITIES NOT INCLUDED) = \$361,498.00

NOTE: ZAREMBA & COMPANY (Z&C) HAS NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT OR SERVICES FURNISHED BY OTHERS, OR OVER THE CONTRACTORS METHOD OF DETERMINING PRICES, OR OVER COMPETITIVE BIDDING OR MARKET CONDITIONS. THE OPINIONS OF PROBABLE PROJECT COSTS AND CONSTRUCTION COSTS PROVIDED ARE MADE ON THE BASIS OF OUR EXPERIENCE AND QUALIFICATIONS AND REPRESENT OUR BEST JUDGEMENT AS AN EXPERIENCED AND QUALIFIED ORGANIZATION FAMILIAR WITH THE CONSTRUCTION INDUSTRY. ZAREMBA & COMPANY, INC. CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, TAKE-OFFS, QUANTITIES, ACTUAL PROJECT OR CONSTRUCTION COSTS WILL NOT VARY FROM THIS COST OPINION. BIDDING CONTRACTOR SHALL VERIFY ALL QUANTITIES AND UNITS.

GENERAL PLANTING & LANDSCAPE NOTES:

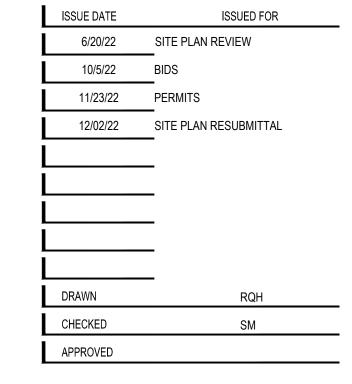
- 1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS, AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS
- 2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 811. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNERS REPRESENTATIVE PRIOR TO COMMENCING.
- 4. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1 GRADE.
- 5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- 6. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- 7. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- 8. ALL SINGLE STEM SHADE TREES TO HAVE A CENTRAL LEADER. TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- 9. ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- 10. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST 5 GROWING
- 11. ALL TREES TO HAVE CLAY OR CLAY LOAM ROOTBALLS. TREES WITH SAND ROOTBALLS WILL BE REJECTED.
- 12. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL AREAS WITHIN THE DRIP LINE OF EXISTING TREES
- 13. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- 14. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
- ALL PLANTING BEDS CONTAINING TREES OR SHRUBS SHALL RECEIVE A MINIMUM 4-INCH LAYER OF SHREDDED HARDWOOD BARK AND AROUND THE BASE OF ALL TREES PLANTED WITHIN LAWN AREAS (MULCH COVER THE ENTIRE PLANTING PIT WIDTH), PER CODE. SHREDDED PALLET AND DYED MULCH WILL NOT BE ACCEPTED.
 LIVE GROUNDCOVERS AND OTHER SIMILAR VINES AND PLANT MATERIAL SHALL BE MULCHED WITH A 2-INCH LAYER OF SHREDDED HARDWOOD BARK. SHREDDED PALLET AND DYED MULCH WILL NOT BE ACCEPTED.
- 17. ALL LANDSCAPE AREAS SHALL RECEIVE A MINIMUM OF 12" PLANTING MIX.
- 18. ALL LAWN AND PLANTING BEDS TO HAVE AN IN-GROUND AUTOMATIC IRRIGATION SYSTEM. PROVIDE 100% COVERAGE FOR ALL LANDSCAPE AREAS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE DESIGNED TO MINIMIZE WATER USAGE, AND SHALL BE SHUT OFF DURING WATER EMERGENCIES, PERIODS OF PROTRACTED RAINFALL, OR WATER RATIONING PERIODS. WHEN CONNECTING THE NEW SYSTEM TO EXISTING FACILITIES OUTSIDE THE PROJECT BOUNDARIES, THE CONTRACTOR SHALL FIELD REVIEW AND PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL. REVIEW THE IRRIGATION PLANS ON SITE WITH THE IRRIGATION CONSULTANT, LIQUID ASSETS, PRIOR TO INSTALLATION.
- 19. PLANT MATERIAL ADJACENT TO FDC CONNECTIONS ARE TO ALLOW FOR VISUAL CLEARANCE.
- 20. TREE PROTECTION FENCING MUST BE INSTALLED, INSPECTED, AND APPROVED BY THE CITY'S LANDSCAPE ARCHITECT PRIOR TO THE ISSUANCE OF THE LAND IMPROVEMENT PERMIT FOR THIS DEVELOPMENT.
- 21. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM 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 LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGLE FORMED BY THE INTERSECTION OF ANY DRIVEWAY AND 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 HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED A MINIMUM OF 5' FROM AN UNDERGROUND UTILITY, UNLESS THE CITY'S LANDSCAPE ARCHITECT REQUIRES A GREATER DISTANCE. THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.
- 22. 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. THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.
- 23. A 2-YEAR WARRANTY IS REQUIRED FOR ALL PLANTS.
- 24. ALL DUMPSTERS AND MECHANICAL AREAS SHALL BE SCREENED PER THE ORDINANCE.
- 25. ALL SIGNS MUST MEET CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING
- 26. ALL SEEDED AREAS SHALL INCLUDE 4" IMPORTED CLEAN TOPSOIL AND RECEIVE STRAW STABILIZATION MATTING. SEE SPECIFICATIONS.
- 27. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH SEEDED LAWN AND TOPSOIL. FIELD VERIFY LIMITS, INCLUDING UTILITY WORK.

	REFERE	NCE NOTES SC	HEDUL	E				
		Aggregate Surface						
	SYMBOL	DESCRIPTION	DETAIL	ITEM	COLOR	FINISH	SIZE	NOTES
	32-15-01	COBBLE & FABRIC	5/L101	COBBLE		NATURAL ROUND	4'' - 6''	PER DETAIL
0.0.0.0.0.0.0								
		Mulch						
	SYMBOL	DESCRIPTION	DETAIL	ITEM	COLOR	FINISH	SIZE	NOTES
	32-91-01	MULCH	6/L101	MULCH	NATURAL	SHREDDED		PER PLANTING DETAILS
						·		I
		Planting Accessories						
	SYMBOL	DESCRIPTION	DETAIL	ITEM	COLOR	FINISH	SIZE	NOTES
	32-94-01	METAL EDGING		METAL EDGING	BLACK	STEEL	3/16" X 4" HT	PER DETAIL

PLANT SC		CIZE	CONTAINED	<u> </u>	OTV	11000 TILALL	TOTAL	DELAADIC	
TREES	BOTANICAL / COMMON NAME	SIZE	CONTAINER		QTY	UNIT COST		REMARKS	
AF	ACER RUBRUM 'FRANKSRED' TM / RED SUNSET MAPLE	2" CAL.			22	\$900	\$19,800	REPLACEMENT TREES PER CODE	
AL	ACER SACCHARUM 'LEGACY' / LEGACY SUGAR MAPLE	2" CAL.			24	\$900	\$21,600		
НА	HAMAMELIS X INTERMEDIA / WITCH HAZEL	8` HT.			42	\$700	\$29,400		
SHRUBS	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	QTY	UNIT COST	TOTAL	REMARKS	
СВ	CORNUS SERICEA 'BAILEYI' / BAYLEY'S RED TWIG DOGWOOD	5 GAL.		48" o.c.	42	\$135	\$5,670		
Π	THUJA OCCIDENTALIS 'TECHNY' / TECHNY ARBORVITAE	5` HT.	РОТ	24" o.c.	19			CONTRACTOR SHALL INCLUDE BURLAP OF EVERGREEN HEDGE ALL SIDES WITH STAKES AT CORNERS AND 4' O.C. FOR 2 WINTER SEASONS	
GROUND COVERS	S CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	QTY	UNIT COST	TOTAL	REMARKS
	FSP	NO MOW LAWN SEED MIX / BY PRAIRIE NURSERY, OR APPROVED SUB.	SEED			6,646 SF	\$4	\$26,584	PREP & INSTALLATION PER MANUFACTURER'S REQUIREMENTS
SOD/SEED	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING	QTY	UNIT COST	TOTAL	REMARKS
	TS NOTE: SEEDING INCLUDED 4" TOPSOIL & FINE GRADING	TURF SEED	SEED		{	130,003 SF	\$1.25	\$162,504	SEE SPECS
							TOTAL:	\$265,558	

		Tree Replacement Inventory Summary SM20193 - Rochester University					
		N. off Avon Rd, W. of Rochester Rd					
		City of Rochester Hills, Michigan					
Tree Tag #	D.B.H. in Inches					Crown Spread^	Notes
2	9	Black Walnut - Juglans nigra	Good	15			
5	ср	Eastern Red Cedar - Juniperus virginiana	Good	10			
6	8	Eastern Red Cedar - Juniperus virginiana	Good	10			
39	31	Siberian Elm - Ulmus pumila	Good	60	Specimer		
72	12	Siberian Elm - <i>Ulmus pumila</i>	Good	20			
181	6	Linden - Tilia cordata spp.	Good	10			
1753	8	Black Walnut - <i>Juglans nigra</i>	Poor	15			
1754	6,6	Buckthorn - Rhamnus spp.	Poor	20			
1976	9	Shagbark Hickory - Carya ovata	Poor	15			
1979	10,7	Black Walnut - <i>Juglans nigra</i>	Fair	25			
1980	10	Black Walnut - <i>Juglans nigra</i>	Good	20			
1993	8	Basswood - Tilia americana	Fair	15			
4141	8	Eastern Red Cedar - Juniperus virginiana	Good	10			
4142	12	Black Walnut - Juglans nigra	Fair	25			
4143	6,6	Buckthorn - Rhamnus spp.	Poor	15			
ree Removals	Detail	Calculation Replacement Quantity		DBH			
13	greater than 6" dbh trees	1 replacement tree per removal	13	2" dbh			
1	specimen tree	total tree dbh / 2 = 15.5 dbh / 2 dbh = 4 trees	8	3" dbh			
0	less than 6" dbh tree	no replacement	0	2" dbh			
		Total trees replaced:	21				





\$95,940.00



236 MILL STREET ROCHESTER, MI 48307

T: 248.656.1377 frenchaia.com © FRENCH associates, Inc.



ROCHESTER

UNIVERSITY ATHLETIC FIELD IMPROVEMENTS

ROCHESTER HILLS MICHIGAN

SHEE

PLANTING PLAN

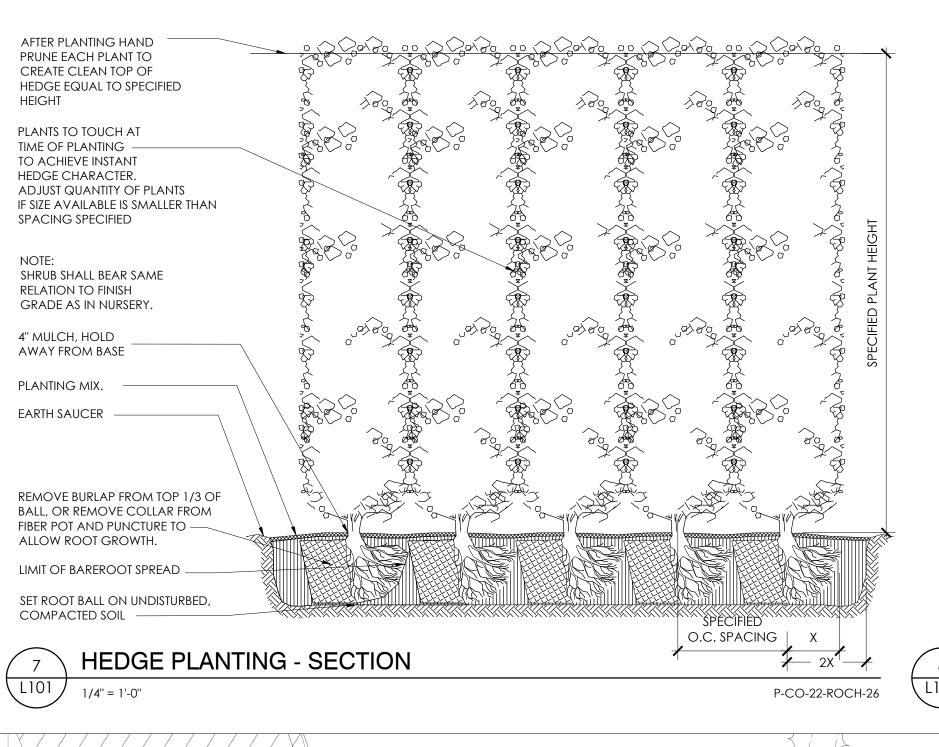
PROJECT NUMBER

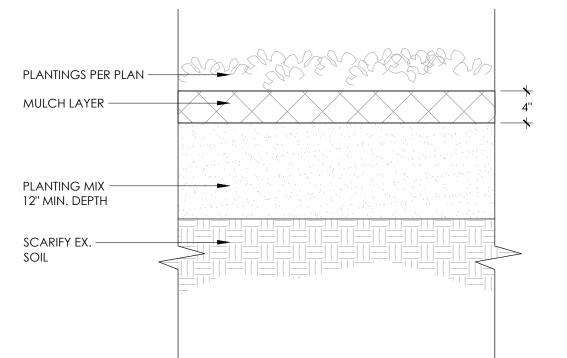
2020-003

SHEET NUMBER

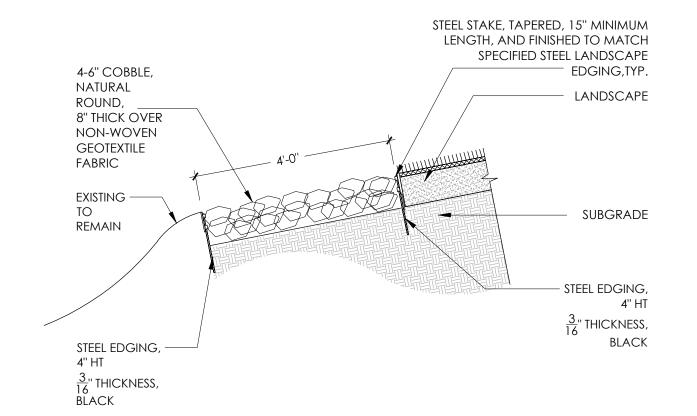
L100

CITY FILE #22-021 SECTION #15

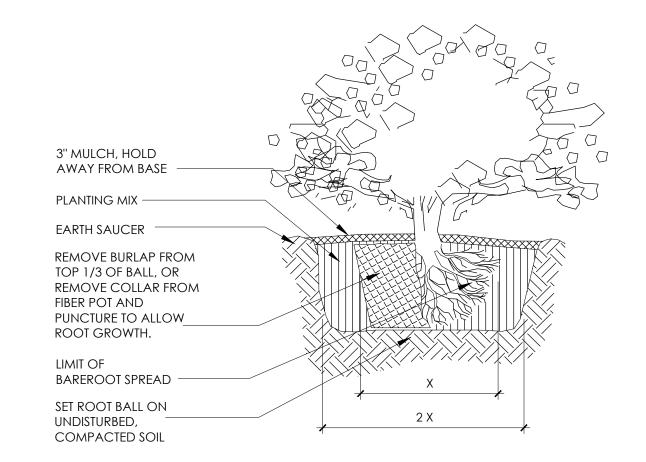




TYPICAL PLANT BED - SECTION



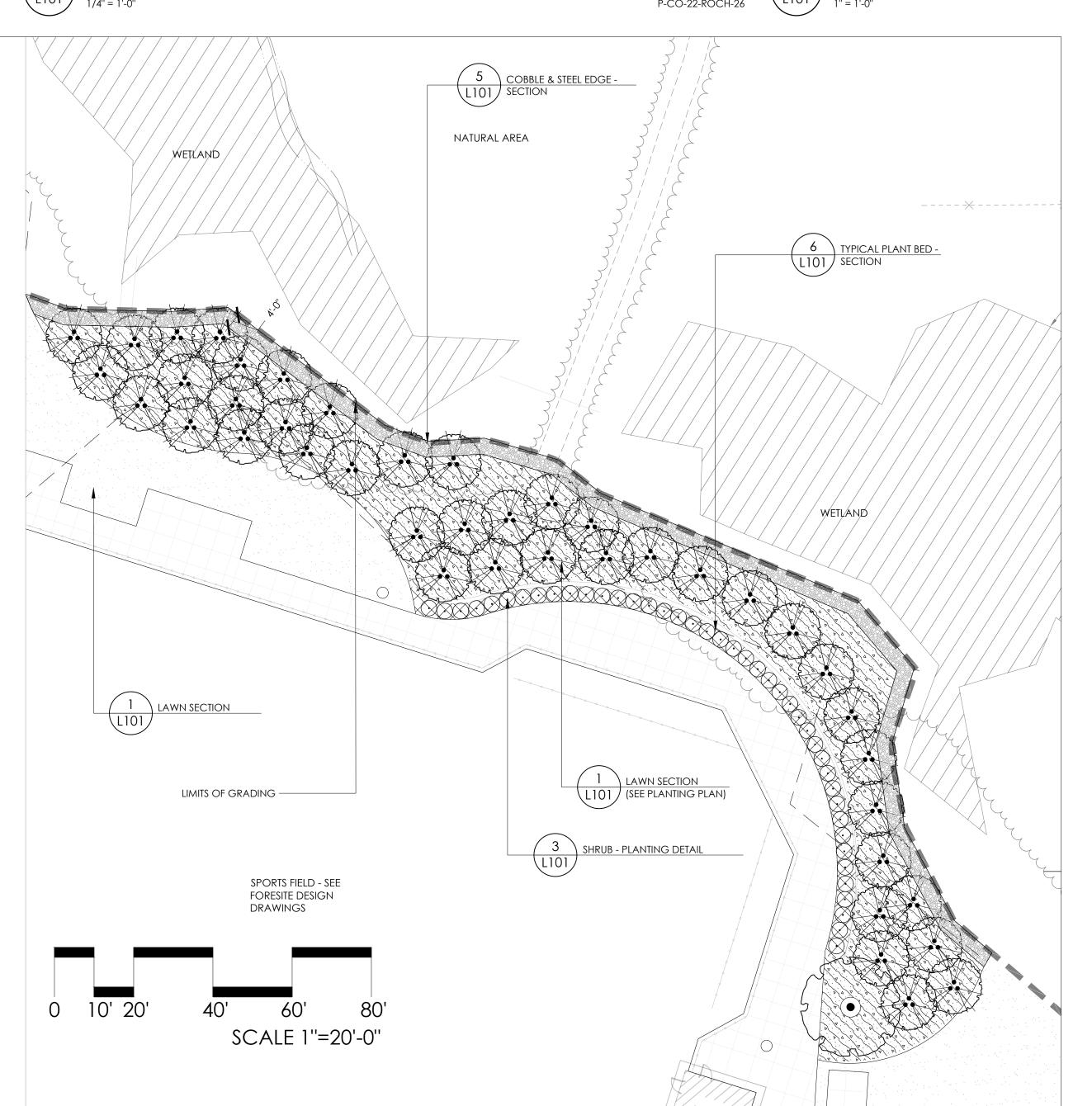
COBBLE & STEEL EDGE - SECTION



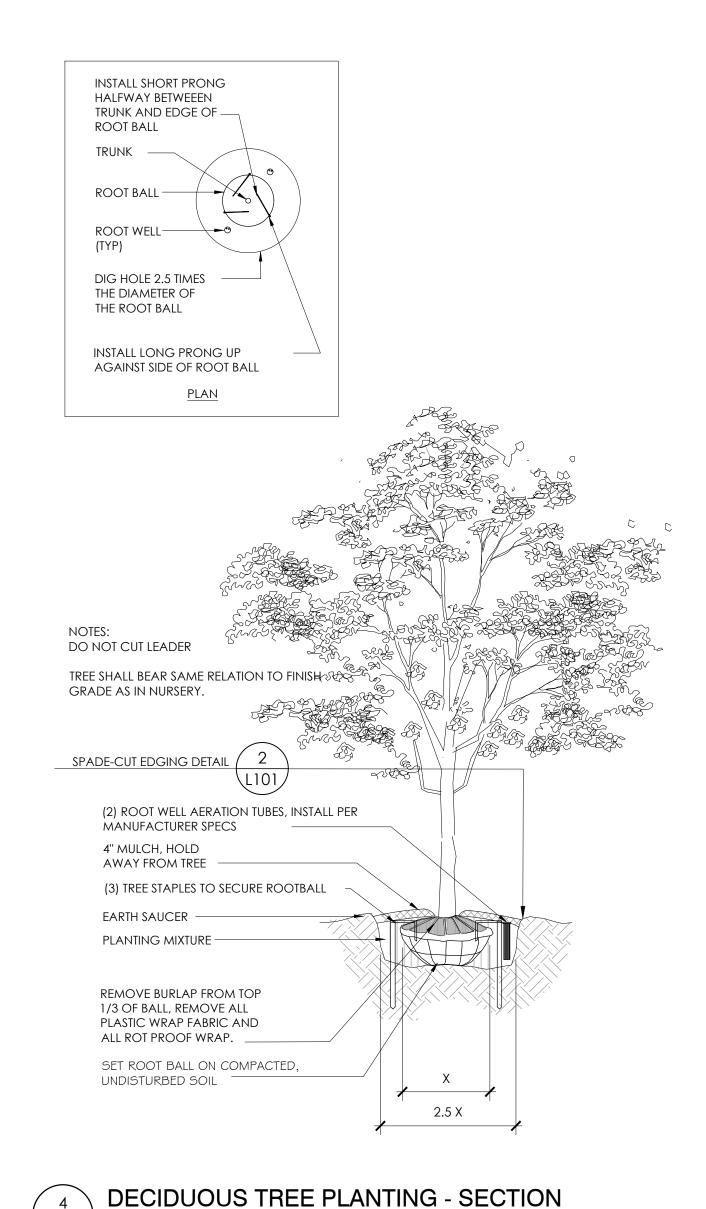
SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IN NURSERY.

SHRUB - PLANTING DETAIL

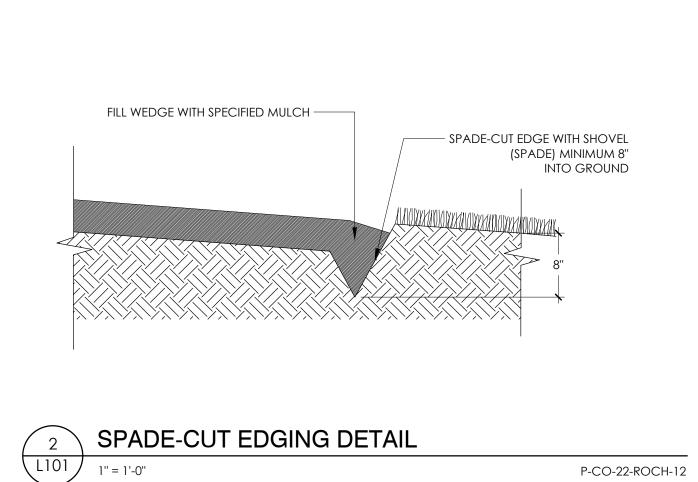
	ISSUE DATE	ISSUED FOR
	6/20/22	SITE PLAN REVIEW
<u></u>	10/5/22	BIDS
	11/23/22	PERMITS
,	12/02/22	SITE PLAN RESUBMITTAL
		
	DRAWN	 RQH
P-CO-22-ROCH-06	CHECKED	SM
	APPROVED	
1	•	



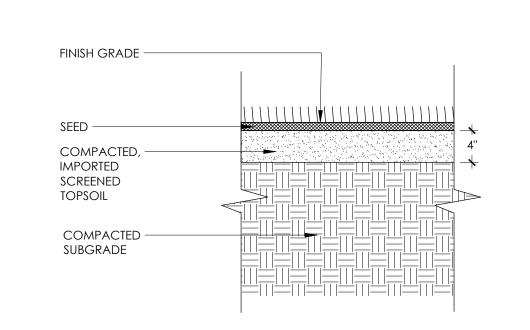
COBBLE & LANDSCAPE BORDER ELNARGEMENT PLAN



P-CO-22-ROCH-02



P-CO-22-ROCH-05



LAWN SECTION

P-CO-22-ROCH-08





236 MILL STREET ROCHESTER, MI T: 248.656.1377 frenchaia.com © FRENCH associates, Inc.



ROCHESTER UNIVERSITY ATHLETIC FIELD **IMPROVEMENTS**

ROCHESTER HILLS MICHIGAN

PLANTING **DETAILS**

PROJECT NUMBER

2020-003

SHEET NUMBER

CITY FILE #22-021 SECTION #15

P-CO-22-ROCH-10

L101