GENERAL NOTES:

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ROCHESTER HILLS, RCOC, M.D.O.T.
- THE CONTRACTOR MUST CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING
- CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK.
- ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL ROCHESTER HILLS INSPECTION FEES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING THE PERIODS OF CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO THE JOB.
- THE CONTRACTOR SHALL NOTIFY MISS DIG (811) AND REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION (EXCLUDING WEEKENDS AND HOLIDAYS) FOR LOCATION AND STAKING OF ON-SITE UTILITY LINES. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- CONTRACTOR TO VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
- MANHOLE, CATCH BASIN, GATE VALVES AND HYDRANT FINISH GRADES MUST BE CLOSELY CHECKED AND APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR'S WORK IS CONSIDERED COMPLETE.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF-SITE ANY TREES, BRUSH, STUMPS, TRASH OR OTHER UNWANTED DEBRIS AT THE OWNER'S DIRECTION, INCLUDING OLD BUILDING FOUNDATIONS AND FLOORS. BURNING OF TRASH, STUMPS OR OTHER DEBRIS SHALL NOT BE PERMITTED.
- D. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
- ALL EXCAVATIONS SHALL BE SLOPED, SHORED OR BRACED IN ACCORDANCE WITH MI-OSHA REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE AN ADEQUATELY CONSTRUCTED AND BRACED SHORING SYSTEM FOR EMPLOYEES WORKING IN AN EXCAVATION THAT MAY EXPOSE EMPLOYEES TO THE DANGER OF MOVING GROUND.
- PAVING NOTES:
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ROCHESTER HILLS AND M.D.O.T.
- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEOGRIDS OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL SECTIONS OR BELOW SUBGRADE IN CUT SECTIONS, WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED WITH SAND OR OTHER SIMILAR APPROVED MATERIAL. BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT (PER ASTM D-1557) UNLESS OTHERWISE SPECIFIED.
- BACKFILL UNDER PAVED AREAS SHALL BE AS SPECIFIED ON DETAILS.
- ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.
- FINAL PAVEMENT ELEVATIONS SHOULD BE SO DESIGNED TO PROVIDE POSITIVE SURFACE DRAINAGE. MINIMUM SURFACE SLOPE OF 1.0 PERCENT IS RECOMMENDED.
- 10. CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.

GENERAL UTILITY NOTES:

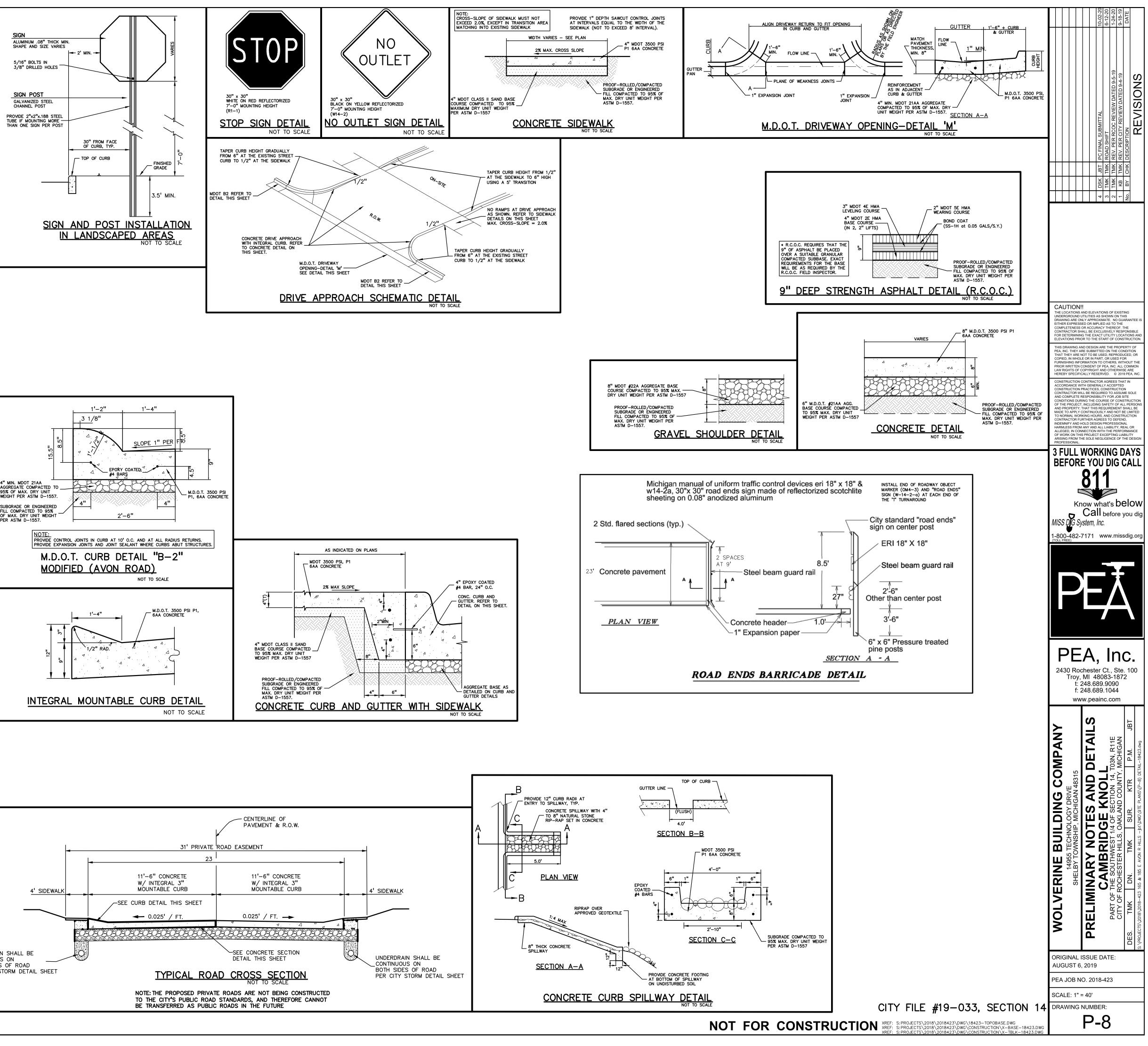
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF ROCHESTER HILLS AND M.D.O.T.
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT. BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR TO FIELD VERIFY UTILITIES.
- THE CONTRACTOR MUST COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
- REFER TO CITY OF ROCHESTER HILLS STANDARD DETAILS FOR PIPE BEDDING DETAILS.
- REFER TO CITY OF ROCHESTER HILLS STANDARD DETAIL SHEETS FOR ADDITIONAL INFORMATION.

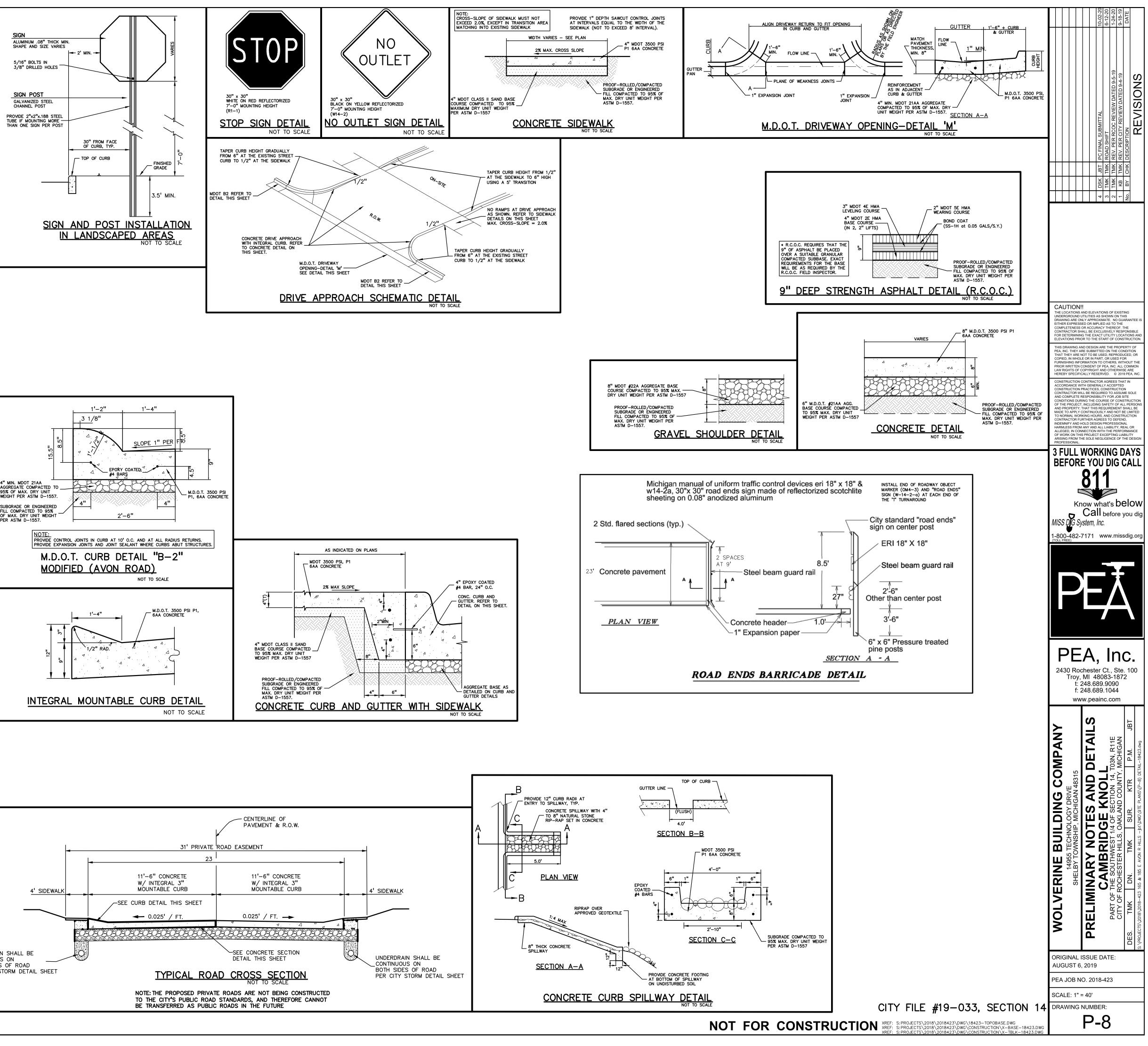
STORM SEWER NOTES:

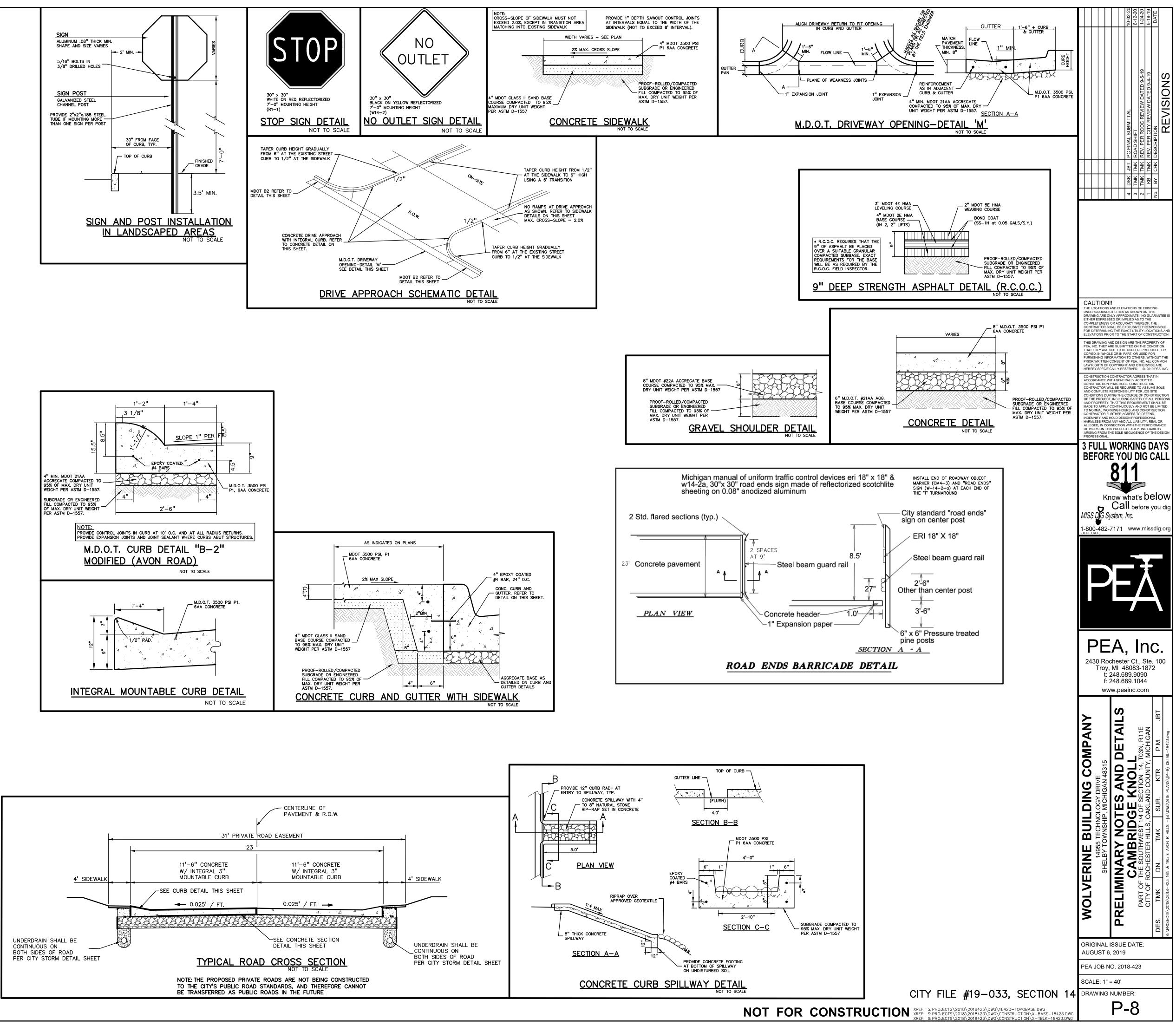
- ALL STORM SEWER 12" AND LARGER SHALL BE RCP CLASS IV UNLESS OTHERWISE NOTED. REFER TO CITY STANDARD DETAILS SHEETS FOR STANDARD BEDDING DETAILS.
- JOINTS FOR ALL STORM SEWER 12" AND LARGER SHALL BE MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443)
- ALL STORM SEWER LEADS SHALL BE CONSTRUCTED OF PVC SCHEDULE 40 PIPE AT 1.00% MINIMUM SLOPE WITH GLUED JOINTS, UNLESS OTHERIWSE NOTED.

<u>WATER MAIN NOTES:</u>

- ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF 6' BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASS UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL TWENTY TWO AND A HALF (22.5°) DEGREE BENDS, PROPERLY ANCHORED.
- ALL TEE'S, BENDS, CONNECTIONS, ETC. ARE CONSIDERED INCIDENTAL TO THE JOB.
- PHYSICAL CONNECTIONS SHALL NOT BE MADE BETWEEN EXISTING AND NEW WATER MAINS UNTIL TESTING IS SATISFACTORILY COMPLETED.
- MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN OUTER EDGE OF WATERMAIN AND ANY SANITARY SEWER OR STRUCTURE.
- ALL WATER MAIN SHALL BE DUCTILE IRON CLASS 54 WITH POLYETHYLENE WRAP.
- SANITARY SEWER NOTES:
- DOWNSPOUTS, WEEP TILE, FOOTING DRAINS OR ANY CONDUIT THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO A SANITARY SEWER.
- ALL SANITARY LEADS SHALL BE CONSTRUCTED OF PVC SDR 23.5 AT 1.00% MINIMUM SLOPE.
- ALL SANITARY SEWER SHALL BE CONSTRUCTED OF PVC TRUSS PIPE WITH A MINIMUM DIAMETER OF 8" PER CITY REQUIREMENTS.
- JOINTS FOR P.V.C. SOLID WALL PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS SPECIFIED IN A.S.T.M. DESIGNATION D-3212.





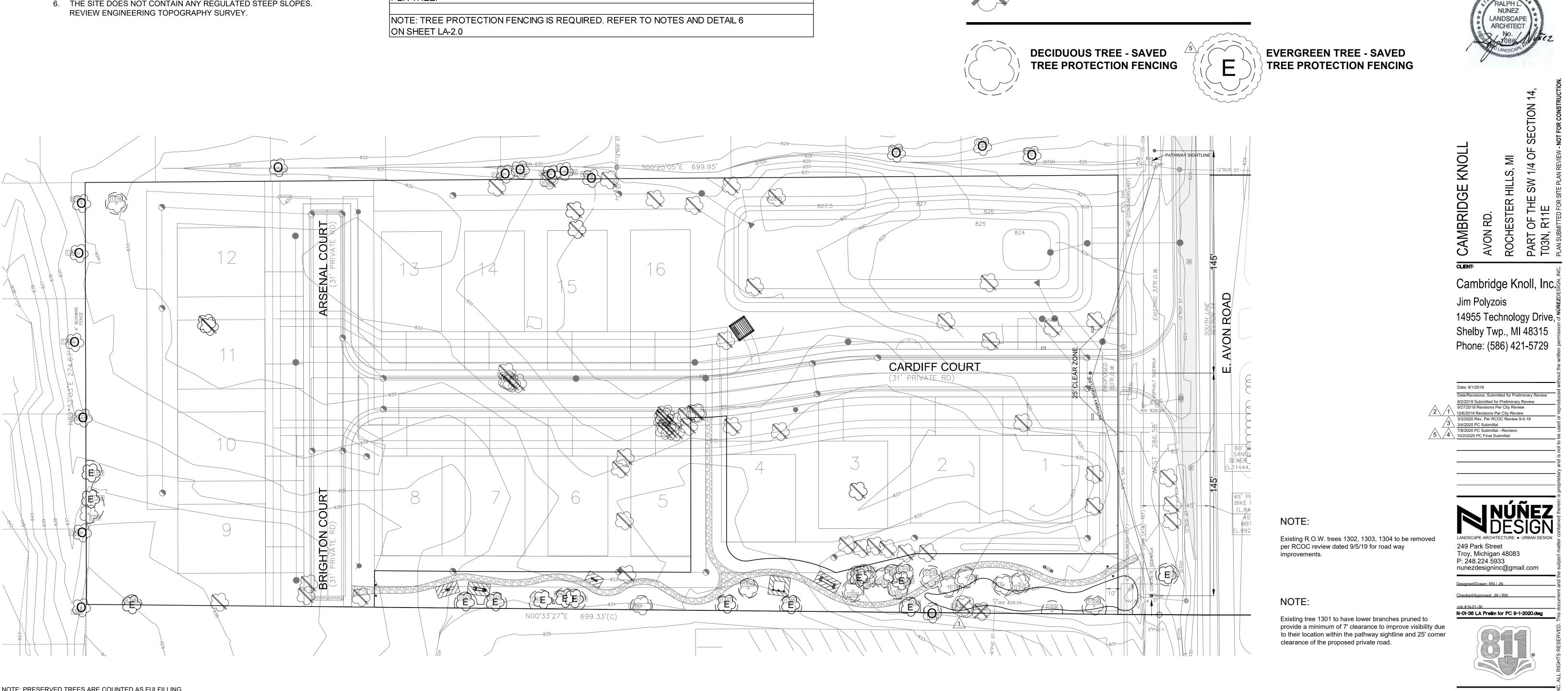


NATURAL FEATURES:

- 1. MEASURES WERE TAKEN TO PRESERVE EXISTING FEATURES ON SITE AND MINIMIZE ENVIRONMENTAL IMPACTS, ESPECIALLY WITH REGARD TO MAINTAINING AS MANY TREES AS POSSIBLE ALONG THE NORTH AND WEST BORDERS OF THE SITE.
- 2. THE SITE IS SUBJECT TO THE CITY'S TREE CONSERVATION ORDINANCE. TREES GREATER THAN 6" CALIPER THAT WILL BE REMOVED MUST BE REPLACED WITH ONE CREDIT. TREES THAT ARE DEAD ARE EXEMPT FROM REPLACEMENT.
- 3. THE SITE DOES NOT CONTAIN REGULATED WETLANDS.
- 4. THE SITE DOES NOT CONTAIN A REGULATED NATURAL FEATURES.
- 5. SOIL TYPES ON SITE: 6bgk Marlette sandy loam, 1 to 6 percent slopes 6bgp Capac sandy loam, 0 to 4 percent slopes
- 6. THE SITE DOES NOT CONTAIN ANY REGULATED STEEP SLOPES. REVIEW ENGINEERING TOPOGRAPHY SURVEY.

TREE ANALYSIS:

TOTAL # OF TAGGED TREES
OF OFFSITE TAGGED TR
OF DEAD TREES (NON-R
OF REGULATED TREES
OF REGULATED TREES \
TOTAL # OF REGULATED
REQUIRED PRESERVATIO
37%)
TOTAL # OF REGULATED T
TOTAL % OF TREES PRES
TREE FUND
IF REQUIRED TREES CANNOT
CONFLICTS, A PAYMENT IN LIE
PER TREE.
NOTE: THEE PROTECTION FEI

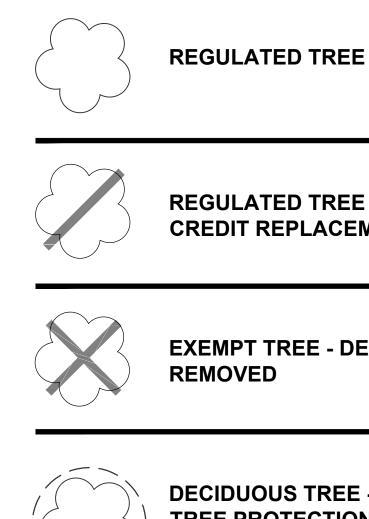


NOTE: PRESERVED TREES ARE COUNTED AS FULFILLING BUFFER REQUIREMENTS

	109
EES (NON-REGULATED)	-20
REGULATED)	-2
	87
WITHIN BUILDING PAD	-5
TREES WITHIN PRESERVATION ZONE	82
N PERCENTAGE WITHIN PRESERVATION ZONE (MINIMUM	
	31 TREES
TREES PRESERVED	32 TREES
ERVED	39%

T BE PLANTED DUE TO INFRASTRUCTURE EU OF MAY BE MADE TO THE CITY'S TREE FUND AT A RATE OF \$216.75







REGULATED TREE - REMOVED & TREE CREDIT REPLACEMENT REQUIRED

EXEMPT TREE - DEAD OR DISEASED





T-1.0

CITY FILE: #19-033 SECTION #:14

TREE SURVEY

			URVEY BY PEA ENGINE		5		FYF			NÚÑEZDESIG	N BUILDING PA
NO.	CODE	DBH			COND.	NOTE	OFFSITE	1	SAVED	REMOVED	REMOVED
1301	WP	18	(Eastern) White Pine	Pinus strobus	Good		Offsite				
1302 1303	WP WP	17 19	(Eastern) White Pine (Eastern) White Pine	Pinus strobus Pinus strobus	Good Good	R.O.W. R.O.W.	Offsite				
1304	WP	19	(Eastern) White Pine	Pinus strobus	Good	R.O.W.	Offsite Offsite				
1305	WP	22	(Eastern) White Pine	Pinus strobus	Fair					Removed	
1306 1307	BW MR	7	Black Walnut Red Mulberry	Juglans nigra Morus rubra	Fair Fair	x2				Removed Removed	
1308	WW	49	Weeping Willow	Salix babylonica	Very Poor				Saved	Removed	
1309	WP	19	(Eastern) White Pine	Pinus strobus	Very Poor				Saved		
1310 1311	SM SM	20 21	Silver Maple Silver Maple	Acer saccharinum	Good Poor				Saved Saved		
1312	WP	14	(Eastern) White Pine	Pinus strobus	Dead			Dead	Saveu		
1313	WP	15	(Eastern) White Pine	Pinus strobus	Dead			Dead			
1314 1315	WP WP	14 12	(Eastern) White Pine (Eastern) White Pine	Pinus strobus Pinus strobus	Good Fair		Offsite		Saved		
1315	SM	36	Silver Maple	Acer saccharinum	Fair				Saved		
1317	SM	25	Silver Maple	Acer saccharinum	Very Poor				Saved		
1318 1319	SM SM	35 25	Silver Maple Silver Maple	Acer saccharinum	Fair Fair				Saved		
1319	WP	13	(Eastern) White Pine	Acer saccharinum Pinus strobus	Fair				Saved Saved		
1321	SM	21	Silver Maple	Acer saccharinum	Fair				Saved		
1322 1323	SM SM	15 21	Silver Maple Silver Maple	Acer saccharinum	Fair Fair				Saved Saved		
1323	SM	7	Silver Maple	Acer saccharinum	Good				Saved		
1325	SM	14	Silver Maple	Acer saccharinum	Fair				Saved		
1326	SM	30	Silver Maple	Acer saccharinum	Good				Saved		
1327 1328	RC SM	18 7	Red Cedar Silver Maple	Juniperus virginiana Acer saccharinum	Fair Good				Saved Saved		
1329	wc	12	White Cedar	Thuja occidentalis	Poor					Removed	
1330	WC	12	White Cedar	Thuja occidentalis	Poor					Removed	
1331 1332	WC WC	13 12	White Cedar White Cedar	Thuja occidentalis Thuja occidentalis	Poor Poor					Removed Removed	
1333	WC	12	White Cedar	Thuja occidentalis	Poor					Removed	
1334	WC	14	White Cedar	Thuja occidentalis	Poor					Removed	
1335 1336	WP PR	29 25	(Eastern) White Pine Pear	Pinus strobus Pyrus communis	Fair Fair				Saved Saved		
1337	WP	23	(Eastern) White Pine	Pinus strobus	Fair				Saved		
1338	SM	42	Silver Maple	Acer saccharinum	Fair				Saved		
1339 1340	BS BS	13 28	Blue Spruce Blue Spruce	Picea pungens Picea pungens	Good Fair				Saved		
1340	WS	28	White Spruce	Picea pungens Picea glauca	Good				Saved Saved		
1342	RP	17	Red Pine	Pinus resinosa	Good				Saved		
1343 1344	WP RP	20 25	(Eastern) White Pine Red Pine	Pinus strobus Pinus resinosa	Fair Fair				Saved	Berreit	
1344	MR	12	Red Pine Red Mulberry	Morus rubra	Fair					Removed Removed	
1346	RP	26	Red Pine	Pinus resinosa	Good					Removed	
1347	WP	22	(Eastern) White Pine	Pinus strobus	Fair					Removed	
1348 1349	WP WP	19 14	(Eastern) White Pine (Eastern) White Pine	Pinus strobus Pinus strobus	Fair Fair		Offsite		Saved		
1350	BX	29	Box elder	Acer negundo	Poor		Offsite				
1351	MR	7	Red Mulberry	Morus rubra	Fair				Saved		
1352 1353	WP WS	15 8	(Eastern) White Pine White Spruce	Pinus strobus Picea glauca	Fair Fair				Saved Saved		
1354	RP	16	Red Pine	Pinus resinosa	Fair		Offsite		Cavea		
1355	BX	35	Box elder	Acer negundo	Poor		Offsite				
1356 1357	PR PW	23 30	Pear White Poplar	Pyrus communis Populus alba	Poor Fair	x2 x2	Offsite Offsite				
1358	WC	8	White Cedar	Thuja occidentalis	Fair	x2	Offsite				
1359	WC	7	White Cedar	Thuja occidentalis	Fair	x4	Offsite				
1360 1361	WC WC	6	White Cedar White Cedar	Thuja occidentalis Thuja occidentalis	Fair Fair	x6 x3	Offsite			Removed	
1362	WC	7	White Cedar	Thuja occidentalis	Fair	x2	Offsite				
1363	WC	8	White Cedar	Thuja occidentalis	Fair	x4	Offsite				
1364 1365	MR PR	9 12	Red Mulberry Pear	Morus rubra	Fair Poor					Removed	
1366	BX	25	Box elder	Pyrus communis Acer negundo	Fair					Removed Removed	
1367	BX	34	Box elder	Acer negundo	Fair					Removed	
1368	BC	22	Wild Black Cherry	Prunus serotina	Fair	x2				Removed	
1369 1370	CT BX	60 14	Cottonwood Box elder	Populus deltoides Acer negundo	Good Fair					Removed	Removed
1371	BX	15	Box elder	Acer negundo	Fair						Removed
1372	BX	19	Box elder	Acer negundo	Fair					Removed	
1373 1374	BX BX	13 14	Box elder Box elder	Acer negundo Acer negundo	Fair Fair					Removed Removed	
1374	BX	14	Box elder	Acer negundo	Fair					Removed	
1376	BX	14	Box elder	Acer negundo	Fair					Removed	
1377 1378	BW BX	6 35	Black Walnut Box elder	Juglans nigra Acer negundo	Good Poor				Saved	Removed	
1378	BX	35	Box elder	Acer negundo	Fair		Offsite				
1380	BX	24	Box elder	Acer negundo	Fair						Removed
1381 1382	BX BS	19 27	Box elder Blue Spruce	Acer negundo Picea pungens	Fair Fair	x2				Removed	Removed
1383	BS	27	Blue Spruce	Picea pungens Picea pungens	Good					Removed	
1384	WS	31	White Spruce	Picea glauca	Good					Removed	
1385 1386	WS BX	33 8	White Spruce Box elder	Picea glauca Acer negundo	Good Fair					Removed Removed	
1386	BX BX	8	Box elder Box elder	Acer negundo Acer negundo	Fair					Removed Removed	
1388	BX	12	Box elder	Acer negundo	Fair					Removed	
1389	BX	9	Box elder	Acer negundo	Fair	x1				Removed	
1390 1391	BX BX	8	Box elder Box elder	Acer negundo Acer negundo	Fair Fair					Removed Removed	
1392	BX	6	Box elder	Acer negundo	Fair					Removed	
1393	BX	7	Box elder	Acer negundo	Fair					Removed	
1394 1395	BX BX	12 8	Box elder Box elder	Acer negundo Acer negundo	Fair Fair	x1				Removed Removed	
1395	BX BX	9	Box elder Box elder	Acer negundo	Fair					Removed Removed	
1397	BX	9	Box elder	Acer negundo	Fair					Removed	
1398 1399	BX	15 7	Box elder Type Un	Acer negundo	Fair					Removed	
1399 1400	СТ	7 31	Type Unl Cottonwood	known Populus deltoides	Fair Fair	x11				Removed Removed	
1400	WS	18	White Spruce	Picea glauca	Good						Removed
1402	WS	17	White Spruce	Picea glauca	Fair					Removed	
1403 1404	PR SM	10 34	Pear Silver Maple	Pyrus communis Acer saccharinum	Fair Good	x4				Removed Removed	
1404	BX	21	Box elder	Acer saccharinum Acer negundo	Fair		Offsite			Removed	
1406	WP	15	(Eastern) White Pine	Pinus strobus	Fair		Offsite				
		15	(Eastern) White Pine	Pinus strobus	Fair		Offsite				
1400 1407 1408	WP SM	52	Silver Maple	Acer saccharinum	Good					Removed	

NOTE:

Existing Offsite R.O.W. trees 1302, 1303, 1304 to be removed per RCOC review dated 9/5/19 for road way improvements.

TREE CONDITION AND SPECIES SUMMARY

CODE	COMMON NAME	GOOD	FAIR	POOR	VERY POOR	DEAD	TOTAL	%
BC	Wild Black Cherry		1				1	0.9%
BS	Blue Spruce	2	2				4	3.7%
BW	Black Walnut	1	1				2	1.8%
BX	Box Elder		26	3			29	26.6%
СТ	Cottonwood	1	1				2	1.8%
MR	Red Mulberry		4				4	3.7%
PR	Pear		2	2			4	3.7%
PW	White Poplar		1				1	0.9%
RC	Red Cedar		2				2	1.8%
RP	Red Pine	2	2				4	3.7%
SM	Silver Maple	6	8	1	1		16	14.7%
WC	White Cedar		6	6			12	11.0%
WP	(Eastern) White Pine	5	12		1	2	20	18.3%
WS	White Spruce	4	2				6	5.5%
WW	Weeping Willow				1		1	0.9%
?	Unknown		1				1	0.9%
	TOTALS	21	71	12	3	2	109	
	%	19.3%	65.1%	11.0%	2.8%	1.8%		100.0%

TREE ANALYSIS:

109
-20
-2
87
-{
82
TREES
TREES
39%
50
Ę
55
-45
10
2,167.50

IMPORTANT:

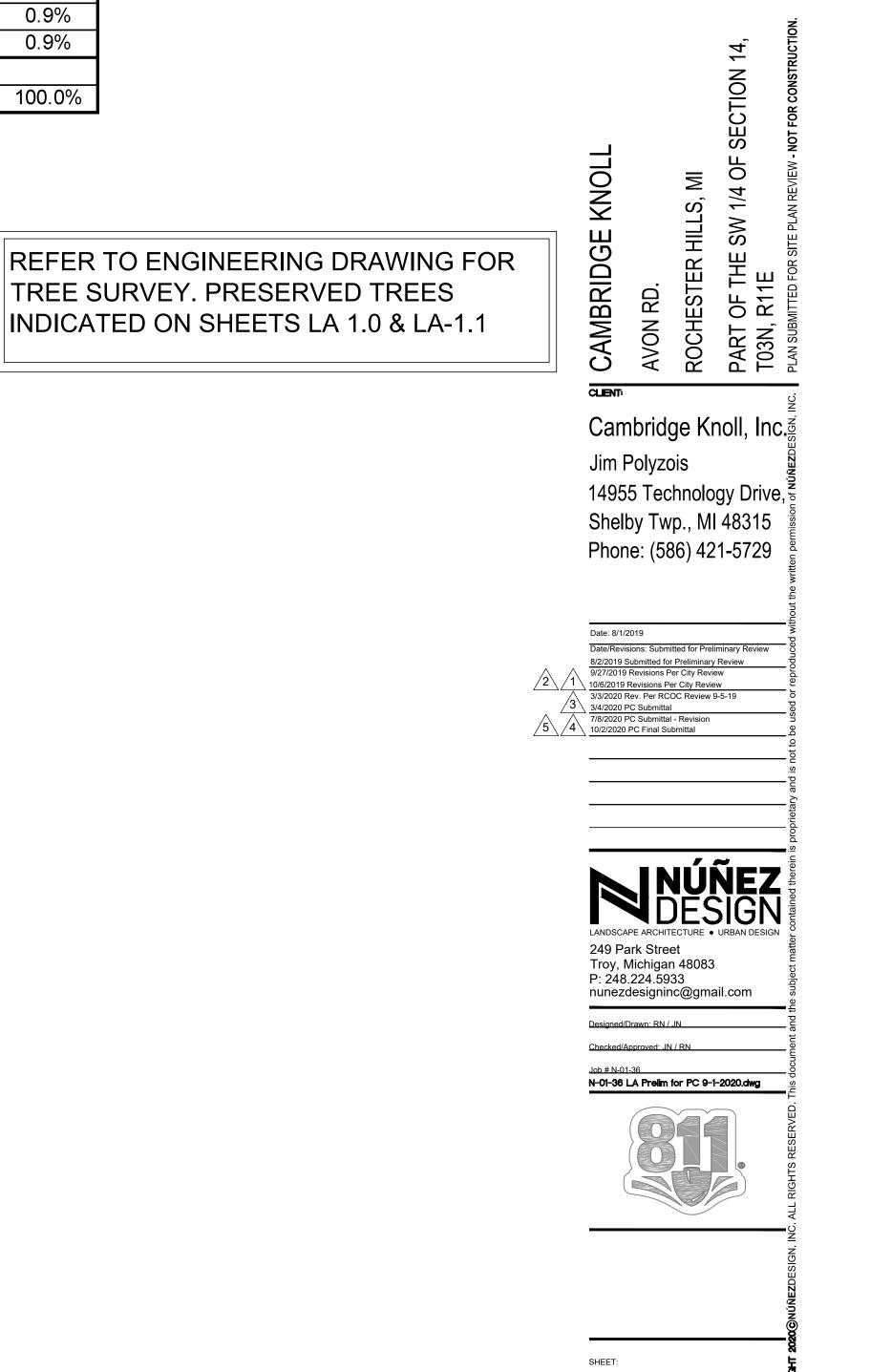
ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. THE TREE PROTECTIVE FENCING MAY BE PLACED ALONG THE ACTUAL PROPERTY LINE IF THE BRANCHES OF THE TREES ON THE ADJACENT PROPERTIES DO NOT OVERHANG ONTO THE SITE BEING DEVELOPED. IF THE BRANCHES OVERHANG ONTO THE AREA OF THE SITE BEING DEVELOPED THE TREE PROTECTIVE FENCING MUST BE PLACED AT THE ACTUAL DRIP LINE OF THESE TREES. IT SHOULD ALSO BE NOTED THAT THE SILT FENCING MUST BE PLACED ON THE DEVELOPMENT SIDE OF THE TREE PROTECTIVE FENCING. THE SILT FENCING MAY NOT BE PLACED BETWEEN THE TREE BEING PRESERVED AND THE TREE PROTECTIVE FENCING. IF ANY REGULATED TREES ARE DAMAGED ON THE ADJACENT PROPERTIES THE DAMAGED TREES WILL BE EITHER REPLACED ON THE OWNERS PROPERTY ON AN INCH FOR INCH BASIS OR A FINE IN THE SUM \$122.00 PER CALIPER INCH WILL BE ISSUED AGAINST THE DEVELOPMENT. THIS FINE WILL BE DUE PRIOR THE BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION CALL THE CITY'S PLANNING DEPARTMENT 248-646-4660. REFER TO SHEET LA-2.0 FOR ADDITIONAL TREE PROTECTION NOTES.

	 NO PERSON SHALL ATTACH ANY DEVISE OR WIRE TO ANY REGULATED TREE NOT APPROVED FOR REMOVAL DURING CONSTRUCTION. S' HIGH RIGID SNOWFENCE WITH 5' HIGH 'T' BARS, AT 5' ON CENTER, TO BE INSTALLED AROUND THE DRIPLINE OF TREES TO BE SAVED PRIOR TO ANY LAND CLEARING OR CONSTRUCTION. TREE DRIPLINE FENCE ALTERNATE LOCATION 3' BACK OF PROPOSED WALKS AND CURBS 	SECTION	FENCE AT TREE DRIPLINE 5' HIGH RIGID SNOWFENCE (SAFETY FENCE).
NO CUTTING, FILLING OR TRESPASSING SHALL OCCUR INSIDE THE FENCED AREA WITHOUT PRIOR APPROVAL OF MUNICIPALITY.			
1 TREE PROTECTION FENCE	DETAIL		



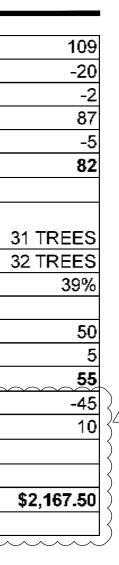
RALPH

NUNEZ LANDSCAPE ARCHITECT



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CITY FILE: #19-033 SECTION #:14



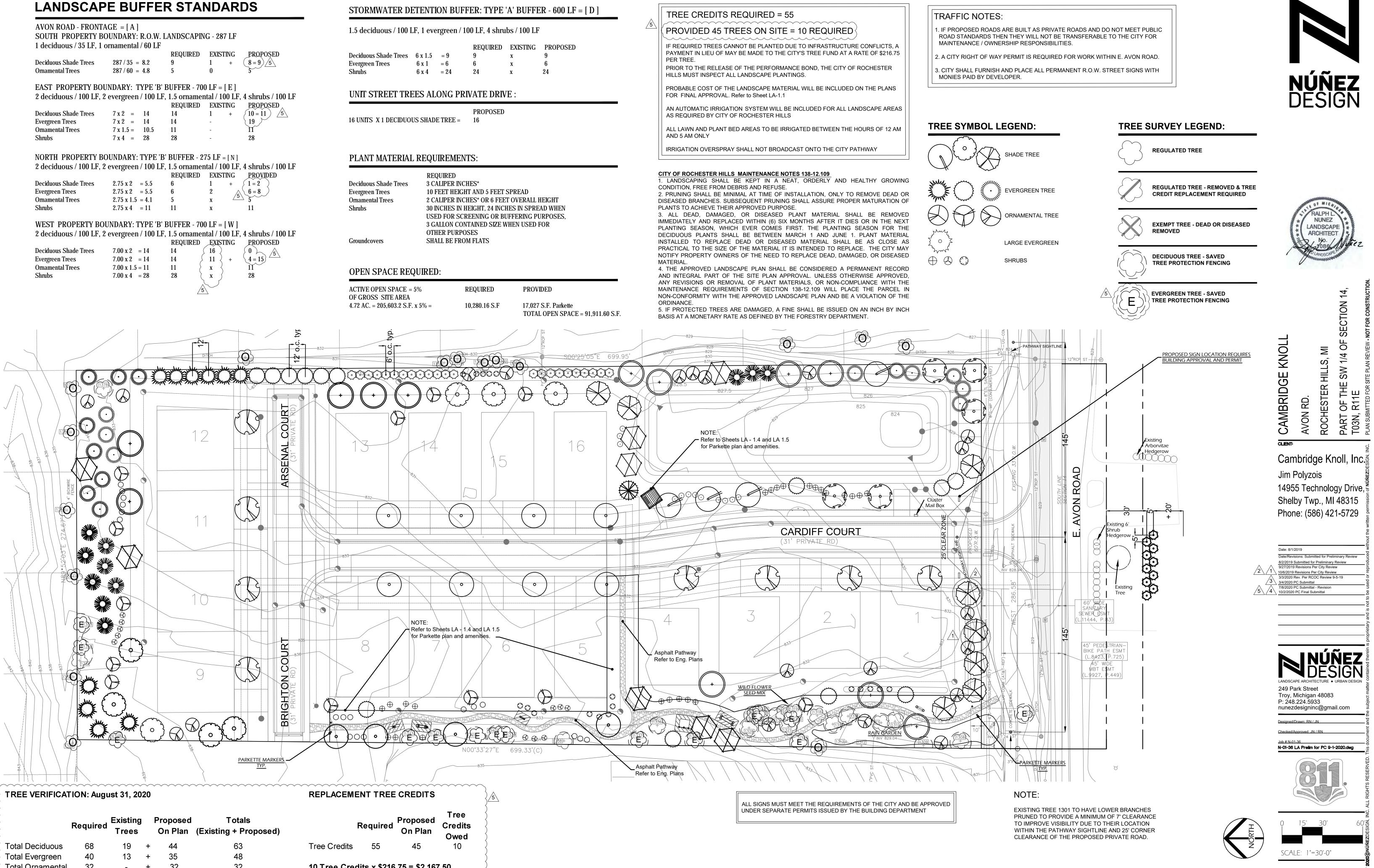
TREE IMPACT ANALYSIS

	omanientai / 00 Lr	DEOUDED	EVICTINIC DDODOCED							
Deciduous Shade Trees	287/35 = 8.2	REQUIRED 9	EXISTING PROPOSED 1 + (8 = 9)/5							
Ornamental Trees	287/60 = 4.8	5	0 5							
EAST PROPERTY BOUNDARY: TYPE 'B' BUFFER - 700 LF = [E]										
2 deciduous / 100 LF, 2	evergreen / 100 LF		ntal / 100 LF, 4 shrubs / 100 LF							
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	REQUIRED	EXISTING PROPOSED							
Deciduous Shade Trees	$7 \times 2 = 14$	14	$1 + \left(10 = 11\right) \sqrt{5}$							
Evergreen Trees	$7 \times 2 = 14$	14	- (19)							
Ornamental Trees	$7 \ge 1.5 = 10.5$	11	- ĬĬ							
Shrubs	7 x 4 = 28	28	- 28							
NORTH PROPERTY BO	UNDARY: TYPE 'B	BUFFER - 2	75 LF = [N]							
2 deciduous / 100 LF, 2	evergreen / 100 LF	, 1.5 ornamen	ntal / 100 LF, 4 shrubs / 100 LF							
,	0	,								
		REQUIRED	EXISTING PROVIDED							
Deciduous Shade Trees	$2.75 \ge 2.5$	REQUIRED 6	EXISTING PROVIDED 1 + (1 = 2)							
Deciduous Shade Trees Evergreen Trees	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6	\sim							
		6 6	1 + (1 = 2)							
Evergreen Trees	$2.75 \times 2 = 5.5$	6 6	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
Evergreen Trees Ornamental Trees Shrubs	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6 6 5 11	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
Evergreen Trees Omamental Trees	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6 6 5 11	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
Evergreen Trees Omamental Trees Shrubs WEST PROPERTY BOU	2.75 x 2 = 5.5 2.75 x 1.5 = 4.1 2.75 x 4 = 11 JNDARY: TYPE 'B'	6 6 5 11 BUFFER - 700	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							

Deciduous Shade Trees	$7.00 \ge 2 = 14$	14	$\langle \tilde{16} \rangle$	(0)
Evergreen Trees	$7.00 \ge 2 = 14$	14	$\begin{pmatrix} 11 \end{pmatrix}$	+ $(4=15)$
Ornamental Trees	7.00 x 1.5 = 11	11	x	11
Shrubs	$7.00 \ge 4 = 28$	28	x	28
			1 F	

Deciduous Shade Trees	6 x 1.5	= 9
Evergreen Trees	6 x 1	= 6
Shrubs	6 x 4	= 24

	REQUIRE
Deciduous Shade Trees	3 CALIPER
Evergreen Trees	10 FEET H
Ornamental Trees	2 CALIPER
Shrubs	30 INCHES
	USED FOF
	3 GALLON
	OTHER PU
Groundcovers	SHALL BE



	FION: Augu	ust 31, 20	20	REPLACEM)						
	Required	Existing Trees		Proposed On Plan	Totals (Existing + Proposed)	Required O		Proposed On Plan	Tree Credits Owed		
C Total Deciduous	68	19	+	44	63	Tree Credits	55	45	10		
Sector Total Evergreen	40	13	+	35	48						
Contraction Total Ornamental	32	-	+	32	32	10 Tree Cre	edits x \$216.75 = \$2,167.50				
Stotal Shrubs	91	-	+	106	106						
Lanna la	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	$\overline{}$	~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~				



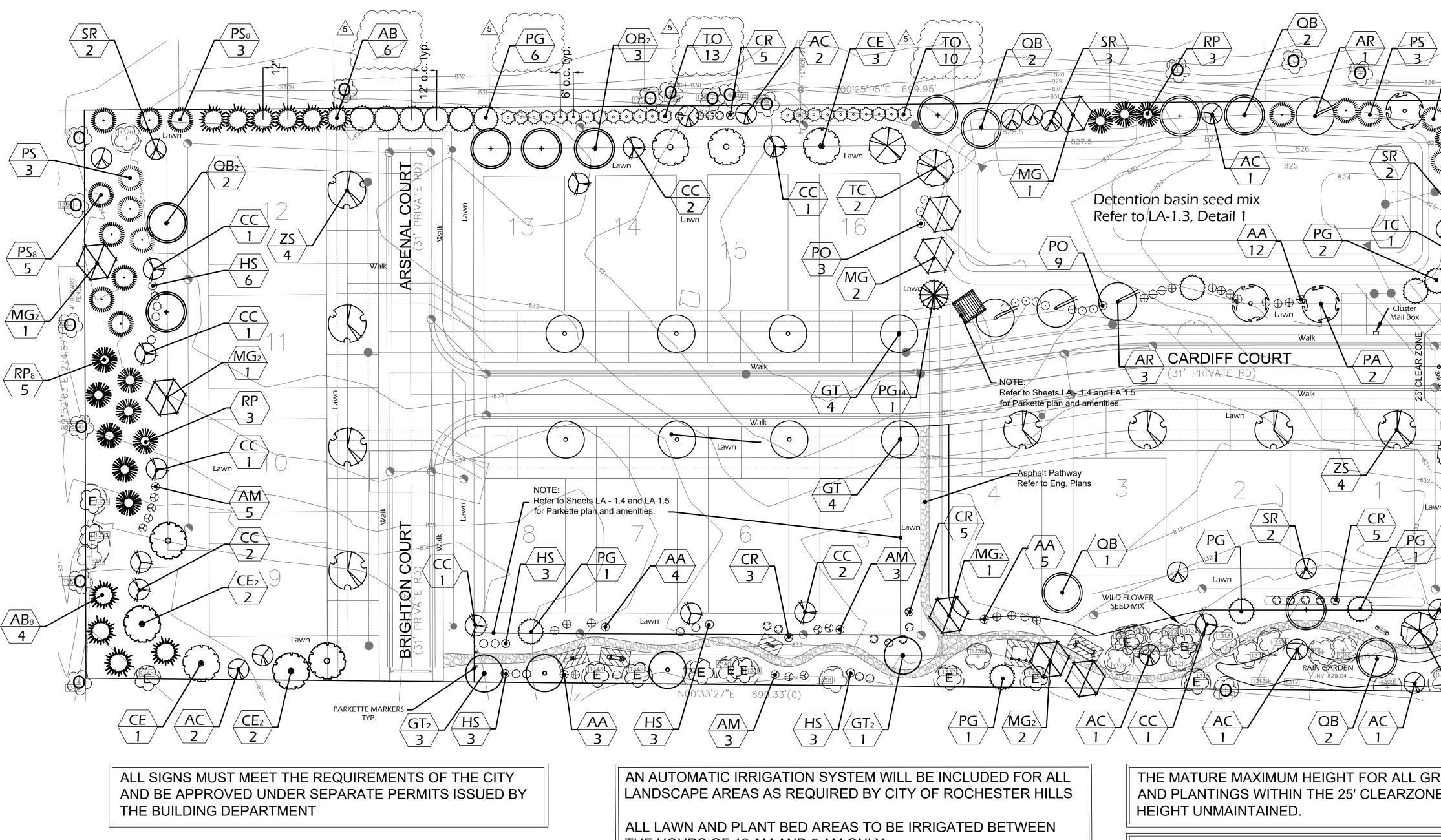
LANDSCAPE CONCEPT PLAN

LA -1.0

CITY FILE: #19-033 SECTION #:14

LANDSCAPE MATERIAL LIST:

			AFL MATLNAL LIST.								
	SHAD	ETRE	ES						SHRUBS		
	QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT COST	TOTAL / ITEM		QTY KEY	BOTANICAL / COMMON NAME	SIZE / SPACING ROOT
	4	AR	Acer rubrum 'Bowhall' / Bowhall Red Maple	3" cal	B&B	335.00	1,340.00		24 AA	Aronia arbutifolia 'Brillantissima' / Brilliant Red Chokeberry	30" ht, 24" sp No. 5 0
5	4	CE	Celtis occidentalis / Common Hackberry	3" cal	B&B	320.00	1,280.00		11 AM	Aronia melanocarpa 'Elata' / Glossy Black Chokeberry	30" ht, 24" sp No. 5 0
	8	GT	Gleditsia triacanthos inemis / Thornless Honeylocust	3" cal	B&B	320.00	2,560.00	5	(18) CR	Cornus racemosa / Gray Dogwood	30" ht, 24" sp No. 5 0
	3	MG	Metasequoia Glyptostrobodies / Dawn Redwood	3" cal	B&B	335.00	1,005.00		18 HS	Hibiscus syriacus 'SHIMRR38' / Lil' Kim Red Rose of Sharon	30" ht, 24" sp No. 5 (
	5	PA	Platanus x acerifolia 'Columbia' / Columbia London Planetree	3" cal	B&B	335.00	1,675.00		12 PO	Physocarpus opulifolius 'Diabolo' / Diabolo Ninebark	30" ht, 24" sp No. 5 (
	7	QB	Quercus bicolor / Swamp White Oak	3" cal	B&B	335.00	2,345.00	5		Thuja occidentalis 'Wintergreen' / Wintergreen American Arborvitae	6' ht, 24" sp B&
5	(8)	TC	Tilia cordata 'Greenspire' / Greenspire Linden	3" cal	B&B	320.00	2,560.00	<u></u>		IATERIALS (Includes material needed for Sheets	
	8	ZS	Zelkova serrata 'Musashino' / Musashino Japanese Zelkova	3" cal	B&B	335.00	2,680.00		QTY		
	EVER	GREE	N TREES						(+/-) UNIT	ITEM	
	QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT COST	TOTAL / ITEM		23 CY	Plant Mix TBD	
5	(6)	AB	Abies concolor / Concolor White Fir	10' ht x 5' sp	B&B	335.00	2,010.00			Shredded Hardwood Mulch Installed TBD	
5	(13)	PG	Picea glauca / White Spruce	10' ht x 5' sp	B&B	320.00	4,160.00			SoilMoist or Approved Equal (included in plant installation cost)	
	\checkmark	PG14	Picea glauca / White Spruce	14' ht	B&B	450.00	450.00				
	9	PS	Pinus strobus / White Pine	10' ht x 5' sp	B&B	315.00	2,835.00			Seed or Sod (owner's option)	
	6	RP	Pinus densiflora / Korean Red Pine	10' ht x 5' sp	B&B	315.00	1,890.00			Detention Basin & Raingarden Seed Mix	
	ORNA	MENT	AL TREES							Woodland Edge Seed Mix	
	QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT COST	TOTAL / ITEM				
	8	AC	Amelanchier canadensis / Shadblow Serviceberry	2" cal or 6' ht	B&B	250.00	2,000.00	(
	12	CC	Cercis canadensis / Eastern Redbud	2" cal or 6' ht	B&B	265.00	3,180.00	>			
	12	SR	Syringa reticulata 'Ivory Silk' / Ivory Silk Japanese Tree Lilac	2" cal or 6' ht	B&B	265.00	3,180.00	2	IRRIGATION		
								5	SHEET LA-1.	1 IOTAL:	
								>			
										1A SUBTOTAL REPLACEMENT TREES	
								>	TOTAL		
								\sim	·····		



IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY PATHWAY

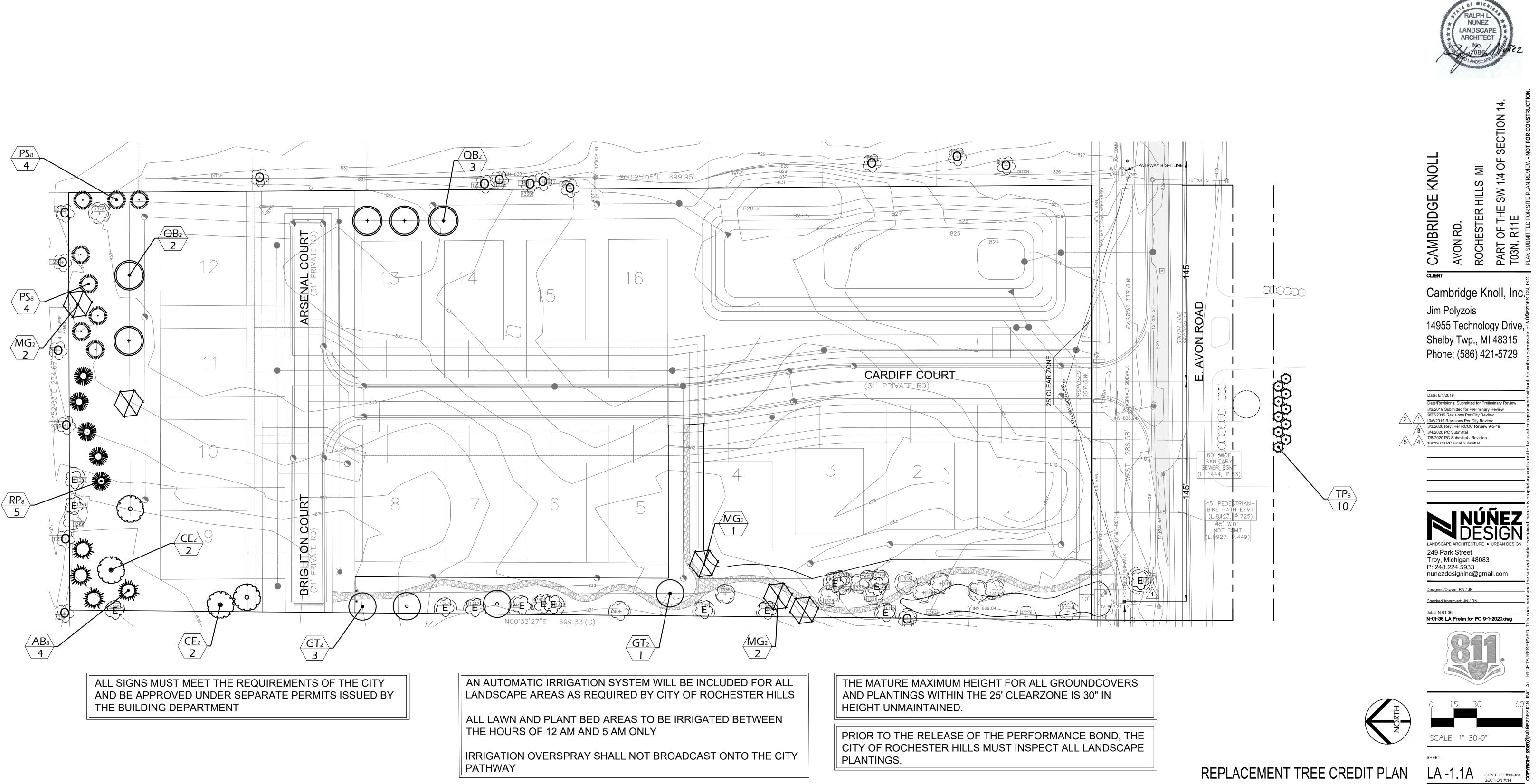
THE HOURS OF 12 AM AND 5 AM ONLY

PRIOR TO THE RELEASE OF THE PERFORMA CITY OF ROCHESTER HILLS MUST INSPECT PLANTINGS.

			REPLACEMENT TREE	
		TOTAL / ITEM	LEGEND:	
b. 5 Cont. b. 5 Cont.		1,200.00 495.00		
o. 5 Cont.	45.00	810.00	Replacement trees are labeled with the following designations	
o. 5 Cont. o. 5 Cont.		900.00 600.00	$\overline{OB_2}$ 2" Caliper Shade Tree =	
B&B	150.00	3,450.00	1 1 Replacement Credit	NÚÑEZ DESIGN
			PS ₈ ≥ 8' Ht. Evergreen Tree =	DESIGN
	UNIT COST	TOTAL / ITEM	1 1 Replacement Credit	
	25.00	575.00	Refer to sheet LA-1.1A for	
	45.00	1,035.00	Replacement Tree Credit Quantity List.	
		7 000 50		
	0.1 0.25	7,890.50 5,132.50		
0.5	0.25	2,078.75		
×	· · · · · · · · · · · · · · · · · · ·	\$59,316.75		STE OF MICHIO
	LUMP SUM	\$21,500.00		RALPH L.
		\$80,816.75	$\langle \rangle$	* LANDSCAPE * ARCHITECT *
		\$9,753.75		CLANDSCAPE AND LANDSCAPE
		\$90,570.50		Construction of the second second
~~~~~				Ž
				14, ^{истю}
				ON
	Si ≥i /PA			CAMBRIDGE KNOLL AVON RD. ROCHESTER HILLS, MI PART OF THE SW 1/4 OF SECTION 14, T03N, R11E PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.
			Dectare all distants of	LL F SE
26	1/V 824 35 PATH	WAY SIGHTLINE	Restore all disturbed lawn areas	CAMBRIDGE KNOL AVON RD. ROCHESTER HILLS, MI PART OF THE SW 1/4 OF T03N, R11E LAN SUBMITTED FOR SITE PLAN REVIEW
111 S 0		RCP ST		LLLS. W 1,
• = \ /	IL A MILERS			R HI IE S
	S#8			RIC 3TEI 3TEI 11E 11E
	9 10			MB NR HE€ A OI
20 27				CAMBRIDGE KNO AVON RD. ROCHESTER HILLS, MI PART OF THE SW 1/4 C T03N, R11E PLAN SUBMITTED FOR SITE PLAN REVIE
	<u> </u>	145	PROPOSED SIGN LOCATION REQUIRES BUILDING APPROVAL AND PERMIT	
XT.	33'R. O. V			Cambridge Knoll, Inc.
	ette Part			Jim Polyzois
	E		Refer to Sheets LA-1.4 and LA-1.5 for Parkette plan and amenities.	14955 Technology Drive,
		seci Seci		Shelby Twp., MI 48315
	6	AVC		Phone: (586) 421-5729
O. W.	SIDE WALK	ш		ut the wr
ROPC	SPHALT SI			Date: 8/1/2019
HINNAY SIG	LL C			Date/Revisions:         Submitted for Preliminary Review         Opposite           8/2/2019         Submitted for Preliminary Review         Opposite         Opposite           9/27/2019         Revisions         Per City Review         Opposite
				10/6/2019 Revisions Per City Review         9           3/3/2020 Rev. Per RCOC Review 9-5-19         5           3/4/2020 PC Submittal         5
	oncrete P			7/8/2020 PC Submittal - Revision     5       10/2/2020 PC Final Submittal     9
	8. Col	S,		d is
awn		(L.11	444, P.83)	etary an
		<b>142</b>		is bropri
27		B	L8423, P.725)	
	SR		45' WDE MBT E\$MT .9927, ₽.449)	NUÉNEZ DESIGN UNIT Interent is Interent is
	COMM S			LANDSCAPE ARCHITECTURE • URBAN DESIGN     0       249 Park Street     1
	STORE AND INCOMENSATION			Troy, Michigan 48083
				nunezdesigninc@gmail.com
				Checked/Approved: JN / RN
				Job # N-01-36 0 N-01-36 LA Prelim for PC 9-1-2020.dwg
		ETTE MARKERS TYP.	NOTE:	KED. T
$\checkmark$	$\overline{5}$	117.	Existing tree 1301 to have lower branches pruned to provide a minimum of 7' clearance to improve visibility due	KESE TO
			to their location within the pathway sightline and 25' corner clearance of the proposed private road.	ALL RIGHTS RESERVED.
	COVERS			G. ALL F
NE IS 30	IIN			
	OND, THE		ž	0 15' 30' 60'Š SCALE: 1"=30'-0"
ALL LA	NDSCAPE			SHEET:
			LANDSCAPE PLANTING PLAN	LA -1.1 CITY FILE: #19-033
				SECTION #:14

# **REPLACEMENT TREE CREDIT QUANTITY LIST:**

REPLA		ENT TREES					
SHADE TREES							
QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT			
4	CE2	Celtis occidentalis / Common Hackberry	2" cal	B&B			
4	GT2	Gleditsia triacanthos inemis / Thornless Honeylocust	2" cal	B&B			
5	MG2	Metasequoia Glyptostrobodies / Dawn Redwood	2" cal	B&B			
5	QB2	Quercus bicolor / Swamp White Oak	2" cal	B&B			
EVERGREEN TREES							
QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT			
4	AB8	Abies concolor / Concolor White Fir	8' ht	B&B			
8	PS8	Pinus strobus / White Pine	8' ht	B&B			
5	RP8	Pinus densiflora / Korean Red Pine	8' ht	B&B			
10	TP8	Thuja plicata 'Green Giant' / Green Giant Arborvitae	8' ht	B&B			
45 Replacement Trees							



UNIT COST	TOTAL / ITEM
216.75	867.00
216.75	867.00
216.75	1,083.75
216.75	1,083.75
UNIT COST	TOTAL / ITEM
216.75	867.00
216.75	1,734.00
216.75	1,083.75
216.75	2,167.50
	\$9,753.75

# **REPLACEMENT TREE** LEGEND:

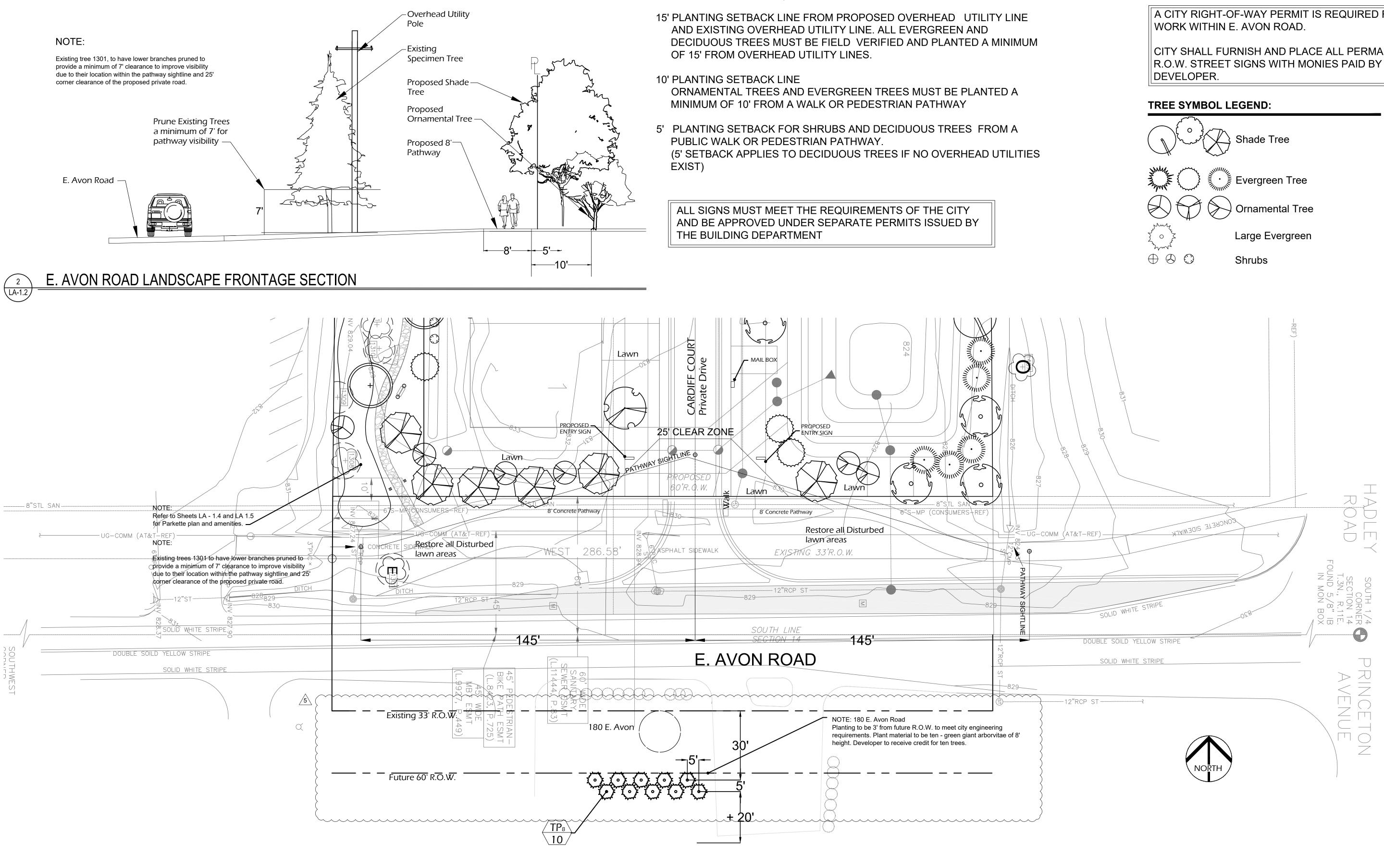
Replacement trees are labeled with the following designations





 $PS_8$  8' Ht. Evergreen Tree = 1 Replacement Credit

Refer to sheet LA-1.1A for Replacement Tree Credit Quantity List.



E. AVON ROAD PLAN - SIGHTLINES, CLEAR ZONE AND PLANTING SETBACKS SCALE = 1" = 20' - 0"

 $\left(LA-1.2\right)$ 

PLANTING SETBACK REQUIREMENTS:

NO LARGE SHRUBS OR TREES TO BE PLANTED WITHIN THE VISIBILITY SIGHTLINES FOR THE PEDESTRIAN PATHWAY, PUBLIC WALK OR WITHIN THE VISIBILITY SIGHTLINE FOR VEHICULAR TRAFFIC.

A CITY RIGHT-OF-WAY PERMIT IS REQUIRED FOR

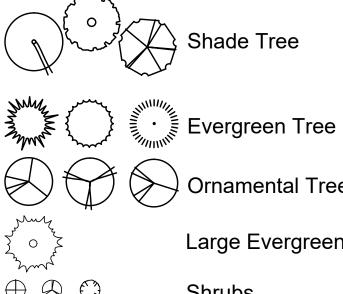
CITY SHALL FURNISH AND PLACE ALL PERMANENT



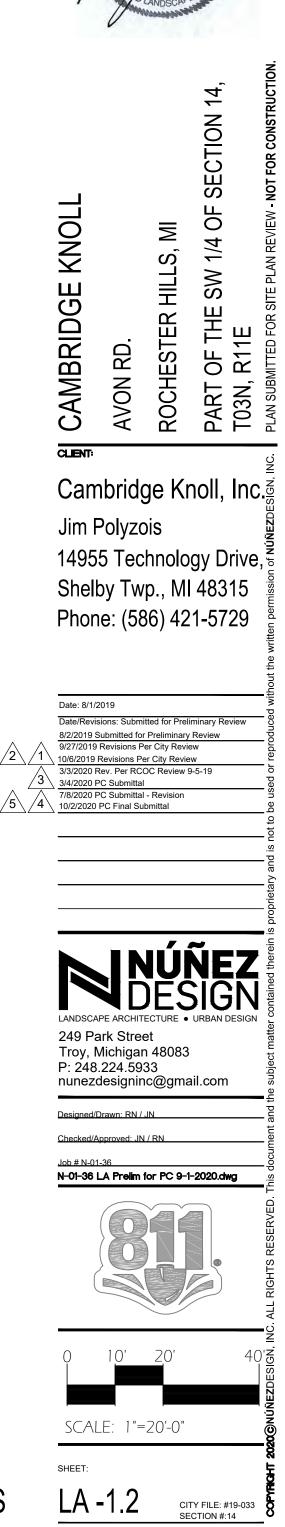
NUNEZ

LANDSCAPE

ARCHITECT

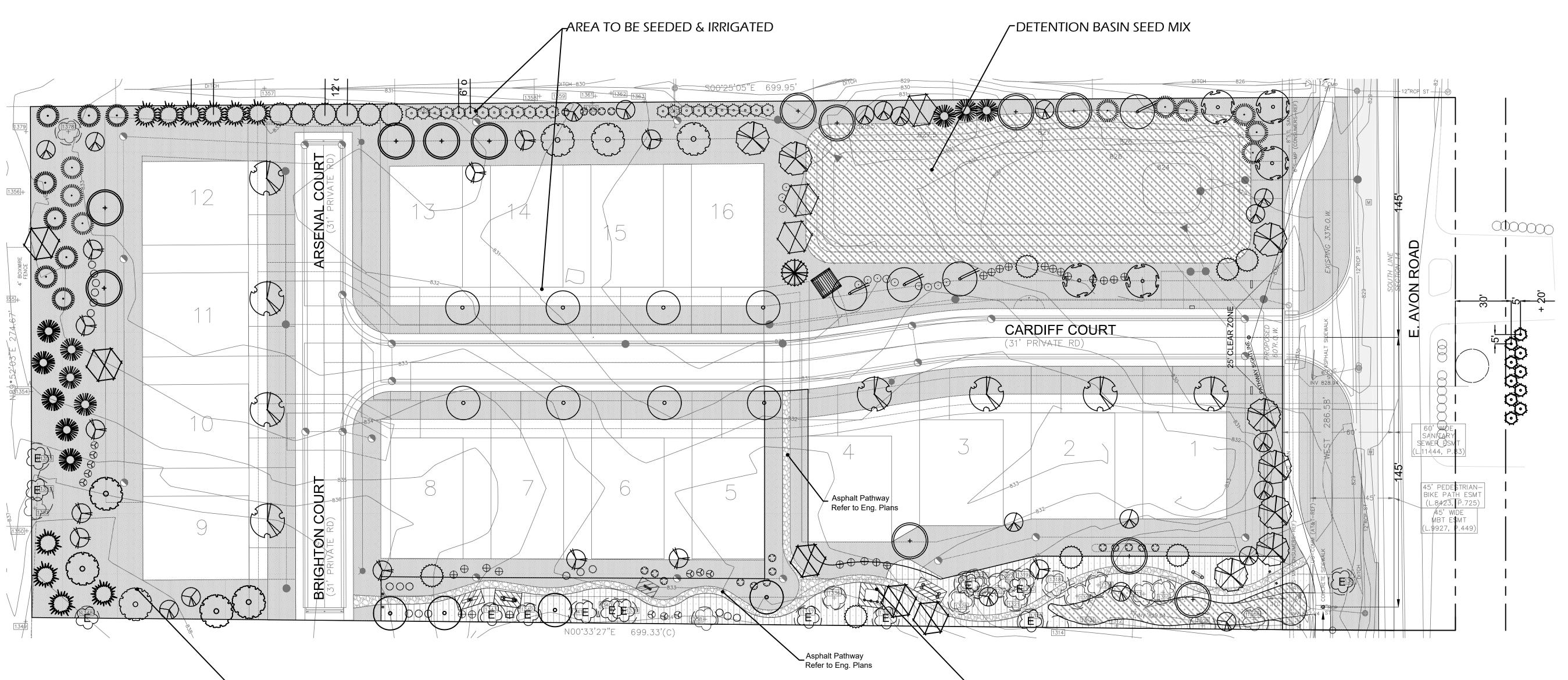


THE MATURE MAXIMUM HEIGHT FOR ALL GROUNDCOVERS AND PLANTINGS WITHIN THE 25' CLEAR ZONE IS 30" IN HEIGHT UNMAINTAINED.



# PATHWAY SIGHTLINE, CLEAR ZONE & PLANTING SETBACKS





1 DETENTION BASIN & RAINGARDEN SEED MIX

% by wt.

3.00

5.00

4.00

4.00

4.00

4.00

3.00

1.00

1.00

1.00

1.00

3.00

3.00

3.00

40.00

8.00

2.00

60.00

40.00 10.00

2 WOODLAND EDGE SEED MIX

Elymus hystrix

Total Grasses

Koeleria cristata

Schizachyrium scoparius

Butterfly Weed Showy Tick-Trefoil Snakeroot Wild Bergamot Foxglove Beard-tongue Hairy Beard-tongue Black-eyed Susan Three-lobed Coneflower Still Goldenrod Symphyotrichum novae-angliae New England Aster Symphyotrichum oolentangiensis Prairie Heart-leaved Aster Early Meadow Rue Thalictrum dioicum Thalictrum dasycarpum Purple Meadow Rue Total Forbs Grasses Canada Wild Rye Elymus canadensis

Scientific name Common Name Achillea millefolium Yarrow Allium cernuum Nodding Wild Onion Aquilegia canadensis Wild Columbine Asclepias syriaca Common Milkweed Asclepias tuberosa Desmodium canadense Eupatorium rugosum Monarda fistulosa Penstemon digitalis Penstemon hirsutus Rudbeckia hirta Rudbeckia triloba Solidago rigida

MICHIGAN WILDFLOWER FARM WOODLAND EDGE MIX 35% Forbs and 65% Grasses Seeding Rate: 5 oz./1000 sf or 10 lbs./acre \$14.50/oz. or \$232/lb.

% by wt.

1.00

3.00

2.00

2.00

2.00

2.00

3.00

3.00

3.00

1.00

4.00

2.00

2.00

1.00

1.00

1.00

2.00

35.00

30.00

10.00

3.00

22.00

65.00

Bottlebrush Grass

June Grass

Little Bluestem

MICHIGAN WILDFLOWER FARM Detention Basin Mix 40% Forbs and 60% Grass/Sedge/Rush Seeding Rate: 3 oz./1000 s.f. or 6 lbs./acre \$16.50/oz. or \$264/lb.

**Common Name** 

Canada Anemone

Swamp Milkweed

Joe-Pye Weed

Wild Blue Flag

Great Blue Lobelia

Swamp Goldenrod

Sweet Black-eyed Susan

Grassleaved Goldenrod

Angelica

Boneset

Sneezeweed

Blue Vervain

Carex species

Virginia Wild Rye

Scirpus species

Common Bur Reed

Ironweed

Scientific name

Anemone canadensis

Angelica atropurpurea

Eupatorium maculatum

Eupatorium perfoliatum

Helenium autumnale

lris virginica

Lobelia siphilitica

Solidago patula

Verbena hastata

Total Forbs

GRASSES

Carex spp.

Scirpus spp.

Total Grasses

Elymus virginicus

Sparganium eurycarpum

Vernonia missurica

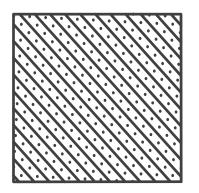
Rudbeckia fulgida

Solidago graminifolia

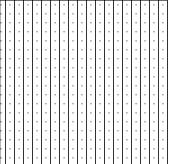
Symphyotrichum puniceum Swamp Aster

Asclepias incarnata

FORBS

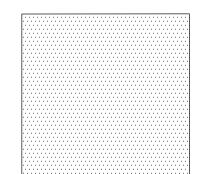


Detention Basin & Raingarden Hatch



Woodland Edge Hatch

- AREA TO BE SEEDED & IRRIGATED



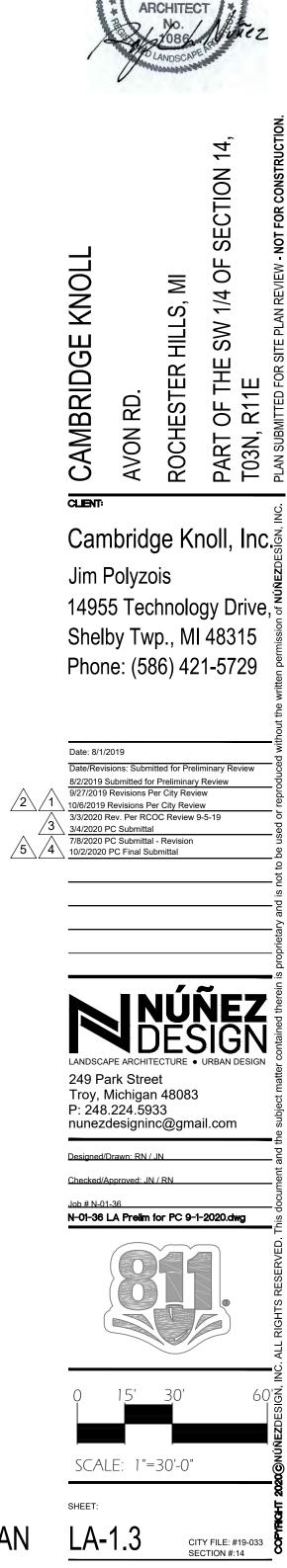
Seeded Area Hatch



RALPH

NUNEZ

LANDSCAPE



SEEDING PLAN

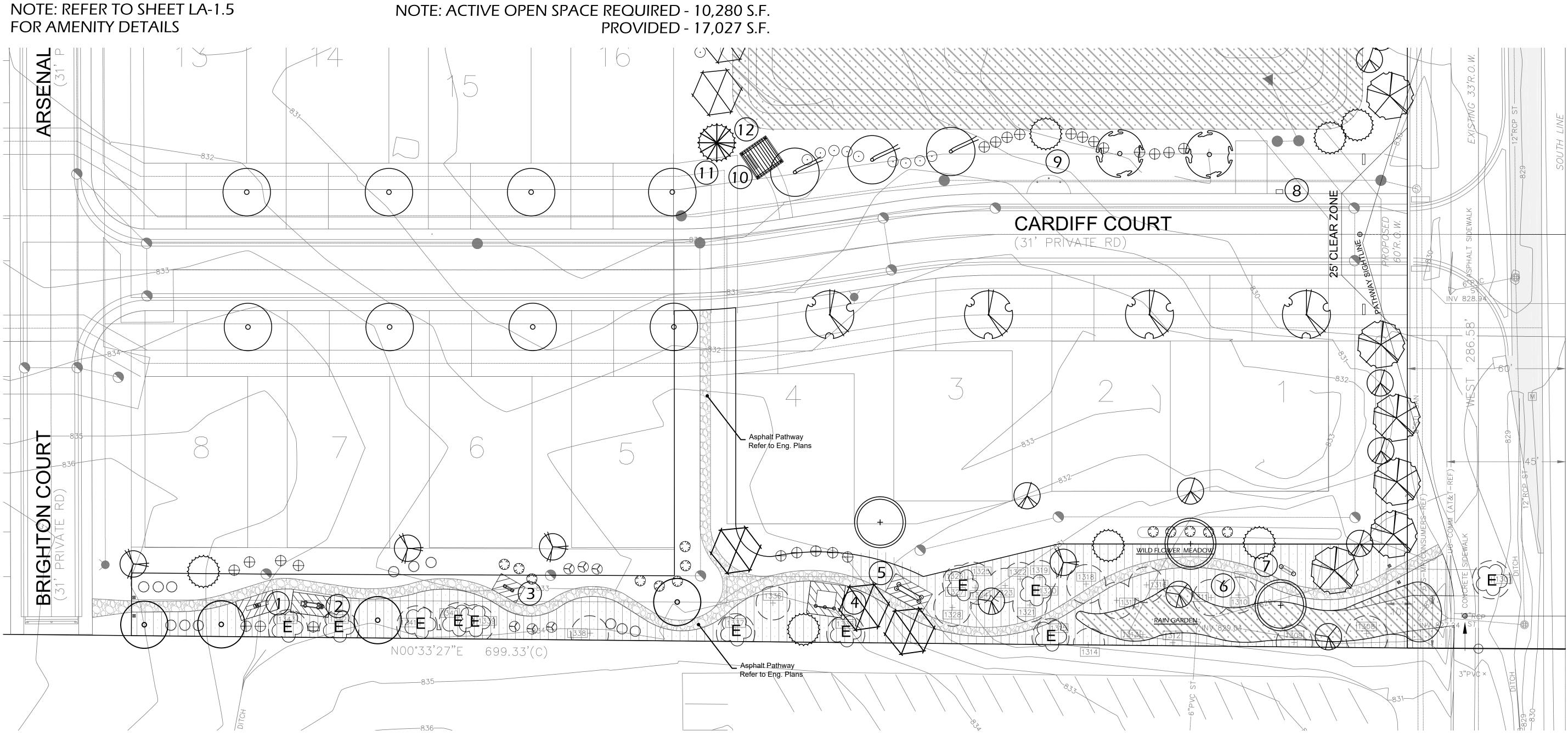
# LEGEND:

- 1. KNEE LIFT STATION
- 2. SIT-UP STATION
- 8. MAILBOX 9. BIRD HOUSES

12. PERGOLA

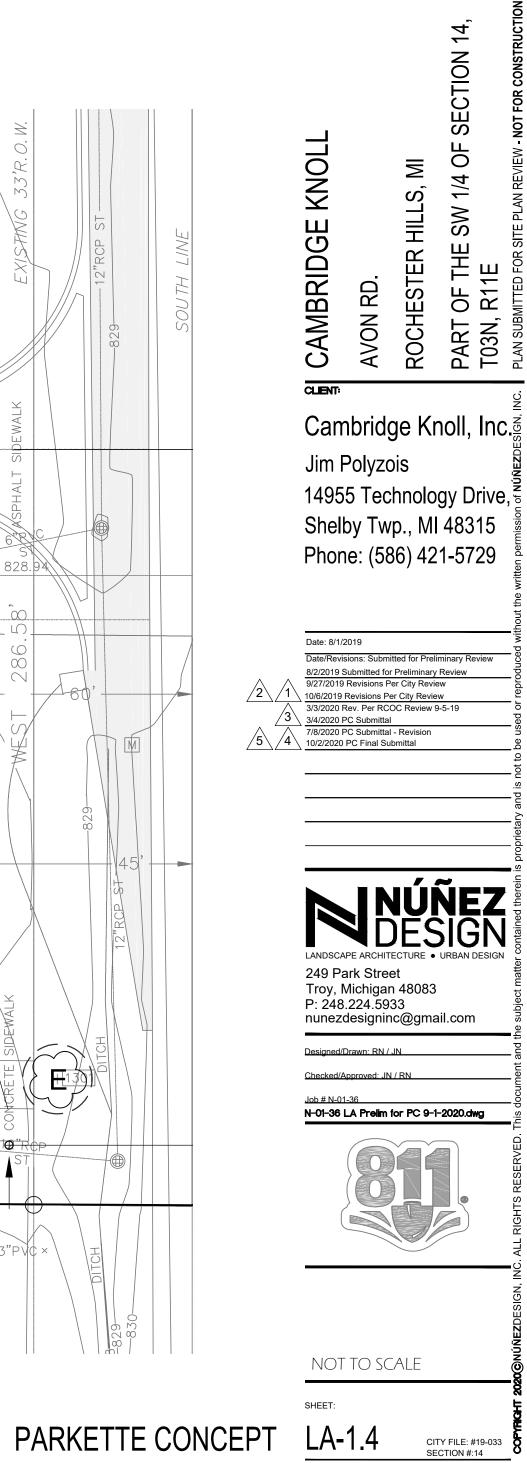
11. HOLIDAY TREE

- **3. BALANCE PLANK STATION** 10. BENCH
- 4. PUSH-UP STATION
- 5. PARALLEL BAR STATION
- 6. BAT BOX
- 7. BENCH SWING











1 KNEE LIFT STATION





5 PARALLEL BAR STATION











10 BENCH









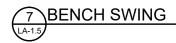
3 BALANCE PLANK STATION





4 PUSH-UP STATION







HOLIDAY TREE



12 PERGOLA

13 FITNESS EQUIPMENT USE ZONE DETAIL

5-12

AMENITIES LA -1.5 CITY FILE: #19-033 SECTION #:14

# **GENERAL NOTES**

## CITY NOTES

1. ALL PLANT MATERIAL SHALL MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND APPROVED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC.

2. ALL PLANT MATERIAL SHALL BE TRUE TO NAME IN CONFORMANCE TO THE CURRENT EDITION OF STANDARDIZED PLANT NAMES ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, OR OTHER SOURCE ACCEPTED BY THE CITY.

3. ALL PLANT MATERIAL SHALL B E NURSERY GROWN IN A NORTHERN CLIMATE; HARDY TO THE CLIMATE OF MICHIGAN; APPROPRIATE FOR THE SOIL; CLIMATIC AND ENVIRONMENTAL CONDITIONS; AND RESISTANT TO DISEASE AND INSECT ATTACK.

4. A MINIMUM FOUR (4) INCHES OF TOPSOIL SHALL BE PROVIDED FOR ALL LAWN AREAS, GROUND COVERS AND PLANTING BEDS.

5. ARTIFICIAL PLANT MATERIAL IS PROHIBITED AND SHALL NOT BE USED TO MEET THE REQUIREMENTS OF THIS ARTICLE.

6. LAWN AREAS SHALL BE PLANTED IN SPECIES OF GRASS NORMALLY GROWN IN MICHIGAN. GRASS MAY BE SODDED OR HYDRO-SEEDED, PROVIDED THAT ADEQUATE MEASURES ARE TAKEN TO MINIMIZE SOIL EROSION. SOD OR SEED SHALL BE CLEAN AND FREE OF WEEDS AND NOXIOUS PESTS OR DISEASE.

7. A MINIMUM 4-INCH LAYER OF SHREDDED HARDWOOD BARK SHALL BE PLACED IN ALL PLANTER BEDS CONTAINING TREES OR SHRUBS AND AROUND THE BASE OF ALL TREES PLANTED WITHIN LAWN AREAS. ALL SHRUBS PLANTED WITHIN LAWN AREAS ARE TO BE PLANTED IN GROUPS AND MULCHED AS A GROUP, AND HEDGEROWS ARE TO BE MULCHED AS ONE CONTINUOUS STRIP.

8. LIVE GROUNDCOVERS SUCH AS MYRTLE, BLUE RUG JUNIPERS, BALTIC IVY AND OTHER SIMILAR VINES AND PLANT MATERIAL SHALL BE MULCHED WITH A 2-INCH LAYER OF SHREDDED HARDWOOD BARK. ANY DEVIATIONS MUST BE APPROVED BY THE CITY'S LANDSCAPE ARCHITECT.

9.PLANT MATERIALS SHALL NOT BE PLACED CLOSER THAN FOUR FEET FROM THE FENCE LINE OR PROPERTY LINE.

10. DECIDUOUS AND ALL SHRUBS MAY NOT BE PLANTED WITHIN 5 FEET, AND EVERGREEN TREES MAY NOT BE PLANTED WITHIN TEN (10) FEET OF ANY CURB OR PUBLIC WALKWAY.

11. TREES AND SHRUBS MAY NOT BE PLANTED WITHIN 10 FEET OF A FIRE HYDRANT.

12. WHERE PLANT MATERIALS ARE PLANTED IN TWO OR MORE ROWS, PLANTING SHALL BE STAGGERED IN ROWS.

13. WHERE SHRUB PLANTINGS ARE REQUIRED TO FORM A CONTINUOUS HEDGE, THE PLANTS SHALL NOT BE SPACED OUT MORE THAN 36 INCHES ON CENTER AT PLANTING AND SHALL HAVE A MINIMUM HEIGHT AND SPREAD OF 30 INCHES AT PLANTING. SHRUBS THAT WILL NOT ATTAIN SUFFICIENT WIDTH TO FORM A COMPLETE HEDGE SPACED 36 INCHES ON CENTER SHALL BE PLANTED AT A SPACING THAT WILL ALLOW THEM TO FORM A COMPLETE HEDGE WITHIN TWO YEARS OF PLANTING.

## **RESPONSIBILITY NOTES**

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE 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 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.

3. CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY 4" TOPSOIL DEPTH IN ALL PLANTING BEDS AND 4" TOPSOIL DEPTH IN ALL LAWN AREAS USING MATERIAL FROM SPOIL PILE.

4. ACCEPTANCE OF GRADING AND SOD SHALL BE BY THE LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY. THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY FOR A MINIMUM OF TWO (2) YEARS. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REPLACEMENTS OF WASHOUTS AND OTHER OPERATIONS NECESSARY TO KEEP SOD IN A THRIVING CONDITION. UPON FINAL ACCEPTANCE BY LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY. THE OWNER SHALL ASSUME ALL MAINTENANCE RESPONSIBILITIES.

5. THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPING FOR A PERIOD OF TWO (2) YEARS BEGINNING AFTER APPROVAL BY THE CITY OF ROCHESTER HILL'S LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE CITY OF ROCHESTER HILL'S LANDSCAPE ARCHITECT. WITHOUT COST TO THE OWNER.

6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.

## LANDSCAPING NOTES

1. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTING INCLUDING BUT NOT LIMITED TO EXISTING TREES, REPLACEMENT TREES, BUFFER PLANTINGS, AND PARKING LOT ISLANDS. THE RIGHT-OF-WAY WILL BE INSPECTED BY THE FORESTRY DIVISION TO IDENTIFY ANY PLANTINGS NEW OR EXISTING THAT POSE A HAZARD TO THE SAFE USE OF THE RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE AND POSSIBLY REPLACE ANY SUCH TREES.

2. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC R.O.W.. 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. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 15' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 10' FROM THE NEAREST UNDERGROUND UTILITY.

3. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY AT A DISTANCE 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.

4. PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHT-OF-WAY.

5. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS.

6. THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILL 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.

7. REPLACEMENT TREES MAY NOT BE PLANTED WITHIN THE DRIP LINE OF EXISTING TREES.

8. NO PLANT SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT AND THE CITY'S PLANNING DEPARTMENT. ALL REQUESTS WILL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING. THE REQUEST WILL INCLUDE THE REASON FOR THE REQUESTED CHANGE ALONG WITH THE PROPOSED SUBSTITUTION AND HOW IT MEETS THE ORIGINAL DESIGN INTENT, SIZE, COLOR, ETC. THE LANDSCAPE ARCHITECT WILL EITHER MAKE RECOMMENDATIONS, APPROVE OR REJECT REQUESTS. IF THE SUBSTITUTION IS NEEDED AND APPROVED, THE LANDSCAPE ARCHITECT WILL FORWARD THE REQUEST AND HIS APPROVAL TO THE CITY FOR THEIR APPROVAL. FAILURE TO DO SO WILL RESULT IN PLANTS BEING REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE.

9. TREES MUST BE AT LEAST 10' FROM UNDERGROUND UTILITIES AND 15' FROM OVERHEAD UTILITIES.

10. THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.

# CITY OF ROCHESTER HILLS NOTES

2. IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY PATHWAY.

3. SIGNS SHALL MEET THE REQUIREMENTS OF CHAPTER 134 OF THE CITY'S CODE OF ORDINANCES.

4. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT

### ALL LANDSCAPE DRAWINGS. **TREE PROTECTION NOTES**

1. THE TREE PROTECTION FENCING (TPF) SHALL BE ERECTED PER THE PLANS APPROVED BY THE CITY OF ROCHESTER HILLS PLANNING DEPARTMENT. THE TPF MUST BE IN PLACE AND BE INSPECTED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY EARTHWORK OR CONSTRUCTION OPERATIONS. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE A TPF INSPECTION. THE TPF SHALL REMAIN IN PLACE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OR UNTIL THE CITY AUTHORIZES THE REMOVAL OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST.

2. UPON COMPLETION OF GRADING AND THE INSTALLATION OF THE INFRASTRUCTURE A SECOND INSPECTION OF THE TPF AND THE TREES DESIGNATED FOR PRESERVATION IS REQUIRED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY ADDITIONAL CONSTRUCTION. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS TPF INSPECTION.

3. UPON COMPLETION OF ALL CONSTRUCTION AND PRIOR TO THE REMOVAL OF THE CITY OF ROCHESTER HILLS MUST INSPECT ALL TREES DESIGNATED TO BE PRESERVED. THE LANDSCAPE PERFORMANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.

4. A FINAL INSPECTION BY THE CITY OF ROCHESTER HILLS IS REQUIRED AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD. THE LANDSCAPE MAINTENANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.

5. THE TREE CONSERVATION ORDINANCE PROHIBITS ANY CONSTRUCTION OR DEVELOPMENT ACTIVITIES WITHIN THE DRIP LINE OF AND REGULATED TREES NOT APPROVED FOR REMOVAL. INCLUDING BUT NOT LIMITED TO LAND CLEARING, GRUBBING, TRENCHING, GRADING OR FILLING, NO PERSON SHALL PLACE ANY SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, SOIL DEPOSITS, OR HARMFUL MATERIALS WITHIN THE DRIP LINE LIMIT OF TREES DESIGNATED FOR PRESERVATION.

6. PROPOSED GRADES ARE TO MATCH THE EXISTING ELEVATIONS OUTSIDE THE LIMITS OF THE TPF. NO GRADING EITHER CUT OR FILL IS PERMITTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION.

7. DURING THE CONSTRUCTION PROCESS NO PERSON SHALL ATTACH ANY DEVICE OR WIRE/CABLE/CORD/ROPE TO AN EXISTING TREE DESIGNATED TO BE PRESERVED.

8. ALL UTILITY SERVICE REQUEST MUST INCLUDED NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE TPF.

9. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINE OF THE ANY TREE DESIGNATED FOR PRESERVATION. SWALES SHALL BE CONSTRUCTED SO AS NOT TO DIRECT ANY ADDITIONAL FLOW INTO THE DRIP LINE A TREE DESIGNATED FOR PRESERVATION.

10. IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT ENTIRE PERIOD REQUIRED. THE REPLACEMENT OF THAT TREE WILL BE REQUIRED ON AND INCH FOR INCH BASIS PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

11. REGULATED TREES LOCATED OFF-SITE ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION OPERATIONS MUST BE PROTECTED AS DEFINED HERE IN.

12. THE TPF SHALL CONSIST OF 4 FOOT HIGH ORANGE SNOW FENCING TO BE INSTALLED AROUND THE DRIP LINE OF ALL TREE DESIGNATED TO BE SAVED. THIS FENCING SHALL BE SUPPORTED BY 6 FOOT METAL T-BAR POSTS 5 FEET ON CENTER AND DRIVEN A MINIMUM OF 24" INTO GROUND. THE TPF FENCING SHALL REMAIN UPRIGHT AND SECURELY IN PLACE FOR THE REQUIRED TIME AS SPECIFIED ABOVE.

CITY OF ROCHESTER HILLS MAINTENANCE NOTES 138-12.109 1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE

2. PRUNING SHALL BE MINIMAL AT TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.

3. ALL DEAD, DAMAGED, OR DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN (6) SIX MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON. WHICH EVER COMES FIRST. THE PLANTING SEASON FOR THE DECIDUOUS 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

4. THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED, ANY REVISIONS OR REMOVAL OF PLANT MATERIALS, OR NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-CONFORMITY WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF

THE ORDINANCE. 5. IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH BY INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.

1. ALL LANDSCAPE AREAS MUST BE IRRIGATED. WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12 AM AND 5 AM. IRRIGATION PLAN TO BE PROVIDED AT FINAL SUBMITTAL

**CITY OF ROCHESTER HILLS FORESTRY NOTES** 

1. 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 EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY

2. 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. ALL TREES AND SHRUBS MUST BE AT LEAST '10 FROM ANY 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.

3. 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 PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

### PLANTING NOTES:

1. INSTALL AND MAINTAIN ALL LANDSCAPING ACCORDING TO ROCHESTER HILLS STANDARDS. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.

2. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK. PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. CONTRACTOR TO SUPPLY NURSERY SOURCES FOR ALL PURCHASED MATERIAL. NO BARE ROOT OR PARK GRADE MATERIAL WILL BE ACCEPTED.

3. SOD: IF OWNER SELECTS THIS OPTION, CONTRACTOR WILL INSTALL SOD IN ALL AREAS INDICATED AS LAWN ON PLAN. SOD TO BE WELL ESTABLISHED, MINERAL GROWTH. SOD BLEND SHALL CONSIST OF A MINIMUM OF THREE (3) IMPROVED VARIETIES OF BLUEGRASS, ACCEPTANCE AND GUARANTEE NOTES SHALL APPLY TO ALL SOD.

4. EDGING SHALL BE A SHOVEL EDGE.

5. ALL TREE PITS MUST BE TESTED FOR PROPER DRAINAGE PRIOR TO PLANTING TREES. A DRAINAGE SYSTEM MUST BE INSTALLED IF PLANTING PIT DOES NOT DRAIN SUFFICIENTLY (REQUIRED IN HEAVY CLAY SOILS).

6. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.

7. STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY CIRCULATION ROUTES.

8. MULCHING AND WATERING OF ALL PLANTS AND TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.

9. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.

10. REMOVE ALL TREE STAKES AND GUY WIRES AFTER ONE WINTER.

11. USE GRADE "A" DOUBLE SHREDDED HARDWOOD BARK.

12. DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALLS. BACK FILL WITH ONE PART TOPSOIL AND ONE PART SOIL FROM THE EXCAVATED PLANTING HOLE. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE PLANTED AT THE NURSERY. IF WET, CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER.

13. REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.

14. LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4' WIDE BY 4" DEEP SHREDDED BARK FOR TRUNK PROTECTION. ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.

15. SHRUB BEDS ARE TO BE MULCHED WITH SHREDDED BARK MULCH TO A MINIMUM DEPTH OF 4". ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.

16. BACKFILL DIRECTLY BEHIND ALL CURBS AND ALONG SIDEWALKS AND COMPACT TO THE TOP OF CURB OR WALK TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTLING

17. ALL LANDSCAPE AREAS, SPECIAL PARKING LOT ISLANDS AND LANDSCAPE BEDS NEXT TO BUILDINGS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A DEPTH OF 12"-18" AND BACK-FILLED WITH GOOD, MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY). ADD 4"-6" OF TOPSOIL OVERFILL MATERIAL AND CROWN A MINIMUM OF 6" ABOVE TOP OF CURBS AND/OR WALKS AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.

18. CONVERSION OF ALL ASPHALT AND GRAVEL AREAS TO LANDSCAPE SHALL BE DONE IN THE FOLLOWING MANNER:

A. REMOVE ALL ASPHALT, GRAVEL AND COMPACTED EARTH TO A DEPTH OF 6"-18" DEPENDING ON THE DEPTH OF THE SUB-BASE AND DISPOSE OF OFF SITE.

B. REPLACE EXCAVATED MATERIAL WITH GOOD, MEDIUM TEXTURES PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP F CURB AND SIDEWALK, ADD 4"-6" OF TOPSOIL AND CROWN TO A MINIMUM OF 6" ABOVE ADJACENT CURB AND WALK AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.

IF CONVERSION TO LANDSCAPE OCCURS IN AN EXISTING (OR BETWEEN) LANDSCAPE AREA(S), REPLACE EXCAVATED MATERIAL TO 4"-6" BELOW ADJACENT EXISTING GRADES WITH GOOD MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) AND ADD 4"-6" OF TOPSOIL TO MEET EXISTING GRADES AFTER EARTH SETTLING.

19. ALL PLANT MATERIAL TO RECEIVE SOILMOIST SUPER ABSORBENT POLYMER OR APPROVED EQUAL BY LANDSCAPE ARCHITECT, FOLLOW MANUFACTURER'S SPECIFICATIONS.

### MAINTENANCE NOTES

1. THE CLEAR ZONE SHALL BE MAINTAINED AT ALL INTERSECTIONS THAT INGRESS AND EGRESS TO THE SITE. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE PLANT MATERIAL AT A HEIGHT OF NOT OVER THIRTY (30) INCHES ABOVE PAVEMENT AND PROVIDE UNOBSTRUCTED SIGHT DISTANCE FOR DRIVERS IN VEHICLES APPROACHING THE INTERSECTION.

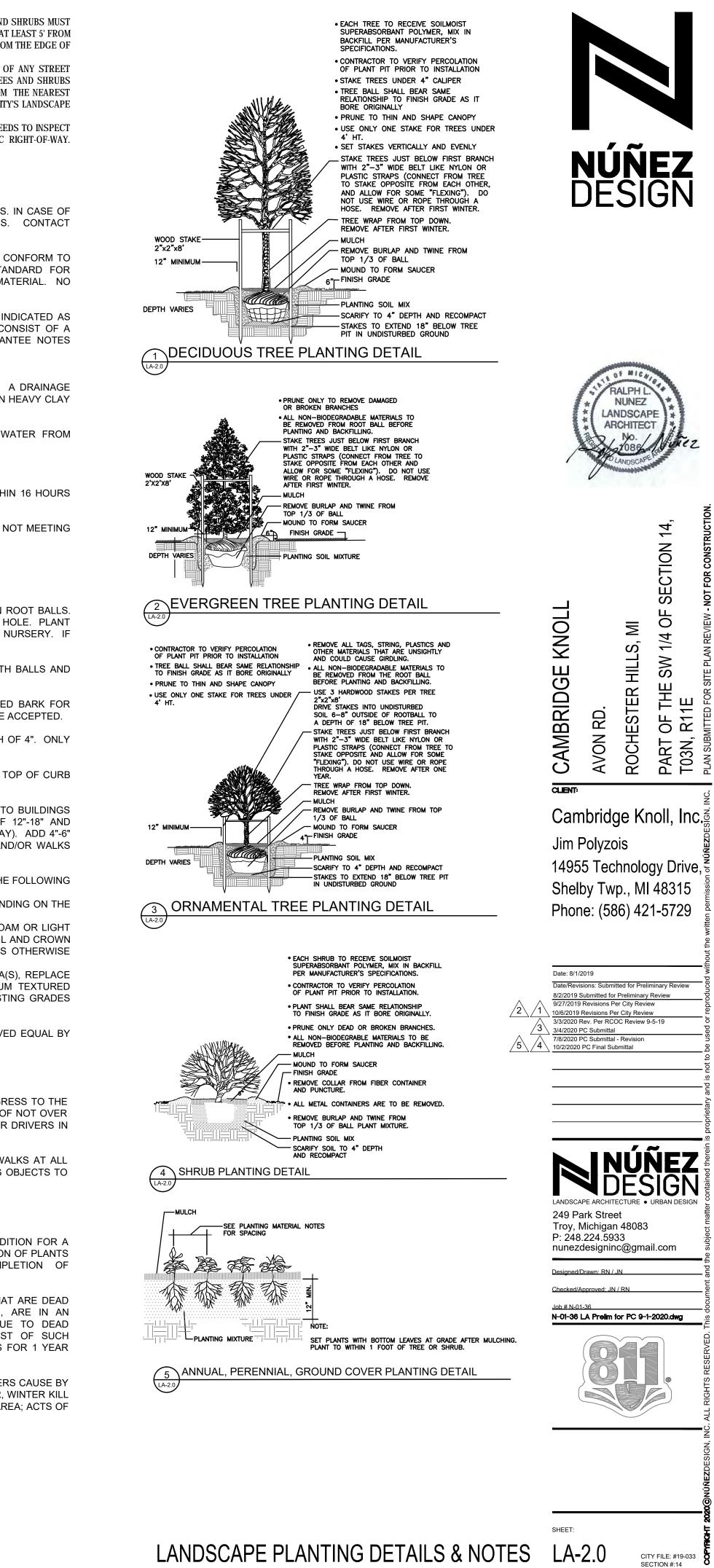
2. VERTICAL CLEARANCE OF AT LEAST EIGHTY (80) INCHES MUST BE PROVIDED ABOVE WALKS AT ALL TIMES. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN TREES AND OTHER OVERHANGING OBJECTS TO PROVIDE ADEQUATE HEADROOM TO COMPLY WITH ADA GUIDELINES.

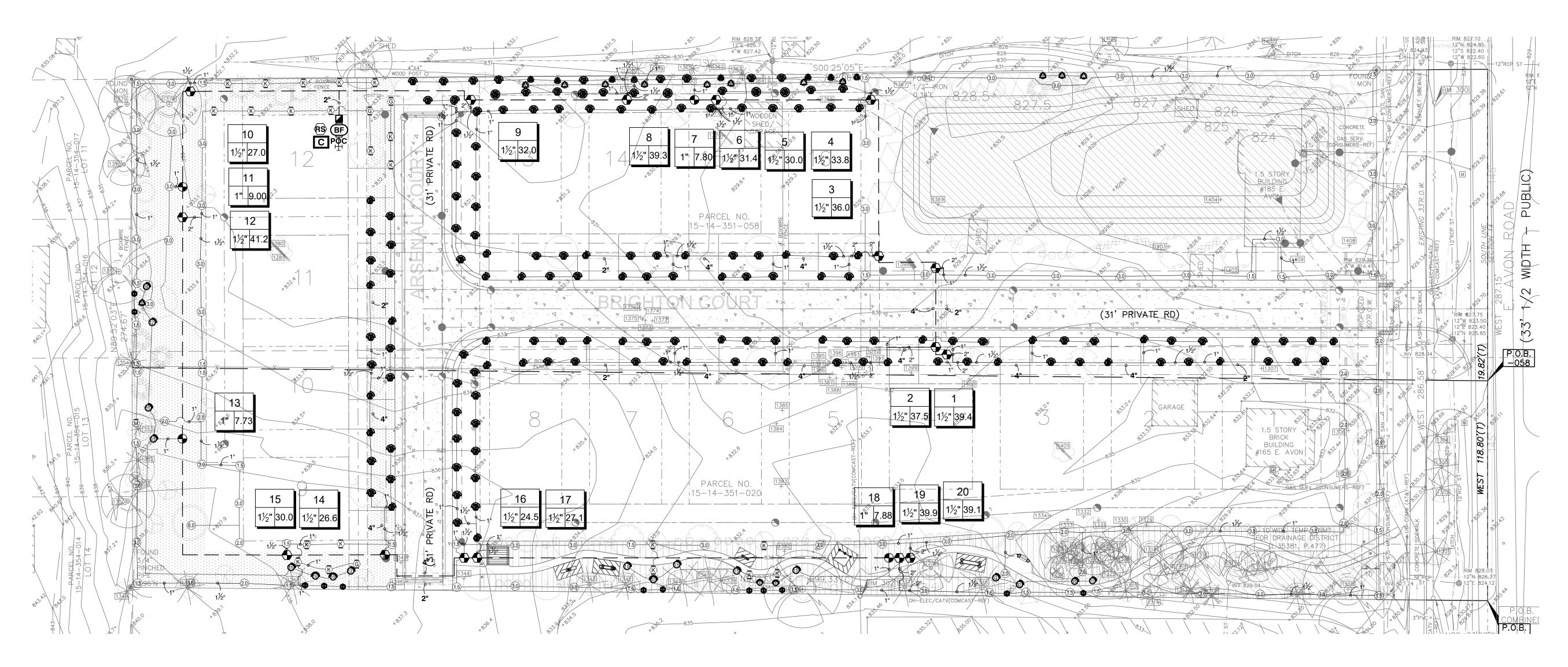
### PLANT WARRANTY

A. WARRANTIED PLANT MATERIAL TO REMAIN ALIVE AND BE IN HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF 2 YEARS AFTER COMPLETION AND ACCEPTANCE OF ENTIRE PROJECT. INSPECTION OF PLANTS WILL BE MADE BY THE LANDSCAPE ARCHITECT OR CLIENT'S REPRESENTATIVE AT COMPLETION OF PLANTING.

B. REPLACE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE DEAD OR, AS DETERMINED BY THE LANDSCAPE ARCHITECT OR CLIENT'S REPRESENTATIVE, ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AND HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, OR OTHER CAUSES DUE TO THE CONTRACTOR'S NEGLIGENCE. THE COST OF SUCH REPLACEMENT(S) IS AT CONTRACTOR'S EXPENSE. WARRANTY ALL REPLACEMENT PLANTS FOR 1 YEAR AFTER INSTALLATION.

C. WARRANTY SHALL NOT INCLUDE DAMAGE OR LOSS OF TREES, PLANTS, OR GROUND COVERS CAUSE BY FIRES, FLOODS, FREEZING RAINS, LIGHTNING STORMS, OR WINDS OVER 75 MILES PER HOUR, WINTER KILL CAUSED BY EXTREME COLD AND SEVERE WINTER CONDITIONS NOT TYPICAL OF PLANTING AREA; ACTS OF VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.





# **IRRIGATION SCHEDULE**

	DONEDOLE					
SYMBOL	MANUFACTURER/MODEL	QTY	SYMBOL	MANUFACTURER/MODEL	QTY	
A A A A A A A A A A A A A A A A A A A	Hunter PROS-04 5` strip spray	8	•	Hunter PGV-101G 1"	4	
	Hunter PROS-04 12` radius	5	$\bullet$	Hunter PGV-151 Globe 1-1/2"	16	
	Hunter PROS-04 15` radius	149		Hunter HQ-44RC 1"	1	
ES LCS RCS CS SS	Hunter PROS-12 5` strip spray	12	BF	Febco 765 1-1/2"	1	
	Hunter PROS-12 8` radius	2	C	Hunter I2C-2400-PL	1	SiteOne
	Hunter PROS-12 10` radius	6	RS	Hunter WSS	1	
	Hunter PROS-12 12` radius	4	POC 노	POC 1-1/2"	1	Project Services
	Hunter PROS-12 15` radius	7		Irrigation Lateral Line: Polyethylene Pipe 100 PSI 1"	5,004 l.f.	1-800-347-4272 http://www.projectservices.siteone.com
	Hunter MP1000 PROS-04-PRS40-CV	1		—— Irrigation Lateral Line: Polyethylene Pipe 100 PSI 1 1/2"	1,622 l.f.	650 Stephenson Highway
KGR	Hunter MP2000 PROS-04-PRS40-CV	24		Irrigation Lateral Line: Polyethylene Pipe 100 PSI 2"	149.6 l.f.	Troy, Michigan 48083 Phone 248.588.2100
<b>D</b> ADJ. 360	Hunter MP800SR PROS-04-PRS40-CV	12		Irrigation Mainline: PVC Class 160 SDR 26 2"	1,250 l.f.	Fax 248.588.3528 www.Siteone.com
SYMBOL	MANUFACTURER/MODEL	QTY		Pipe Sleeve: PVC Class 160 SDR 26 2"	139.3 l.f.	800.347.4272 Project Services Number: 112219
(1.5)	Hunter PGP-04	34		Pipe Sleeve: PVC Class 160 SDR 26 4"	234.5 l.f.	Design Date: 10/24/19 Drawn By: CH
2.0	Hunter PGP-04	16	#	Valve Callout		Checked By: C.GRAHAM
3.0	Hunter PGP-04	54	# <u></u> # <u></u> #•-	Valve Flow		
6.0	Hunter PGP-04	1		Valve Size		
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IRRIGATION SPECIFICATIONS

- 1. IRRIGATION SYSTEM DESIGN BASED ON 42 GPM AT 65 PSI.

- CHANGE IN THE AREAS OF IRRIGATION.
- ACCORDING TO LOCAL BUILDING, ELECTRICAL, AND PLUMBING CODES.
- PER LOCAL CODE.
- SLIGHTLY AS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE.
- WITH MINIMUM 12" OF COVER BASED ON FINISH GRADES.
- ONLY.
- A VALVE OR SPLICE BOX.
- OTHERWISE NOTED.

2. IRRIGATION DESIGN IS FROM THE POINT OF CONNECTION (POC) ONLY. THE DESIGN IS BASED ON GALLONS PER MINUTE(GPM)AND POUNDS PER SQUARE INCH(PSI)FURNISHED BY OTHERS.

3. IRRIGATION CONTRACTOR IS TO VERIFY POINT OF CONNECTION IN THE FIELD. INSTALLER IS TO CONFIRM THE MINIMUM DISCHARGE REQUIREMENTS OF THE POINT OF CONNECTION AS INDICATED ON THE LEGEND PRIOR TO INSTALLATION. 4. THE PRESSURE REQUIREMENT AT THE POINT OF CONNECTION IS BASED ON NO MORE THAN 5 FEET OF ELEVATION

5. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND

6. IRRIGATION CONTRACTOR WILL ARRANGE INSPECTIONS REQUIRED BY LOCAL AGENCIES AND ORDINANCES DURING  $\sqrt{5}$ THE COURSE OF CONSTRUCTION AS REQUIRED. ALL WIRING TO BE PER LOCAL CODE. BACKFLOW PREVENTION TO BE

7. LOCATION OF IRRIGATION COMPONENTS SHOWN ON DRAWING IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY

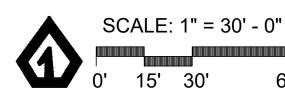
8. ALL SPRINKLER HEADS SHALL BE INSTALLED PERPENDICULAR TO FINISH GRADES. EXCEPT AS OTHERWISE INDICATED. 9. INSTALL IRRIGATION MAINS WITH A MINIMUM 18" OF COVER BASED ON FINISH GRADES. INSTALL IRRIGATION LATERALS

10. PIPE LOCATIONS ARE DIAGRAMMATIC. VALVES AND MAINLINE SHOWN IN PAVED AREAS ARE FOR GRAPHIC CLARITY

11. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH PIPE SIZES AS INDICATED.

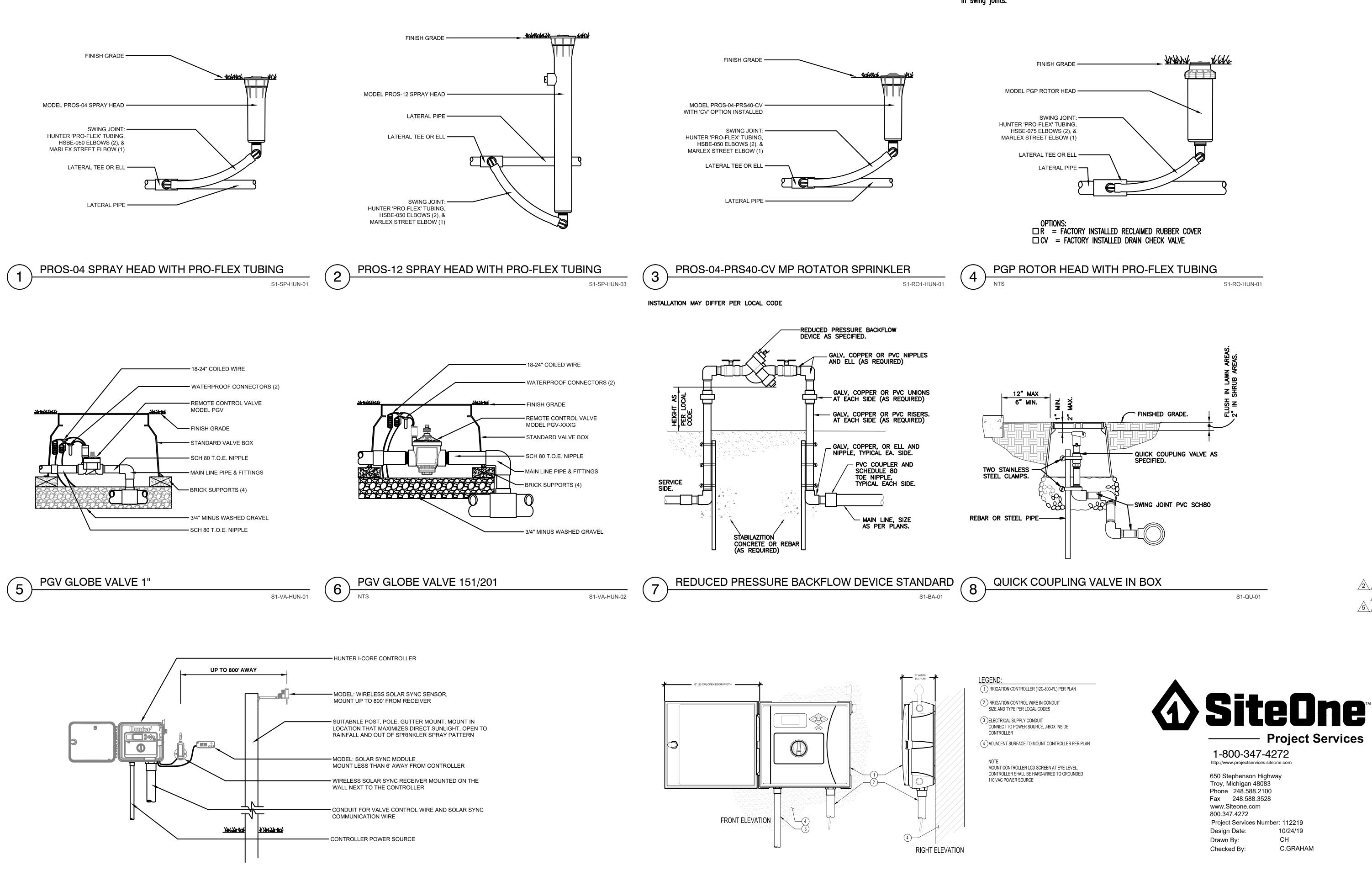
12. ALL WIRE SPLICES OR CONNECTIONS SHALL BE MADE WITH APPROVED WATERPROOF WIRE CONNECTIONS AND BE IN

13. ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE 14 AWG, UL APPROVED DIRECT BURY. 14. THE DESIGN IS BASED ON THE SITE INFORMATION AND/OR DRAWING SUPPLIED WITH THE DESIGN CRITERIA BEING SET(AREA TO BE IRRIGATED, EQUIPMENT MANUFACTURER AND MODEL TO BE USED, WATER SOURCE INFORMATION, ELECTRICAL POWER AVAILABILITY, ETC...). SITEONE LANDSCAPE SUPPLY BEARS NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS IN DESIGN OR INSTALLATION THAT ARISE DUE TO INACCURACIES IN THE ABOVE REFERENCED INFORMATION SUPPLIED TO SITEONE LANDSCAPE SUPPLY LANDSCAPES IN RELATION TO THIS PROJECT, UNLESS





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WIRELESS SOLAR SYNC SYSTEM WITH I-CORE

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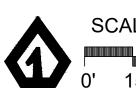
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SCALE: 1" = 30' - 0" 15' 30' 60'

CAMBRIDGE KNOLL ROCHESTER HILL PART OF THE ( T03N, R11E AVON RD. CLIENT: Cambridge Knoll, Inc. Jim Polyzois 14955 Technology Drive, Shelby Twp., MI 48315 Phone: (586) 421-5729 Date: 8/1/2019 Date/Revisions: Submitted for Preliminary Review 8/2/2019 Submitted for Preliminary Review 9/27/2019 Revisions Per City Review 10/6/2019 Revisions Per City Review 3/3/2020 Rev. Per RCOC Review 9-5-19 
 3
 3/4/2020 PC Submittal

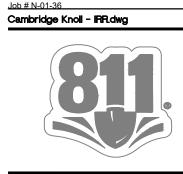
 5
 4

 7/8/2020 PC Final Submittal



nunezdesigninc@gmail.com Designed/Drawn: RN / JN

Checked/Approved: JN / RN



SHEET: IR -1.1 CITY FILE: #19-033 SECTION #:14