

f:\Projects\694701\05_deliverables\Drawings\Roadway\Sheets\113851GC001.dwg 05-May-23 1:39 PM

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	9	16	17	18	19	20	57	71	73	1/MPO/28	EXT	TOTAL				
ROADWAY																		
						650	288	692				1,630	202	23000	1,630	SY	PAVEMENT REMOVED	
						15,282						15,282	202	30000	15,282	SF	WALK REMOVED	
						2,561		56				2,617	202	32000	2,617	FT	CURB REMOVED	
LS					1							1	202	58101	1	EACH	CATCH BASIN REMOVED, AS PER PLAN	
												LS	201	11000	LS		CLEARING AND GRUBBING	
EROSION CONTROL																		
												68	203	10000	68	CY	EXCAVATION	
						7						7	203	10001	7	CY	EXCAVATION, AS PER PLAN	
												68	203	20000	68	CY	EMBANKMENT	
37												37	659	00300	37	CY	TOPSOIL	
336												336	659	10000	336	SY	SEEDING AND MULCHING	
17												17	659	14000	17	SY	REPAIR SEEDING AND MULCHING	
0.05												0.05	659	20000	0.05	TON	COMMERCIAL FERTILIZER	
0.07												0.07	659	31000	0.07	ACRE	LIME	
1.8												1.8	659	35000	1.8	MGAL	WATER	
												34,752	832	30000	34,752	EACH	EROSION CONTROL	
DRAINAGE																		
						1,983						1,983	605	14000	1,983	FT	6" BASE PIPE UNDERDRAINS	
						126						126	611	00510	126	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	100											100	611	00901	100	FT	6" CONDUIT, TYPE B, AS PER PLAN, FOR DRAINAGE CONNECTION	
												1	611	98651	1	EACH	CATCH BASIN FRAME AND GRATE, AS PER PLAN	
				15								15	611	99654	15	EACH	MANHOLE ADJUSTED TO GRADE	
PAVEMENT																		
						2,014	288	1,351				3,653	204	10000	3,653	SY	SUBGRADE COMPACTION	
						159	84	178				421	302	56000	421	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						316	48					364	304	20000	364	CY	AGGREGATE BASE, 6" DEPTH	
						32	16	34				82	407	10000	82	GAL	TACK COAT	
						24	12	26				62	442	22100	62	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	
						28						28	451	10021	28	SY	8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA, AS PER PLAN	
						203		741				944	452	12020	944	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA	
						7,798						7,798	608	12000	7,798	SF	5" CONCRETE WALK	
						2,458						2,458	608	12001	2,458	SF	5" CONCRETE WALK, AS PER PLAN	
						728						728	608	52000	728	SF	CURB RAMP	
						2,508		75				2,583	609	26000	2,583	FT	CURB, TYPE 6	
												LS	SPECIAL	69098400	LS		CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION.	
WATER WORK																		
				1								1	202	75610	1	EACH	VALVE BOX REMOVED	
						57						57	625	29000	57	FT	TRENCH	
				3								3	638	10400	3	EACH	FIRE HYDRANT ADJUSTED TO GRADE	
				13								13	638	10800	13	EACH	VALVE BOX ADJUSTED TO GRADE	
				4								4	638	10900	4	EACH	SERVICE BOX ADJUSTED TO GRADE	
												127	SPECIAL	63820770	127	FT	1" COPPER WATER SERVICE LINE, GCWW SPEC 1126	
												2	SPECIAL	63820904	2	EACH	SERVICE BOX, GCWW SPEC 1131	
LIGHTING																		
								212				212	625	00450	212	EACH	CONNECTION, FUSED PULL APART 662511704	
								103				103	625	00460	103	EACH	CONNECTION, UNFUSED PULL APART	
								29				29	625	10481	29	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN	
								29				29	625	14501	29	EACH	LIGHT POLE FOUNDATION, AS PER PLAN	
								9				9	625	10500	9	EACH	LIGHT POLE, MISC.: LIGHT BOLLARD, AS PER PLAN	
								9				9	625	14600	9	EACH	LIGHT POLE FOUNDATION, MISC.: LIGHT BOLLARD FOUNDATION, AS PER PLAN	
								11,704				11,704	625	23308	11,704	FT	DISTRIBUTION CABLE, MISC.: LTG - #10 AWG 600 VOLT	
								1,053				1,053	625	23308	1,053	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #10 AWG 600 VOLT	
								1,197				1,197	625	23308	1,197	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #8 AWG 600 VOLT	
								2,367				2,367	625	23308	2,367	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #6 AWG 600 VOLT	
								5,497				5,497	625	23308	5,497	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #4 AWG 600 VOLT	
								6,832				6,832	625	23308	6,832	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #1 AWG 600 VOLT	
								8,458				8,458	625	23308	8,458	FT	DISTRIBUTION CABLE, MISC.: RECEPT - #1/0 AWG 600 VOLT	

GENERAL SUMMARY

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SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	9	16	17	18	19	20	57	71	73	1/MPO/28	EXT	TOTAL				
LIGHTING (CONT.)																		
									228			228	625	25100	228	FT	CONDUIT, 1", 725.04	
									800			800	625	25400	800	FT	CONDUIT, 2", 725.04	
									2,021			2,021	625	25500	2,021	FT	CONDUIT, 3", 725.04	
									110			110	625	25600	110	FT	CONDUIT, 4", 725.04	
									265			265	625	25802	265	FT	CONDUIT, CONCRETE ENCASED, 2"	
									753			753	625	25802	753	FT	CONDUIT, CONCRETE ENCASED, 3"	
									363			363	625	25802	363	FT	CONDUIT, CONCRETE ENCASED, 4"	
									30			30	625	25902	30	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3'	
									29			29	625	27551	29	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN, 18'H CAST ALUM LED POLE LTG	56
									2,459			2,459	625	29001	2,459	FT	TRENCH, AS PER PLAN	
									359			359	625	29400	359	FT	TRENCH IN PAVED AREA	
									39			39	625	30700	39	EACH	PULL BOX, 725.08, 18"	
									38			38	625	32000	38	EACH	GROUND ROD	
									1			1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	56
									2,863			2,863	625	36010	2,863	FT	UNDERGROUND WARNING/MARKING TAPE	
OTHER UTILITIES																		
				12					12			12	SPECIAL	61199700	12	EACH	GAS VALVE BOX ADJUSTED TO GRADE	16
				2					2			2	625	31600	2	EACH	PULL BOX, MISC.: ADJUST TO GRADE	16
				18					18			18	SPECIAL	69098100	18	FT	SLEEVE EXISTING GAS LINE	6
				107					107			107	SPECIAL	69098100	107	FT	VERIZON/MCI UTILITY SLEEVING	6
LS									LS			LS	SPECIAL	69098400	LS		LACP CCTV	6
LANDSCAPING																		
									69			69	661	20040	69	EACH	DECIDUOUS SHRUB, 2' HEIGHT, RHUS AROMATICA	
									30			30	661	20060	30	EACH	DECIDUOUS SHRUB, 3' HEIGHT, MYRICA PENNSYLVANICA	
									12			12	661	40100	12	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, CERIS CANADENSIS INERMIS IMPERIAL	
									6			6	661	40100	6	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, SYRINGA RETICULATE	
									11			11	661	40120	11	EACH	DECIDUOUS TREE, 3" CALIPER, GINKO BILOBA	
									22			22	661	40120	22	EACH	DECIDUOUS TREE, 3" CALIPER, GLEDITSIA TRIACANTHOS	
TRAFFIC CONTROL																		
FOR TRAFFIC CONTROL GENERAL SUMMARY REFER TO SHEET 52																		
RETAINING WALLS																		
									8.46			8.46	203	10001	8.46	CY	EXCAVATION, AS PER PLAN	6
									117.37			117.37	203	20000	117.37	CY	EMBANKMENT	
									165.31			165.31	503	21100	165.31	CY	UNCLASSIFIED EXCAVATION	
									3,578			3,578	509	10000	3,578	LB	EPOXY COATED STEEL REINFORCEMENT	
									32.85			32.85	511	46510	32.85	CY	CLASS QC1 CONCRETE, FOOTING	
									94.18			94.18	602	15001	94.18	CY	BLOCK MASONRY, AS PER PLAN	73
									1,662.95			1,662.95	602	97000	1,662.95	SF	MASONRY, MISC.: CAST STONE FACING	73
									391.17			391.17	602	98100	391.17	FT	MASONRY, MISC.: CAST STONE CAP	73
MAINTENANCE OF TRAFFIC																		
		250							250			250	410	22000	250	TON	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
			263						263			263	614	12801	263	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	8
			0.38						0.38			0.38	614	20210	0.38	MILE	WORK ZONE LANE LINE, CLASS I, 6", 740.06, TYPE I	
			0.74						0.74			0.74	614	21200	0.74	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
			0.68						0.68			0.68	614	22200	0.68	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
			1,927						1,927			1,927	614	23400	1,927	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE I	
		50.26							50.26			50.26	616	10000	50.26	MGAL	WATER	
INCIDENTALS																		
									LS			LS	614	11000	LS		MAINTAINING TRAFFIC	
									LS			LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
									LS			LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

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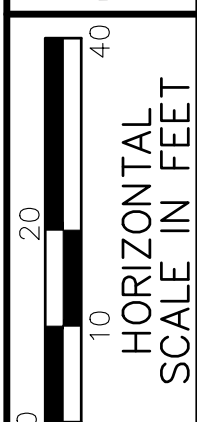
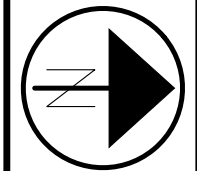
STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	202	202	202	203	204	303	304	407	442	451	452	608	608	608	609	625				
									PAVEMENT REMOVED	WALK REMOVED	CURB REMOVED	EXCAVATION, AS PER PLAN	SUBGRADE COMPACTION	ASPHALT CONCRETE BASE, PG64-22, (449), 10 1/2" DEPTH	AGGREGATE BASE, 6" DEPTH	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	6" REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA, AS PER PLAN	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1 WITH QC/QA	5" CONCRETE WALK	5" CONCRETE WALK, AS PER PLAN	CURB RAMP	CURB, TYPE 6	TRENCH				
									SY	SF	FT	CY	SY	CY	CY	GAL	CY	SY	SY	SF	SF	SF	FT	FT				
CL US 27																												
557+11.69	TO	559+41.10	US 27	LT	229.41				50.98		229.41		63.72	14.87	10.05	2.80	2.12									229.41		
559+59.61	TO	564+31.65	US 27	LT	472.04				104.90		472.04		131.12	30.60	17.48	5.77	4.37									472.04		
565+42.77	TO	573+00.00	US 27	LT	757.23				168.27		757.23		210.34	49.08	28.05	9.26	7.01									757.23		
558+25.09	TO	559+41.19	US 27	RT	116.10				25.80		116.10		32.25	7.53	4.30	1.42	1.08									116.10		
559+60.13	TO	562+39.25	US 27	RT	279.12				62.03		279.12		77.53	18.09	10.34	3.41	2.58									279.12		
567+81.18	TO	572+08.43	US 27	RT	427.25				94.94		427.25		118.68	27.69	15.82	5.22	3.96									427.25		
560+70.73	TO	560+77.73	US27		7.00	42.00	32.67	32.67	32.67																	32.67		
562+03.13	TO	562+08.13	US27		5.00	42.67	23.71	23.71	23.71																	23.71		
557+11.69	TO	559+41.10	US 27	LT	229.41	6.00	152.94	86.82			1376.46		86.82		14.47					520.94	195.35							
559+59.61	TO	562+38.88	US 27	LT	279.27	6.00	186.18	60.05			1675.62		60.05		10.01					360.27	135.10							
562+38.88	TO	564+31.65	US 27	LT	192.77	8.00	171.35	68.83			1156.62		68.83		11.47					464.61	116.15							
565+42.77	TO	566+05.94	US 27	LT	63.17	8.00	56.15	21.80			379.02		21.80		3.63					147.18	36.80							
566+05.94	TO	569+80.44	US 27	LT	374.50	6.00	249.67	140.57			2247.00		140.57		23.43					843.41	316.28							
569+80.44	TO	570+39.28	US 27	LT	58.84	8.00	52.30	8.12			353.04		8.12		1.35					54.79	13.70							
570+39.28	TO	570+64.28	BUS	LT	25.00	5.00	13.89	13.89			150.00		13.89		2.32			16.67		75.01	37.50							
570+64.28	TO	571+14.28	BUS	LT	50.00	5.00	27.78	27.78			300.00		27.78		4.63			66.67		150.01	75.01							
571+14.28	TO	571+39.28	BUS	LT	25.00	5.00	13.89	13.89			150.00		13.89		2.32			16.67		75.01	37.50							
571+39.28	TO	572+22.10	US 27	LT	82.82	8.00	73.62	28.99			496.92		28.99		4.83					195.69	48.92							
572+22.10	TO	573+00.00	US 27	LT	77.90	6.00	51.93	37.41			467.40		37.41		6.23					224.43	84.16							
													0.00															
558+25.09	TO	559+41.19	US27	RT	116.10	6.00	77.40	71.32			696.60		71.32		11.89					427.92	160.47							
559+60.13	TO	562+39.25	US27	RT	279.12	6.00	186.08	171.43			1674.72		171.43		28.57					1028.57	385.71							
567+81.40	TO	569+56.60	US27	RT	175.20	8.00	155.73	135.24			1051.20		135.24		22.54					912.85	228.21	89.32						
569+56.60	TO	569+81.60	BUS	RT	25.00	5.00	13.89	13.89			150.00		13.89		2.32			16.67		75.01	37.50							
569+81.60	TO	570+31.60	BUS	RT	50.00	5.00	27.78	24.99			300.00		24.99		4.16			66.67		134.92	67.46							
570+31.60	TO	570+56.60	BUS	RT	25.00	5.00	13.89	13.89			150.00		13.89		2.32			16.67		75.01	37.50							
570+56.60	TO	572+08.43	US27	RT	151.83	8.00	134.96	128.58			910.98		128.58		21.43					867.89	216.97							
564+31.65	TO	564+71.85	US27	LT	40.20	12.00	53.60	59.95	18.76	247.66	50.22		59.95	1.86	9.99	0.61	0.47			279.44	34.00	103.35	40.20					
564+96.37	TO	565+42.77	US27	LT	46.40	8.00	41.24	60.27	12.63	333.06	56.83		60.27	2.10	10.05	0.69	0.53			273.03	60.03	95.70	46.40					
557+24.99	TO	557+75.96	US27	RT	50.97	6.00	33.98	77.53	31.36	444.29	56.45		77.53	2.09	12.92	0.69	0.52			256.76	57.75	101.04	50.97					
558+02.67	TO	558+25.09	US27	RT	22.42	6.00	14.95	33.68	8.53	232.60	38.40		33.68	1.42	5.61	0.47	0.36			95.02	45.08	86.27	22.42					
572+08.43	TO	572+40.89	US27	RT	32.46	8.00	28.85	40.85	5.91	198.84	35.50		40.85	1.31	6.81	0.43	0.33			178.57	23.72	112.14	32.46					
572+68.99	TO	573+03.01	US27	RT	34.02	8.00	30.24	36.91	8.90	139.53	42.18		36.91	1.56	6.15	0.52	0.39		2.64	81.39	6.43	139.93	34.02					
570+59.10	TO	570+79.52	BUS	LT	20.42	6.00	13.61	13.97					1.55															
570+16.86	TO	570+37.28	BUS	RT	20.42	6.00	13.61	13.97					1.55															
560+50.00	TO	562+00.00		LT	150.00	2.29	343.50	343.50					1.00															
564+00.00	TO	564+83.00		LT	83.00	2.29	190.07	190.07					1.38															
570+00.00	TO	571+50.00		LT	150.00	2.29	343.50	343.50					3.83															
SUBTOTALS									649.39	15281.56	2560.73	6.21	2013.42	158.21	315.48	31.30	23.71	27.95	202.64	7797.72	2457.32	727.75	2507.62	56.37				
TOTALS CARRIED TO GENERAL SUMMARY									650	15282	2561	7	2014	159	316	32	24	28	203	7798	2458	728	2508	57				

PAVEMENT CALCULATIONS

HAM-27-11.09

CALCULATED
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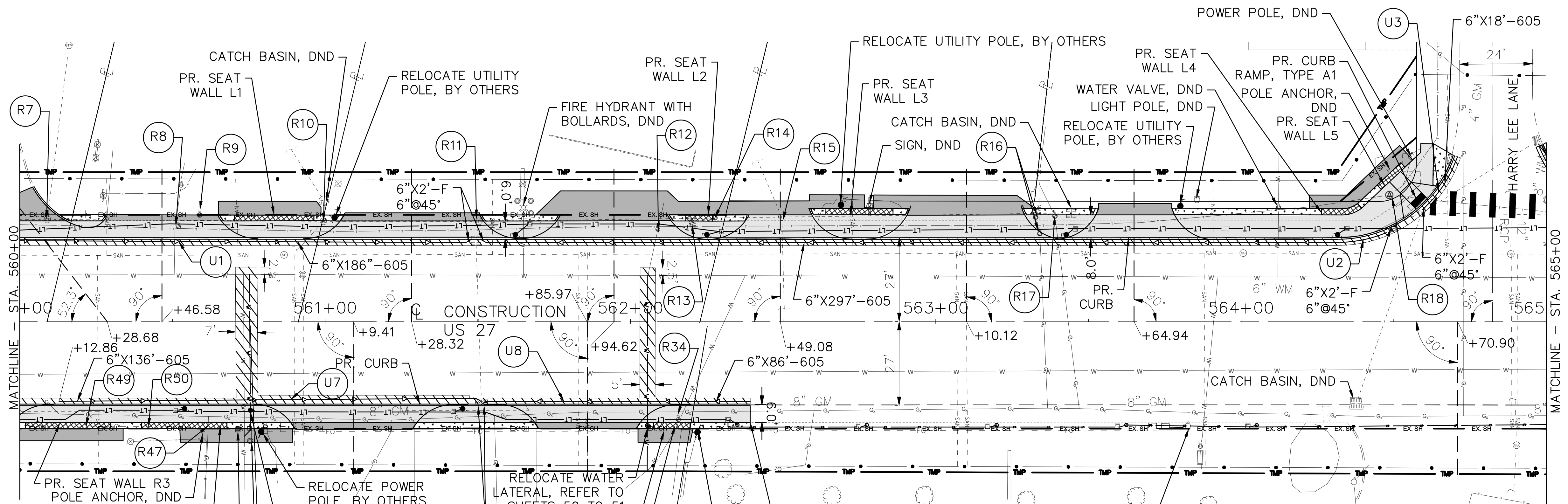
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PLAN AND PROFILE US27
STA. 560+00 TO STA. 565+00

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UTILITY LINETYPE LEGEND

E	UNDERGROUND ELECTRIC
FO	UNDERGROUND FIBER OPTIC
T	UNDERGROUND TELECOMMUNICATION
OHT	OVERHEAD TELECOM / FIBER OPTIC / CATV
OHE	OVERHEAD ELECTRIC / COMBINED
G	GAS MAIN
W	WATER MAIN
SAN	SANITARY SEWER
SS	STORM SEWER
LT	PROPOSED LIGHTING CONDUIT

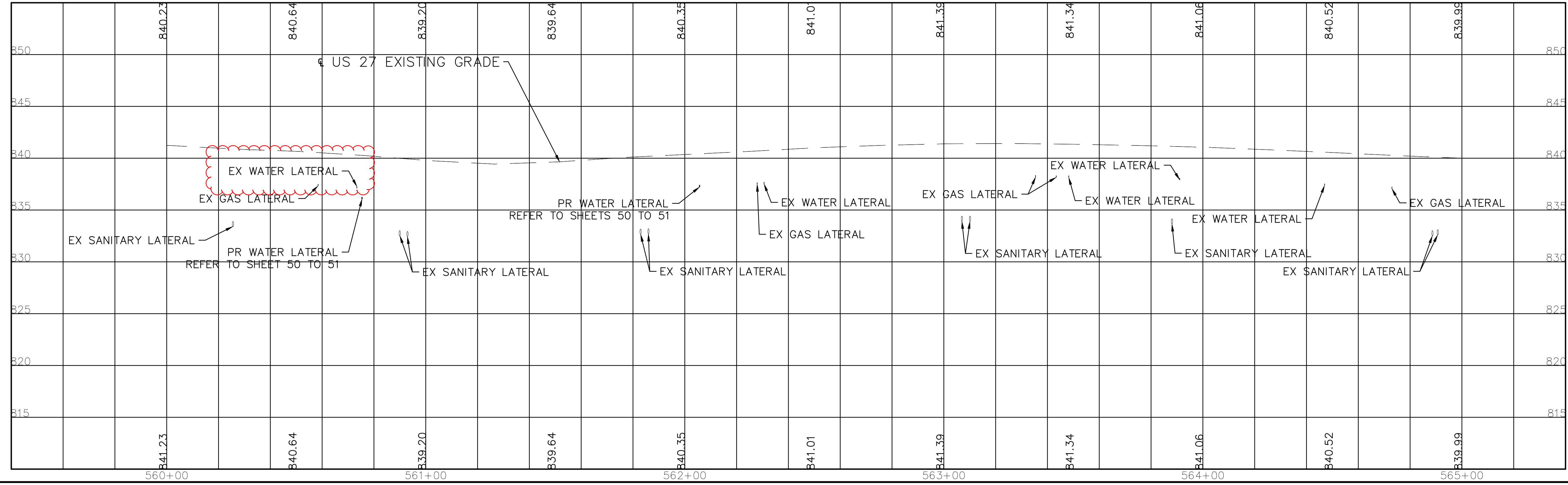
LEGEND

●	PR. LIGHT POLE
⊕	PR. LIGHT BOLLARD
□	PR. PULL BOX
- - -	CONSTRUCTION LIMITS

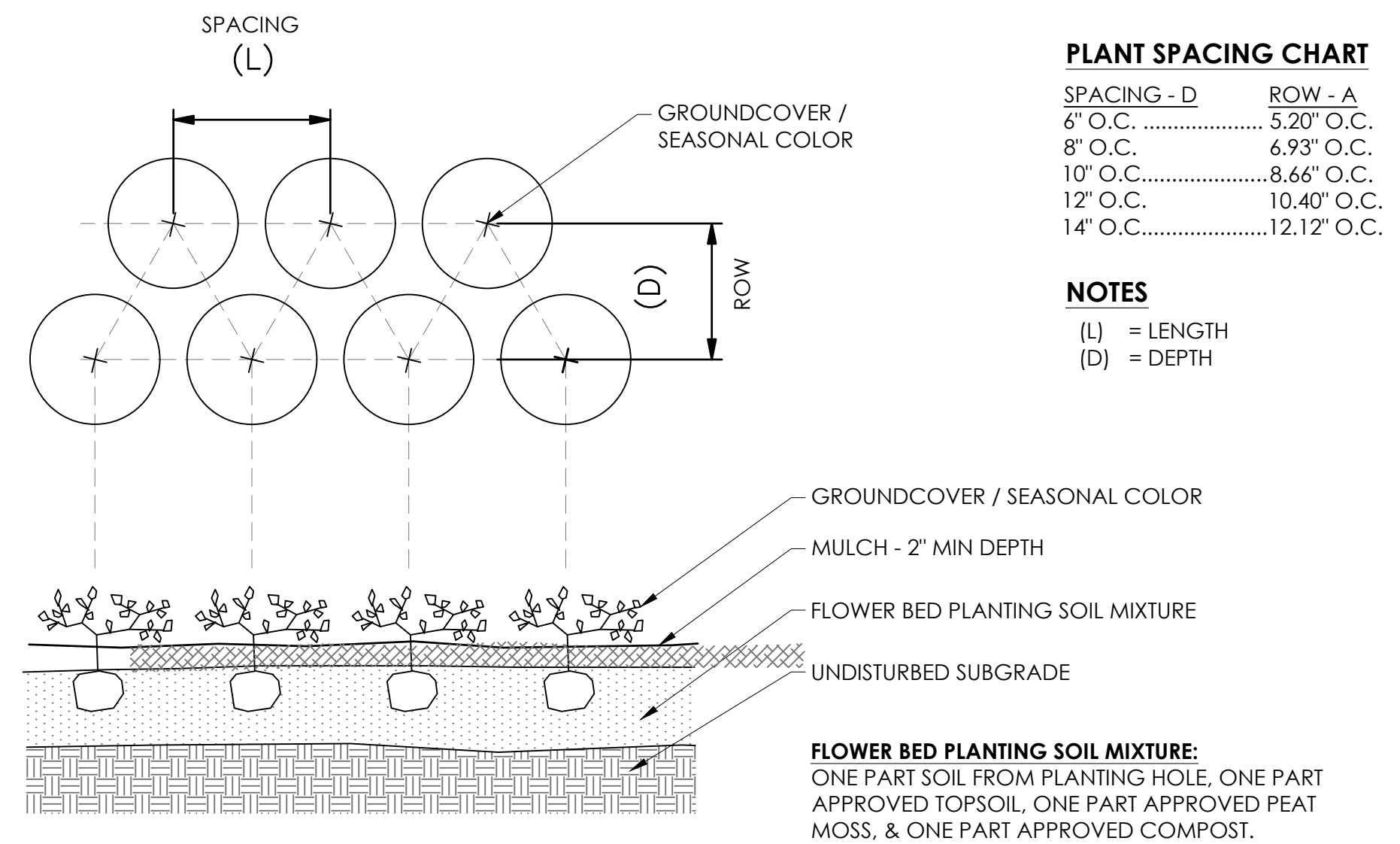
▭	PROPOSED SIDEWALK
▭	DRIVEWAY AND PARKING LOT
▭	REPAIR LIMITS
▭	SAWCUT AND PAVEMENT REPAIR
▭	SEAT WALL

- NOTES**
1. FOR TYPICAL SECTION SEE SHEET 03-05
 2. FOR DRIVEWAY PROFILES SEE SHEETS 43-49
 3. FOR DRIVEWAY DETAILS SEE SHEETS 39-42
 4. FOR HARRY LEE INTERSECTION DETAILS SEE SHEET 36
 5. FOR LIGHTING PLAN SEE SHEETS 56-63

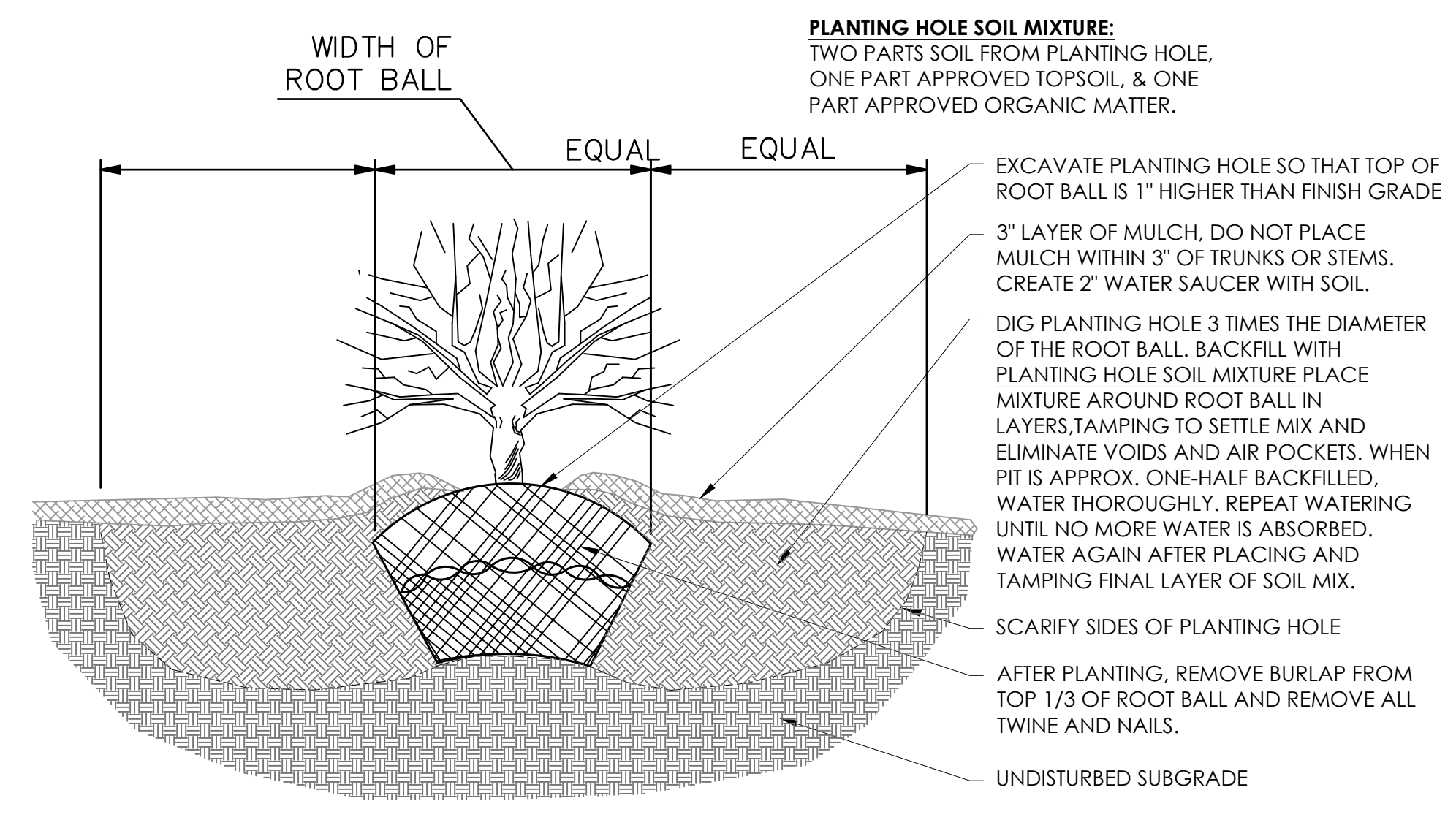
6. FOR LANDSCAPE PLAN SEE SHEETS 66-72
7. FOR SEAT WALL PLAN SEE SHEETS 73-83
8. FOR WATER WORKS PLAN SEE SHEETS 50-51



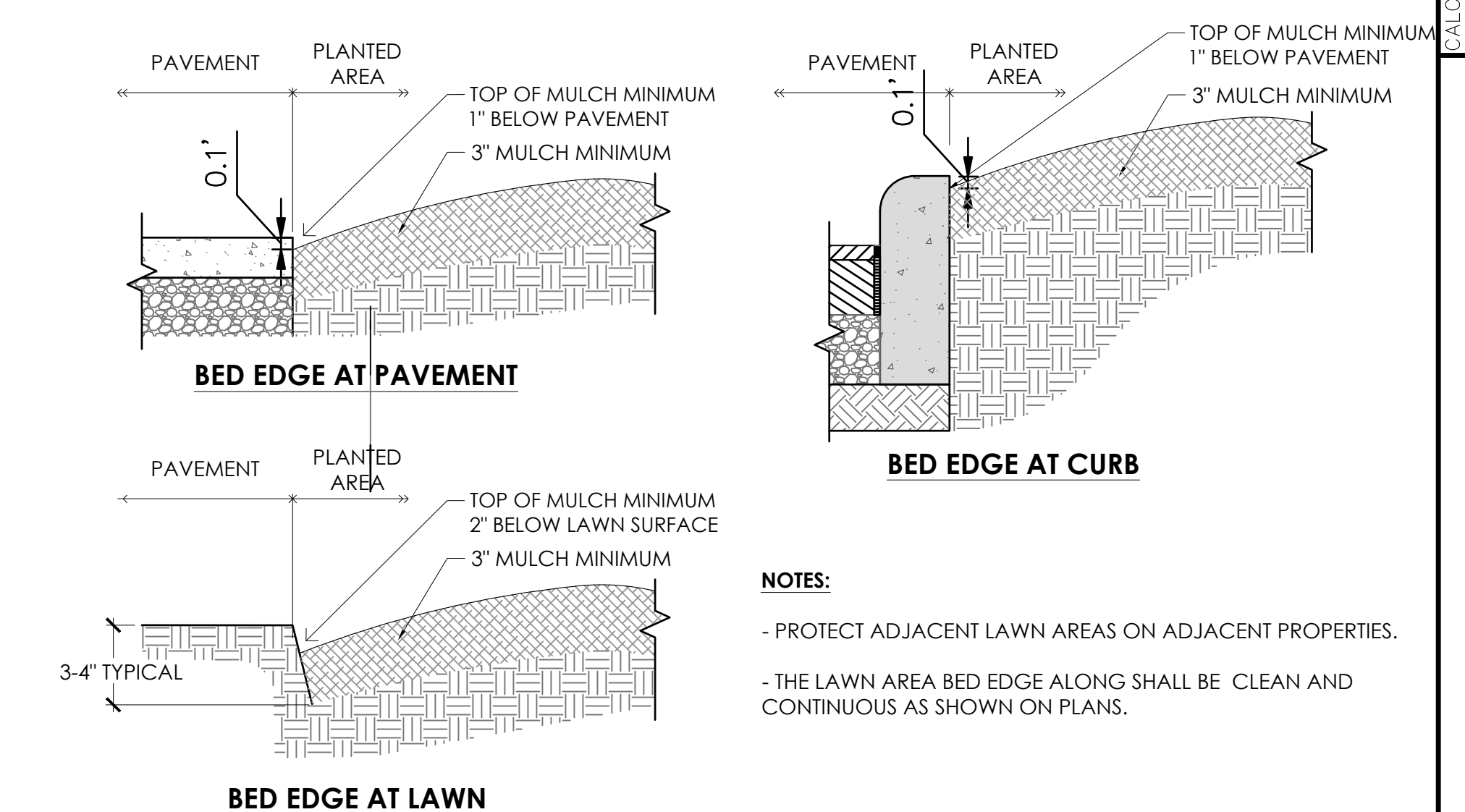
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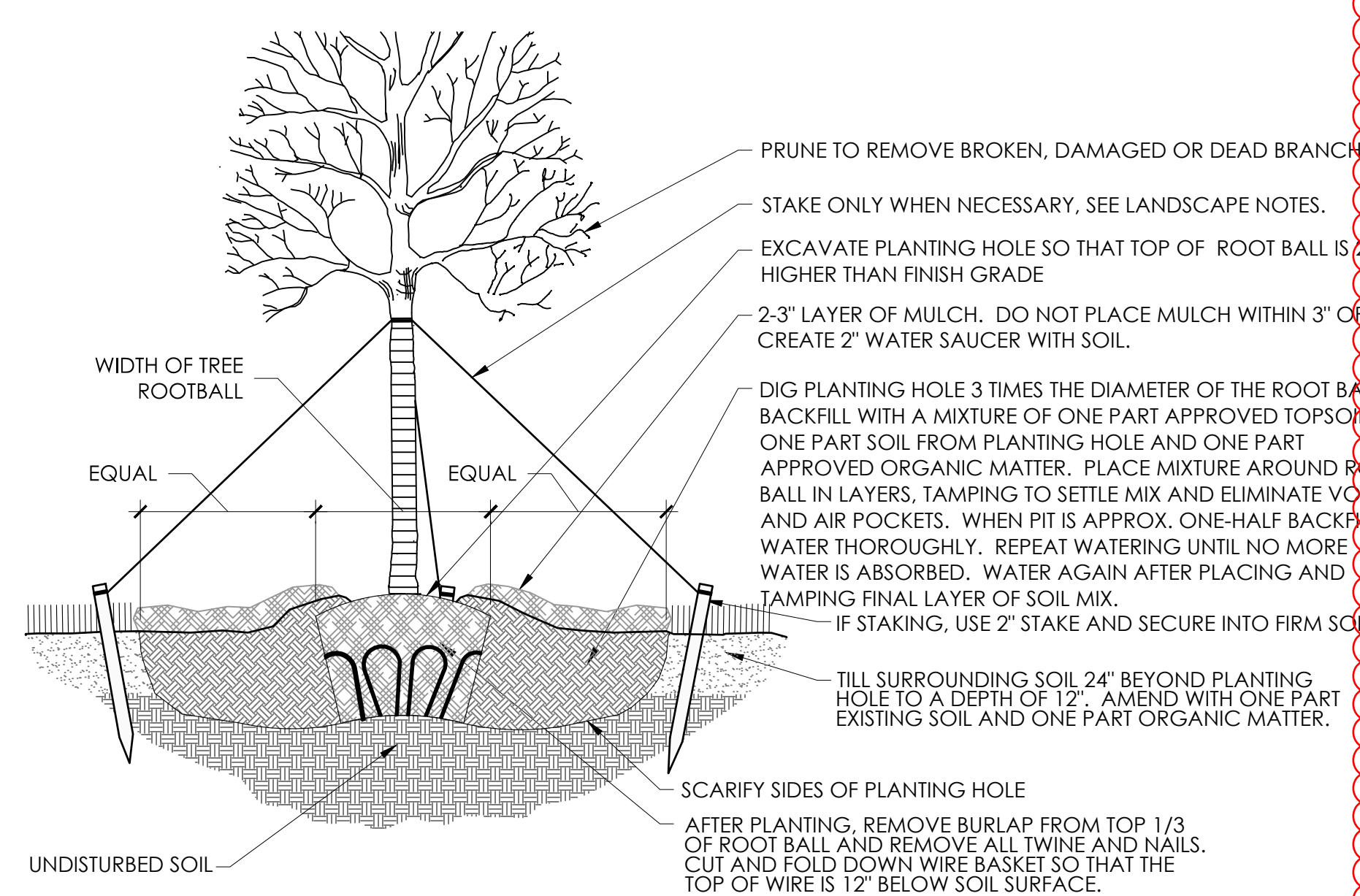
1 PLANTING DETAIL : GROUNDCOVER & SEASONAL COLOR
Scale: N.T.S.



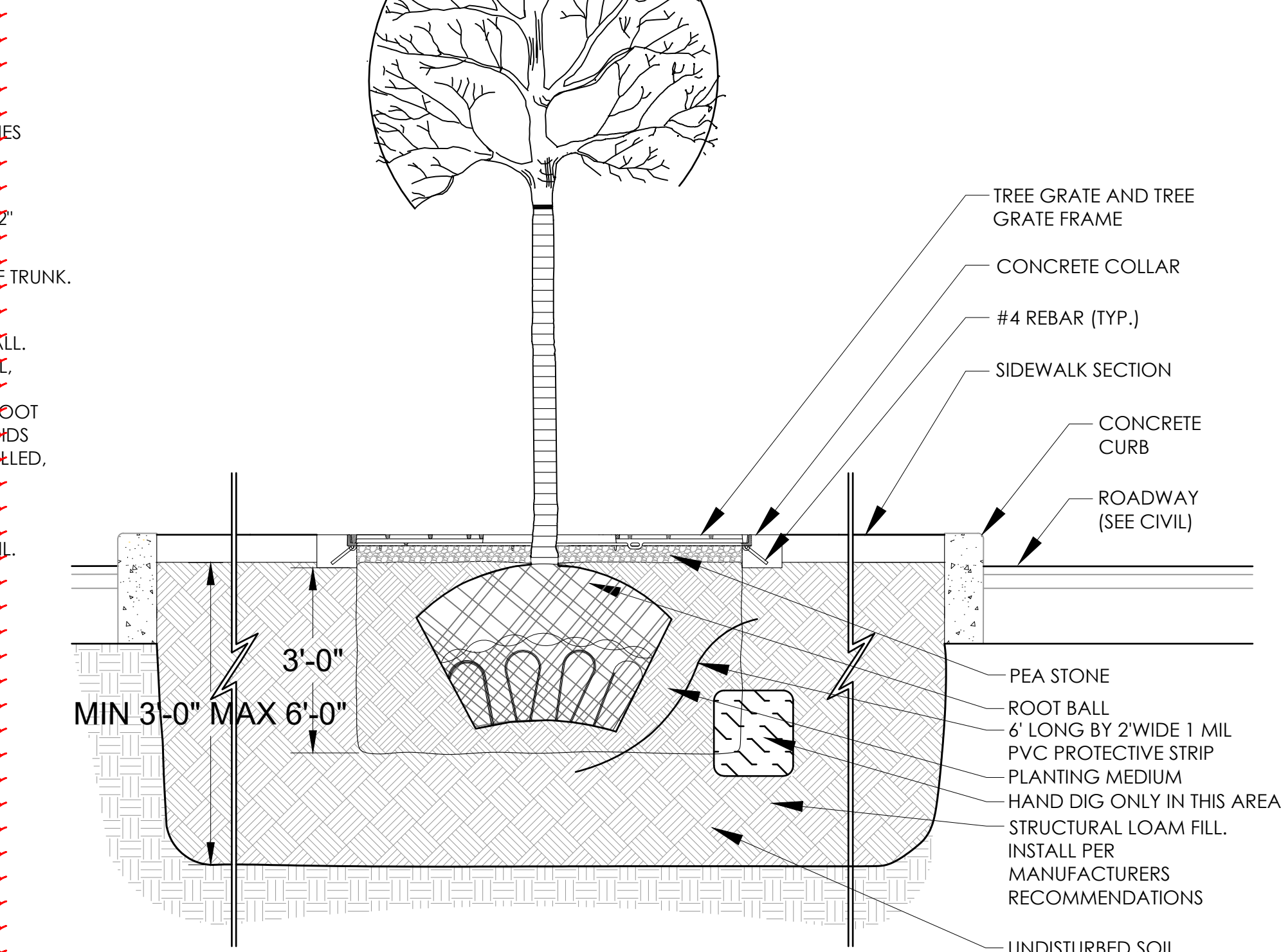
2 PLANTING DETAIL : BALLED AND BURLAPPED SHRUB
Scale: N.T.S.



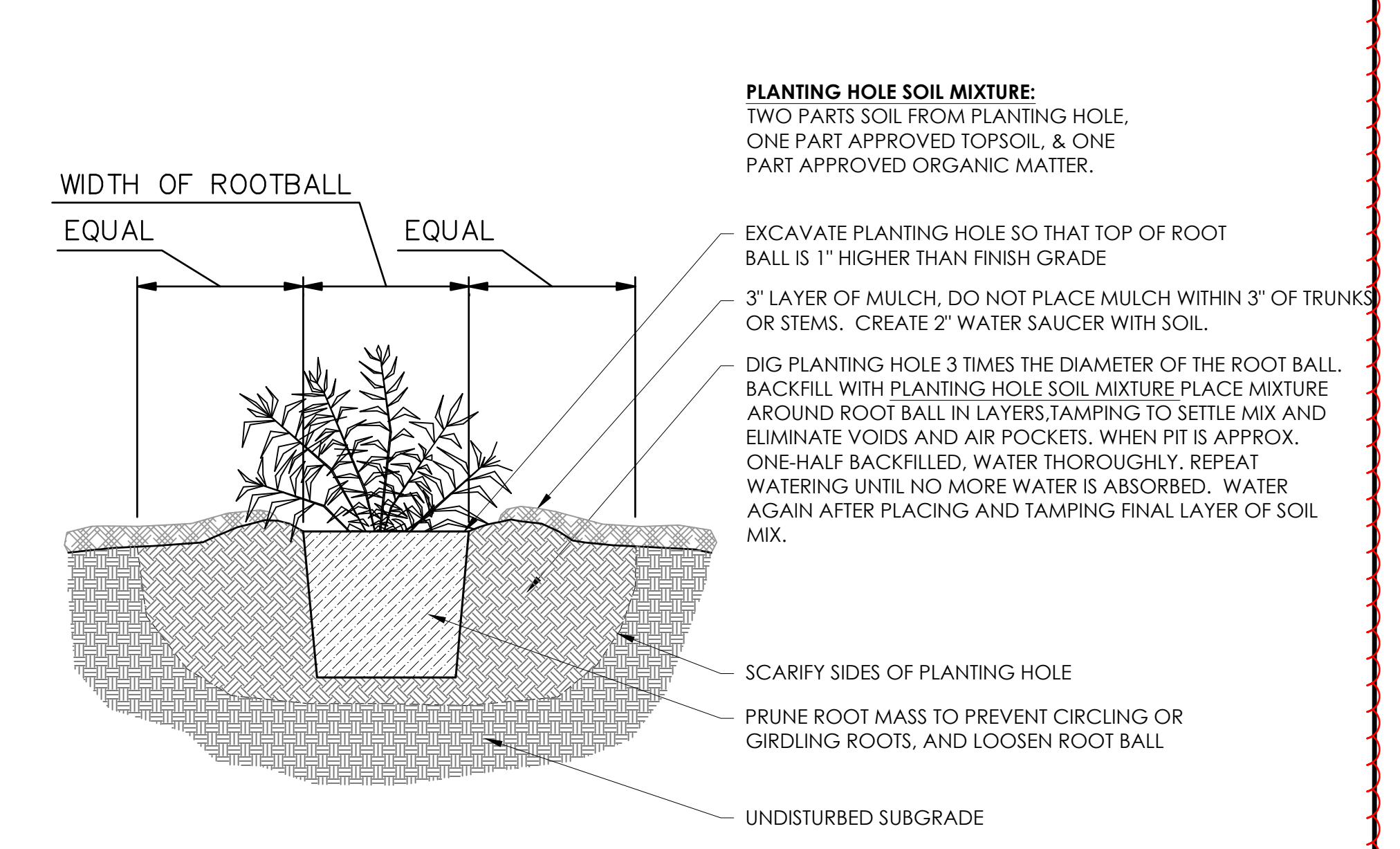
3 PLANTING DETAIL : BED EDGE
Scale: N.T.S.



4 PLANTING DETAIL : BALLED AND BURLAPPED TREE
Scale: N.T.S.



4a PLANTING DETAIL: Tree Installation Near Cable Line
Scale: N.T.S.



5 PLANTING DETAIL : CONTAINERIZED PLANTS
Scale: N.T.S.

Key	Scientific Name	Common Name	Size	Root	Quantity	Spacing	Remarks
Deciduous Trees							
CC	<i>Cercis canadensis Inermis Imperial</i>	Eastern Redbud	2 1/2" Cal.	B&B	12	See Plan	Matched Specimen
SR	<i>Syringa reticulata</i>	Japanese Tree Lilac	2 1/2" Cal.	B&B	6	See Plan	Matched Specimen
GB	<i>Ginko biloba</i>	Ginko	3" Cal.	B&B	11	See Plan	Matched Specimen-tree-form
GT	<i>Gleditsia triacanthos</i>	Honey Locust	3" Cal.	B&B	22	See Plan	Matched Specimen-tree-form
Shrubs							
MP	<i>Myrica pensylvanica</i>	Northern Bayberry	3'HT	#5 cont.	30	Typical 5' O.C	Full Plant
RA	<i>Rhus aromatica</i>	Fragrant Sumac	24"W	#3 cont.	69	Typical 5' O.C	Full Plant

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LANDSCAPE NOTES

1.0 GENERAL NOTES

1.1 THIS PLAN IS FOR PLANTING ONLY.

1.2 THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, INCLUDING THE LOCATION OF ALL UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND STAKING THE LOCATION OF ALL EXISTING UTILITIES AND PROTECTING THEM DURING THE WORK AND SHALL BEAR ANY COSTS TO REPAIR UTILITIES DAMAGED AS A CONSEQUENCE OF HIS WORK.

1.3 ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL-APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES AND REQUIREMENTS.

1.4 ALL APPLICABLE ODOT SPECIFICATIONS SHALL BE FOLLOWED FOR THIS WORK. THE CURRENT ODOT SPECIFICATIONS ARE AVAILABLE AT – <http://www.dot.state.oh.us/Divisions/Engineering/Roadway/DesignStandards/Pages/default.aspx>

1.5 PROVIDE QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OF EXTERIOR PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1, "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION. THE CURRENT STANDARD IS AVAILABLE AT <https://www.americanhort.org/page/standards>

1.6 PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS PLANT MATERIAL, FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

1.7 TREES AND SHRUBS OF A LARGER SIZE MAY BE USED, IF ACCEPTABLE TO LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.

1.8 SELECT PLANT MATERIALS FOR UNIFORM HEIGHT AND SPREAD

1.9 LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.

1.10 LANDSCAPE ARCHITECT MAY OBSERVE TREES AND SHRUBS EITHER AT THE NURSERY, OR AT SITE BEFORE PLANTING OPERATION BEGINS, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, PRESENCE OF INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY, OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REJECTED TREES OR SHRUBS SHALL BE IMMEDIATELY REMOVED FROM PROJECT SITE.

1.11 HERBICIDE TREATMENT: APPLY HERBICIDE TO PLANT BEDS ACCORDING TO MANUFACTURER'S RECOMMENDED RATES AND THEIR WRITTEN APPLICATION INSTRUCTIONS. APPLY TO DRY, PREPARED SUBGRADE. THE HERBICIDE MUST BE APPLIED BY A LICENSED COMMERCIAL HERBICIDE APPLICATOR ONLY

2.0 PROTECTION OF EXISTING TREES

2.1 IF EXCAVATION IS REQUIRED WITHIN DRIP LINE OF TREE, HAND CLEAR AND EXCAVATE TO MINIMIZE DAMAGE TO ROOT SYSTEMS. USE NARROW-TINE SPADING FORKS AND COMB SOIL TO EXPOSE CLEANLY CUT ROOTS.

2.2 PRESERVE EXISTING TREE ROOTS IN BACKFILL AREAS WHERE POSSIBLE. IF LARGE, MAIN LATERAL ROOTS ARE ENCOUNTERED, EXPOSE ROOTS BEYOND EXCAVATION LIMITS AS REQUIRED TO BEND AND RELOCATE THEM WITHOUT BREAKING. IF ENCOUNTERED IMMEDIATELY ADJACENT TO LOCATION OF NEW CONSTRUCTION AND RELOCATION IS NOT PRACTICAL, CLEANLY CUT ROOTS APPROXIMATELY 3 INCHES BACK FROM NEW CONSTRUCTION.

2.3 DO NOT ALLOW EXPOSED ROOTS TO DRY BEFORE PLACING PERMANENT BACKFILL. PROVIDE TEMPORARY EARTH COVER, OR PACK WITH PEAT MOSS AND WRAP WITH BURLAP AND WATER AND MAINTAIN IN A MOIST CONDITION. TEMPORARILY SUPPORT AND PROTECT ROOTS FROM DAMAGE UNIT THEY ARE PERMANENTLY RELOCATED AND COVERED WITH SOIL.

3.0 PREPARATION AND PLANTING

3.1 PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, AND LAWNS AND EXISTING EXTERIOR PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.

3.2 IT IS THE CONTRACTOR'S RESPONSIBILITY TO: – KEEP ADJACENT PAVING AND CONSTRUCTION CLEAN, AND MAINTAIN WORK AREA IN AN ORDERLY CONDITION, FOR DURATION OF PROJECT.

3.3 IT IS THE CONTRACTOR'S RESPONSIBILITY TO: – PROTECT EXTERIOR PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED EXTERIOR PLANTING.

3.4 IT IS THE CONTRACTOR'S RESPONSIBILITY TO: – REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL. – HAUL AND DISPOSE OFF SITE OF UNWANTED MATERIALS.

3.5 PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES, DRIVES AND WALKWAYS.

3.6 CONTRACTOR SHALL LAY OUT INDIVIDUAL TREE LOCATIONS, SHRUB LOCATIONS AND AREAS FOR MULTIPLE EXTERIOR PLANTINGS. SAME AS 7.0 STAKE LOCATIONS, OUTLINE PLANT BED AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECT'S ACCEPTANCE OF LAYOUT PRIOR TO PLANTING.

3.7 IT IS THE CONTRACTOR'S OPTION HOW TO STAKE ALL TREES.

3.8 CONTRACTOR SHALL FOLLOW ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL. CAREFULLY REVIEW ITEM 661 FOR PLANTING TREES, SHRUBS & VINES AND ITEM 662 FOR LANDSCAPE WATERING.

3.9 ALL PLANTING BEDS ARE TO BE PREPARED AS FOLLOWS :
 – LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 4". REMOVE STONES LARGER THAN 1" IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEIOUS MATTER, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
 – SPREAD COMPOST A MINIMUM DEPTH OF 6" AND TILL WITH LOOSENED SUBGRADE, MIXING THOROUGHLY.
 – GRADE PLANTING BEDS TO A SMOOTH, UNIFORM SURFACE PLANE WITH UNCOMPACTED AND UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
 – EDGE BEDS 3 – 4" DEEP (SEE DETAIL). NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS SHOW EVIDENCE OF UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.
 – ALL BED PREPARATION AND COMPLETION IS SUBJECT TO LANDSCAPE ARCHITECT APPROVAL.

3.10 COMPOST SHALL BE WELL-ROTTED MANURE AND WEED-FREE ORGANIC MATTER, pH OF 8.5; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH ONE INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIMENS; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS; ORGANIC CONTENT 42.3%; 1.29-.28-.91 DRY BASIS; PASSES REDUCTION TESTING; CLASS A COMPOST-STABLE; GERMINATION AND EMERGENCE TESTING AT 100%.

3.11 TOPSOIL SHALL BE ASTM D 5268, pH RANGE OF 5.5 TO 7, A MINIMUM OF 40 PERCENT ORGANIC MATERIAL CONTENT; FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION AND OTHER EXTRANEIOUS MATERIALS HARMFUL TO PLANT GROWTH.

3.12 AMENDED TOPSOIL IS A MIXTURE OF ONE PART SOIL FROM THE PLANTING HOLE AND ONE PART APPROVED ORGANIC MATTER

3.13 ALL PLANTS SHALL BE FERTILIZED WITH 10:10:10 SLOW-RELEASE FERTILIZER PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.14 REFER TO TYPICAL PLANTING DETAILS FOR PLANT INSTALLATION.

3.15 ALL PLANT MATERIALS, ARE TO BE PRUNED TO REMOVE DEAD OR INJURED BRANCHES.

4.0 SEEDING

4.1 CONTRACTOR SHALL FOLLOW ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL, ITEM 659 FOR TURF SEEDING

4.2 CONTRACTOR SHALL FOLLOW ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL, TABLE 659.09-1, ROADSIDE MIXTURE 2 FOR RESEEDING DISTURBED AREAS WITH ROADSIDE MIXTURE 2:
 KENTUCKY BLUEGRASS (POA PRATENSIS) – 1.5 lb/1000 sq. ft.
 KENTUCKY 31 FESCUE (FESTUCA ARUNDINACEA var. KY 31) – 2 lb/1000 sq. ft.
 PERENNIAL RYEGRASS (LOLIUM PERENNE) – 1.5 lb/1000 sq. ft.

4.3 SEED ALL DISTURBED AREAS. THE FINAL GRADE AND TOPSOIL WITHIN +/- .10 FEET WILL BE IN PLACE FOR SEEDING CONTRACTOR.

4.4 APPLY A HIGH PHOSPHORUS FERTILIZER AT THE RATE OF 2-3 LB PER 1000 SF. TILL AREA TO BE SEEDED TO A DEPTH OF 4". RAKE TILLED AREA TO REMOVE DEBRIS 1" OR LARGER IN SIZE THAT HAS BEEN BROUGHT TO THE SURFACE DURING TILLING.

4.5 RAKE SEED LIGHTLY INTO TOP OF TOPSOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.

4.6 PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1: 6 WITH TYPE "I" TEMPORARY EROSION-CONTROL MAT ODOT ITEM 712.11-1.

5.0 MULCH

5.1 MULCH SHALL BE FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.

5.2 CONTRACTOR SHALL USE LANDSCAPE ARCHITECTURE APPROVED MULCH (TWICE SHREDDED AND PROCESSED HARDWOOD MULCH, VERY DARK NATURAL BROWN COLOR).

5.3 ALL LANDSCAPE AREAS WITH TREES & SHRUBS SHALL HAVE A 3" THICK BED OF MULCH AND ALL LANDSCAPE BEDS WITH GRASSES & PERENNIALS SHALL HAVE 1 1/2" THICK BED OF MULCH APPLIED. APPLY PRE-EMERGENT HERBICIDE BEFORE MULCHING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

6.0 WARRANTY

6.1 CONTRACTOR SHALL PROVIDE OWNER WITH A ONE YEAR WARRANTY FOR LABOR AND MATERIALS, INCLUDING ALL PLANT MATERIAL

6.2 CONTRACTOR SHALL WARRANT EXTERIOR PLANTS AGAINST DEFECTS, INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE OR INSTALLATION ABUSE BY OWNER, OR ACT OF GOD.

6.3 SERVICES PROVIDED BY WARRANTY SHALL INCLUDE : – MAINTAINING UPRIGHT POSITION OF EXTERIOR PLANTINGS DURING WARRANTY PERIOD. – IMMEDIATE REMOVAL OF DEAD EXTERIOR PLANTS AND IMMEDIATE REPLACEMENT, UNLESS REQUIRED BY LANDSCAPE ARCHITECT TO PLANT IN THE SUCCEEDING PLANTING SEASON. – REPLACEMENT OF PLANTS THAT ARE INSTALLED DEAD OR IN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.

6.4 WARRANTY SHALL BE LIMITED TO ONE REPLACEMENT OF EACH EXTERIOR PLANT, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE OF CONTRACTOR TO COMPLY WITH REQUIREMENTS DURING LANDSCAPE MAINTENANCE PERIOD.

6.5 THE LANDSCAPE CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF NEW PLANTS, TURF AREAS, BEDS AND EXISTING PLANTS WITHIN NEW PLANT BEDS BEGINNING WITH INITIATION OF WORK ON-SITE FOLLOWING ISSUANCE OF A NOTICE TO PROCEED.

6.6 A PRELIMINARY ACCEPTANCE INSPECTION WILL BE PERFORMED AT THE CONCLUSION OF INSTALLATION WORK BY THE LANDSCAPE ARCHITECT. THIS MAINTENANCE WORK SHALL INCLUDE PERIODIC WATERING, WEEDING, HERBICIDE APPLICATION, PRUNING, AND INSECT/DISEASE CONTROL. SHOULD PLANTS DIE DURING THIS PERIOD THEY SHALL BE REPLACED DURING THE DORMANT SEASON OF EITHER LATE FALL OR EARLY SPRING WITH IDENTICAL SPECIFIED PLANT MATERIAL AT NO ADDITIONAL COST TO THE OWNER .

7.0 LANDSCAPE MAINTENANCE: 2 YEAR PERIOD

7.1 THE LANDSCAPE CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF NEW PLANTS, ALL TURF AREAS, DESIGNATED PLANT BEDS AND EXISTING PLANTS BEGINNING WITH INITIATION OF WORK FOLLOWING ISSUANCE OF A NOTICE TO PROCEED. CONTINUING UNTIL 1 CALENDAR YEAR FOLLOWING PRELIMINARY ACCEPTANCE OF THE WORK. LAWNS SHALL BE MAINTAINED AT 4" HEIGHT. SEE MAINTENANCE PLAN FOR MAINTENANCE AND MOWING LIMITS.

7.2 A PRELIMINARY ACCEPTANCE INSPECTION WILL BE PERFORMED AT THE CONCLUSION OF INSTALLATION WORK BY THE LANDSCAPE ARCHITECT. THIS MAINTENANCE WORK SHALL INCLUDE WATERING, WEEDING, HERBICIDE APPLICATION, PRUNING, MULCHING AND INSECT/DISEASE CONTROL. SHOULD PLANTS DIE DURING THIS PERIOD THEY SHALL BE REPLACED DURING THE DORMANT SEASON OF EITHER LATE FALL OR EARLY SPRING WITH IDENTICAL SPECIFIED PLANT MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

