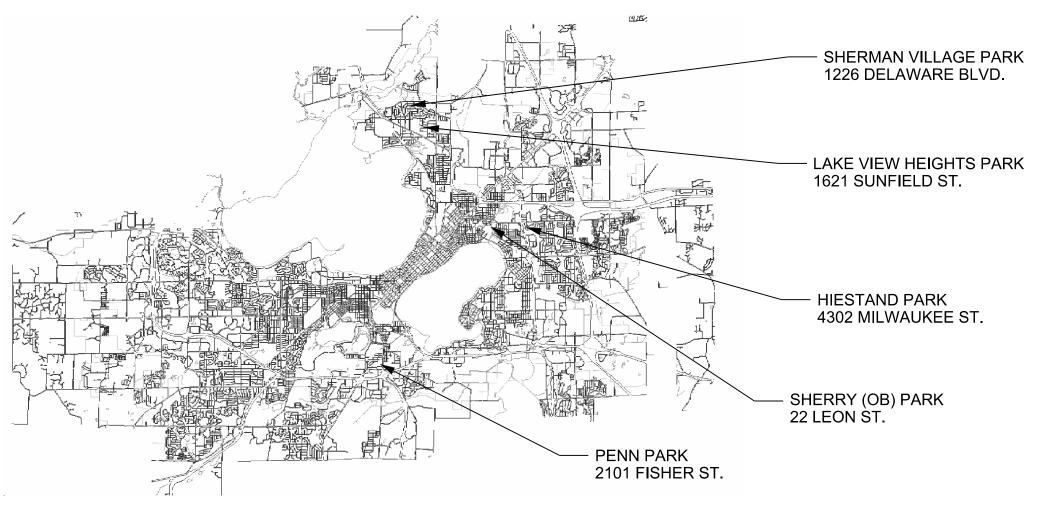
2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2 CONTRACT 9398

MUNIS #: 17526 -51 -130, 17527 -51 -130, 17529 -51 -130, 17531 -51 -130, 17532 -51 -130



1.1	Hiestand Park- Project Lo	ocation and Site Access	3.1	Penn Park-	Project Lo	ocation and Site Access	5.1	Sherry (OB) Park-	Project Location	on and Site Access
1.2	Hiestand Park- Demolition	on and Protection Plan	3.2	Penn Park-	Demolitio	on and Protection Plan	5.2	Sherry (OB) Park-	Demolition and	d Protection Plan
1.3	Hiestand Park- Site Plan		3.3	Penn Park-	Site Plan		5.3	Sherry (OB) Park-	Site Plan	
1.4	Hiestand Park- Grading a	nd Erosion Control Plan	3.4	Penn Park-	Grading a	nd Erosion Control Plan	5.4	Sherry (OB) Park-	Grading and Er	osion Control Plan
1.5	Hiestand Park- Drain Tile	Schedules	3.5	Penn Park-	Drain Tile	Schedules	5.5	Sherry (OB) Park-	Design Comput	tations
1.6	Hiestand Park- Design Co	omputations	3.6	Penn Park-	Design Co	omputations				
2.1	Lake View Heights Park-	Project Location and Site Access	4.1	Sherman Vil	lage Park-	Project Location and Site Access	6.1	. Typical Playgrour	nd Surfacing wit	n Underdrain
2.2	Lake View Heights Park-	Demolition and Protection Plan	4.2	Sherman Vil	lage Park-	Demolition and Protection Plan	6.2	Pavement Edge a	at Playground	
2.3	Lake View Heights Park-	Site Plan	4.3	Sherman Vil	lage Park-	Site Plan				
2.4	Lake View Heights Park-	Grading and Erosion Control Plan	4.4	Sherman Vil	lage Park-	Grading and Erosion Control Plan				
2.5	Lake View Heights Park-	Drain Tile Schedules	4.5	Sherman Vil	lage Park-	Drain Tile Schedules				
2.6	Lake View Heights Park-	Design Computations	4.6	Sherman Vil	lage Park-	Design Computations				

City of Madison Department of Public Works PARKS DIVISION

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PROJECT.

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

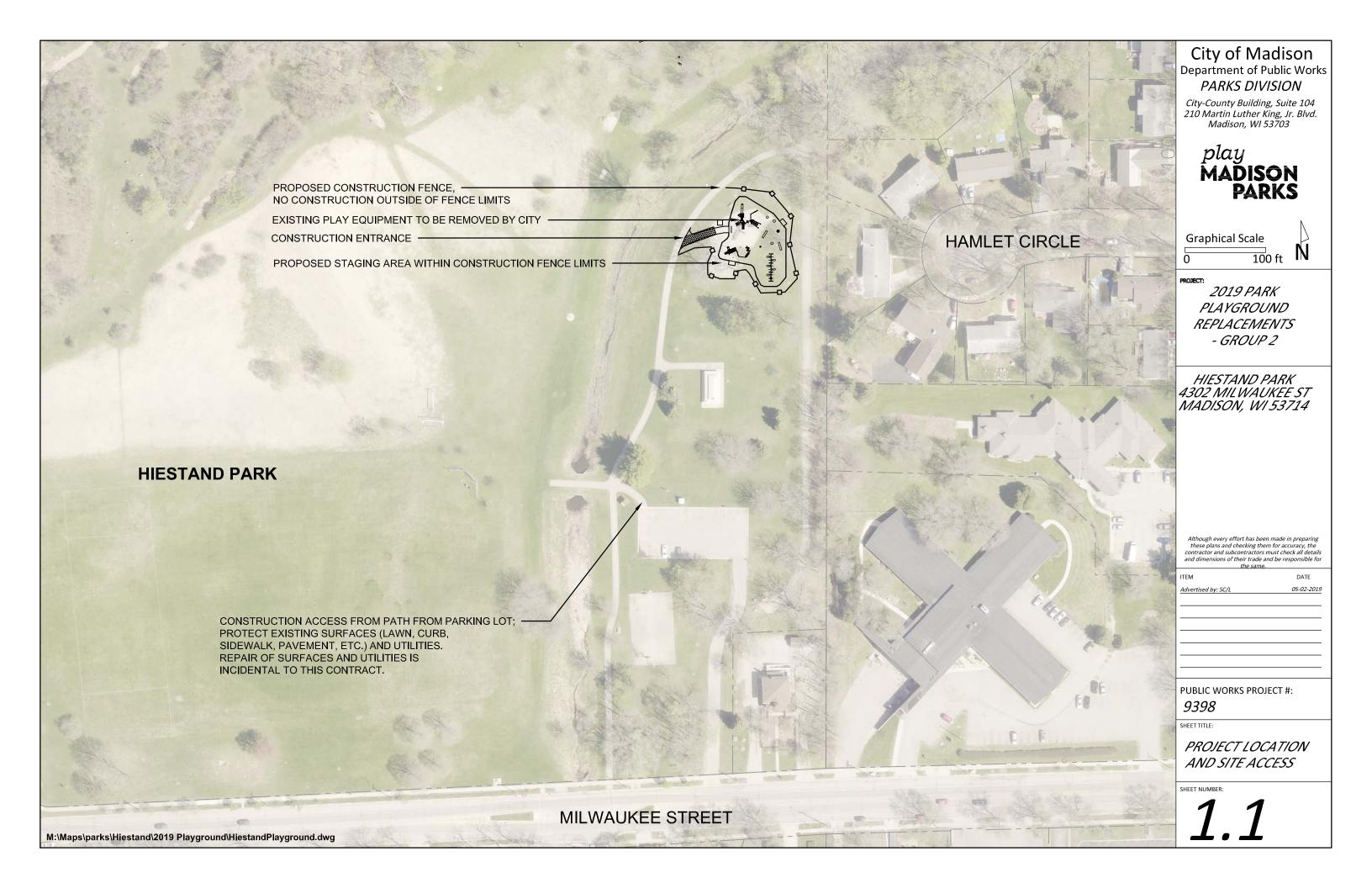
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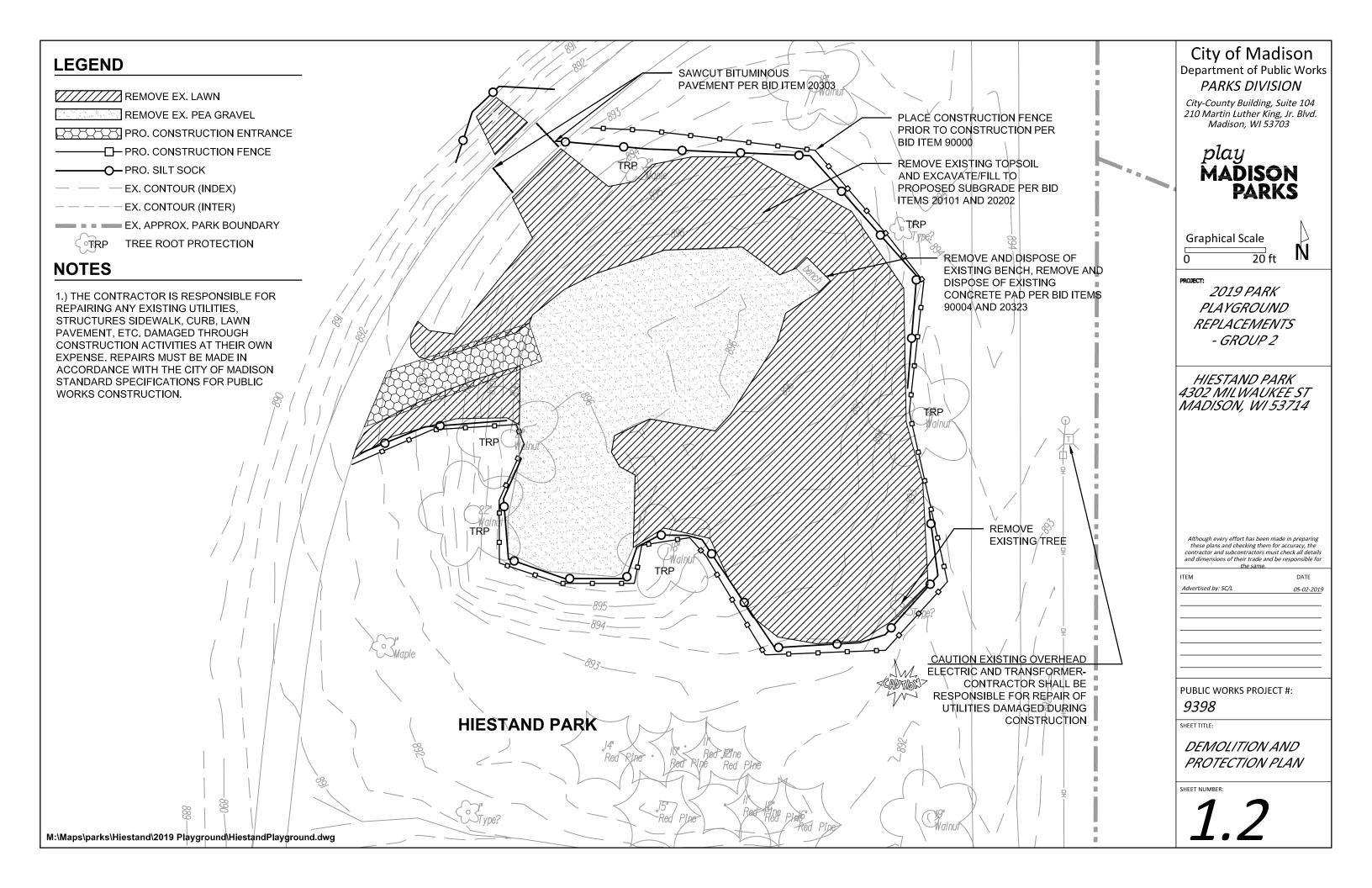
05-02-2019

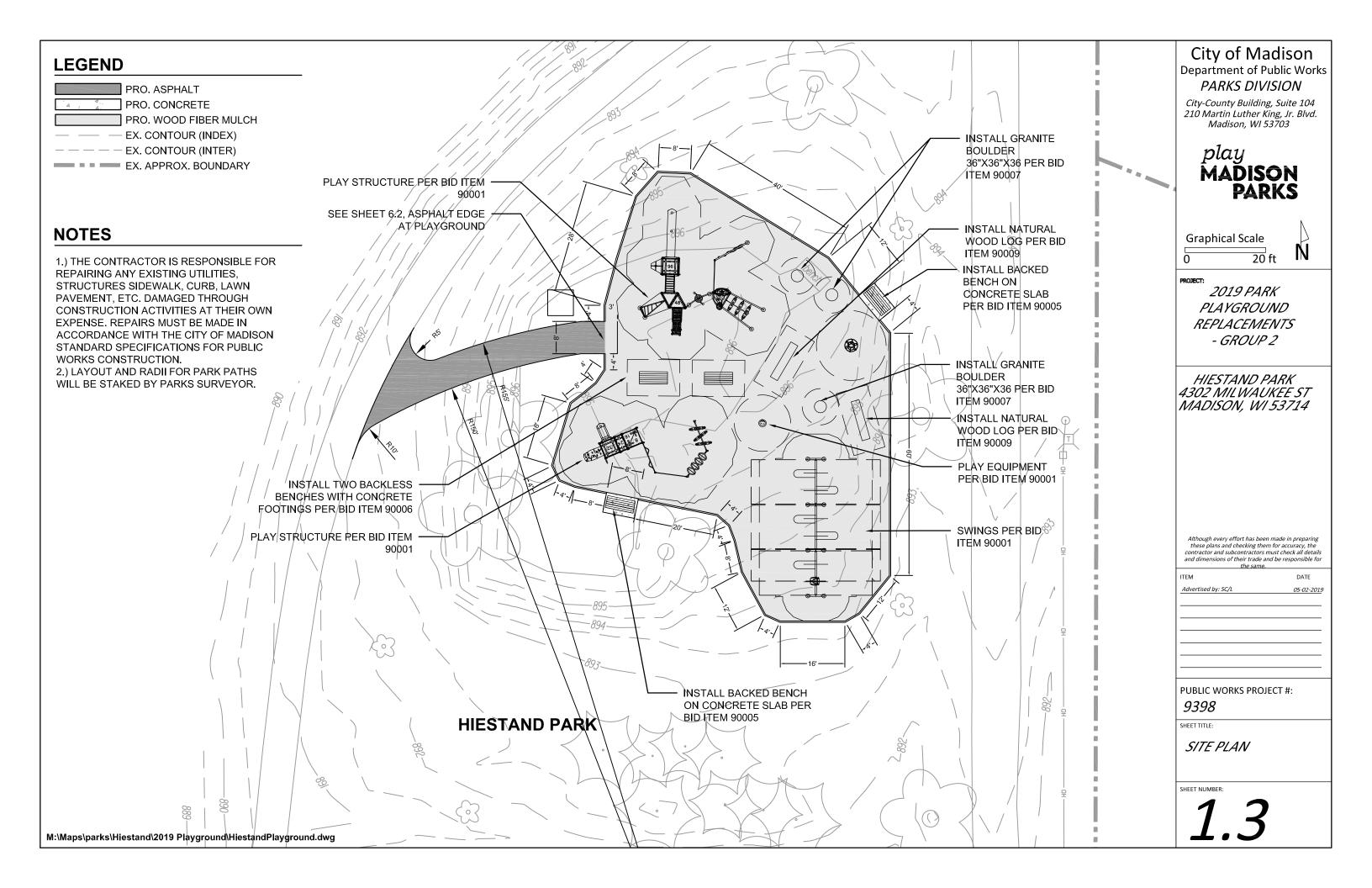
PUBLIC WORKS PROJECT #: 9398

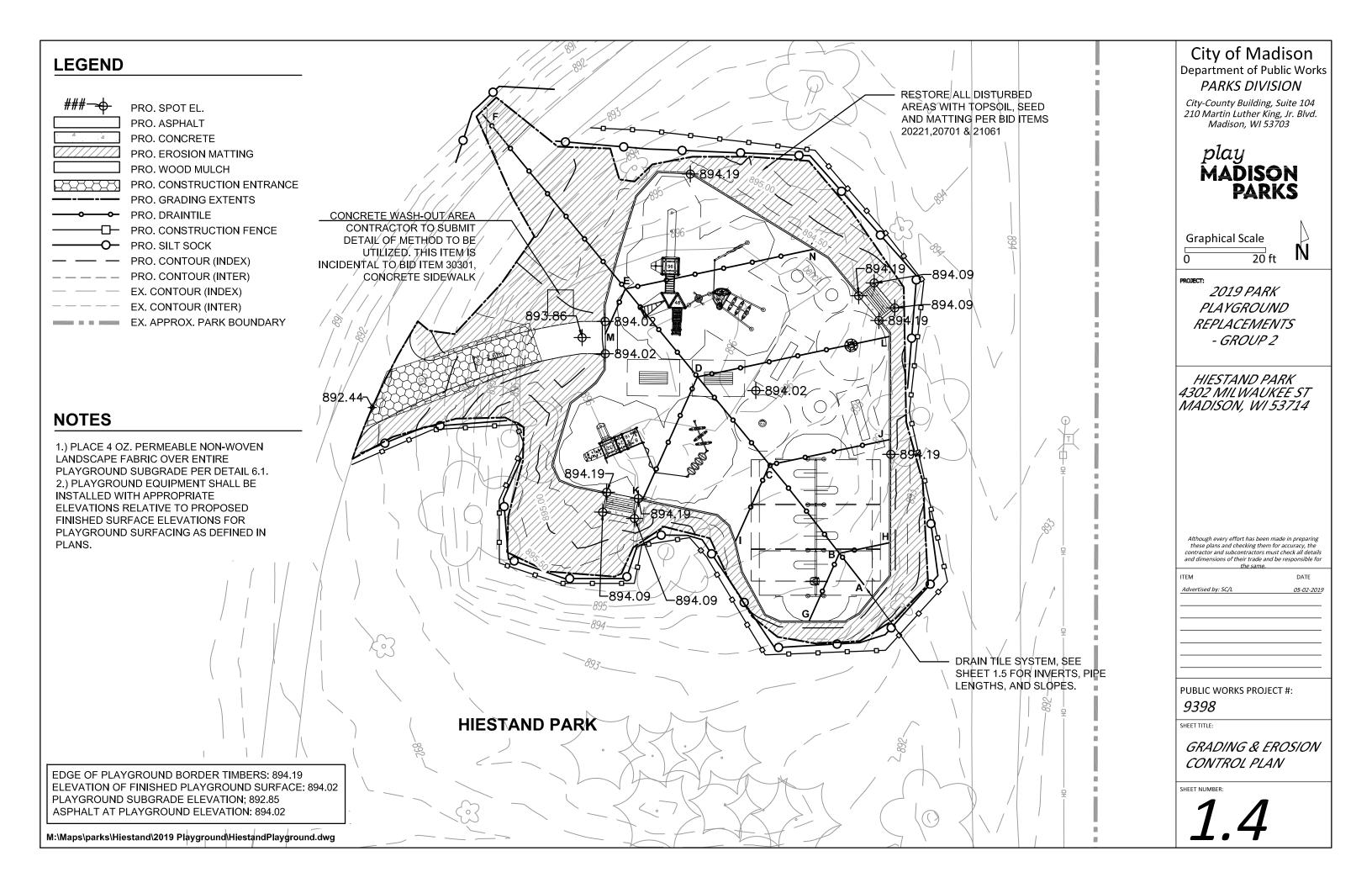
SHEET TITLE:

SHEET NUMBER:









	Hiestand Pa			
Drair	Tile Invert (
Point	Invert (ft)	Distance from top of timbers 894.19 (INCHES)	About Longton	ــا-
Λ.	902.44	1000000	Ahead Lengt	.11
A B	892.44 892.35	21 22.1	9.8	
С	892.21	23.8	28.2	
D	892.21	25.4	28.2	
E	891.93	27.1	55.8	
F	891.75	29.3	0	
G	892.44	21.3	18.3	
Н	892.44	21	12.6	
1	892.44	21	20.5	
j	892.44	21	30.3	
K	892.44	21	33.2	
L	892.44	21	48.5	
M	892.44	21	12.2	
N	892.44	21	47.5	

				r .
	Prain Tile Le	engths & Slope	es .	
fror	n intersecti			
From	То	Length (ft)	Slope (%)	Pipe type
Α	В	9.38	1.00%	UNDERDRAIN
В	С	27.9	0.50%	UNDERDRAIN
С	D	28.1	0.50%	UNDERDRAIN
D	Е	28.1	0.50%	UNDERDRAIN
Е	F	36	0.50%	UNDERDRAIN
G	В	18.33	0.51%	UNDERDRAIN
Н	В	12.67	0.74%	UNDERDRAIN
1	С	20.62	1.13%	UNDERDRAIN
J	С	30.25	0.77%	UNDERDRAIN
K	D	33.25	1.12%	UNDERDRAIN
L	D	48.55	0.77%	UNDERDRAIN
М	E	12.18	4.22%	UNDERDRAIN
N	Е	47.54	1.08%	UNDERDRAIN
	Total	352.87		

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play MADISON PARKS

Graphical Scale

20 ft

N

PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2

HIESTAND PARK 4302 MILWAUKEE ST MADISON, WI 53714

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

PUBLIC WORKS PROJECT #: 9398

SHEET TITLE:

DRAIN TILE SCHEDULES

SHEET NUMBI

Hiestand

City of Madison Public Works Contract
Date Revised: 4/11/2019

Notes:

Positive volumes are cuts, negative volumes are fills.

Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Sort	Grp	Material	item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfac- tored volume (cu ft)	Unfac- tored volume (cu yd)	Expan- sion Factor (%)	Factored (Uncom- pacted) Volume (cu yd)
1.1	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	417	0.50	209	7.7	0%	7.7
	Grass to		Cut subsoil to proposed								
1.2	Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	417	varies	520	19.3	0%	19.3
	Grass to		Fill subsoil to proposed								
1.3	Asphalt	Subsoil Place	subgrade	Ex-6in	llay	417	varies	0	0.0	0%	0.0
1.4	Grass to Asphalt	Gravel Place	Place 9in depth gravel base out to 6in from pavement edge	n/a	n/a	417	-0.75	-313	-11.6	0%	-11.6
1.5		Asphalt Place	Place 3in asphalt (does not include ramp into playground)	n/a	n/a	369	-0.25	-92	-3.4	0%	-3.4
1.6	Grass to Asphalt	Topsoil Place	Place 3in topsoil on 6in wide gravel edge	n/a	n/a	48	-0.25	-12	-0.4	0%	-0.4
1.0	Grass to	TOPOGN T IGGE	graver edge	11/4	1174			<u>'-</u>		0,0	0.4
2.1	Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	2950	0.50	1475.00	54.6	0%	54.6
	Grass to		Cut subsoil to proposed								
2.2	Grass	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	2950	varies	1413.42	52.3	0%	52.3
2.3		Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-6in	2950	varies	-1030.53	-38.2	0%	-38.2
2.4	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	2950	-0.50	-1475.00	-54.6	0%	-54.6
2.7	Grass to Play	Topsoil Flace	Tiace on topson	11/4	11/4	2300	-0.00	-1470.00	-04.0	070	-04.0
3.1	Surface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	3980	0.50	1990	73.7	0%	73.7
	Grass to Play	Topodii Exteriate	Cut subsoil to proposed		1.00	- 5555		1000			
3.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	3980	varies	6739.00	249.6	0%	249.6
	Grass to Play		Fill subsoil to proposed								
3.3		Subsoil Place	subgrade	Ex-6in	Pro-12in	3980	varies	-17	-0.6	0%	-0.6
	Grass to Play										
3.4	Surface	Play Surface Place	Place 12in of play surface	n/a	n/a	3980	-1.00	-3980	-147.4	0%	-147.4
	Grass to										
4.1	Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	43	0.50	22	0.8	0%	0.8
	Grass to		Cut subsoil to proposed								
4.2	Concrete	Subsoil Excavate	subgrade	Ex-6in	Pro-7in	43	varies	59.64	2.2	0%	2.2
4.0	Grass to	0. 1	Fill subsoil to proposed	5 6:	D 7'.	40					
4.3		Subsoil Place	subgrade	Ex-6in	Pro-7in	43	varies	0	0.0	0%	0.0
4.4	Grass to Concrete Grass to	Gravel Place	Place 2" aggregate base	n/a	n/a	43	-0.16	-7	-0.3	0%	-0.3
4.4	Concrete	Concrete Place	Place 5" concrete	n/a	n/a	43	-0.42	-18	-0.7	0%	-0.7
	Grass to										
5.1	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	78	0.50	39	1.4	0%	1.4
	Grass to		Cut subsoil to proposed				varies				
5.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	78		81	3.0	0%	3.0
	Grass to		Fill subsoil to proposed				varies				
5.3	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	78		-6.00	-0.2	0%	-0.2
			Border Timbers (placeholder								
E 4	Grass to	Border Timbers Place	volume to balance volume	2/2	2/2	7.	-1.00			004	
5.4		(placeholder volume)	comps)	n/a	n/a	78		-78	-2.9	0%	-2.9
6 1	Play surface	Pea Gravel Excavate	Pemove 17" play surface	n/a	n/a	060	1.40	1276	510	00/	51.0
6.1	to grass Play surface	rea Graver Excavate	Remove 17" play surface Cut subsoil to proposed	n/a	n/a	969	1.42	1376	51.0	0%	51.0
6.2		Subsoil Excavate	subgrade	Ex-17in	Pro-6in	969	varies	284	10.5	0%	10.5
5.2	Play surface	Cascon Excavato	Fill subsoil to proposed	-2 17111	, 10 0111	- 558	¥41100	204	10.0	1 70	10.0
6.3		Subsoil Place	subgrade	Ex-17in	Pro-6in	969	varies	-271	-10.0	0%	-10.0
	Play surface		10	<u> </u>					1	- 70	
6.4		Topsoil Place	Place 6in topsoil	n/a	n/a	969	-0.50	-485	-17.9	0%	-17.9
7.1	to play surface	Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	2061	1.42	2927	108.4	0%	108.4
	Play surface		Cut subsoil to proposed								
7.2	to play	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	2061	varies	3316	122.8	0%	122.8

	Play surface		Fill subsoil to proposed								
7.3		Subsoil Place	subgrade	Ex-17in	Pro-12in	2061	varies	0	0.0	0%	0.0
	Play surface										
7.4		Play Surface Place	Place 12in of play surface	n/a	n/a	2061	-1.00	-2061	-76.3	0%	-76.3
	Play surface										
8.1	to timbers	Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	5	1.42	7	0.3	0%	0.3
	Play surface		Cut subsoil to proposed								
8.2	to timbers	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	5	varies	5	0.2	0%	0.2
	Play surface		Fill subsoil to proposed								
8.3	to timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	5	varies	0	0.0	0%	0.0
	Play surface	Border Timbers Place									
8.4	to timbers	(placeholder volume)	Place 12inches of timbers	n/a	n/a	5	-1.00	-5	-0.2	0%	-0.2
	Play surface										
9.1	to asphalt	Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	194	1.42	276.02	10.2	0%	10.2
	Play surface		Cut subsoil to proposed								
9.2	to asphalt	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	194	varies	376.00	13.9	0%	13.9
	Play surface		Fill subsoil to proposed								
9.3	to asphalt	Subsoil Place	subgrade	Ex-17in	Pro-12in	194	varies	0.00	0.0	0%	0.0
	Play surface		out to 6in from pavement								
9.4	to asphalt	Gravel Place	edge	n/a	n/a	194	-0.75	-146	-5.4	0%	-5.4
	Play surface										
9.5	,	Asphalt Place	Place 3in asphalt	n/a	n/a	164	-0.25	-41	-1.5	0%	-1.5
	Play surface	'	Place 3in topsoil on 6in wide								
9.6	to asphalt	Topsoil Place	gravel edge	n/a	n/a	30	-0.25	-8	-0.3	0%	-0.3
	·		Increase play surface by 1/2								
10.1	Adjust	Play Surface Place	of asphalt ramp gravel base	n/a	n/a	20	-0.29	-6	-0.2	0%	-0.2
			1/2 of asphalt ramp gravel								
10.2	Adjust	Subsoil Excavate	' '	n/a	n/a	20	0.29	6	0.2	0%	0.2

Computation Summary

Positive volumes are cuts (material available), negative volumes are fills (material needed)

	Sum of Factored (Uncompacted)
Row Labels	Volume (cu yd)
Asphalt Place	-4.9
Border Timbers Place (placeholder volume)	-3.1
Play Surface Place	-224.0
Subsoil Excavate	474.1
Subsoil Place	-49.0
Topsoil Excavate	138.3
Topsoil Place	-73.3
Concrete Place	-0.7
Gravel Place	-17.2
Pea Gravel Excavate	169.8
Grand Total	410.0

Reorganized into bid table items

Bid Item	Quantity	Units	Relation to Table Above
			= Subsoil Excavate + Topsoil
20101 Excavation Cut	612	CY	Excavate
20103 Excavation Cut - Pea Gravel	170	CY	= Pea Gravel Excavate
20221 Topsoil	439	SY	= (Topsoil Place)/167
40102 Crushed Aggregate Base Course			
Gradation No. 2	34	tons	= (Gravel Place) * -2 ton/cubic yard
			= Asphalt Place * -2.16 ton/cubic
40201 HMA Pavement 3 LT 52-28 S	10.7	tons	yard
90003 Playground Surfacing - Wood Mulch	246	CY	= Play Surface Place * -1.10

City of Madison Department of Public Works PARKS DIVISION

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2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2

HIESTAND PARK 4302 MILWAUKEE ST MADISON, WI 53714

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Advertised by: SC/L	05-02-2019

PUBLIC WORKS PROJECT #: 9398

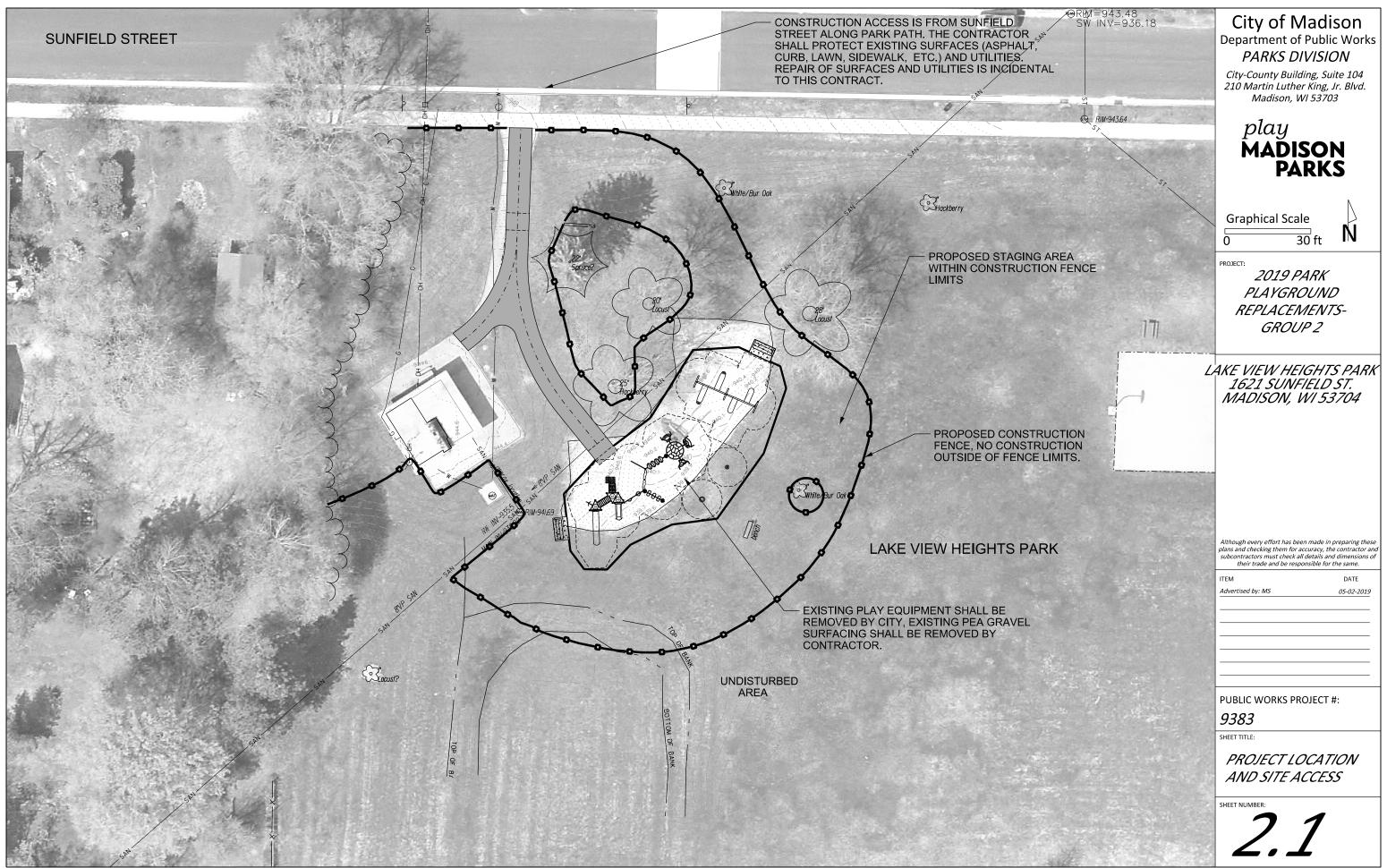
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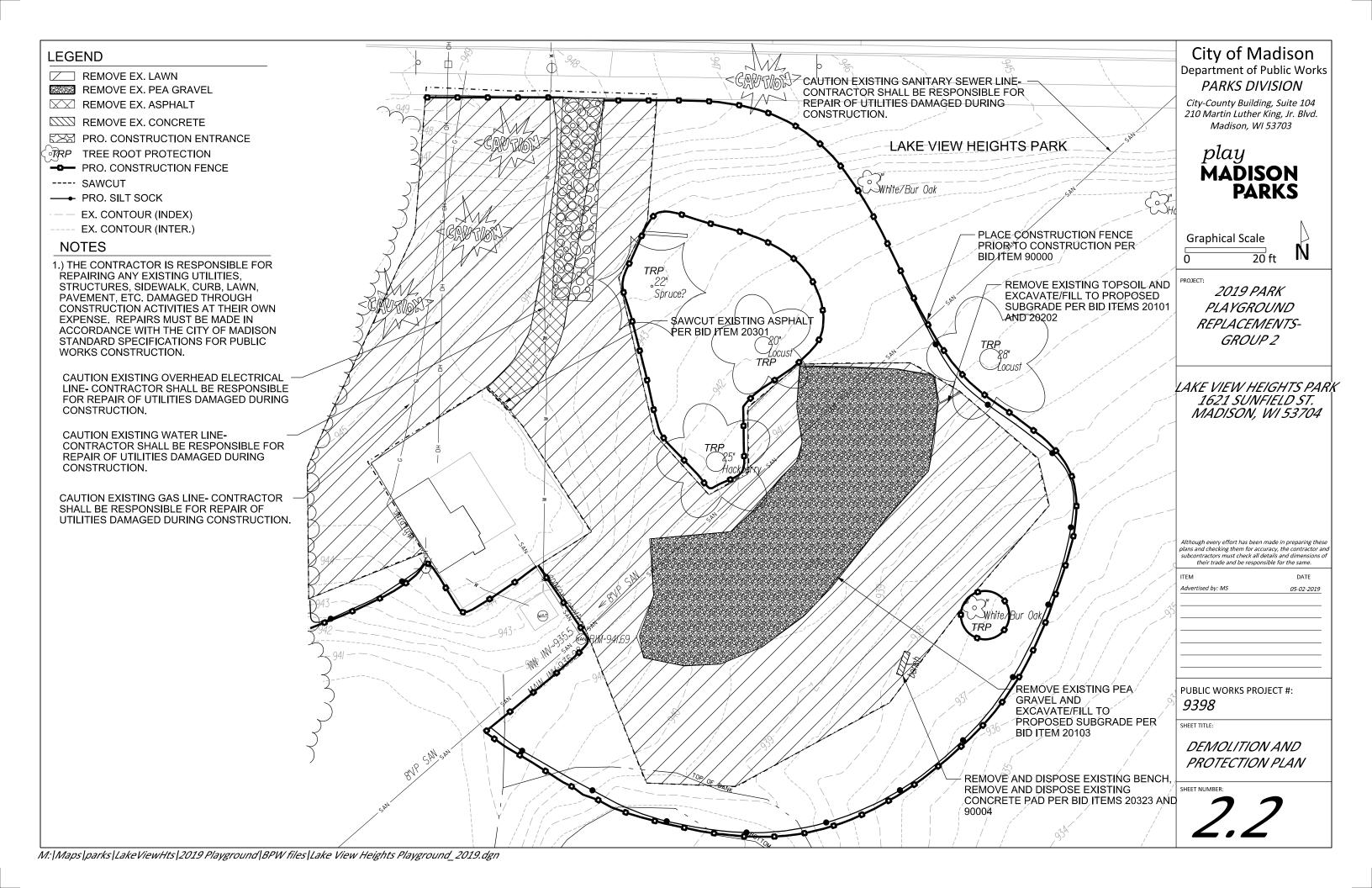
DESIGN COMPUTATIONS

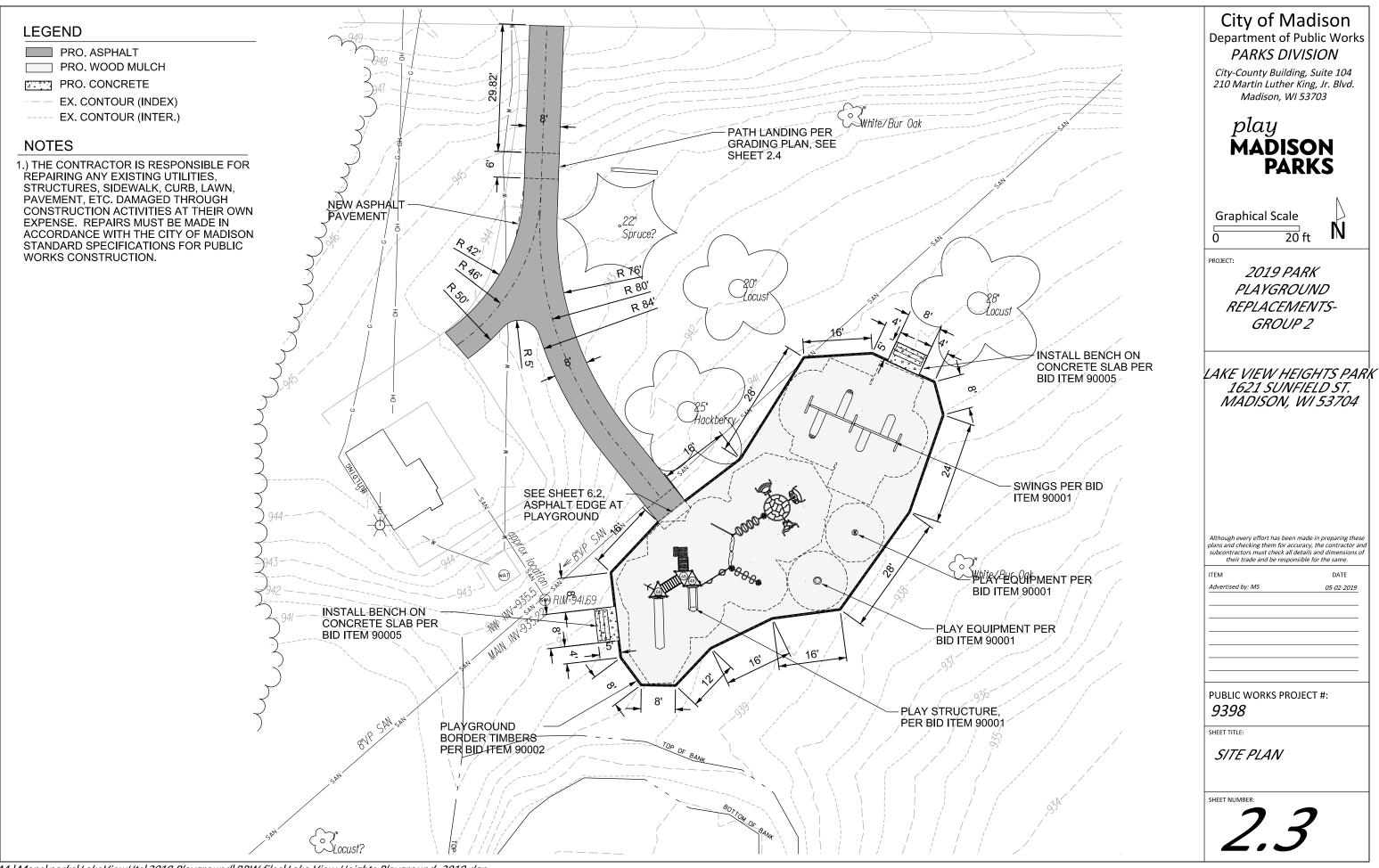
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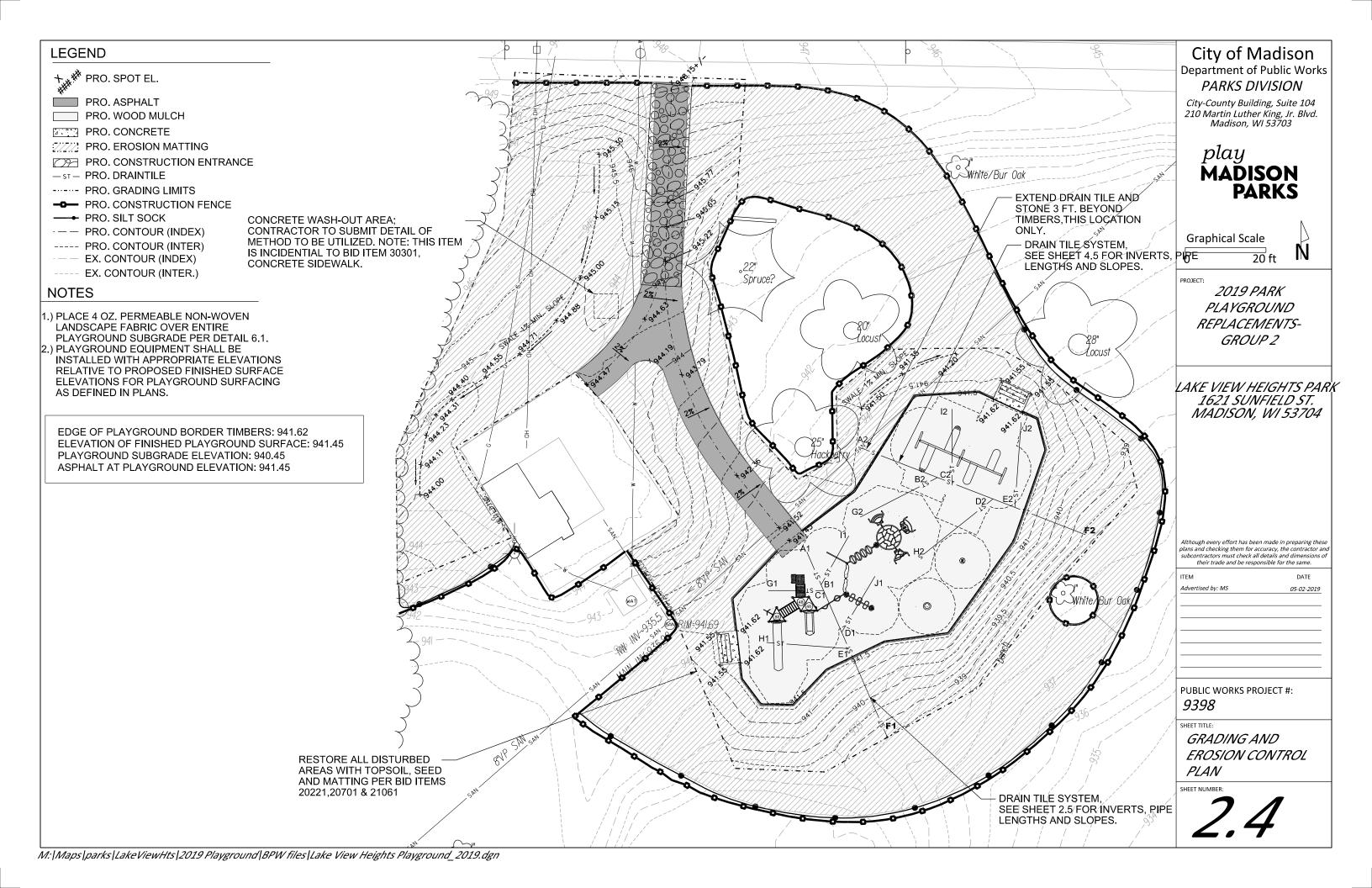
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	Lake View Pa	rk Playground	
Dra	iin Tile Invert (F		
Point	Invert (ft)	Distance from top of timbers 941.62 (INCHES)	Ahead length
A1	939.87	21.0	8.9
B1	939.64	23.8	1.5
C1	939.60	24.2	11.3
D1	939.30	27.8	4.4
E1	939.18	29.3	23.7
F1	938.56	36.7	
G1	939.87	21.0	13.6
H1	939.87	21.0	20.4
11	939.87	21.0	14.0
J1	939.87	21.0	16.1

	Drain Tile Le	engths & Slope	25	
		on to intersec		
From	То	Length (ft)	Slope (%)	Pipe type
A1	B1	8.9	-2.58	Underdrain
B1	C1	1.5	-2.60	Underdrain
C1	D1	11.3	-2.66	Underdrain
D1	E1	4.4	-2.70	Underdrain
E1	F1	23.7	-2.62	Underdrain
G1	C1	13.6	-1.98	Underdrain
H1	E1	20.4	-1.32	Underdrain
11	B1	14.0	-1.65	Underdrain
J1	D1	16.1	-3.53	Underdrain
	Total	113.97		

	Lake View Pa	rk Playground	
Dra	in Tile Invert (F		
Point	Distance from top oint Invert (ft) timbers 941.62 (INCHES)		Ahead length
A2	939.87 21.0		20.0
B2	939.37	27.0	3.9
C2	939.28	28.1	10.9
D2	939.01	31.3	5.8
E2	938.87	33.0	18.8
F2	938.40	38.6	
G2	939.87	21.0	21.5
H2	939.87	21.0	23.5
12	939.87	21.0	18.4
J2	939.87	21.0	21.1

[Drain Tile L	engths & Slope	es .	
froi	m intersect			
From	То	Length (ft)	Slope (%)	Pipe type
A2	B2	20.0	-2.50	Underdrain
B2	C2	3.9	-2.33	Underdrain
C2	D2	10.9	-2.48	Underdrain
D2	E2	5.8	-2.41	Underdrain
E2	F2	18.8	-2.50	Underdrain
G2	B2	21.5	-2.33	Underdrain
H2	D2	23.5	-3.66	Underdrain
12	C2	18.4	-3.21	Underdrain
J2	E2	21.1	-4.73	Underdrain
	Total	143.85		

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PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

LAKE VIEW HEIGHTS PARK 1621 SUNFIELD ST. MADISON, WI 53704

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

DATE
05-02-2019

PUBLIC WORKS PROJECT #: 9398

SHEET TITI

DRAIN TILE SCHEDULES

SHEET NUMBE

	Lake View Ho	eights Park Playgroun	nd - Earthwork Quantities	5									Grass to	Topodil Eve evete
		WI Public Works Contract											Concrete Grass to	Topsoil Excavate
	Date Revised:	3/21/2019	9										Grass to Concrete	Subsoil Excavate
													Grass to	Cubbon Excuvato
	Notes: Positive volumes	are cuts, negative volumes	are fills										Concrete	Subsoil Place
			rrain Models) are used for comp	outations or	intended for	r actual co	nstruction						Grass to Concrete	Gravel (for Pavement) Place
	Existing												Grass to Concrete	Concrete Place
	Proposed Proposed												lay Surface to	CONTROL FIGURE
											Factored		Concrete	Play Surface Excavate
					То			Unfac-	Unfac-	Expan-	(Uncom-	P	lay Surface to Concrete	Subsoil Excavate
				From Surface	Surface	area	depth	tored volume	tored volume	sion Factor	pacted) Volume	P	lay Surface to	Subson Excavate
Sort	Grp	Material	Item	Model	Model	(sq ft)	(ft)	(cu ft)	(cu yd)	(%)	(cu yd)		Concrete	Subsoil Place
	Grass to Grass	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	8954	0.50	4477	165.8	0%	165.8	P	lay Surface to	Gravel (for Pavement) Place
	Grass to Grass	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	8954	varies	865	32.0	0%	32.0	P	Concrete lay Surface to	Place
			Fill subsoil to proposed										Concrete	Concrete Place
	Grass to Grass Grass to Grass	Subsoil Place Topsoil Place	subgrade Place 6in topsoil	Ex-6in n/a	Pro-6in n/a	8954 8954	varies -0.50	-4159 -4477	-154.1 -165.8	0% 0%	-154.1 -165.8		Asphalt to	l <u></u> .
	G ass to Grass	Topsoil Flace	riace officopsoff	IVa	IVA	0304	-0.50	-44//	- 100.0	0 70	-105.6		Asphalt Asphalt to	Asphalt Excavate
	Play Surface to		Remove existing play surface,	l .									Asphalt	Subsoil Excavate
	Grass	Play Surface Excavate	estimated depth 17in	n/a	n/a	464	1.42	657	24.3	0%	24.3		Asphalt to	
	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	464	varies	-640	-23.7	0%	-23.7		Asphalt	Subsoil Place
	Play Surface to		_										Asphalt to Asphalt	Gravel (for Pavement) Place
	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	464	-0.50	-232	-8.6	0%	-8.6		Asphalt to	
	Play Surface to		Remove existing play surface,										Asphalt	Asphalt Place
	Play Surface	Play Surface Excavate	estimated depth 17in	n/a	n/a	2129	1.42	3016	111.7	0%	111.7			
	Play Surface to	Subsoil Eve avate	Cut subsoil to proposed	Ev 17:-	Dro 40:-	2400	Vori		0.0	00/	0.0			
	Play Surface Play Surface to	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-17in	Pro-12in	2129	varies	0	0.0	0%	0.0			
	Play Surface	Subsoil Place	subgrade	Ex-17in	Pro-12in	2129	varies	-3373	-124.9	0%	-124.9			
	Play Surface to Play Surface	Play Surface Place	Place 12in wood mulch play surface	n/a	n/a	2129	-1.00	-2129	-78.8	0%	-78.8	Lake View H	leiahts	Park Playgrour
							.,,,,							lic Works Contract
	Play Surface to Timbers	Play Surface Excavate	Remove existing play surface, estimated depth 17in	n/a	n/a	491	1.42	696	25.8	0%	25.8	City of Madison	i, vvi i ub	Date Revised
	Play Surface to		Cut subsoil to proposed											Date Neviseu
	Timbers Play Surface to	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-17in	Pro-12in	491	varies	0	0.0	0%	0.0			
	Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	491	varies	-441	-16.3	0%	-16.3	Derived from n	nore detail	ed spreadsheet ava
	Play Surface to	Pardar Timbora Placa	Place playground border											
	Play Surface to Timbers	Border Timbers Place (placeholder volume)	timbers (placeholder volume to balance volume comps)	n/a	n/a	491	-1.00	-491	-18.2	0%	-18.2	Computation	Summary	
		(placerioraer retaine)			1							Positive volume	s are cuts	s (material available
	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	697	0.50	348	12.9	0%	12.9			(
	Grass to Asphalt	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in	697	varies	124	4.6	0%	4.6			
	G doo to / topridit	Cascon Excavato	Fill subsoil to proposed	EX OIII	110 1211	507	Variou	121	1.0	0,0		D		-
	Grass to Asphalt	Subsoil Place	subgrade	Ex-6in	Pro-12in	697	varies	-144	-5.3	0%	-5.3	Row Labels		1
		Gravel (for Pavement)	Place 9in gravel base out to									Asphalt Place		
	Grass to Asphalt	Place	6in from pavement edge	n/a	n/a	697	-0.75	-522	-19.3	0%	-19.3	Border Timbers	s Place (p	laceholder volume)
	Grass to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	697	-0.25	-174	-6.4	0%	-6.4	Gravel (for Pay		,
	Grass to											DI O	-	400
	Timbers Grass to	Topsoil Excavate	Strip 6in topsoil Fill subsoil to proposed	n/a	n/a	43	0.50	21	0.8	0%	0.8			
	Timbers	Subsoil Place	subgrade	Ex-6in	Pro-12in	43	varies		0.0	0%	0.0	Play Surface F		
	Grass to		Cut subsoil to proposed									Subsoil Excava	ite	
	Timbers	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	43	varies	-75	-2.8	0%	-2.8	Subsoil Place		
	Grass to	Border Timbers Place	Place playground border timbers (placeholder volume									Topsoil Excava	te	
	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a	43	-1.00	-43	-1.6	0%	-1.6	Topsoil Place		
	Dlay Curface to		Domesia evieting play eurface										to	
	Play Surface to Asphalt	Play Surface Excavate	Remove existing play surface, estimated depth 17in	n/a	n/a	68	1.42	96	3.5	0%	3.5	Asphalt Excava	ile	
	Play Surface to	Surado Encavato	Cut subsoil to proposed			- 00	1.12	3.0	0.0	0,0	0.0	Grand Total		
	Asphalt	Subsoil Excavate	subgrade	Ex-17n	Pro-12in	68	varies	0	0.0	0%	0.0			
	Play Surface to Asphalt	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	68	varies	-59	-2.2	0%	-2.2			
	Play Surface to	Gravel (for Pavement)	Place 9in gravel base out to		1 10-12111	- 00	Turios	-39	-2.2	0 70	-2.2	Bid Item		
	Asphalt	Place	6in from pavement edge	n/a	n/a	68	-0.75	-51	-1.9	0%	-1.9	3.3		
	Play Surface to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	68	-0.25	-17	-0.6	0%	-0.6	20101 Excavati	on Cut	
														Pon Croyal
	Aspnalt to Grass	Asphalt Excavate	Excavate 12in asphalt Cut subsoil to proposed	n/a	n/a	202	1.00	202	7.5	0%	7.5	20103-Excavat		rea Graver
	Asphalt to Grass	Subsoil Excavate	subgrade	Ex-12in	Pro-6in	202	varies		0.0	0%	0.0	20202 Fill Borr	OW	
	·		Fill subsoil to proposed					205	400	001	40.0	20221 Topsoil		
	Asphalt to Grass	SUDSOII PIACE	subgrade	Ex-12in	Pro-6in	202	varies	-295	-10.9	0%	-10.9	40102 Crushed	d Aggrega	te Base Course
	Asphalt to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	202	-0.50	-101	-3.7	0%	-3.7	Gradation No. 3		
	Grass to		a a	,	,									
	Playsurface	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	1064	0.50	532	19.7	0%	19.7	40204 LINAA :	vomont ?	I T 50 20 C
	Grass to				- 10°	1001	varies	0	0.0	0%	0.0	40201 HMA pa	vernent 3	L1 00-20 S
	Grass to Playsurface	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	1064	varies	U		070	0.0	00000		
	Playsurface Grass to		Fill subsoil to proposed										ound Surf	acing - Wood Fibe
	Playsurface	Subsoil Excavate Subsoil Place		Ex-6in	Pro-12in	1064		-1602	-59.3	0%	-59.3	90003 - Playgr Mulch	ound Surf	acing - Wood Fibe

	Grass to										
	Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	38	0.50	19	0.7	0%	0.7
	Grass to		Cut subsoil to proposed								
	Concrete	Subsoil Excavate	subgrade	Ex-6in	Pro-11in	38	varies	0	0.0	0%	0.0
	Grass to		Fill subsoil to proposed								
	Concrete	Subsoil Place	subgrade	Ex-6in	Pro-11in	38	varies	-20	-0.7	0%	-0.7
	Grass to	Gravel (for Pavement)									
	Concrete	Place	Place 6in gravel base	n/a	n/a	38	-0.50	-19	-0.7	0%	-0.7
	Grass to										
	Concrete	Concrete Place	Place 5in concrete	n/a	n/a	38	-0.42	-16	-0.6	0%	-0.6
	Play Surface to		Domesto eviating play surface								
		Play Surface Excavate	Remove existing play surface, estimated depth 17in	n/a	n/a	81	1.42	115	4.3	0%	4.3
		Play Surface Excavate	•	II/a	II/a	01	1.42	110	4.3	0%	4.3
	Play Surface to	0	Cut subsoil to proposed	F., 47-	D== 44:=	0.4			0.0	00/	0.0
	Concrete	Subsoil Excavate	subgrade	Ex-17n	Pro-11in	81	varies	0	0.0	0%	0.0
	Play Surface to	Outrasil Diagram	Fill subsoil to proposed	F., 47:-	D. 44:-	0.4		400	4.5	00/	4.5
		Subsoil Place	subgrade	Ex-17in	Pro-11in	81	varies	-122	-4.5	0%	-4.5
	1 1	Gravel (for Pavement)	Dia a dia anno la basa			0.4	0.50		4.5	00/	
_	Concrete	Place	Place 6in gravel base	n/a	n/a	81	-0.50	-41	-1.5	0%	-1.5
	Play Surface to		·	١.	1.						
	Concrete	Concrete Place	Place 5in concrete	n/a	n/a	81	-0.42	-34	-1.3	0%	-1.3
	Asphalt to	l <u></u> .	Remove existing asphalt,	١.	1. 1						
		Asphalt Excavate	estimated depth 12in	n/a	n/a	469	1.00	469	17.4	0%	17.4
	Asphalt to	L	Cut subsoil to proposed		I I			_			
	Asphalt	Subsoil Excavate	subgrade	Ex-12n	Pro-12in	469	varies	2	0.1	0%	0.1
	Asphalt to		Fill subsoil to proposed								
	Asphalt	Subsoil Place	subgrade	Ex-12in	Pro-12in	469	varies	-294	-10.9	0%	-10.9
	Asphalt to	Gravel (for Pavement)									
	Asphalt	Place	Place 9in gravel base	n/a	n/a	469	-0.75	-352	-13.0	0%	-13.0
	Asphalt to										
	Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	469	-0.25	-117	-4.3	0%	-4.3

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

> play MADISON PARKS

PROJECT:

DESIGN

COMPUTATIONS

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

8.	Lake View Heights Park Playgroun	id - Earthwork Quantities			LAKE MENLUSICUTC DAG
	City of Madison, WI Public Works Contract				LAKE VIEW HEIGHTS PAR
8.	Date Revised:	3/21/2019			1621 SUNFIELD ST.
0					MADISON, WI 53704
3	Derived from more detailed spreadsheet ava	ilable from Parks Div			
Ī					
2	Computation Summary				
0	Positive volumes are cuts (material available)), negative volumes are fills (material nee	eded)		
9					
6					
.3	Row Labels	Sum of Unfac-tored volume (cu yd)			
2	Asphalt Place	-11.4			
3	Border Timbers Place (placeholder volume)	-19.8			
.4	Gravel (for Pavement) Place	-36.5			Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and
.8	Play Surface Excavate	169.6			subcontractors must check all details and dimensions of their trade and be responsible for the same.
0	Play Surface Place	-118.3			ITEM DATE
	Subsoil Excavate	33.9			Advertised by: MS 05-02-2019
.8	Subsoil Place	-412.9			
	Topsoil Excavate	199.9			
.6	Topsoil Place	-178.1			
_	Asphalt Excavate	24.9			
.5	Grand Total	-348.6			
0.					
2			Units		
a	Bid Item	Quantity	CY	Relation to Table Above	PUBLIC WORKS PROJECT #:
_				=Subsoil Excavate + Topsoil Excavate	9398
6	20101 Excavation Cut	394		+ Asphalt Excavate	
5	20103-Excavation Cut - Pea Gravel	170	CY	= Play Surface Excavate	SHEET TITLE:

379 CY

1067 SY

25 TONS

130 CY

= Subsoil Excavate - Subsoil Place

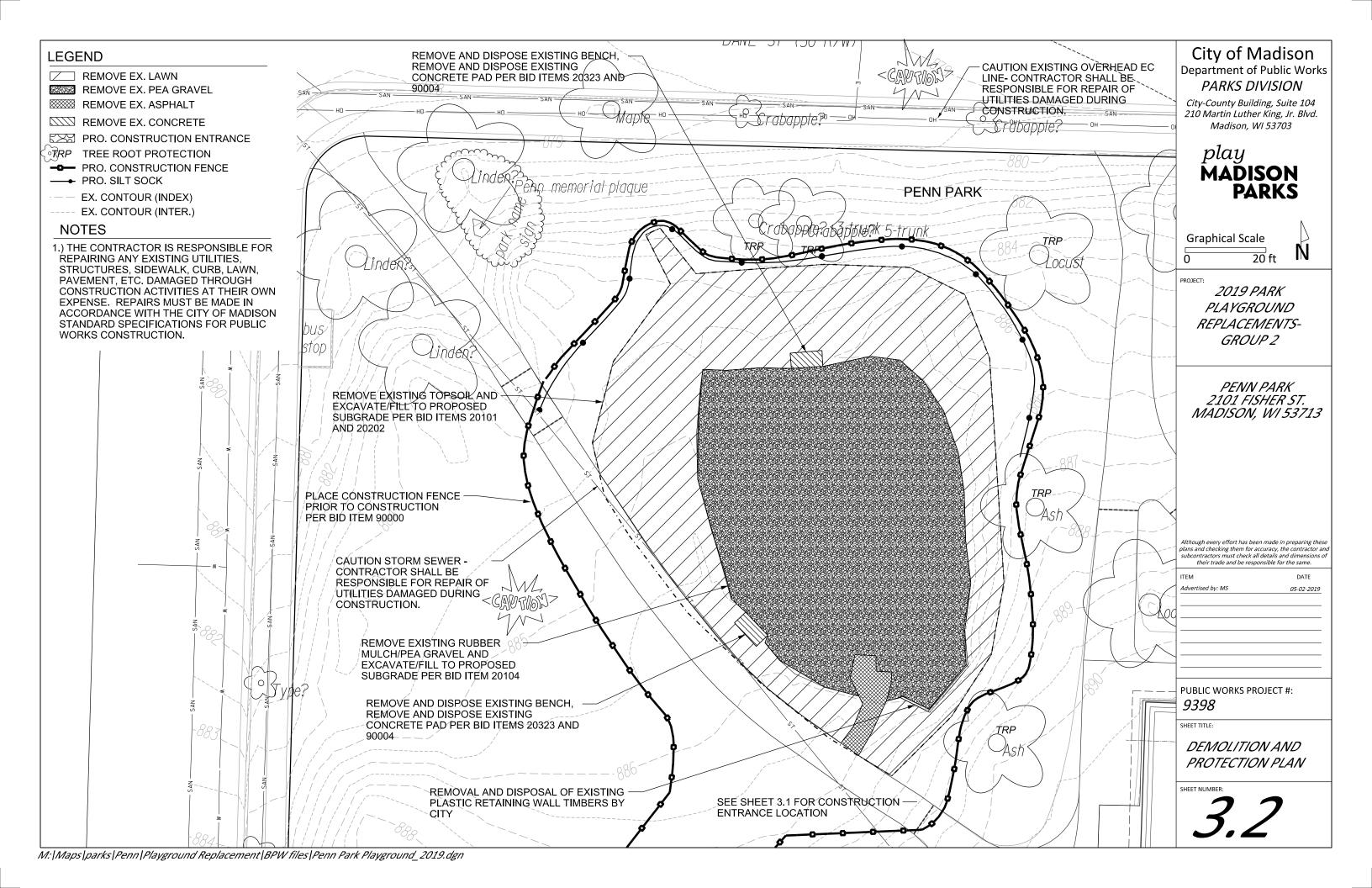
= (Gravel Place) * 2.0 ton/cubic yard

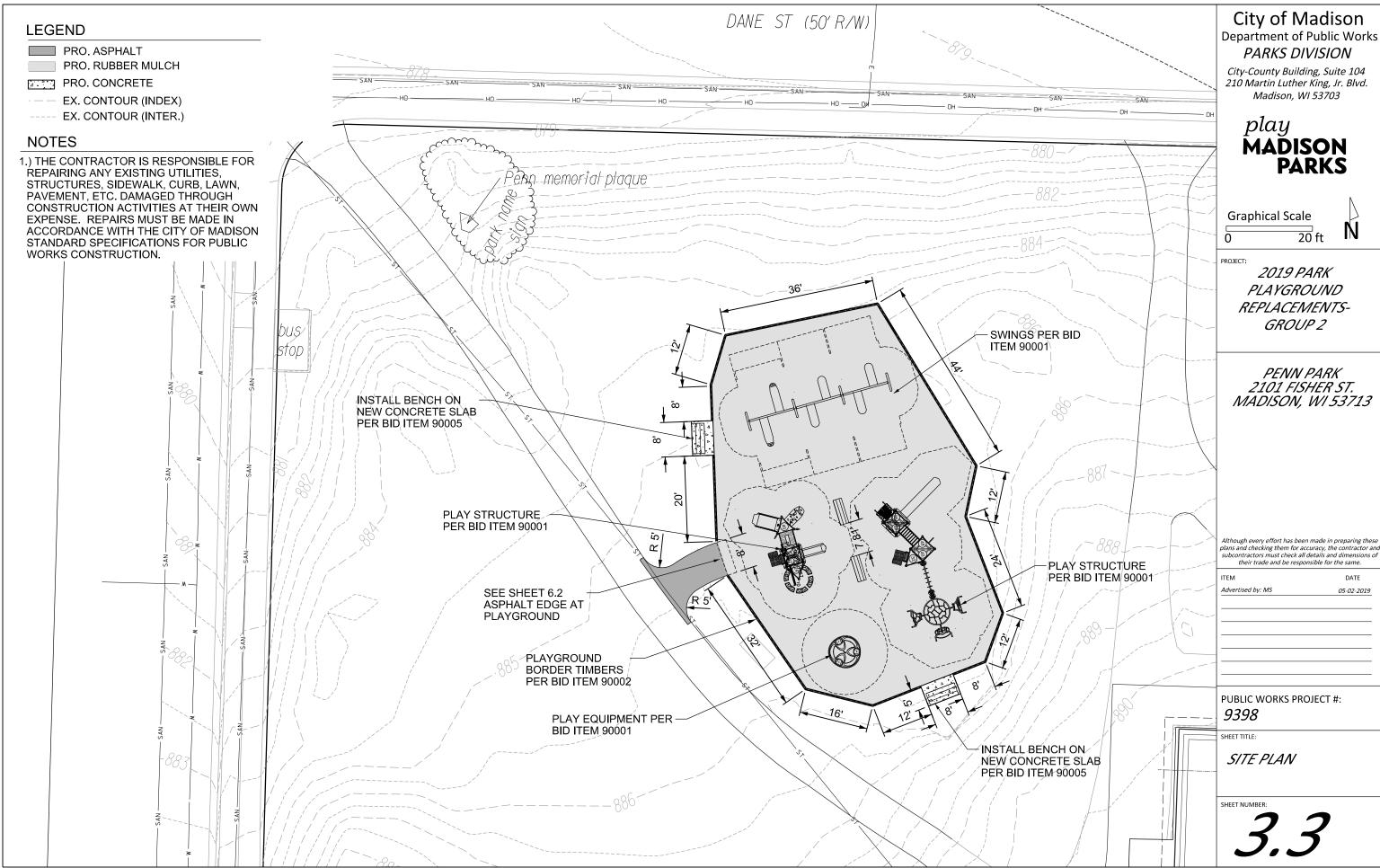
= Asphalt Place * 2.16 ton/cubic yard

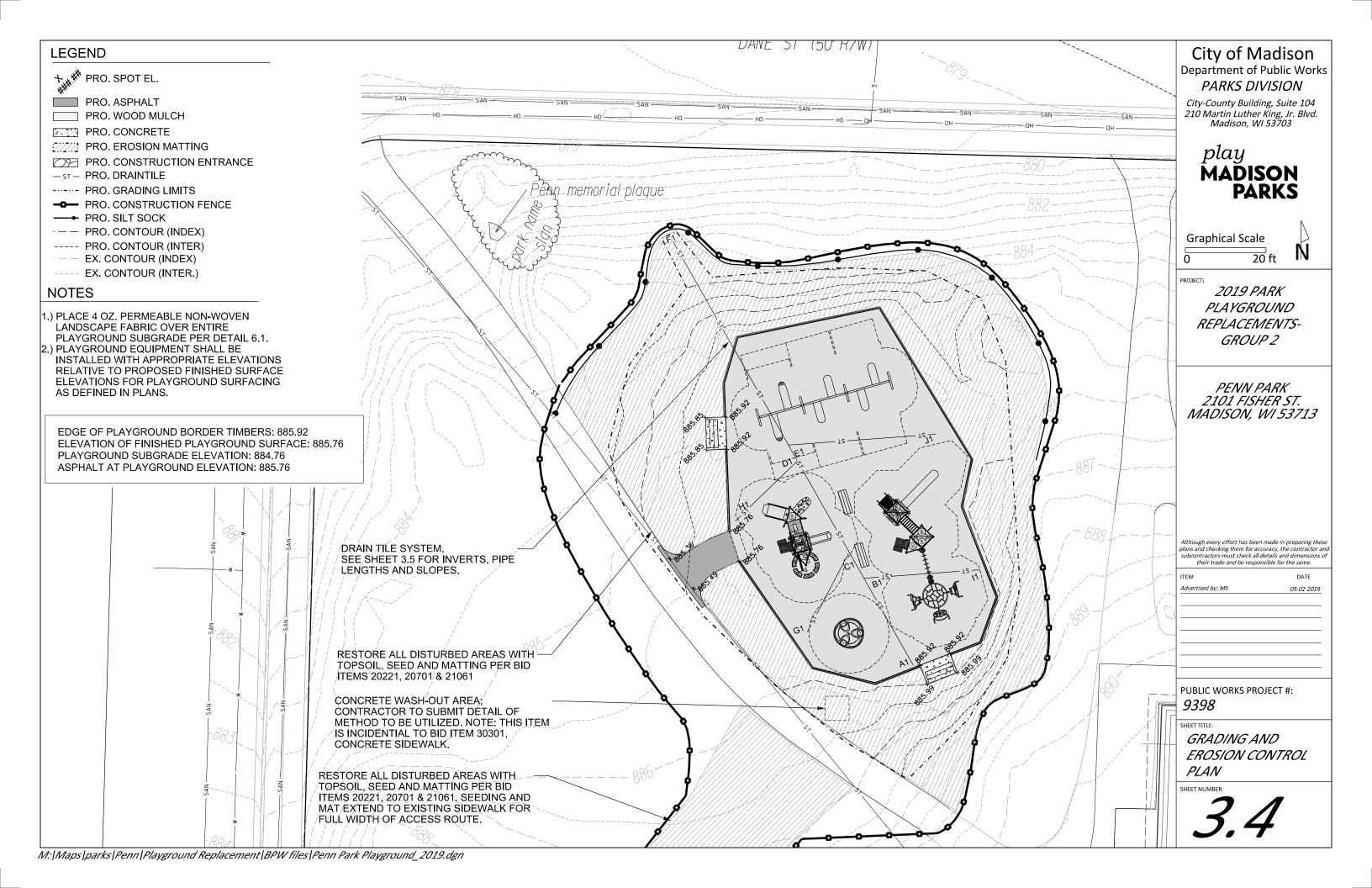
= Topsoil Place/.167 (depth)

= Play Surface Place*1.10









	Penn Park	Playground	
Dra	in Tile Invert (F	lowline) Elevations	
		Distance from top of	
Point	Invert (ft)	timbers 885.92	
		(INCHES)	Ahead length
A1	884.18	20.9	24.8
B1	883.94	23.8	7.4
C1	883.86	24.7	26.0
D1	883.61	27.7	4.5
E1	883.57	28.2	57.7
F1	883.00	35.0	
G1	884.18	20.9	22.3
H1	884.18	20.9	21.5
I1	884.18	20.9	28.7
J1	884.18	20.9	36.6

[Drain Tile Le	engths & Slope	es	
froi	m intersect	ion to intersec	tion	
From	То	Length (ft)	Slope (%)	Pipe type
A1	B1	24.8	-0.97	Underdrain
B1	C1	7.4	-1.08	Underdrain
C1	D1	26.0	-0.96	Underdrain
D1	E1	4.5	-0.89	Underdrain
E1	F1	57.7	-0.99	Underdrain
G1	C1	22.3	-1.43	Underdrain
H1	D1	21.5	-2.65	Underdrain
11	B1	28.7	-0.84	Underdrain
J1	E1	36.6	-1.67	Underdrain
	Total	229.50		

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play MADISON PARKS

PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2

PENN PARK 2101 FISHER ST. MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM DATE

Advertised by: MR 05-02-2019

PUBLIC WORKS PROJECT #: 9398

DRAIN TILE SCHEDULES

SHEET NUMBI

	Penn Park PI	ayground - Earthwork	Quantities								
		WI Public Works Contract									
	Date Revised:	3/26/2019									
		5,25,2010									
	Notes:										
	Positive volumes	are cuts, negative volumes a	are fills.								
	Not all parts of al	I surface models (Digital Ter	rain Models) are used for com	putations or	intended for	actual co	nstruction				
	Frietina										
	Existing Proposed										
	Proposed										
	Порозси										
											Factore
								Unfac-	Unfac-	Expan-	(Uncon
				From	То			tored	tored	sion	pacted
C	C	Material	Item	Surface Model	Surface Model	area	depth	volume	volume	Factor	Volume
Sort	Grp Grass to Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	(sqft) 4097	(ft) 0.50	(cu ft) 2049	(cu yd) 75.9	(%) 0%	(cu yd) 75
	01433 10 01433	Topson Excavate	Cut subsoil to proposed	II/a	11/4	4001	0.50	2043	15.5	0 /0	15
	Grass to Grass	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	4097	varies	66	2.4	0%	2
			Fill subsoil to proposed								
	Grass to Grass		subgrade	Ex-6in	Pro-6in	4097	varies	-1191	-44.1	0%	-44
	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	4097	-0.50	-2049	-75.9	0%	-75
	n o				1						
	Play Surface to	Play Surface Tive	Remove existing play surface,	2/2	n/o	400	1 40	050	24.4	001	
	Grass Play Surface to	Play Surface Excavate	estimated depth 17in Fill subsoil to proposed	n/a	n/a	466	1.42	659	24.4	0%	24
	Grass	Subsoil Place	subgrade	Ex-17in	Pro-6in	466	varies	-740	-27.4	0%	-27
	Play Surface to	Cubboli i lucc	Subgrade	LX 17111	110011	400	varios	140	21.4	070	
	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	466	-0.50	-233	-8.6	0%	-8
	Play Surface to		Remove existing play surface,								
	Play Surface	Play Surface Excavate	estimated depth 17in	n/a	n/a	4012	1.42	5684	210.5	0%	210
	Play Surface to		Cut subsoil to proposed								
		Subsoil Excavate	subgrade	Ex-17in	Pro-12in	4012	varies	0	0.0	0%	0
	Play Surface to Play Surface	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	4012	varies	-4091	-151.5	0%	-151
	Play Surface to	Subsoil Flace	Place 12in wood mulch play	LX-17111	F10=12III	4012	varies	=4091	-101.0	0 70	-131
		Play Surface Place	surface	n/a	n/a	4012	-1.00	-4012	-148.6	0%	-148
											- 112
	Play Surface to		Remove existing play surface,								
	Timbers	Play Surface Excavate	estimated depth 17in	n/a	n/a	52	1.42	73	2.7	0%	2
	Play Surface to		Cut subsoil to proposed					0			_
	Timbers Play Surface to	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	52	varies	0	0.0	0%	0
	Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-12in	52	varies	-53	-2.0	0%	-2
	IIIIbers	Subsoil Flace	Place playground border	LX-17111	F10-12III	32	varies	-55	-2.0	0 70	2
	Play Surface to	Border Timbers Place	timbers (placeholder volume								
	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a	52	-1.00	-52	-1.9	0%	-1
	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	131	0.50	66	2.4	0%	2
			Cut subsoil to proposed								
	Grass to Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	131	varies	44	1.6	0%	1
	Grace to Asphall	Subsoil Place	Fill subsoil to proposed	Ev.6in	Pro 12in	124	varios		0.0	00/	0
	Grass to Asphalt	Gravel (for Pavement)	subgrade	Ex-6in	Pro-12in	131	varies		0.0	0%	0
	Grass to Asphalt		Place 9in gravel base	n/a	n/a	131	-0.75	-98	-3.6	0%	-3
	- I I I I I I I I I I I I I I I I I I I							1	2.0	- 70	
	Grass to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	131	-0.25	-33	-1.2	0%	-1
	Grass to										
	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a		0.50	0	0.0	0%	0
	Grass to	0	Fill subsoil to proposed	F 0.	D 101						
	Timbers Grass to	Subsoil Place	Subgrade	Ex-6in	Pro-12in		varies	3	0.1	0%	0
	Grass to Timbers	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-12in		varies	-33	-1.2	0%	-1
	IIIIDEIS	OUDSOIT EXCAVAGE	Place playground border	LX-OIII	110-1211		varies	-33	-1.2	070	
	Grass to	Border Timbers Place	timbers (placeholder volume		1						
	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a		-1.00	0	0.0	0%	0
		,									
	Play Surface to		Remove existing play surface,								
	Asphalt	Play Surface Excavate	estimated depth 17in	n/a	n/a		1.42	0	0.0	0%	0
	Play Surface to		Cut subsoil to proposed								
	Asphalt	Subsoil Excavate	subgrade	Ex-17n	Pro-12in		varies		0.0	0%	0
	Play Surface to	Subsoil Place	Fill subsoil to proposed	Ev. 17in	Pro 12ir		varion	-9	0.2	0%	_
	Asphalt Play Surface to	Subsoil Place Gravel (for Pavement)	subgrade Place 9in gravel base out to	Ex-17in	Pro-12in		varies	-9	-0.3	0%	-0
	Asphalt	Place	6in from pavement edge	n/a	n/a		-0.75	0	0.0	0%	0
	Play Surface to		parement eagle				00	Ĭ	5.0	270	
		Asphalt Place	Place 3in asphalt	n/a	n/a		-0.25	0	0.0	0%	0.

Play Surface to
Concrete

Play Surface to
Concrete

Play Surface to
Concrete

Play Surface to
Gravel (for Pavement)
Concrete

Play Surface to

subgrade

Mulch

											7-					_						_
		Asnhalt to Grass	Asphalt Excavate	Excavate 12in asphalt	n/a	n/a	120	1.00	120	4.4	0%	Asphalt to Asphalt	Asphalt Excavate	Remove existing asphalt, estimated depth 12in				1.00			0%	(
		Trophan to Grade	7 iopriait Excurate	Cut subsoil to proposed	1114	1174	120	1.50	120		0,0	Aspnait Asphalt to		Cut subsoil to proposed	n/a	n/a	- 0	1.00		0.0	- 0%	_
		Asphalt to Grass	Subsoil Excavate	subgrade	Ex-12in	Pro-6in	120	varies		0.0	0%	Asphalt	Subsoil Excavate	subgrade	Ex-12n	Pro-12in	0	varies		0.0	0%	
		1		Fill subsoil to proposed								Asphalt to		Fill subsoil to proposed	LA-1211	110-12111		varies		0.0	0 70	_
		Asphalt to Grass	Subsoil Place	subgrade	Ex-12in	Pro-6in	120	varies	-93	-3.4	0%	Asphalt	Subsoil Place	subgrade	Ex-12in	Pro-12in	0	varies		0.0	0%	
												Asphalt to	Gravel (for Pavement)	Place 9in gravel base out to								
		Asphalt to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	120	-0.50	-60	-2.2	0%	Asphalt	Place `	6in from pavement edge	n/a	n/a	0	-0.75	0	0.0	0%	
		Grass to										Asphalt to										_
			Topsoil Excavate	Strip 6in topsoil	n/a	n/a	258	0.50	129	4.8	0%	Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	0	-0.25	0	0.0	0%	
		Grass to		Cut subsoil to proposed								Asphalt to P					1		1 1			
			Subsoil Excavate	subgrade	Ex-6in	Pro-12in	258	varies		0.0	0%	Surface	Asphalt Excavate	Excavate 12in asphalt	n/a	n/a	32	1.00	32	1.2	0%	
		Grass to		Fill subsoil to proposed								Asphalt to P		Cut subsoil to proposed			1		1 1			
_	_		Subsoil Place	subgrade	Ex-6in	Pro-12in	258	varies	-110	-4.1	0%	Surface	Subsoil Excavate	subgrade	Ex-12in	Pro-12in	32	varies	4	0.0	0%	L
		Grass to	DI 0	Place 12in wood mulch play surface		- 1-	050	-1.00	-258	0.5	00/	Asphalt to P		Fill subsoil to proposed		L			1 .			
		Playsurface Grass to	Play Surface Place	surrace	n/a	n/a	258	-1.00	-258	-9.5	0%	Surface	Subsoil Place	subgrade	Ex-12in	Pro-12in	32	varies	-6	-0.2	0%	-
		Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	14	0.50	_	0.3	0%	Asphalt to P Surface	Play Surface Place	Place 12in wood mulch play surface	n/a	n/a	32	-1.00	-32	-1.2	0%	
-		Grass to	TOPSOIT EXCAVATE	Cut subsoil to proposed	11/a	11/a	14	0.50	- /	0.3	0%	Asphalt to		surrace	n/a	n/a	32	-1.00	-32	-1.2	- 0%	-
		Concrete	Subsoil Excavate	subgrade	Ex-6in	Pro-11in	14	varies		0.0	0%	Timbers	Asphalt Excavate	Excavate 12in asphalt	n/a	n/a	3	1.00	3	0.1	0%	
		Grass to	Cubbon Excurate	Fill subsoil to proposed	EX OIII	11011111		variou		0.0	070	Asphalt to		Cut subsoil to proposed	TD C	liva .		1.00			- 070	-
		Concrete	Subsoil Place	subgrade	Ex-6in	Pro-11in	14	varies	-8	-0.3	0%	Timbers	Subsoil Excavate	subgrade	Ex-12in	Pro-12in	3	varies		0.0	0%	
		Grass to	Gravel (for Pavement)									Asphalt to		Fill subsoil to proposed		1						_
		Concrete	Place	Place 6in gravel base	n/a	n/a	14	-0.50	-7	-0.3	0%	Timbers	Subsoil Place	subgrade	Ex-12in	Pro-12in	3	varies	-1	0.0	0%	
		Grass to												Place playground border								
		Concrete	Concrete Place	Place 5in concrete	n/a	n/a	14	-0.42	-6	-0.2	0%	Asphalt to	Border Timbers Place	timbers (placeholder volume								
											+	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a	3	-1.00	-3	-0.1	0%	_
П		Play Surface to		Remove existing play surface																		
1			Play Surface Excavate	estimated depth 17in	n/a	n/a	66	1.42	94	3.5	0%											
		Dlay Curfose to		Cut aubanil to proposed																		

City of Madison Department of Public Works PARKS DIVISION

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

play MADISON PARKS

PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

PENN PARK 2101 FISHER ST. MADISON, WI 53713

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM DATE

Advertised by: MS 05-02-2019

PUBLIC WORKS PROJECT #: 9398

SHEET TITLE:

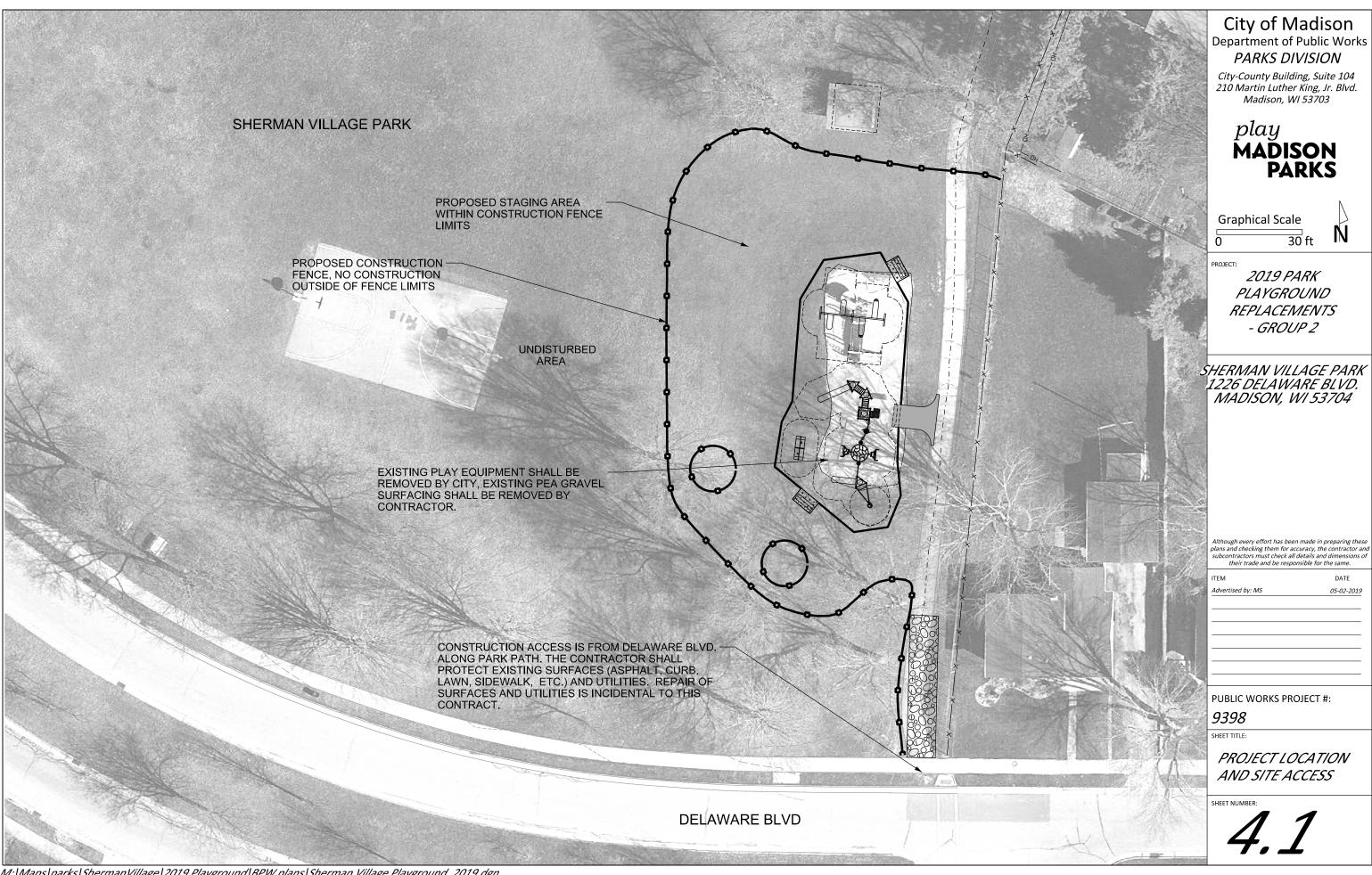
= Play Surface Place*1.10

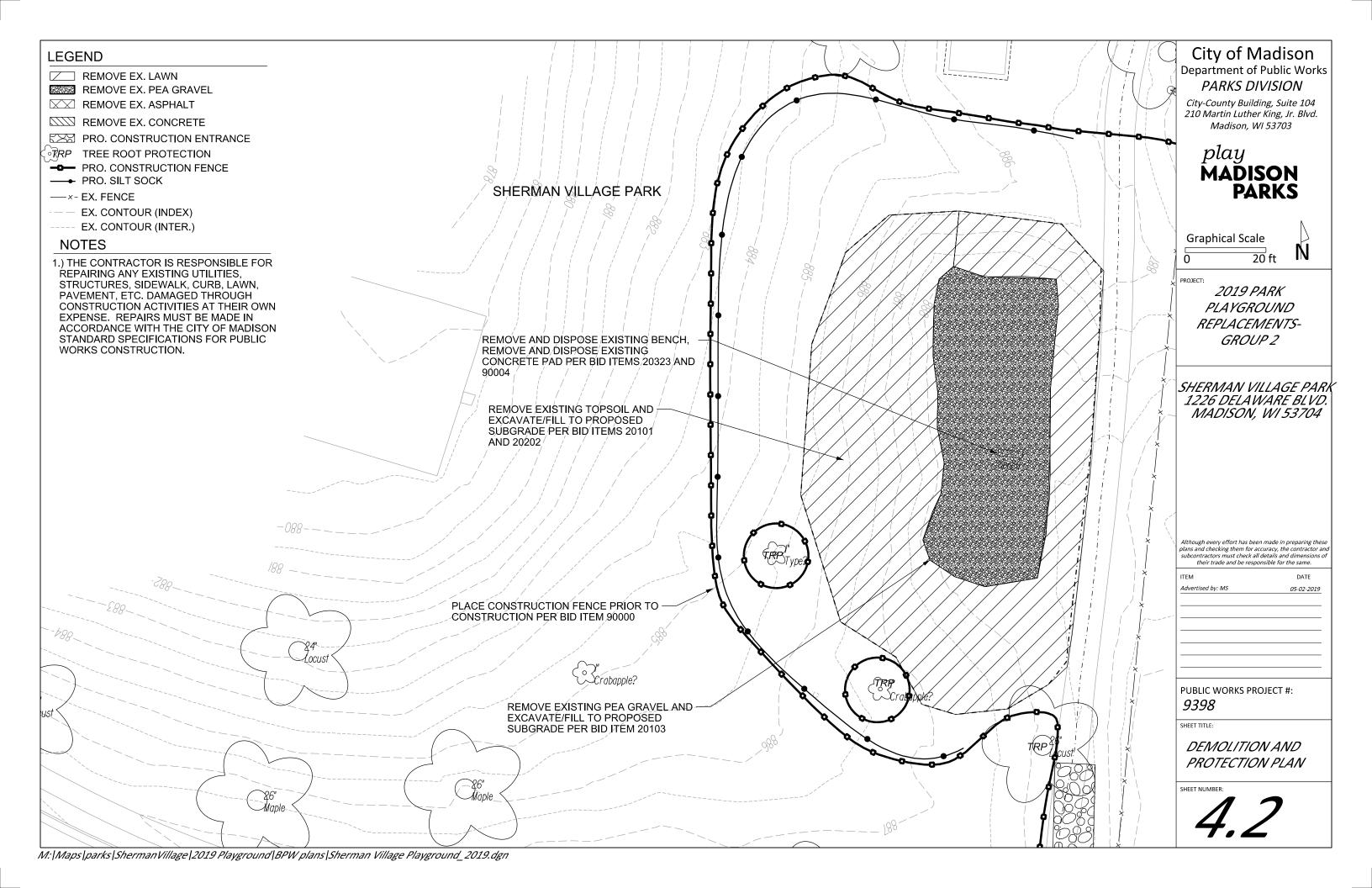
DESIGN COMPUTATIONS

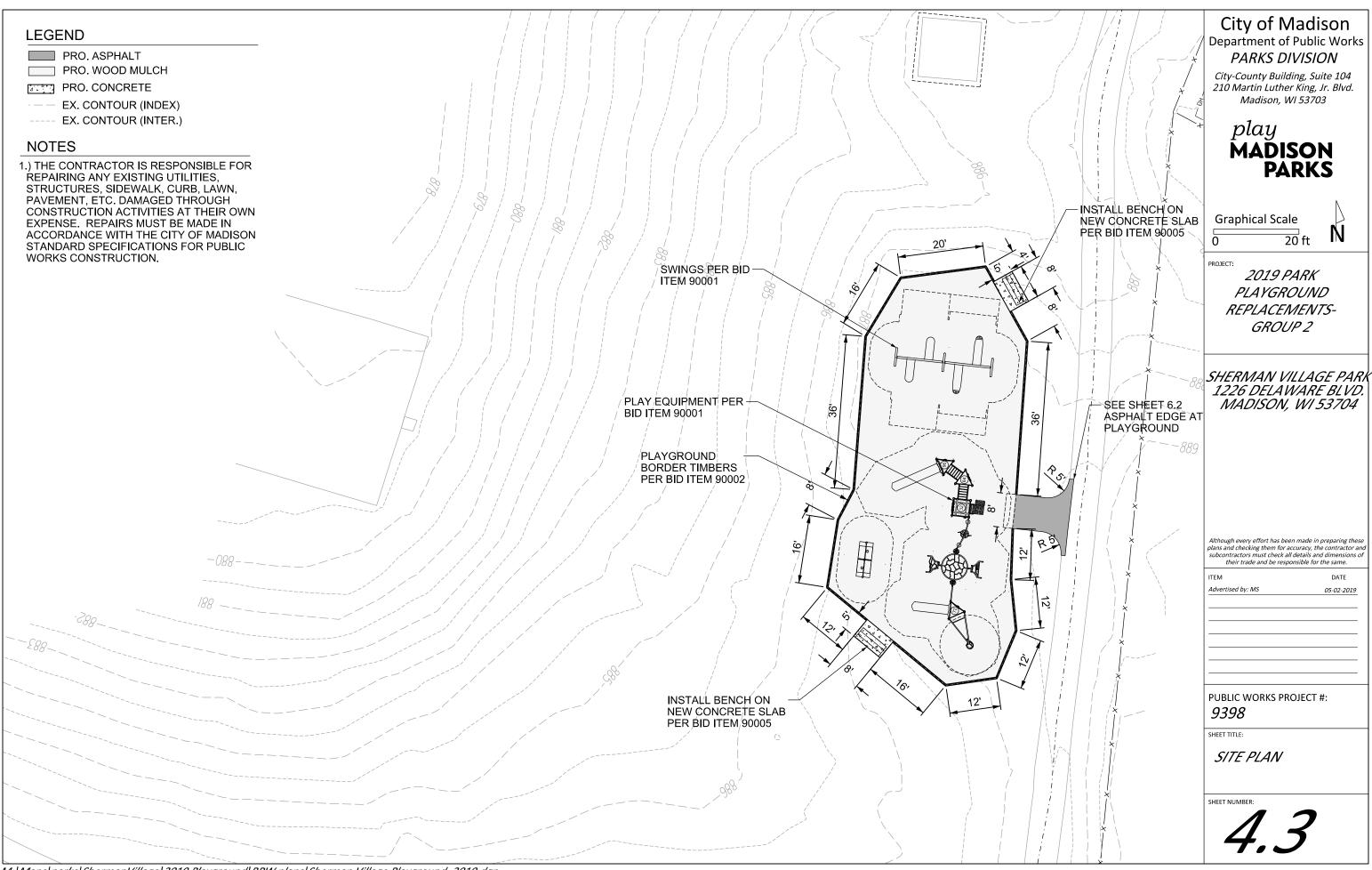
2 6

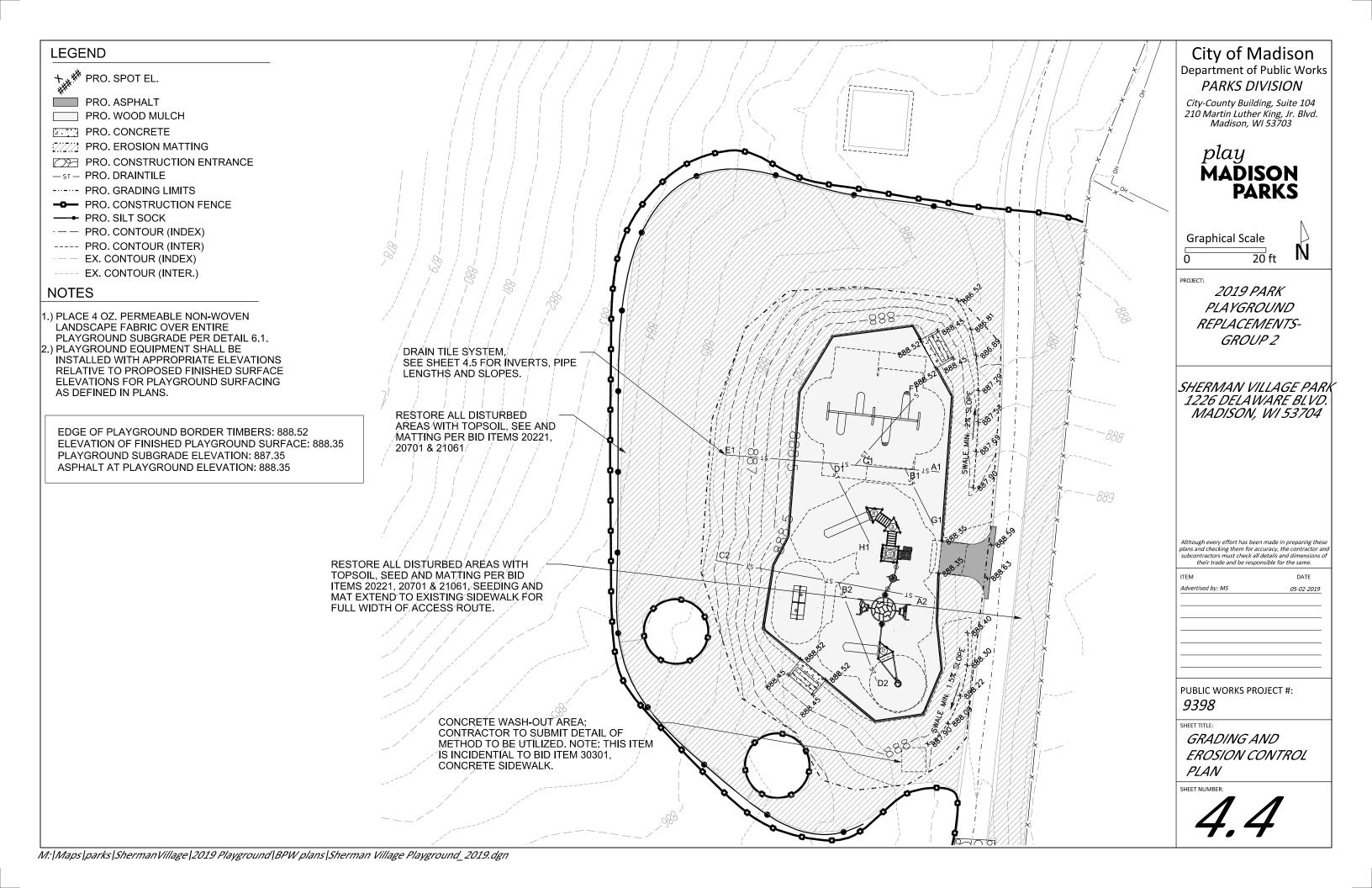
Penn Park Playground - Earthwor	k Quantities		
City of Madison, WI Public Works Contract			
Date Revised	3/27/2019		
Derived from more detailed spreadsheet ava	ailable from Parks Div		
Computation Summary			
Positive volumes are cuts (material available), negative volumes are fills (material nee	ded)	
Row Labels	Sum of Unfac-tored volume (cu yd)		
Asphalt Place	-1.2		
Border Timbers Place (placeholder volume)	-2.0		
Gravel (for Pavement) Place	-5.1		
Play Surface Excavate	241.1		
Play Surface Place	-159.3		
Subsoil Excavate	2.8		
Subsoil Place	-236.3		
Topsoil Excavate	83.3		
Topsoil Place	-86.7		
Asphalt Excavate	5.7		
Concrete Place	-1.2		
Grand Total	-158.9		
		Units	
Bid Item	Quantity	CY	Relation to Table Above

		OTHEO	
Bid Item	Quantity	CY	Relation to Table Above
20101 Excavation Cut	86	CY	=Subsoil Excavate + Topsoil Excavate
20104 - Excavation Cut - Pea Gravel			
/Rubber Mix	241	CY	= Play Surface Excavate
20201 Fill Borrow	233	CY	= Subsoil Excavate - Subsoil Place
20221 Topsoil	519	SY	= Topsoil Place/.167 (depth)
40102 Crushed Aggregate Base Course			
Gradation No. 2 & 3	10.3	TONS	= (Gravel Place) * 2.0 ton/cubic yard
40201 HMA Pavement 3 LT 58-28 S	2.6	TONS	= Asphalt Place * 2.16 ton/cubic yard
90008 - Playground Surfacing - Rubber			









S	herman Village	Park Playground		
Dra	in Tile Invert (F			
Point	Invert (ft)	Distance from top of timbers 888.52 (INCHES)	Ahead length	
A1	886.76	21.1	8.5	
B1	886.64	22.6	12.4	
C1	886.46	24.7	6.3	
D1	886.37	25.8	26.0	
E1	886.00	30.2		
F1	886.76	21.1	24.0	
G1	886.76	21.1	15.6	
H1	886.76	21.1	23.0	

	Drain Tile Le			
fror	n intersecti	on to intersec	tion	
From	То	Length (ft)	Slope (%)	Pipe type
A1	B1	8.5	-1.42	Underdrain
B1	C1	12.4	-1.45	Underdrain
C1	D1	6.3	-1.42	Underdrain
D1	E1	26.0	-1.42	Underdrain
F1	C1	24.0	-1.25	Underdrain
G1	B1	15.6	-0.77	Underdrain
H1	D1	23.0	-1.70	Underdrain
	Total	115.75		

S	herman Village			
Dra	in Tile Invert (F	lowline) Elevations		
Point	Invert (ft)	Distance from top of timbers 888.52 (INCHES)	Ahead length	า
A2	886.76	21.1	21.2	
B2	886.45	24.8	30.7	
C2	886.00	30.2		
D2	886.76	21.1	26.0	

[Drain Tile Le			
froi	m intersecti	on to intersec	ction	
From	То	Length (ft)	Slope (%)	Pipe type
A2	B2	8.5	-3.67	Underdrain
B2	C2	12.4	-3.63	Underdrain
D2	B2	26.0	-1.19	Underdrain
	Total			

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

play MADISON PARKS

PROJEC

2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2

SHERMAN VILLAGE PARK 1226 DELAWARE BLVD. MADISON, WI 53704

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM	DATE
Advertised by: MS	05-02-2019
-	

PUBLIC WORKS PROJECT #: 9398

SHEET TITLE

DRAIN TILE SCHEDULES

SHEET NUMB

	Sherman Vill	age Park Playground	Earthwork Quantities								
	City of Madison.	WI Public Works Contract									
	Date Revised:	3/22/2019									
	Notes:										
		are cuts, negative volumes a									
	Not all parts of a	I surface models (Digital Ter	rain Models) are used for com	outations or	intended for	actual co	nstruction				
	=										
	Existing										
	Proposed Proposed										
	Froposeu										
											Factore
								Unfac-	Unfac-	Expan-	(Uncon
				From	To			tored	tored	sion	pacted
				Surface	Surface	area	depth	volume	volume	Factor	Volum
Sort	Grp	Material	Item	Model	Model	(sq ft)	(ft)	(cu ft)	(cu yd)	(%)	(cu yd
	Grass to Grass	Topsoil Excavate	Strip 6in topscil	n/a	n/a	3845	0.50	1922	71.2	0%	71
			Cut subsoil to proposed								
	Grass to Grass	Subsoil Excavate	subgrade	Ex-6in	Pro-6in	3845	varies	95	3.5	0%	3
	l		Fill subsoil to proposed								
		Subsoil Place	subgrade	Ex-6in	Pro-6in	3845	varies	-1955	-72.4	0%	-72
	Grass to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	3845	-0.50	-1922	-71.2	0%	-71
	Dlay Conference		Domovo ovietire elevene								
	Play Surface to Grass	Dlay Surface Everyote	Remove existing play surface, estimated depth 17in	n/a	n/a	87	1.42	122	4.5	0%	4
		Play Surface Excavate		n/a	n/a	01	1.42	123	4.5	0%	4
	Play Surface to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-17in	Pro-6in	87	varies	-108	-4.0	0%	-4
	Play Surface to	Casson i iacc		-0-1/111	110-0111	0/	vui ICS	-106	0	- ⁰ / ₀	
	Grass	Topsoil Place	Place 6in topsoil	n/a	n/a	87	-0.50	-43	-1.6	0%	-1
	2.400	,			1	, J	2.00	~	0	270	
	Play Surface to		Remove existing play surface,								
	Play Surface	Play Surface Excavate	estimated depth 17in	n/a	n/a	1976	1.42	2799	103.7	0%	103
	Play Surface to		Cut subsoil to proposed								
	Play Surface	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	1976	varies	0	0.0	0%	0
	Play Surface to		Fill subsoil to proposed								
	Play Surface	Subsoil Place	subgrade	Ex-17in	Pro-12in	1976	varies	-1106	-41.0	0%	-41
	Play Surface to		Place 12in wood mulch play								
	Play Surface	Play Surface Place	surface	n/a	n/a	1976	-1.00	-1976	-73.2	0%	-73
	Di C		Daman and the state of the stat								
	Play Surface to	Diam Constant 5	Remove existing play surface,				4 40				l .
	Timbers	Play Surface Excavate	estimated depth 17in	n/a	n/a	19	1.42	27	1.0	0%	1
	Play Surface to	Subsoil Excarato	Cut subsoil to proposed	Ev 17in	Dro 12in	10	varios		0.0	00/	
	Timbers Play Surface to	Subsoil Excavate	subgrade Fill subsoil to proposed	Ex-17in	Pro-12in	19	varies		0.0	0%	0
	Timbers	Subsoil Place	subgrade	Ex-17in	Pro-12in	19	varies	-12	-0.4	0%	-0
			Place playground border	-0.11111		1.5		12	0.4	0 //0	1
	Play Surface to	Border Timbers Place	timbers (placeholder volume								
	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a	19	-1.00	-19	-0.7	0%	-0
									2.7	- 70	
	Grass to Asphalt	Topsoil Excavate	Strip 6in topscil	n/a	n/a	103	0.50	52	1.9	0%	1
			Cut subsoil to proposed								
	Grass to Asphalt	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	103	varies	46	1.7	0%	1
			Fill subsoil to proposed								
	Grass to Asphalt		subgrade	Ex-6in	Pro-12in	103	varies	0	0.0	0%	0
		Gravel (for Pavement)									
	Grass to Asphalt	Place	Place 9in gravel base	n/a	n/a	103	-0.75	-77	-2.9	0%	-2
	Grass to Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a	103	-0.25	-26	-1.0	0%	-1
	Grass to		01: 0: 1 "		1.						
	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	52	0.50	26	1.0	0%	1
	Grass to	Subsoil Dioos	Fill subsoil to proposed	Ev 6:-	Dro 40ir	E0.	vorice		0.4	00/	
	Timbers Grass to	Subsoil Place	subgrade Cut subsoil to proposed	Ex-6in	Pro-12in	52	varies	3	0.1	0%	0
	Timbers	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	52	varies	-33	-1.2	0%	-1.
	milloria	SUSSOII ENGUYARO	Place playground border	_A 0111	1 10-12111	52	VAI 103	-55	-1.2	J 7/8	
	Grass to	Border Timbers Place	timbers (placeholder volume								
	Timbers	(placeholder volume)	to balance volume comps)	n/a	n/a	52	-1.00	-52	-1.9	0%	-1
		, comment	in the second of		1	U.E.		32		270	
	Play Surface to		Remove existing play surface,								
	Asphalt	Play Surface Excavate	estimated depth 17in	n/a	n/a	22	1.42	31	1.2	0%	1
	Play Surface to		Cut subsoil to proposed								
	Asphalt	Subsoil Excavate	subgrade	Ex-17n	Pro-12in	22	varies		0.0	0%	0
	Play Surface to		Fill subsoil to proposed								
	Asphalt	Subsoil Place	subgrade	Ex-17in	Pro-12in	22	varies	-9	-0.3	0%	-0
	Play Surface to	Gravel (for Pavement)	Place 9in gravel base out to								
	Asphalt	Place	6in from pavement edge	n/a	n/a	22	-0.75	-17	-0.6	0%	-0
	Play Surface to										

	Asphalt to Grass	Asphalt Excavate	Excavate 12in asphalt	n/a	n/a		1.00	ا	0.0	0%	0.0
			Cut subsoil to proposed	Ex-12in	Pro-6in				0.0	0%	
	Aspnait to Grass	Subsoil Excavate	subgrade	Ex-12in	Pro-bin		varies		0.0	0%	0.0
	Asphalt to Grass	Subsoil Place	Fill subsoil to proposed subgrade	Ex-12in	Pro-6in		varies		0.0	0%	0.0
	Asphalt to Grass	Topsoil Place	Place 6in topsoil	n/a	n/a		-0.50	0	0.0	0%	0.0
	Grass to	<u>'</u>									
	Plavsurface	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1300	0.50	650	24.1	0%	24.1
	Grass to	•	Cut subsoil to proposed								
	Playsurface	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	1300	varies	130	4.8	0%	4.8
	Grass to		Fill subsoil to proposed								
	Playsurface	Subsoil Place	subgrade	Ex-6in	Pro-12in	1300	varies	-398	-14.7	0%	-14.7
tored	Grass to		Place 12in wood mulch play								
	Playsurface	Play Surface Place	surface	n/a	n/a	1300	-1.00	-1300	-48.1	0%	-48.1
com-	Grass to										
cted)	Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	43	0.50	21	0.8	0%	0.8
lume	Grass to		Cut subsoil to proposed								
ı yd)	Concrete	Subsoil Excavate	subgrade	Ex-6in	Pro-11in	43	varies		0.0	0%	0.0
71.2	Grass to		Fill subsoil to proposed								
		Subsoil Place	subgrade	Ex-6in	Pro-11in	43	varies	-30	-1.1	0%	-1.1
3.5		Gravel (for Pavement)									
3.5		Place	Place 6in gravel base	n/a	n/a	43	-0.50	-21	-0.8	0%	-0.8
	Grass to										
-72.4	Concrete	Concrete Place	Place 5in concrete	n/a	n/a	43	-0.42	-18	-0.7	0%	-0.7
-71.2											
	Play Surface to		Remove existing play surface,								
		Play Surface Excavate	estimated depth 17in	n/a	n/a	37	1.42	53	2.0	0%	2.0
4.5	Play Surface to		Cut subsoil to proposed								
7.0		Subsoil Excavate	subgrade	Ex-17n	Pro-11in	37	varies		0.0	0%	0.0
	Play Surface to		Fill subsoil to proposed								
-4.0		Subsoil Place	subgrade	Ex-17in	Pro-11in	37	varies	-42	-1.6	0%	-1.6
		Gravel (for Pavement)									
-1.6		Place	Place 6in gravel base	n/a	n/a	37	-0.50	-19	-0.7	0%	-0.7
	Play Surface to										
		Concrete Place	Place 5in concrete	n/a	n/a	37	-0.42	-16	-0.6	0%	-0.6
103.7	Asphalt to		Remove existing asphalt,					ا ا		•01	
100.7		Asphalt Excavate	estimated depth 12in	n/a	n/a		1.00	0	0.0	0%	0.0
0.0	Asphalt to	0.1 75 .	Cut subsoil to proposed	- 40	A					20/	
0.0		Subsoil Excavate	subgrade	Ex-12n	Pro-12in		varies		0.0	0%	0.0
	Asphalt to	0 1 1 10	Fill subsoil to proposed	F 40:	D 40					00/	
-41.0		Subsoil Place	subgrade	Ex-12in	Pro-12in		varies		0.0	0%	0.0
		Gravel (for Pavement)	Place 9in gravel base out to	١,	1,		0.75	ا ا		00/	
-73.2		Place	6in from pavement edge	n/a	n/a		-0.75	0	0.0	0%	0.0
	Asphalt to	A In Di	Diana Sia analasti				0.05	ا ٍ ا		00/	
	Asphalt	Asphalt Place	Place 3in asphalt	n/a	n/a		-0.25	0	0.0	0%	0.0

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

play MADISON PARKS

PROJECT:

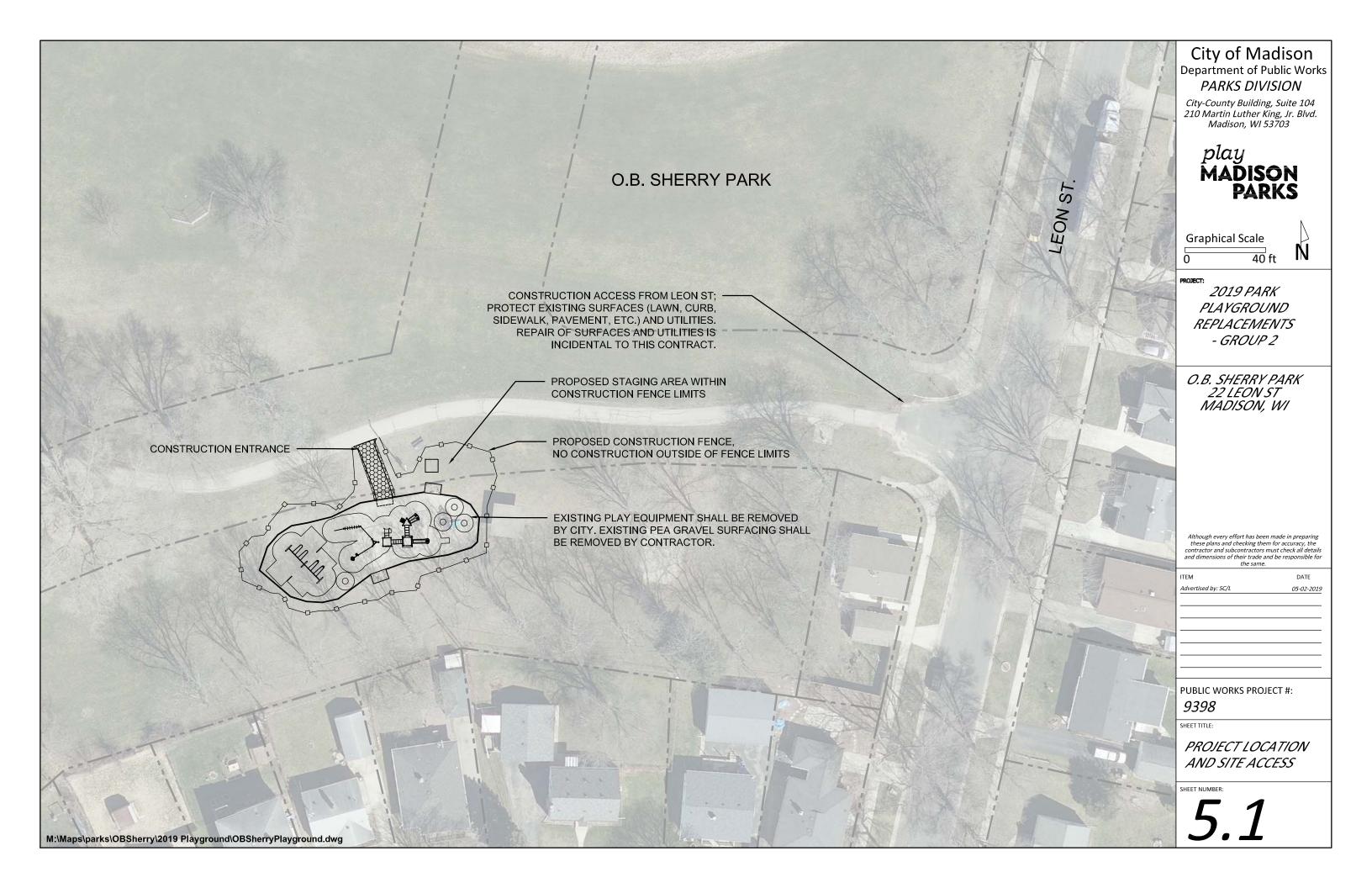
2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

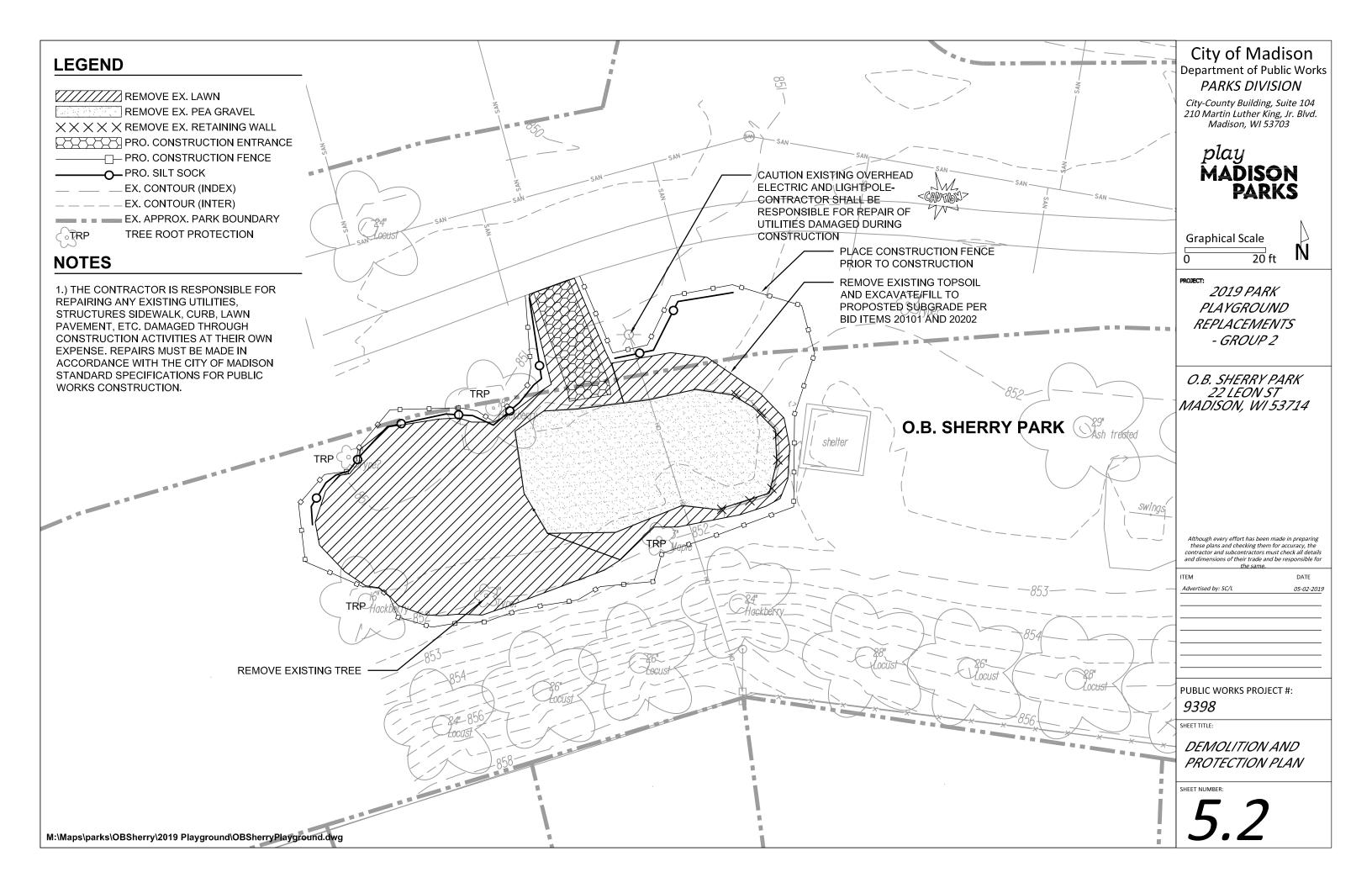
Sherman Village Heights Park Pla	yground - Earthwork Quantities		SHERMAN VILLAGE PARA		
City of Madison, WI Public Works Contract	t		1226 DELAWARE BLVD.		
Date Revised	3/22/2019		MADISON, WI 53704		
Derived from more detailed spreadsheet ava	ailable from Parks Div				
Computation Summary					
Positive volumes are cuts (material available	e), negative volumes are fills (material need	ded)			
Row Labels	Sum of Unfac-tored volume (cu yd)				
Asphalt Place	-1.2				
Border Timbers Place (placeholder volume)			Although every effort has been made in preparing		
Gravel (for Pavement) Place	-5.0		plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of		
Play Surface Excavate	112.3		their trade and be responsible for the same.		
Play Surface Place	-121.3		ITEM DATE		
Subsoil Excavate	8.8		Advertised by: MS 05-02-2019		
Subsoil Place	-135.4				
Topsoil Excavate	98.9				
Topsoil Place	-72.8				
Asphalt Excavate	0.0				
Concrete Place	-1.2				
Grand Total	-119.4				

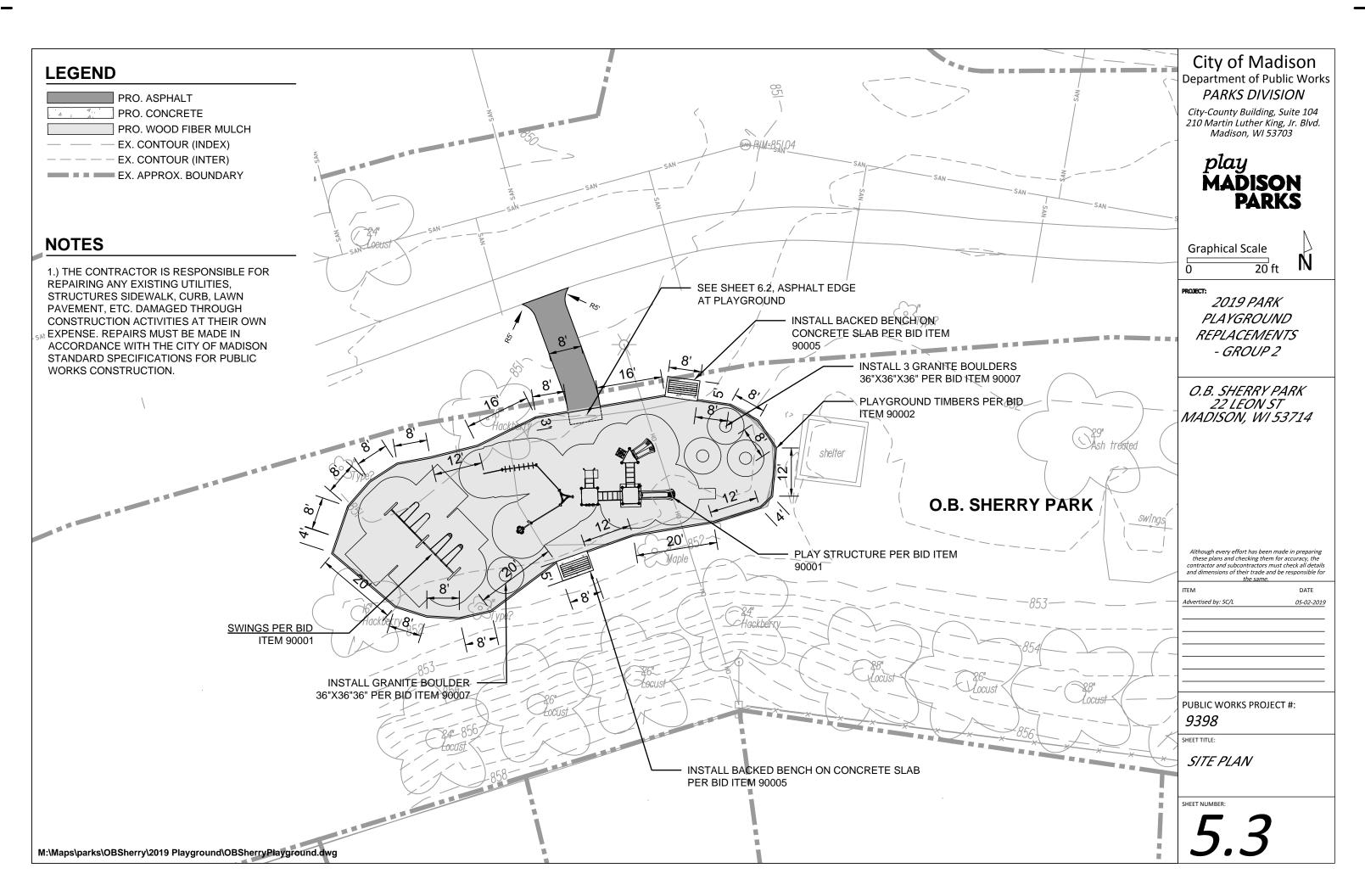
PUBLIC WORKS PROJECT #: 9398

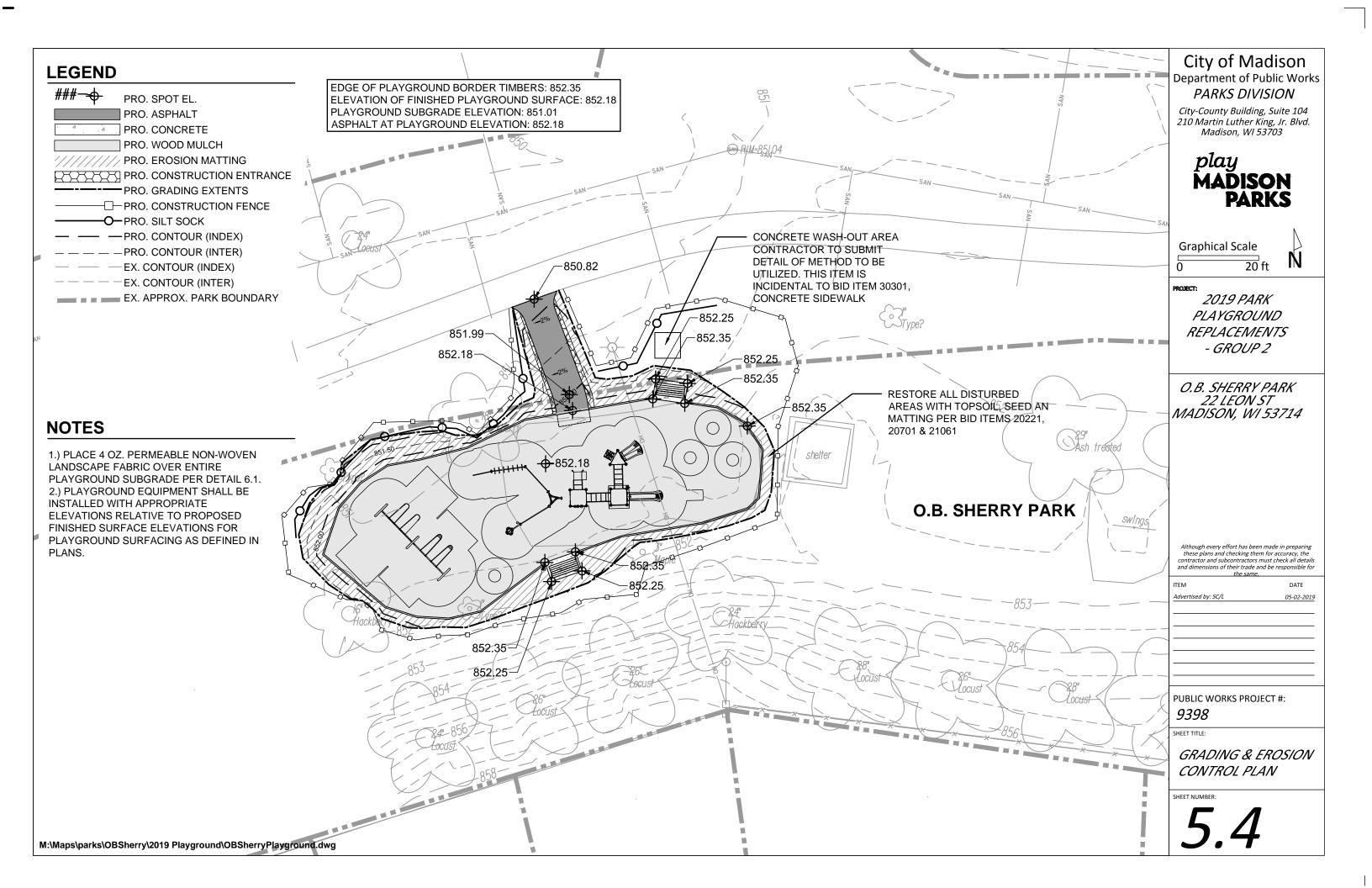
SHEET TITLE:

DESIGN COMPUTATIONS









OB Sherry

City of Madison Public Works Contract
Date Revised: 4/11/2019

Notes

Positive volumes are cuts, negative volumes are fills.

Not all parts of all surface models (Digital Terrain Models) are used for computations or intended for actual construction.

Sort	Grp	Material	Item	From Surface Model	To Surface Model	area (sq ft)	depth (ft)	Unfac- tored volume (cu ft)	Unfac- tored volume (cu yd)	Expan- sion Factor (%)	Factored (Uncom- pacted) Volume (cu yd)
1.1	Grass to Asphalt	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	309	0.50	155	5.7	0%	5.7
	Grass to	Topaon Excavate	Cut subsoil to proposed	III C	TITES	505	0.00	100	3.,	V /0	9.,
1.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	309	varies	22	0.8	0%	8.0
	Grass to		Fill subsoil to proposed								
1,3	Asphalt	Subsoil Place	subgrade	Ex-6in	Pro-12in	309	varies	-41	-1,5	0%	-1.5
	_		Place 9in depth gravel base								
1.4	Grass to	Gravel Place	out to 6in from pavement			309	-0.75		-8.6	0%	
1.4	Asphalt Grass to	Gravei Place	edge Place 3in asphalt (includes	n/a	n/a	309	-0.75	-232	-8.6	0%	-8.6
1.5		Asphalt Place	ramp into playground)	n/a	n/a	264	-0.25	-66	-2.4	0%	-2.4
	Grass to		Place 3in topsoil on 6in wide		1						
1.6	Asphalt	Topsoil Place	gravel edge	n/a	п/а	45	-0.25	-11	-0.4	0%	-0.4
	Grass to										
2.1	Grass	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	1091	0.50	545.55	20.2	0%	20.2
2.2	Grass to Grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-6in	Pro-6in	1091	varies	19.95	0.7	0%	0.7
2.2	Grass to	Subsoil Excavate	Fill subsoil to proposed	EX-OIII	F10-0111	1091	valles	19.93	0.7	0.76	0.7
2.3		Subsoil Place	subgrade	Ex-6in	Pro-6in	1091	varies	-230.89	-8.6	0%	-8.6
	Grass to		_								
2.4		Topsoil Place	Place 6in topsoil	n/a	n/a	1091	-0.50	-545.50	-20.2	0%	-20.2
	Grass to Play	L									
3.1	Surface Grass to Play	Topsoil Excavate	Strip 6in topsoil Cut subsoil to proposed	n/a	n/a	1718	0.50	859	31.8	0%	31.8
3.2	,	Subsoil Excavate	subgrade	Ex-6in	Pro-12in	1718	varies	441.73	16.4	0%	16.4
0.2	Grass to Play	Daboon Excavato	Fill subsoil to proposed	LX VIII	110 1201	1770	vanco	441.70	10.4	0,0	10.4
3.3	Surface	Subsoil Place	subgrade	Ex-6in	Pro-12in	1718	varies	-29	-1,1	0%	-1.1
	Grass to Play										
3.4		Play Surface Place	Place 12in of play surface	n/a	n/a	1718	-1.00	-1718	-63.6	0%	-63.6
4.1	Grass to Concrete	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	80	0.50	40	1.5	0%	1.5
4.1	Grass to	Topson Excavate	Cut subsoil to proposed	пиа	11/4	00	0.50	1 40	1.5	076	1.3
4.2		Subsoil Excavate	subgrade	Ex-6in	Pro-7in	80	varies	٥	0.0	0%	0.0
	Grass to		Fill subsoil to proposed								
4.3		Subsoil Place	subgrade	Ex-6in	Pro-7in	80	varies	-45	-1.7	0%	-1.7
١.,	Grass to	Samuel Blance	D				5.45				
4.4	Concrete Grass to	Gravel Place	Place 2" aggregate base	n/a	n/a	80	-0.16	-13	-0.5	0%	-0.5
4.4	Concrete	Concrete Place	Place 5" concrete	n/a	n/a	80	-0.42	-33	-1.2	0%	-1.2
	Grass to						0.50				
5.1	Timbers	Topsoil Excavate	Strip 6in topsoil	n/a	n/a	7	0.50	4	0.1	0%	0.1
	Grass to		Cut subsoil to proposed				varies	_			
5.2		Subsoil Excavate	subgrade	Ex-6in	Pro-12in	7		0	0.0	0%	0.0
5.3	Grass to Timbers	Subsoil Place	Fill subsoil to proposed subgrade	Ex-6in	Pro-12in	7	varies	-3.10	-0.1	0%	-0.1
7.5	TITIOCIO	Subsui Flace	Border Timbers (placeholder	L,X-0111	1-10-12,111	<u>'</u>		-9.10	-0.1	Ų /II	-0.1
	Grass to	Border Timbers Place	volume to balance volume				-1.00				
5.4		(placeholder volume)	comps)	n/a	n/a	7		-7	~0.3	0%	-0.3
	Play surface										
6.1	to grass	Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	0	1,42	0	0,0	0%	0.0
6.2	Play surface to grass	Subsoil Excavate	Cut subsoil to proposed subgrade	Ex-17in	Pro-6in	0	variės	٥	0.0	0%	0.0
0.2	Play surface	Gubson Excavate	Fill subsoil to proposed	CX-17III	F 10-0III	U	valles	- ·	0.0	0%	0.0
6.3	,	Subsoil Place	subgrade	Ex-17in	Pro-6in	0	varies	ه ا	0.0	0%	0.0
	Play surface		1 2								
6.4	to grass	Topsoil Place	Place 6in topsoil	n/a	n/a	0	-0.50	0	0.0	0%	0.0

	Play surface										
	to play										
7.1	surface	Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	1752	1.42	2488	92.1	0%	92.1
	Play surface										
	to play		Cut subsoil to proposed								
7.2	surface	Subsoil Excavate	subgrade	Ex-17in	Pro-12in	1752	varies	0	0.0	0%	0.0
	Play surface										
	to play		Fill subsoil to proposed								
7.3	surface	Subsoil Place	subgrade	Ex-17in	Pro-12in	1752	varies	-1904	-70.5	0%	-70.5
	Play surface										
	to play										
7.4		Play Surface Place	Place 12in of play surface	n/a	n/a	1752	-1.00	-1752	-64.9	0%	-64.9
	Play surface										
8.1		Pea Gravel Excavate	Remove 17" play surface	n/a	n/a	2	1.42	2	0.1	0%	0.1
	Play surface		Cut subsoil to proposed								
8.2		Subsoil Excavate	subgrade	Ex-17in	Pro-12in	2	varies	0	0.0	0%	0.0
	Play surface		Fill subsoil to proposed								
8.3		Subsoil Place	subgrade	Ex-17in	Pro-12in	2	varies	-2	-0.1	0%	-0.1
	Play surface	Border Timbers Place									
8.4	to timbers	(placeholder volume)	Place 12inches of timbers	n/a	n/a	2	-1.00	-2	-0.1	0%	-0.1
			Increase play surface by 1/2								
			of asphalt ramp gravel base								
			volume = 1/2 x (2.25 ft x 9 ft								
9.1	Adjust	Play Surface Place	x 7 in)	n/a	n/a	20	-0.29	-6	-0.2	0%	-0.2
			Increase subsoil excavate by								
			1/2 of asphalt ramp gravel								
			base volume = 1/2 x (2.25 ft								
9.2	Adjust	Subsoil Excavate	x 9 ft x 7 in)	n/a	n/a	20	0.29	6	0.2	0%	0.2

OB Sherry - Earthwork Quantities

City of Madison Public Works Contract

Date Revised: 4/11/2019

Computation Summary

Positive volumes are cuts (material available), negative volumes are fills (material needed)

Row Labels	.1	Sum of Factored (Uncompacted) Volume (cu yd)
Asphalt Place		-2.4
Border Timbers Place (placeholder		•
volume)		-0.3
Play Surface Place		-128.7
Subsoil Excavate		17.7
Subsoil Place		-84.7
Topsoil Excavate		59.3
Topsoil Place		-20.6
Concrete Place		-1.2
Gravel Place		-9.1
Pea Gravel Excavate		92.2
Grand Total		-77.8

Reorganized into bid table items

Bid Item	Quantity	Units	Relation to Table Above
			= Subsoil Excavate + Topsoil
20101 Excavation Cut	77	CY	Excavate
20103 Excavation Cut - Pea Gravel	92	CY	= Pea Gravel Excavate
20201 Fill	67	CY	= Subsoil Excavate + Subsoil Place
20221 Topsoil	123	SY	= (Topsoil Place)/167
40102 Crushed Aggregate Base	•		= (Gravel Place) * -2 ton/cubic
Course Gradation No. 2	18	tons	yard
			= Asphalt Place * -2.16 ton/cubic
40201 HMA Pavement 3 LT 52-28 S	5.3	tons	yard
90003 Playground Surfacing - Wood			
Mulch	142	CY	= Play Surface Place * -1.10

City of Madison Department of Public Works PARKS DIVISION

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

play MADISON PARKS

PROJEC

2019 PARK PLAYGROUND REPLACEMENTS - GROUP 2

O.B. SHERRY PARK 22 LEON ST MADISON, WI 53714

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for

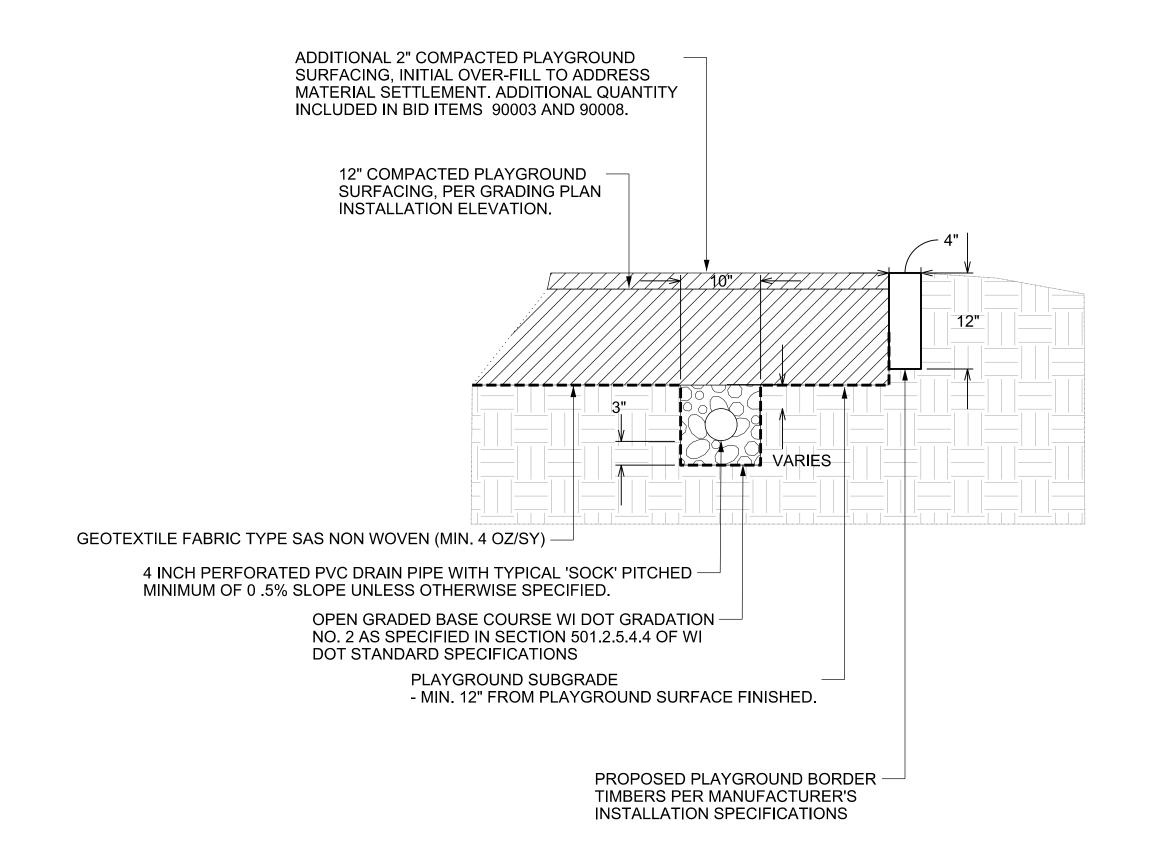
ITEM	DATE
Advertised by: SC/L	05-02-2019
	-

PUBLIC WORKS PROJECT #: 9398

SHEET TITLE:

DESIGN COMPUTATIONS

SHEET NUME



City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

> play MADISON PARKS

PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

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ITEM	DATE
Advertised by: MS	05-02-2019

PUBLIC WORKS PROJECT #: 9398

| 333

SHEET T

TYPICAL PLAYGROUND SURFACING WITH UNDERDRAIN

SHEET NUMBER:

PLAYGROUND BORDER EDGING PAVEMENT EDGE TO MATCH PROPOSED FINISHED GRADE — PLAYGROUND SURFACING -**VARIES** 9" GEOTEXTILE FABRIC TYPE SAS — - AGGREGATE BASE COURSE NO. 2 NON WOVEN (MIN. 4 OZ/SY) SLOPE ASPHALT AT 3:1 TO MEET PROPOSED SUBGRADES, **UNLESS OTHERWISE SPECIFIED** ON PLANS

City of Madison Department of Public Works PARKS DIVISION

City-County Building, Suite 104 210 Martin Luther King, Jr. Blvd. Madison, WI 53703

play
MADISON
PARKS

PROJECT:

2019 PARK PLAYGROUND REPLACEMENTS-GROUP 2

Although every effort has been made in preparing these plans and checking them for accuracy, the contractor and subcontractors must check all details and dimensions of their trade and be responsible for the same.

ITEM DATE

Advertised by: MS 05-02-2019

PUBLIC WORKS PROJECT #:

9398

SHEET T

PAVEMENT EDGE AT PLAYGROUND

SHEET NUMB