

Cambridge Skating and Tennis Club

Cambridge, MA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
P1	35'	35'	3	TLC-LED-400	1.20 kW	A
P2	25'	25'	3	TLC-LED-400	1.20 kW	A
P3-P4	35'	35'	1	TLC-LED-400	0.40 kW	A
		35'	1	TLC-LED-600	0.58 kW	A
P5-P6	35'	35'	2	TLC-LED-600	1.16 kW	A
6			14		6.68 kW	

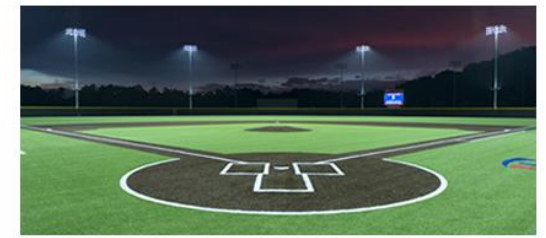
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Skating/Tennis	6.68 kW	14

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-600	LED 4000K - 70 CRI	580W	65,600	>120,000	>120,000	>120,000	6
TLC-LED-400	LED 4000K - 70 CRI	400W	46,500	>120,000	>120,000	>120,000	8

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
10' North Spill Line	Horizontal	0.22	0	1.12	7448.64		A	14
10' North Spill Line	Max Vertical Illuminance Metric	0.66	0	3.13	1774.01		A	14
10' West Spill Line	Horizontal Illuminance	0	0	0	0.00		A	14
10' West Spill Line	Max Candela (by Fixture)	15.5	0	36	0.00		A	14
10' West Spill Line	Max Vertical Illuminance Metric	0	0	0	0.00		A	14
Skating	Horizontal	22.2	1	65	127.83	22.19	A	14
Tennis 1-3	Horizontal Illuminance	16.6	7	53	7.63	2.37	A	14
Tennis 4-5	Horizontal Illuminance	33.6	26	41	1.58	1.29	A	14

From Hometown to Professional



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EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	P1	35'	3'	38'	TLC-LED-400	3	3	0	
1	P2	25'	2'	27'	TLC-LED-400	3	3	0	
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0	
				36'	TLC-LED-400	1	1	0	
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0	
6	TOTALS						14	14	0

Cambridge Skating and Tennis Club
Cambridge, MA

GRID SUMMARY

Name: **Tennis 1-3**
 Size: 3 Court - 10' Spacing
 Spacing: 20.0' x 20.0'
 Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	16.59
Maximum:	53
Minimum:	7
Avg / Min:	2.41
Max / Min:	7.63
UG (adjacent pts):	0.00
CU:	0.38
No. of Points:	45

LUMINAIRE INFORMATION

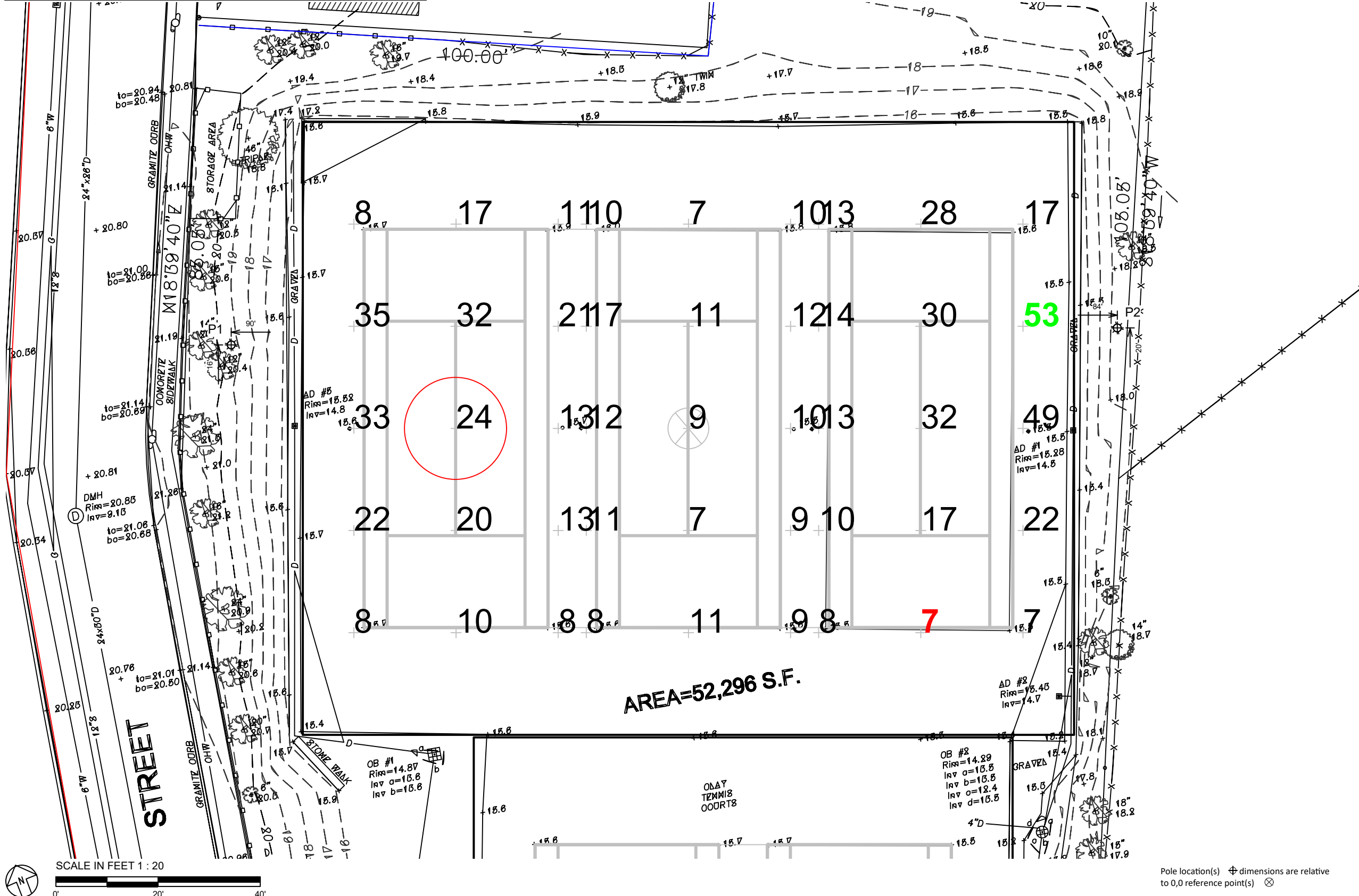
Applied Circuits: A
 No. of Luminaires: **14**
 Total Load: 6.68 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	P1	35'	3'	38'	TLC-LED-400	3	3	0	
1	P2	25'	2'	27'	TLC-LED-400	3	3	0	
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0	
				36'	TLC-LED-400	1	1	0	
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0	
6	TOTALS						14	14	0

Cambridge Skating and Tennis Club
Cambridge, MA

GRID SUMMARY	
Name:	Tennis 4-5
Size:	2 Court - 10' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

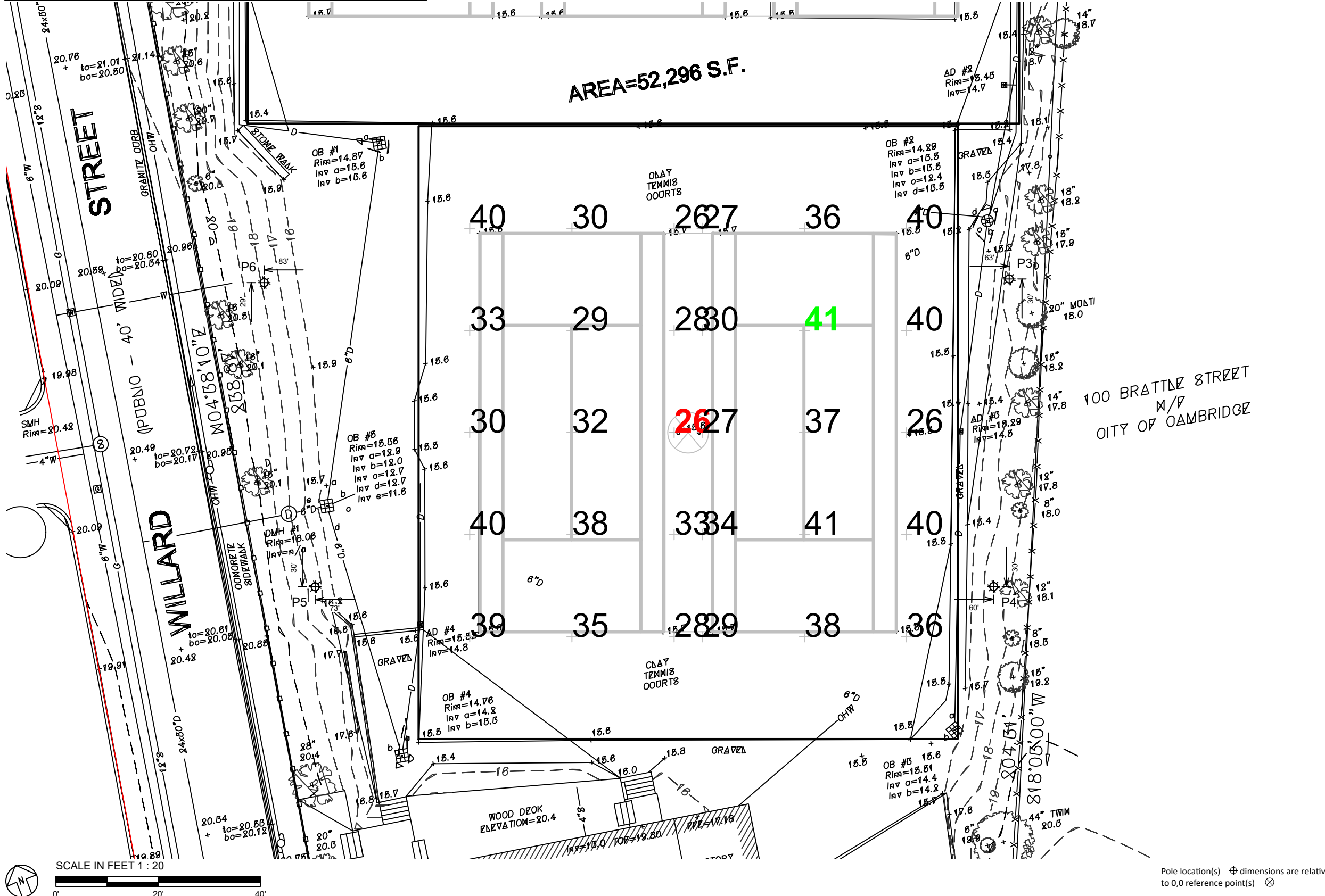
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	33.56
Maximum:	41
Minimum:	26
Avg / Min:	1.30
Max / Min:	1.58
UG (adjacent pts):	0.00
CU:	0.51
No. of Points:	30
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

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100 BRATTLE STREET
M/F
CITY OF CAMBRIDGE



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1	P1	35'	3'	38'	TLC-LED-400	3	3	0
1	P2	25'	2'	27'	TLC-LED-400	3	3	0
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0
				36'	TLC-LED-400	1	1	0
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0
6	TOTALS					14	14	0

Cambridge Skating and Tennis Club Cambridge, MA

GRID SUMMARY	
Name:	Skating
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

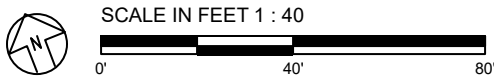
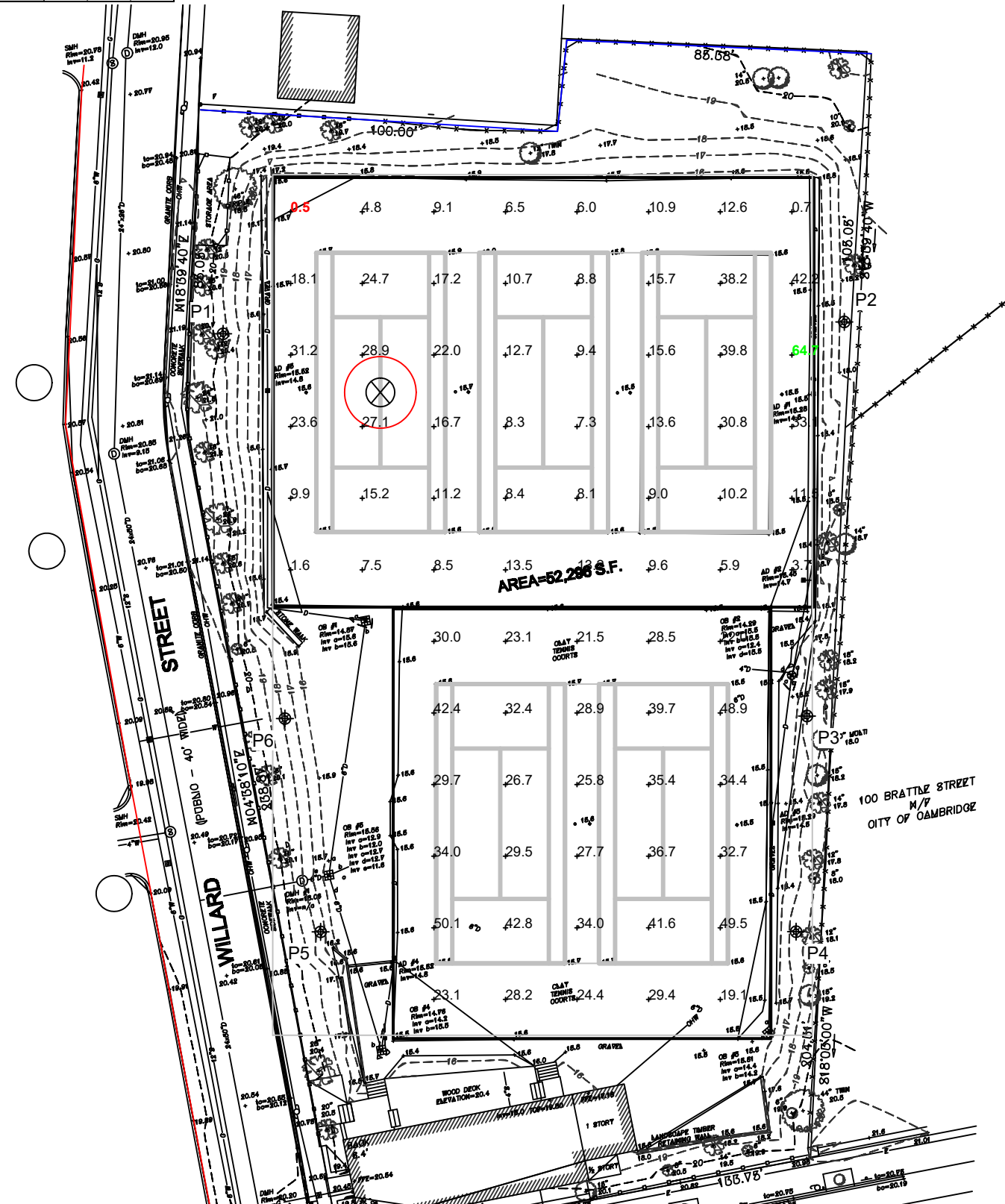
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	22.19
Maximum:	65
Minimum:	1
Avg / Min:	43.84
Max / Min:	127.83
UG (adjacent pts):	60.17
CU:	0.88
No. of Points:	78
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

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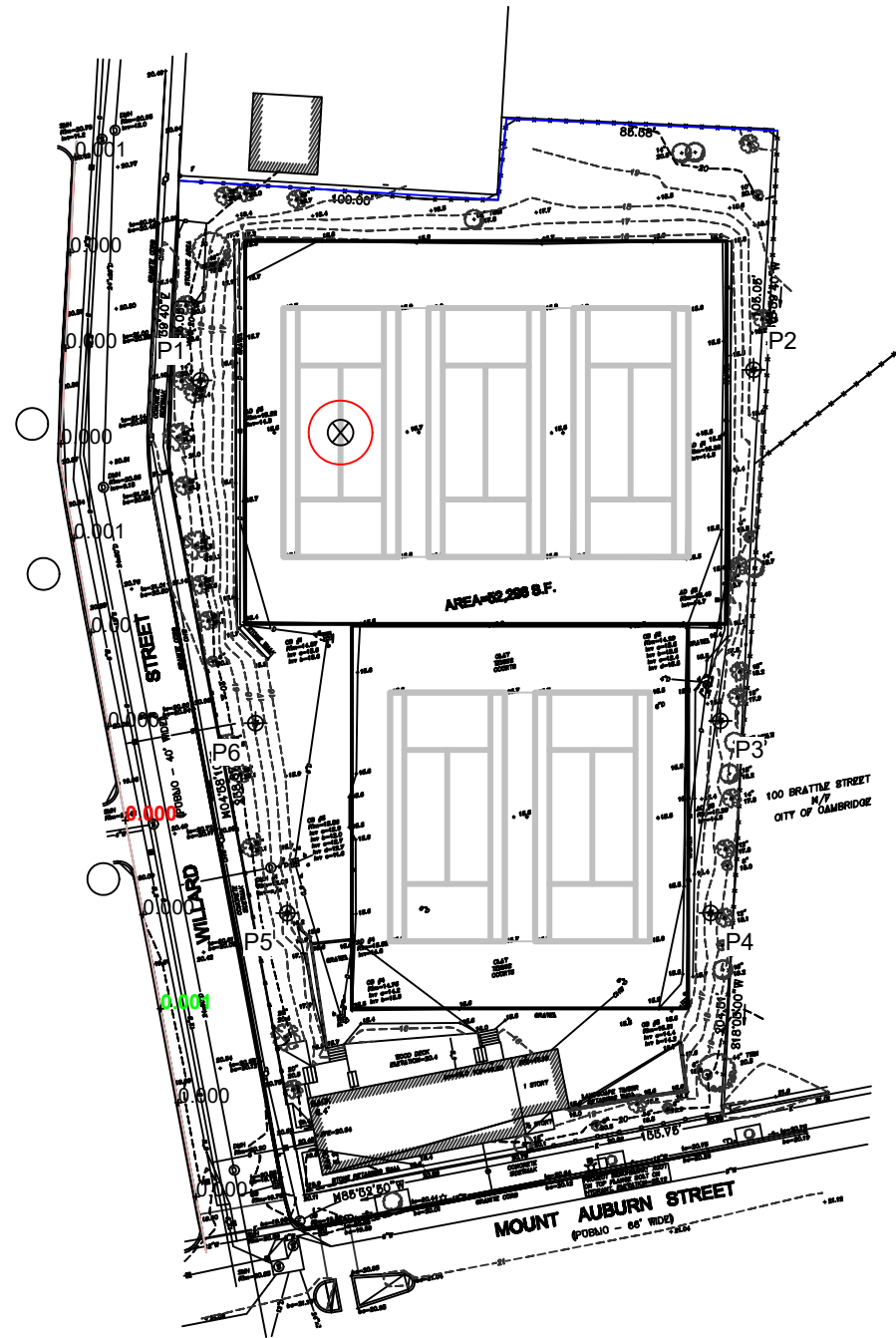
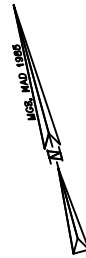


Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	P1	35'	3'	38'	TLC-LED-400	3	3	0
1	P2	25'	2'	27'	TLC-LED-400	3	3	0
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0
				36'	TLC-LED-400	1	1	0
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0
6	TOTALS					14	14	0



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GRID SUMMARY	
Name:	10' West Spill Line
Spacing:	30.0'
Height:	10.0' above grade

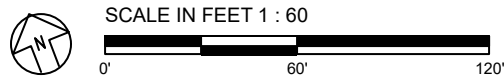
ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0004
Maximum:	0.00
Minimum:	0.00
No. of Points:	12
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



ENGINEERED DESIGN By: Tanner Lanphier · File #141387D · 11-Dec-20

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \otimes



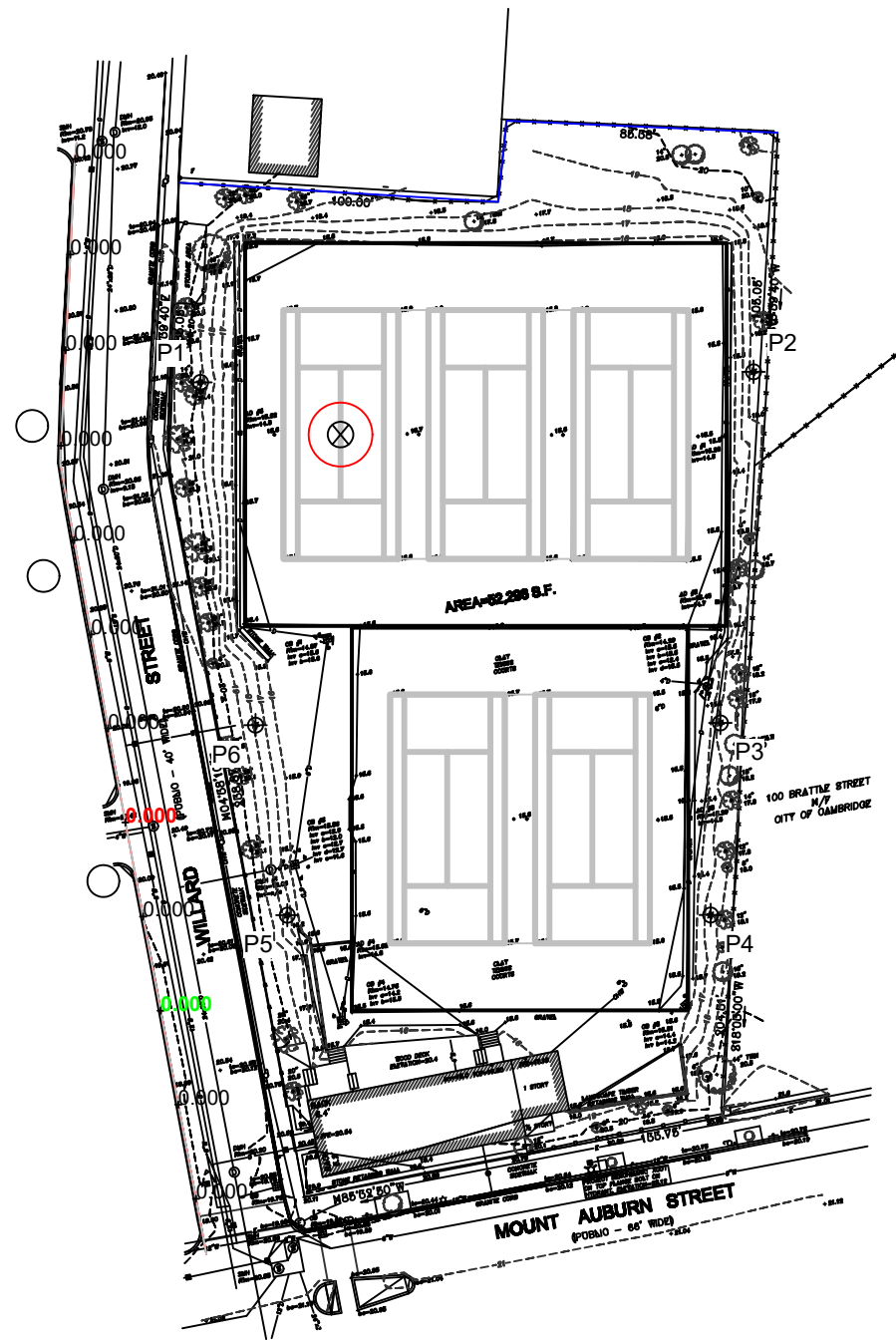
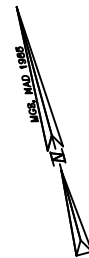
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1	P2	25'	2'	27'	TLC-LED-400	3	3	0
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0
				36'	TLC-LED-400	1	1	0
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0
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Name:	10' West Spill Line
Spacing:	30.0'
Height:	10.0' above grade

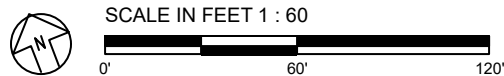
ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0000
Maximum:	0.00
Minimum:	0.00
No. of Points:	12
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

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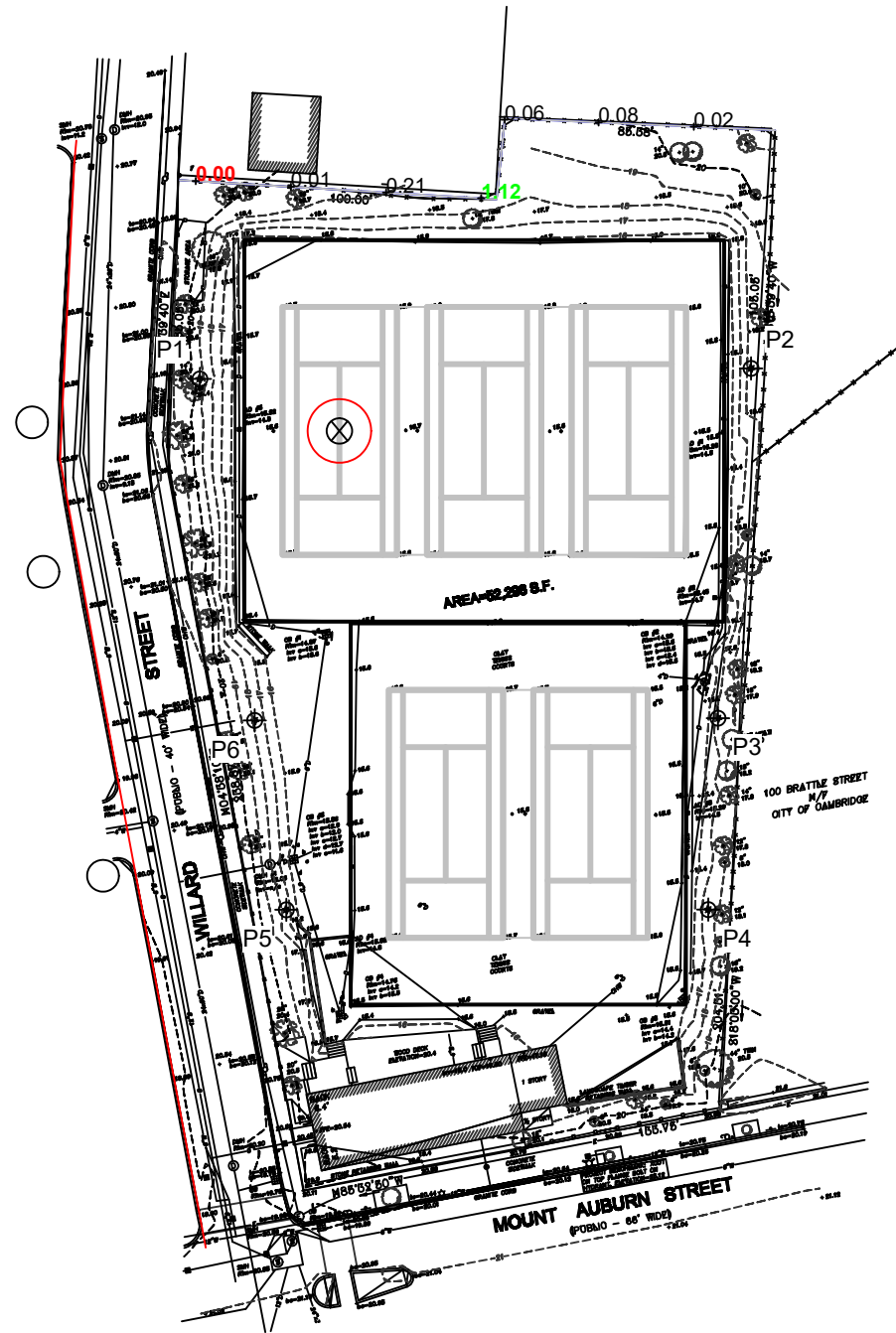
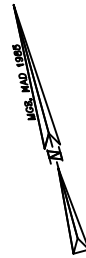


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1	P2	25'	2'	27'	TLC-LED-400	3	3	0
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0
				36'	TLC-LED-400	1	1	0
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0
6	TOTALS					14	14	0



Cambridge Skating and Tennis Club

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GRID SUMMARY	
Name:	10' North Spill Line
Spacing:	30.0'
Height:	10.0' above grade

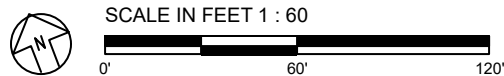
ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	0.2162
Maximum:	1.12
Minimum:	0.00
No. of Points:	7
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

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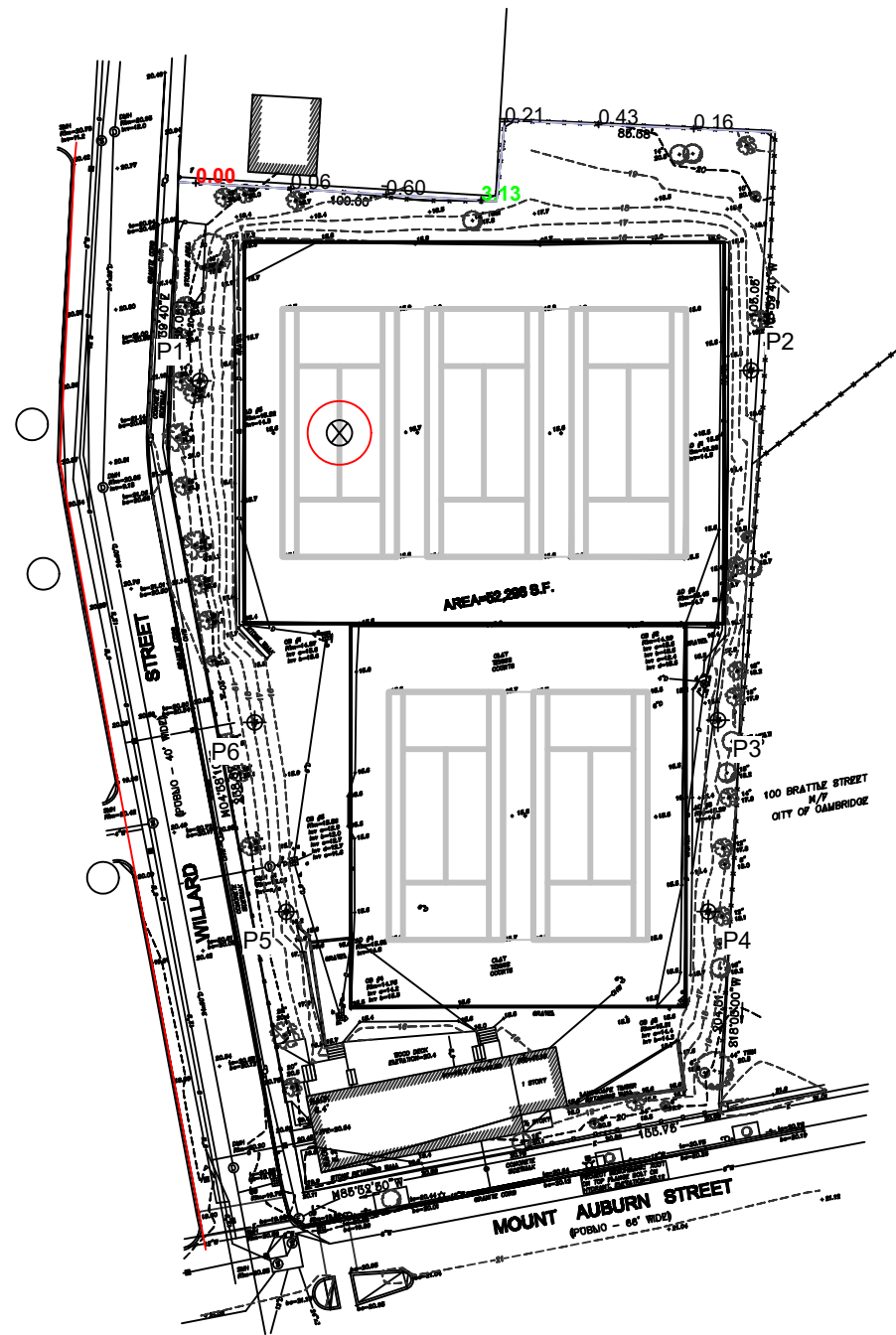
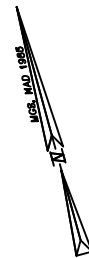
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QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
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1	P2	25'	2'	27'	TLC-LED-400	3	3	0
2	P3-P4	35'	1'	36'	TLC-LED-600	1	1	0
				36'	TLC-LED-400	1	1	0
2	P5-P6	35'	2'	37'	TLC-LED-600	2	2	0
6	TOTALS					14	14	0



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Spacing:	30.0'
Height:	10.0' above grade

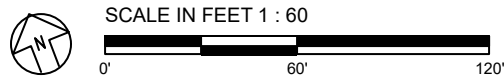
ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.6566
Maximum:	3.13
Minimum:	0.00
No. of Points:	7
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	14
Total Load:	6.68 kW

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ILLUMINATION SUMMARY

Cambridge Skating and Tennis Club

Cambridge, MA

EQUIPMENT LAYOUT

INCLUDES:

- Tennis 1-3
- Tennis 4-5

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

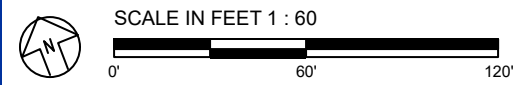
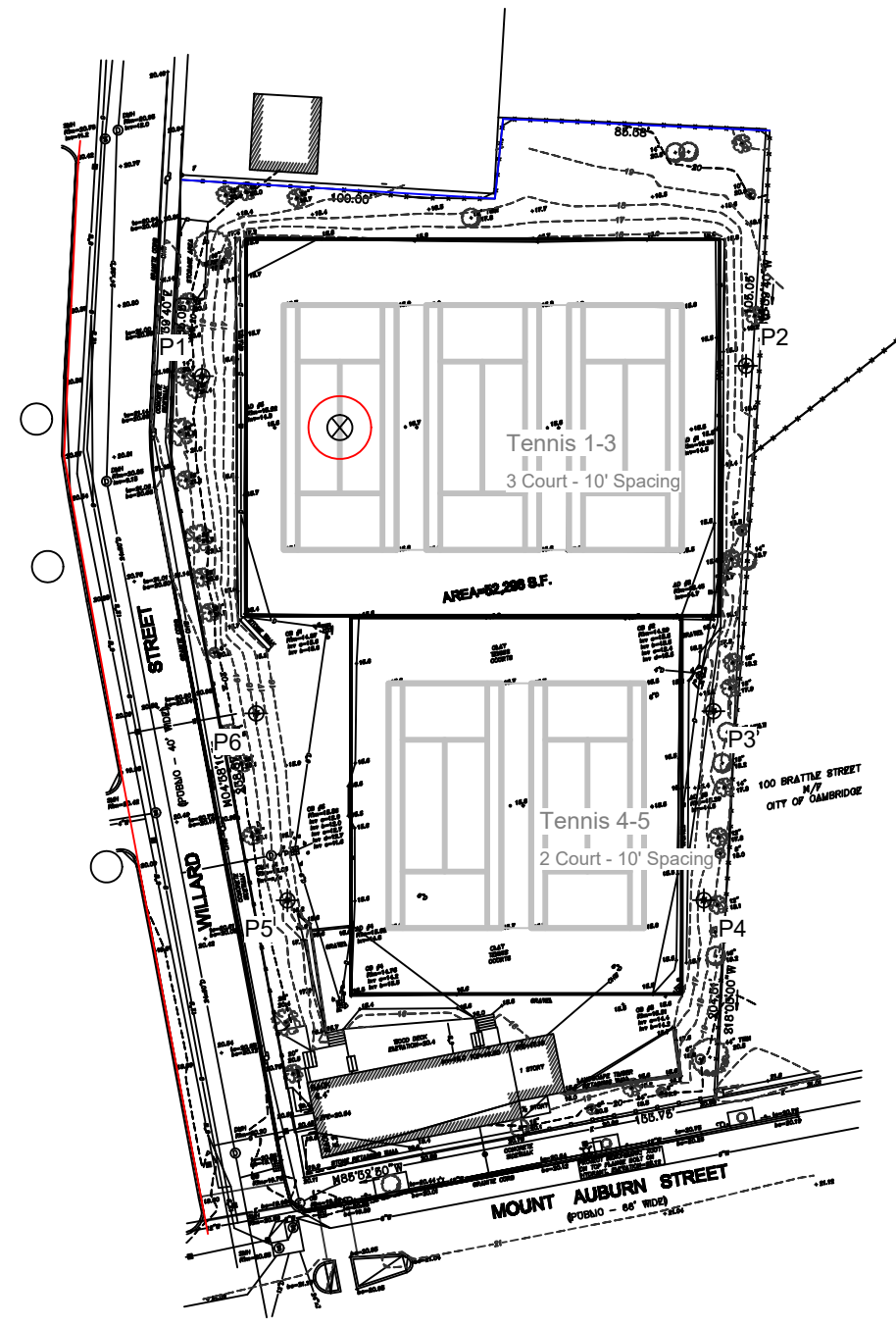
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EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	P1	35'	3'	38'	TLC-LED-400	3
1	P2	25'	2'	27'	TLC-LED-400	3
2	P3-P4	35'	1'	36'	TLC-LED-600	1
				36'	TLC-LED-400	1
2	P5-P6	35'	2'	37'	TLC-LED-600	2
TOTALS						14

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage						
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.5
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.0



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