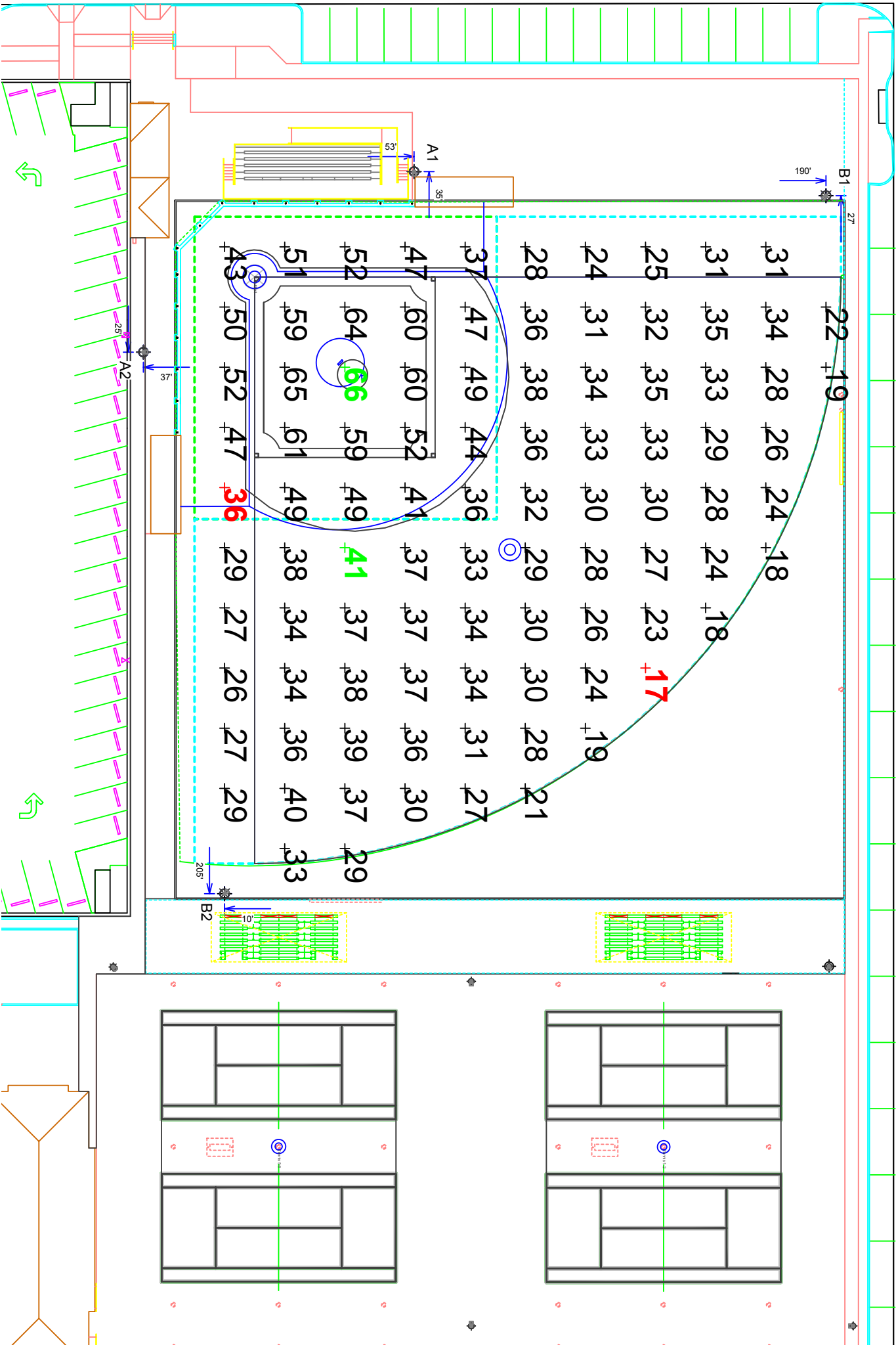


EQUIPMENT LIST FOR AREAS SHOWN									
QTY	Pole			Luminaires			THIS GRID	OTHER GRIDS	
	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE		GRID	GRIDS
2	A1-A2	60"	-	60'	1500W MZ	3	3	0	0
2	B1-B2	70"	-	70'	1500W MZ	5	5	0	0
4	TOTALS						16	16	0

North Side of Sidewalk

DRUID LANE



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Softball
Size: 195'/195' - basepath 60'
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		HORIZONTAL FOOTCANDLES	
	Infield	Outfield	
Guaranteed Average:	50	30	
Scan Average:	51.1	30.3	
Maximum:	66	41	
Minimum:	36	17	
Avg. / Min:	1.41	1.76	
Guaranteed Max / Min:	2	2.5	
Max / Min:	1.82	2.41	
UG (adjacent pts):	1.36	1.55	
CV:	0.18	0.19	
No. of Points:	25	69	
LUMINAIRE INFORMATION			
Luminaire Type:	Green Generation		
Rated Lamp Life:	5,000 hours		
Avg Lumens / Lamp:	134,000		
Avg Lamp Tilt Factor:	1,000		
No. of Luminaires:	16		
Avg KW:	25.02 (27.2 max)		

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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

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

ENGINEERED DESIGN

By: Zach Strong, LC
File # / Date: 139369R9

04-Jun-13

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ILLUMINATION SUMMARY



EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T1	50'	-	50'	1500W MZ	2/3*	2	3	
1	T2	50'	-	50'	1500W MZ	4	2	2	
1	T5	60'	-	60'	1500W MZ	7/5*	3	9	
1	T6	60'	-	60'	1500W MZ	7	3	4	
4	TOTALS						28	10	18

* This structure utilizes a back-to-back mounting configuration

MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Court 2
Size: 2 Court - 18' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

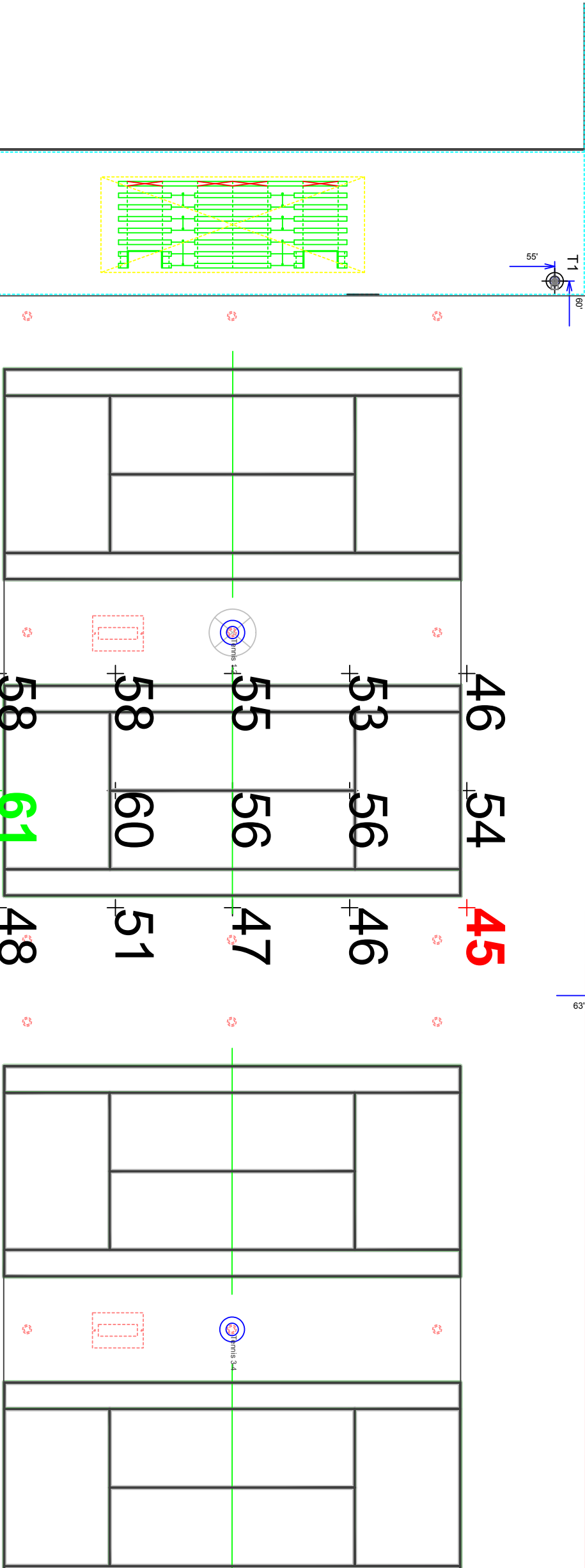
SUMMARY	HORIZONTAL FOOTCANDLES
Guaranteed Average:	Entire Grid
Scan Average:	50
Maximum:	52.8
Minimum:	61
Avg. / Min:	45
1.17	
Guaranteed Max / Min:	2
Max / Min:	1.36
UG (adjacent pts):	1.27
CV:	0.10
No. of Points:	15
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1,000
No. of Luminaires:	10
Avg KW:	15.64 (17.0 max)

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.



ENGINEERED DESIGN

By: Zach Strong, LC
File # / Date: 139369R9 04-Jun-13

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T1	50"	-	50'	1500W MZ	2/3*	2	2	3
1	T2	50"	-	50'	1500W MZ	4	2	2	
1	T5	60"	-	60'	1500W MZ	7/5*	3	9	
1	T6	60"	-	60'	1500W MZ	7	3	4	
4	TOTALS					28	10	18	

* This structure utilizes a back-to-back mounting configuration



MY PROJECT	
Name:	Highland Park ISD SB And TE
Location:	Dallas, TX

GRID SUMMARY	
Name:	Court 1
Size:	2 Court - 18' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

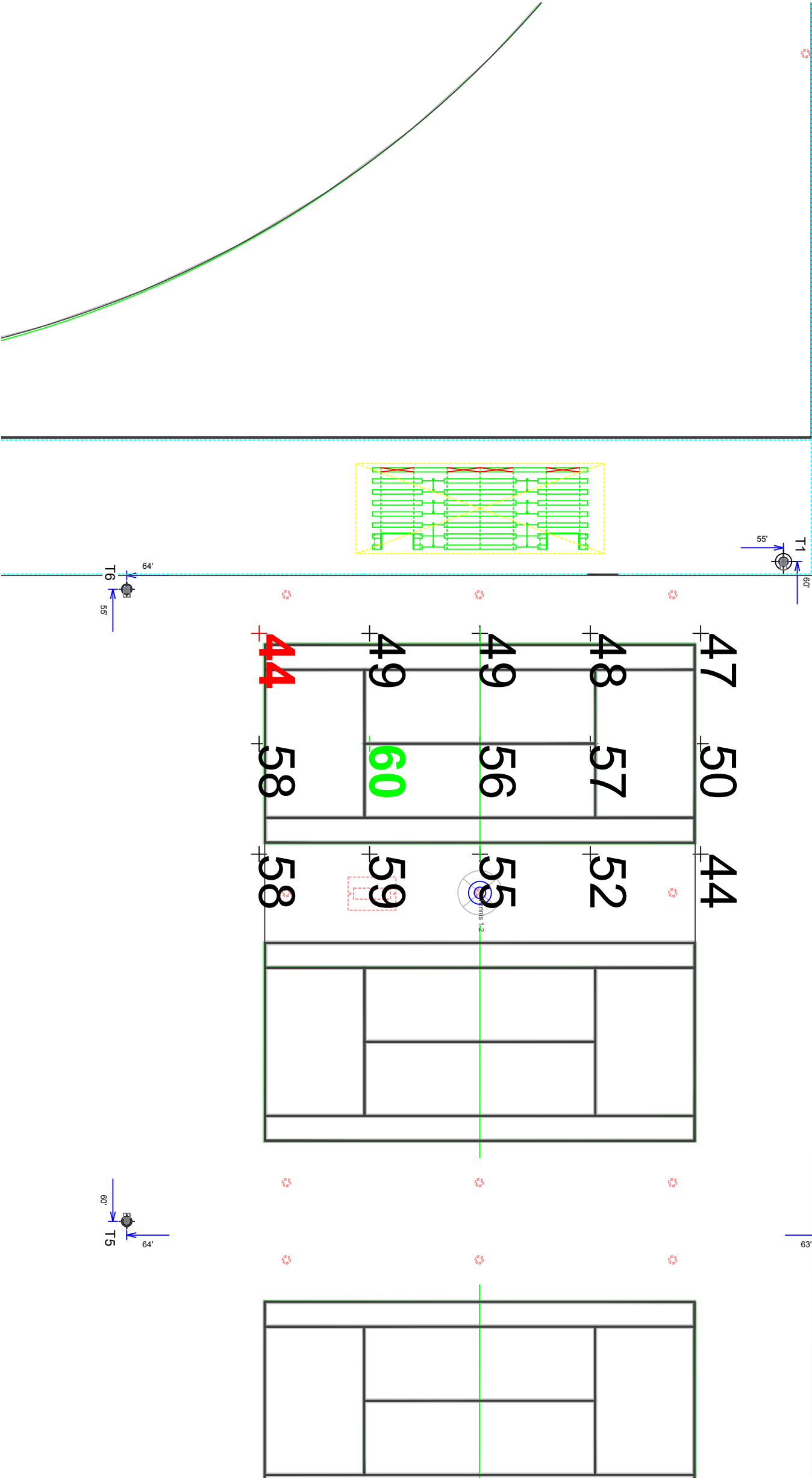
CONSTANT ILLUMINATION	
SUMMARY	HORIZONTAL FOOTCANDLES
Guaranteed Average:	Entire Grid 50
Scan Average:	52.4
Maximum:	60
Minimum:	44
Avg. / Min:	1.18
Guaranteed Max / Min:	2
Max / Min:	1.35
UG (adjacent pts):	1.30
CV:	0.10
No. of Points:	15
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	10
Avg KW:	15.64 (17.0 max)

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

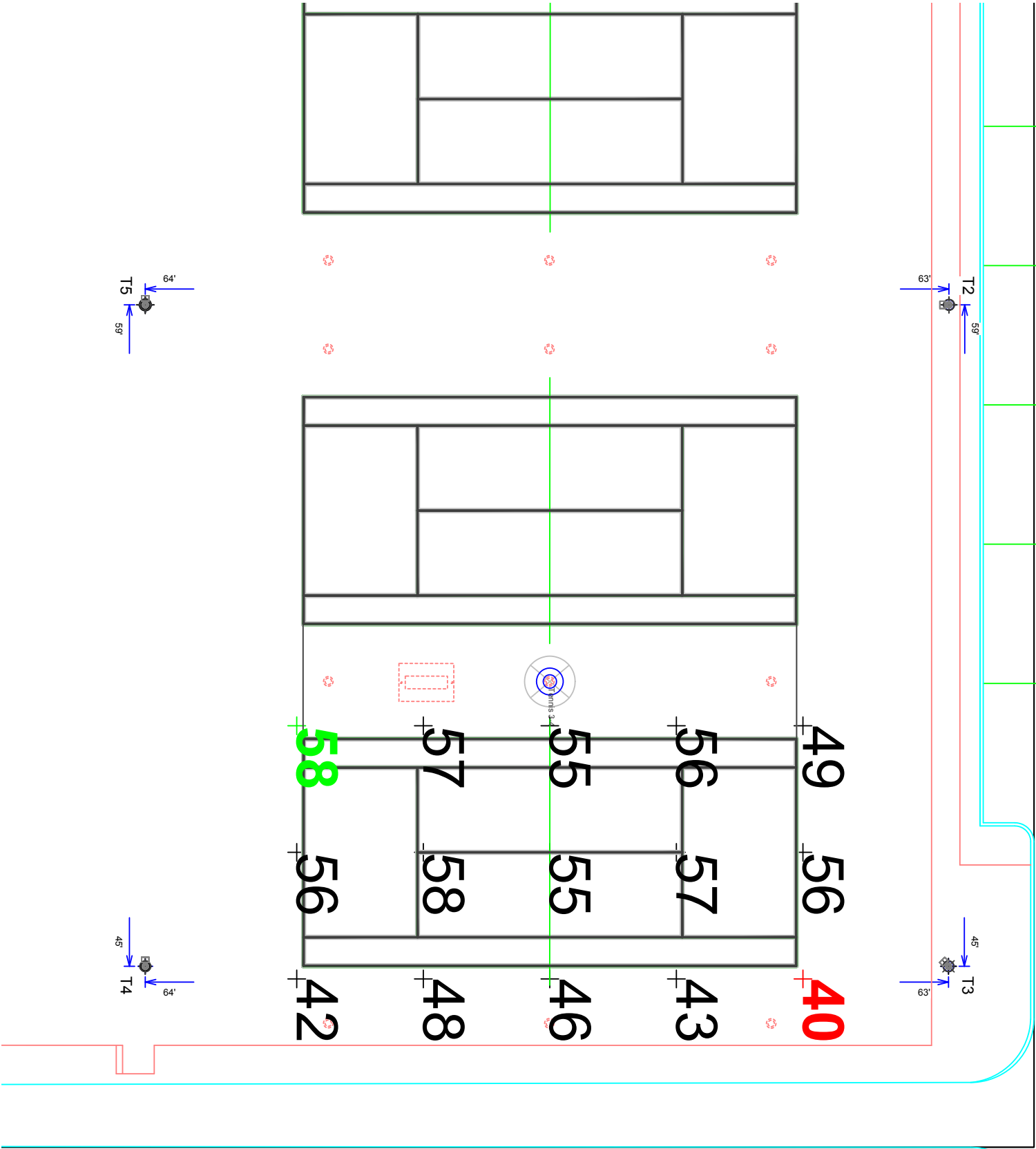
ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T2	50"	-	50'	1500W MZ	4	2	2	0
1	T3	50"	-	50'	1500W MZ	2	2	0	0
1	T4	60"	-	60'	1500W MZ	5	3	3	2
1	T5	60"	-	60'	1500W MZ	7/5*	3	3	9
4	TOTALS					23	10	13	

* This structure utilizes a back-to-back mounting configuration



MY PROJECT
Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY
Name: Court 4
Size: 2 Court - 18' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION		HORIZONTAL FOOTCANDLES	
SUMMARY			
Guaranteed Average:	Entire Grid	50	
	Scan Average:	51.8	
	Maximum:	58	
	Minimum:	40	
	Avg / Min:	1.29	
	Guaranteed Max / Min:	2	
	Max / Min:	1.45	
UG (adjacent pts):	1.39		
CV:	0.12		
No. of Points:	15		
LUMINAIRE INFORMATION			
Luminaire Type:	Green Generation		
Rated Lamp Life:	5,000 hours		
Avg Lumens / Lamp:	134,000		
Avg Lamp Tilt Factor:	1.000		
No. of Luminaires:	10		
Avg KW:	15.64 (17.0 max)		

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T2	50"	-	50'	1500W MZ	4	2	2	0
1	T3	50"	-	50'	1500W MZ	2	2	0	0
1	T4	60"	-	60'	1500W MZ	5	3	3	2
1	T5	60"	-	60'	1500W MZ	7/5*	3	3	9
4	TOTALS					23	10	13	

* This structure utilizes a back-to-back mounting configuration



MY PROJECT	
Name:	Highland Park ISD SB And TE
Location:	Dallas, TX

GRID SUMMARY	
Name:	Court 3
Size:	2 Court - 18' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

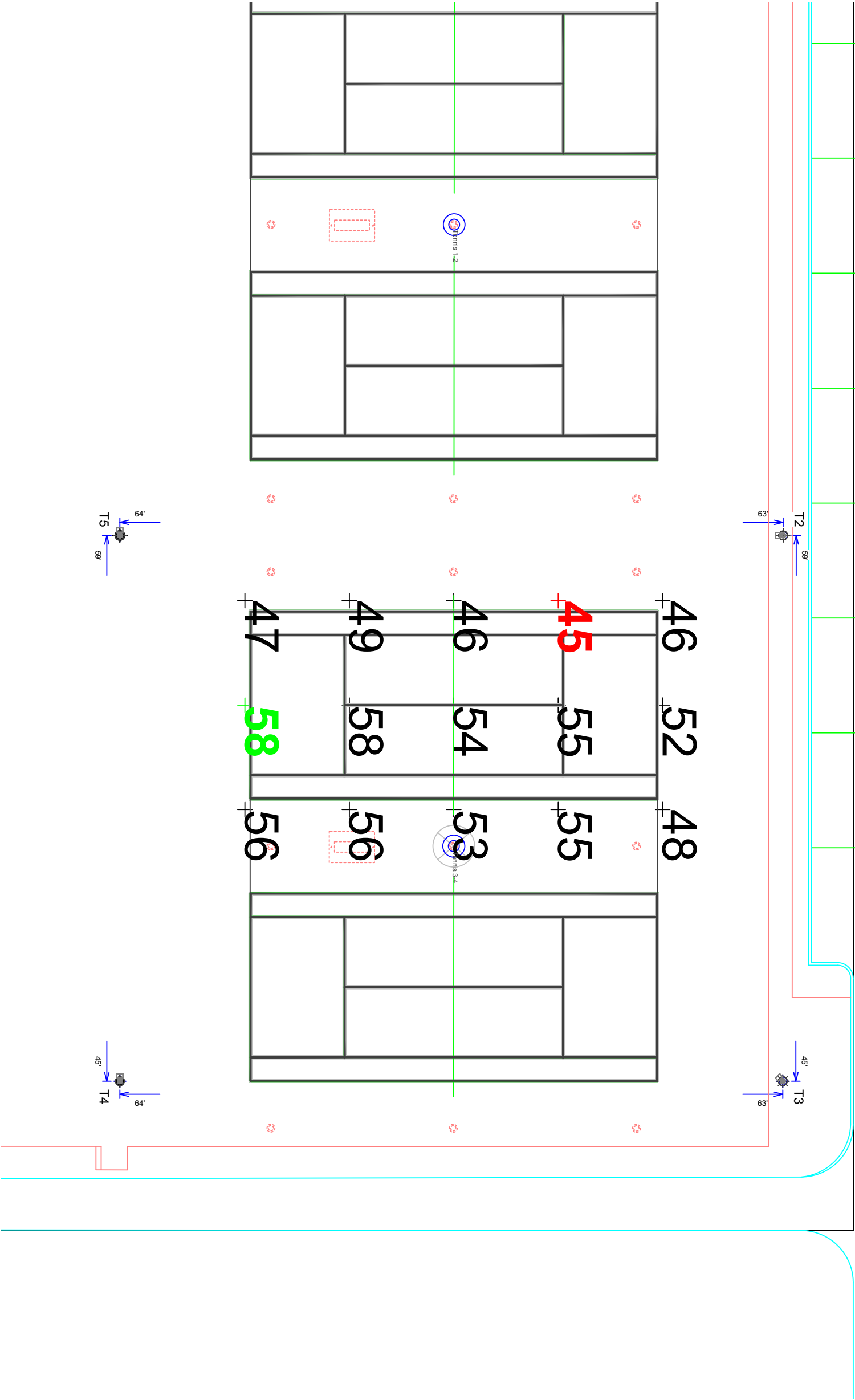
CONSTANT ILLUMINATION	
SUMMARY	HORIZONTAL FOOTCANDLES
Guaranteed Average:	Entire Grid 50
Scan Average:	51.8
Maximum:	58
Minimum:	45
Avg. / Min:	1.15
Guaranteed Max / Min:	2
Max / Min:	1.29
UG (adjacent pts):	1.23
CV:	0.09
No. of Points:	15
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	10
Avg KW:	15.64 (17.0 max)

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.



SCALE IN FEET 1 : 20



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T5	60"	-	60'	1500W MZ	7/5*	4	8	
2	T6, T8	60"	-	60'	1500W MZ	7	4	3	
1	T7	60"	-	60'	1500W MZ	-	4	0	
4	TOTALS						30	16	14

* This structure utilizes a back-to-back mounting configuration



MY PROJECT	
Name:	Highland Park ISD SB And TE
Location:	Dallas, TX

GRID SUMMARY	
Name:	Court 6
Size:	2 Court - 18' Spacing
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

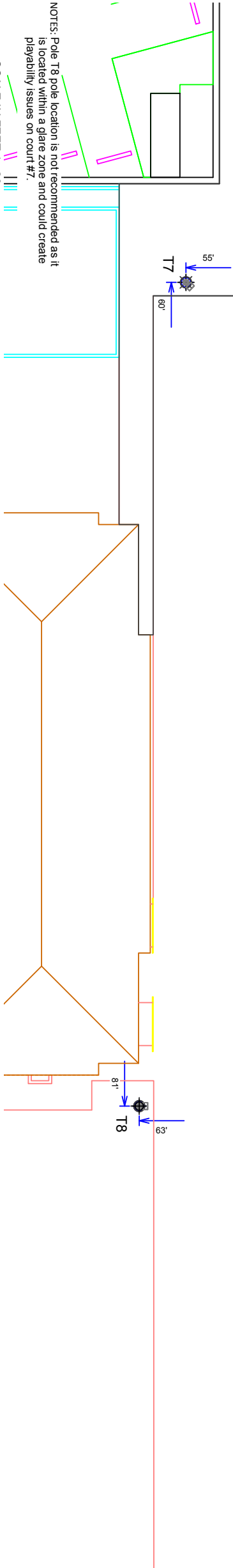
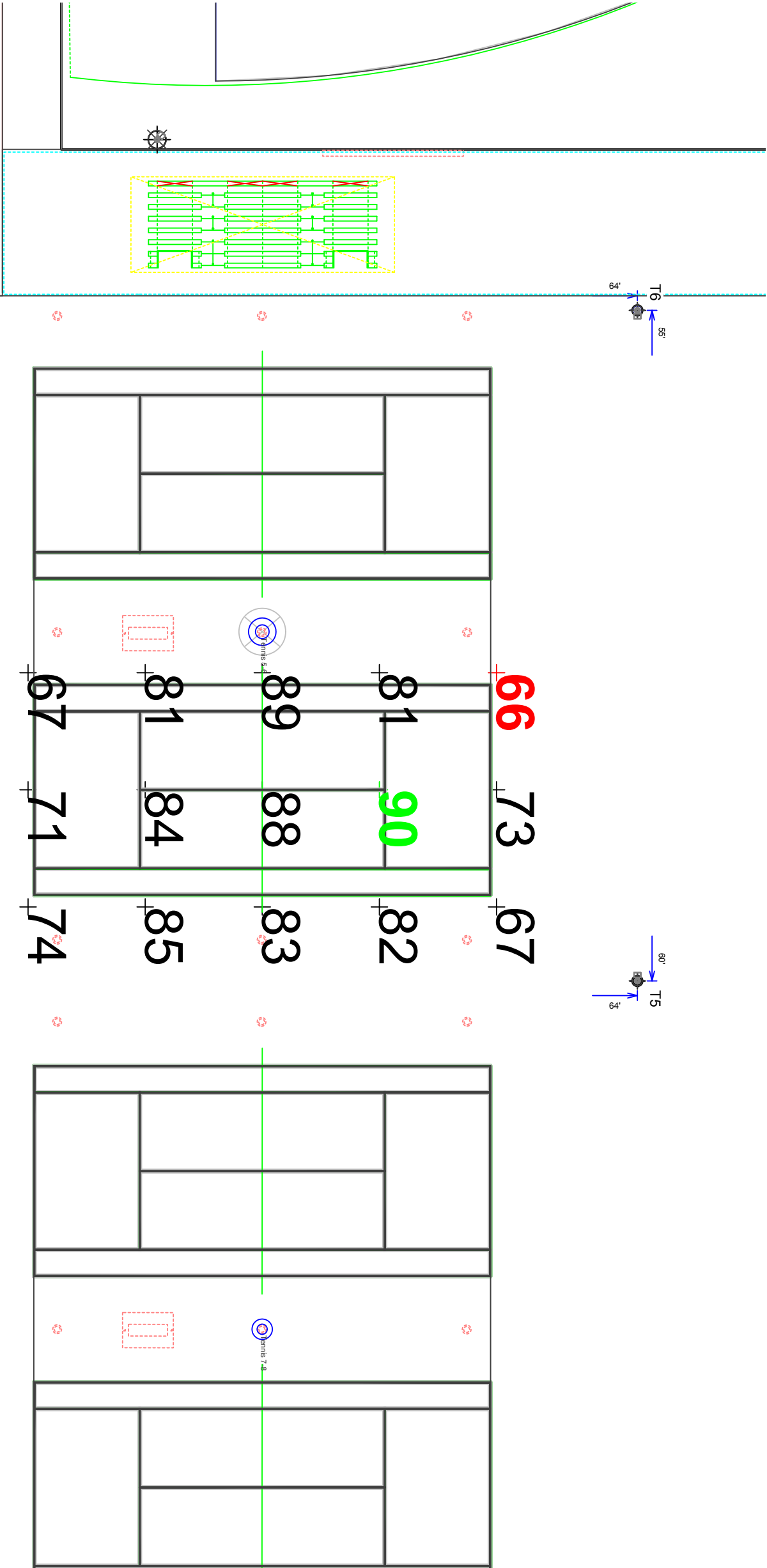
CONSTANT ILLUMINATION	
SUMMARY	HORIZONTAL FOOTCANDLES
Guaranteed Average:	Entire Grid
Scan Average:	75
Maximum:	78.7
Minimum:	90
Avg. / Min:	66
	1.19
Guaranteed Max / Min:	1.7
Max / Min:	1.35
UG (adjacent pts):	1.23
CV:	0.11
No. of Points:	15
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	16
Avg KW:	25.02 (27.2 max)

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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

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



NOTES: Pole T8 pole location is not recommended as it is located within a glare zone and could create playability issues on court #7.

SCALE IN FEET 1 : 20



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

ENGINEERED DESIGN	
By:	Zach Strong, LC
File # / Date:	139369R9
	04-Jun-13

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T5	60"	-	60'	1500W MZ	7/5*	4	8	
2	T6, T8	60"	-	60'	1500W MZ	7	4	3	
1	T7	60"	-	60'	1500W MZ	-	4	4	0
4	TOTALS						30	16	14

* This structure utilizes a back-to-back mounting configuration



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Court 5
Size: 2 Court - 18' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

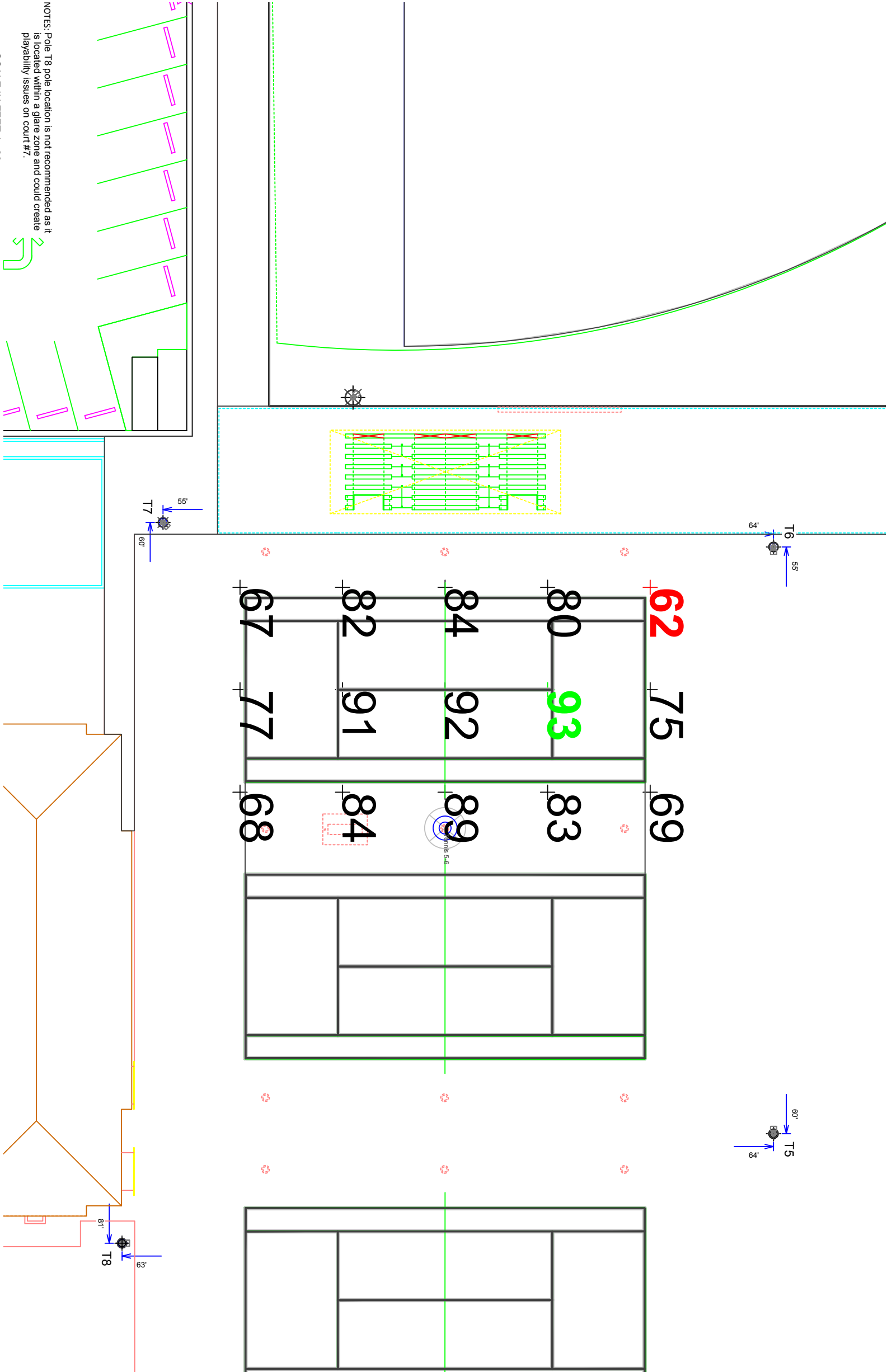
SUMMARY	Entire Grid	HORIZONTAL FOOTCANDLES
Guaranteed Average:	75	
Scan Average:	79.8	
Maximum:	93	
Minimum:	62	
Avg. / Min:	1.28	
Guaranteed Max / Min:	1.7	
Max / Min:	1.48	
UG (adjacent pts):	1.28	
CV:	0.12	
No. of Points:	15	
LUMINAIRE INFORMATION		
Luminaire Type:	Green Generation	
Rated Lamp Life:	5,000 hours	
Avg Lumens / Lamp:	134,000	
Avg Lamp Tilt Factor:	1.000	
No. of Luminaires:	16	
Avg KW:	25.02 (27.2 max)	

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.



NOTES: Pole T8 pole location is not recommended as it is located within a glare zone and could create playability issues on court #7.

SCALE IN FEET 1 : 20



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

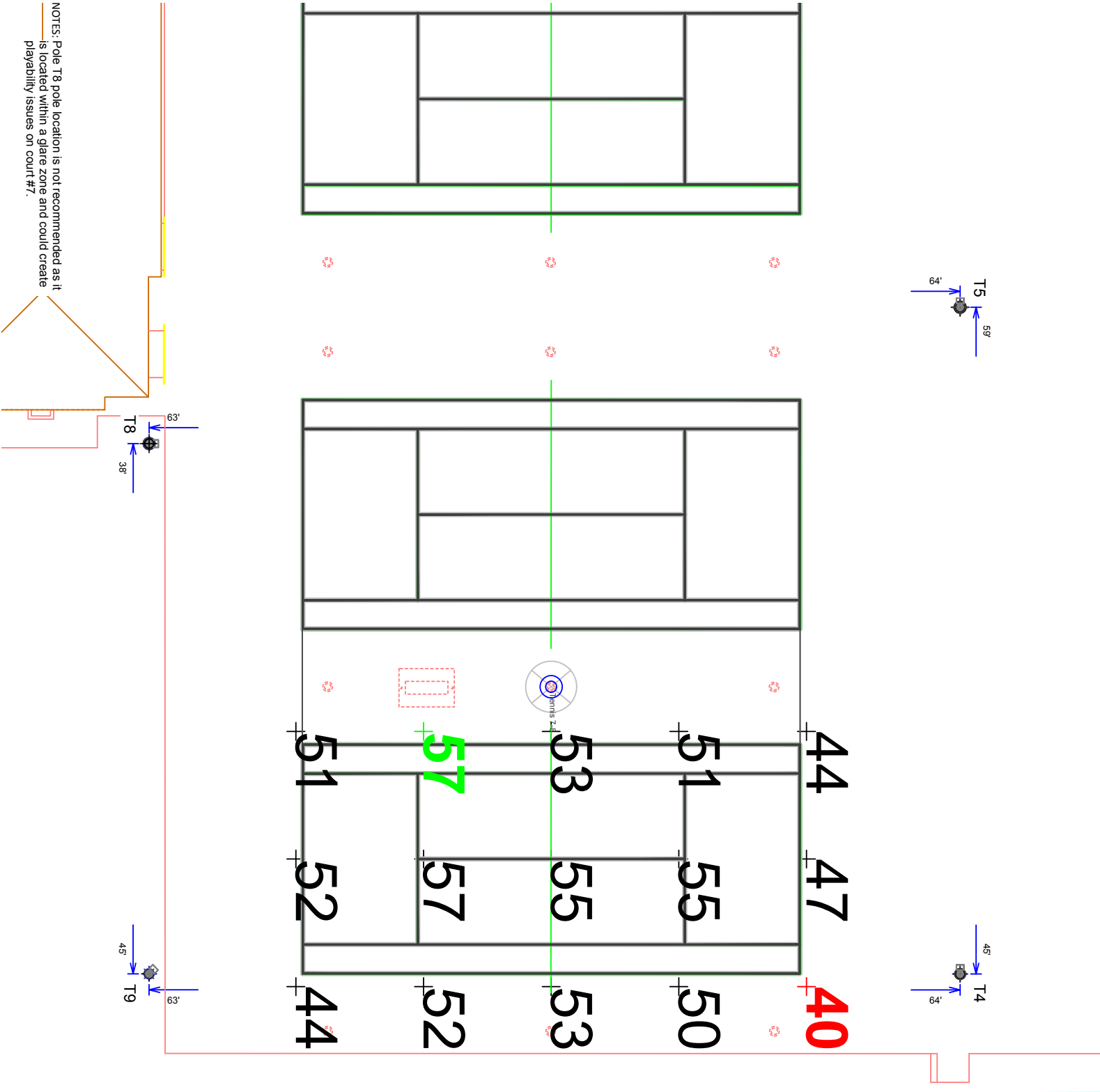
ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T4	60"	-	60'	1500W MZ	5	2	2	3
1	T5	60"	-	60'	1500W MZ	7/5*	2	10	
1	T8	60"	-	60'	1500W MZ	7	3	4	
1	T9	60"	-	60'	1500W MZ	3	3	0	
4	TOTALS					27	10	17	

* This structure utilizes a back-to-back mounting configuration



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Court 8
Size: 2 Court - 18' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY	HORIZONTAL FOOTCANDLES
Guaranteed Average:	Entire Grid
Scan Average:	50.7
Maximum:	57
Minimum:	40
Avg. / Min:	1.28
Guaranteed Max / Min:	2
Max / Min:	1.43
UG (adjacent pts):	1.26
CV:	0.10
No. of Points:	15
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1,000
No. of Luminaires:	10
Avg KW:	15.64 (17.0 max)

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

ENGINEERED DESIGN

By: Zach Strong, LC
File # / Date: 139369R9 04-Jun-13

Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole			Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
1	T4	60"	-	60'	1500W MZ	5	2	2	3
1	T5	60"	-	60'	1500W MZ	7/5*	2	10	
1	T8	60"	-	60'	1500W MZ	7	3	4	
1	T9	60"	-	60'	1500W MZ	3	3	0	
4	TOTALS					27	10	17	

* This structure utilizes a back-to-back mounting configuration



MY PROJECT

Name: Highland Park ISD S8 And TE
Location: Dallas, TX

GRID SUMMARY

Name: Court 7
Size: 2 Court - 18' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

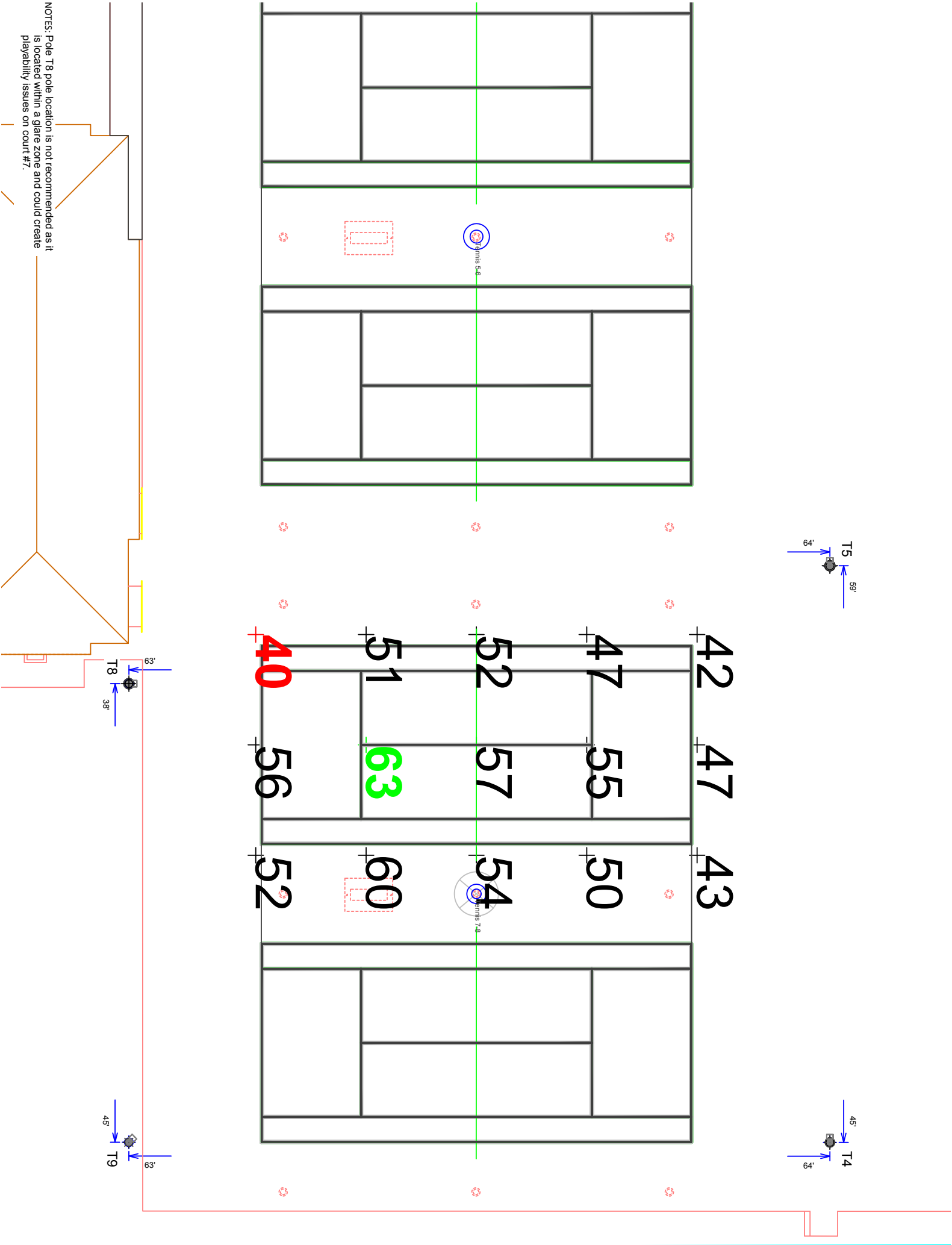
SUMMARY		HORIZONTAL FOOTCANDLES	
	Entire Grid		
Guaranteed Average:	50		
Scan Average:	51.4		
Maximum:	63		
Minimum:	40		
Avg / Min:	1.28		
Guaranteed Max / Min:	2		
Max / Min:	1.58		
UG (adjacent pts):	1.40		
CV:	0.13		
No. of Points:	15		
LUMINAIRE INFORMATION			
Luminaire Type:	Green Generation		
Rated Lamp Life:	5,000 hours		
Avg Lumens / Lamp:	134,000		
Avg Lamp Tilt Factor:	1.000		
No. of Luminaires:	10		
Avg KW:	15.64 (17.0 max)		

Guaranteed Performance: The Guaranteed Average CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.



NOTES: Pole T8 pole location is not recommended as it is located within a glare zone and could create playability issues on court #7.

SCALE IN FEET 1 : 20



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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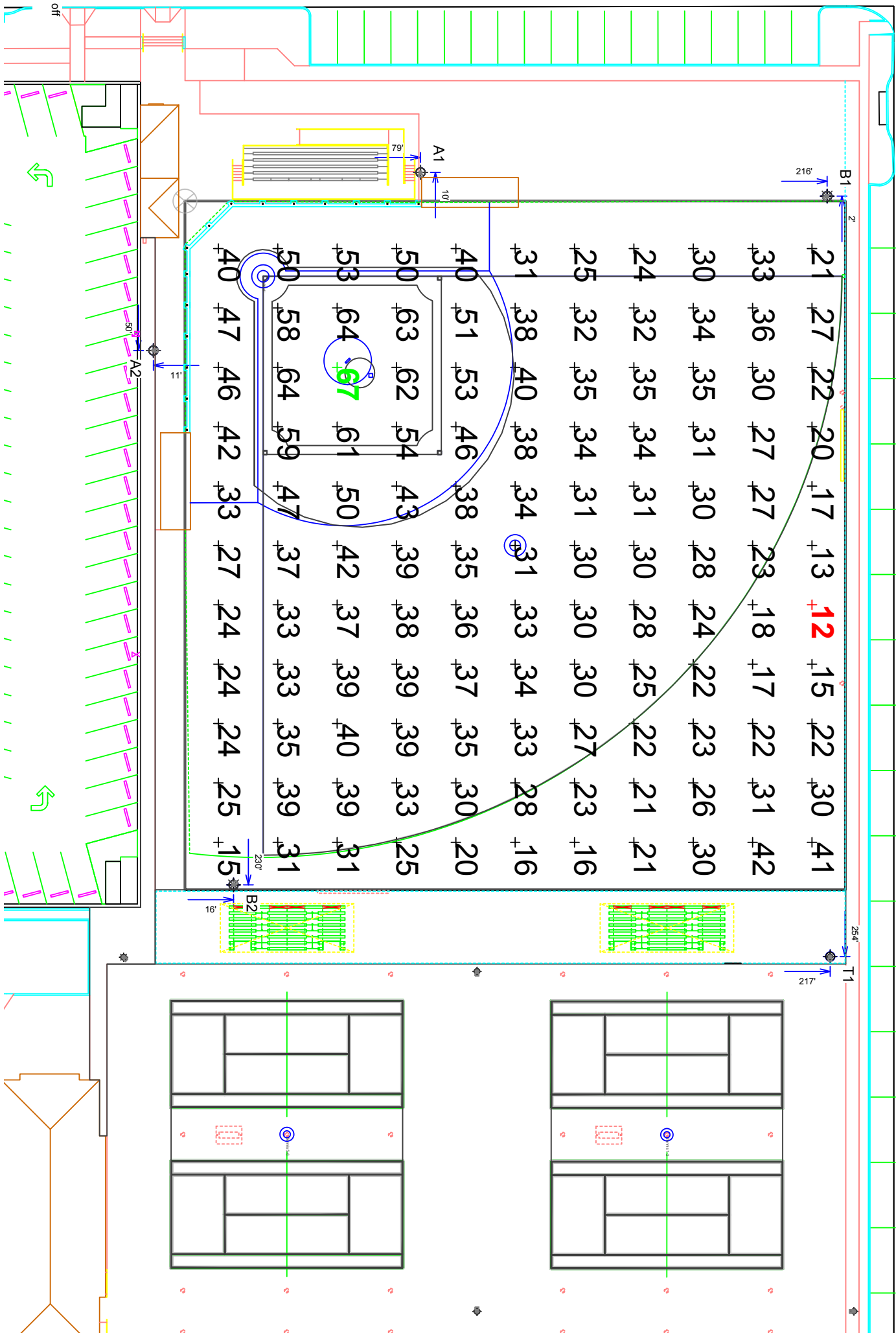
ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	60'	1500W MZ	3	3	0
2	B1-B2	70'	-	70'	1500W MZ	5	3	2
1	T1	50'	-	50'	1500W MZ	2/3*	3	3
5	TOTALS					21	19	2

* This structure utilizes a back-to-back mounting configuration

North Side of Sidewalk

DRUID LANE



MY PROJECT	Name: Highland Park ISD SB And TE
	Location: Dallas, TX

GRID SUMMARY	
Name:	Area
Size:	232' x 223'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

CONSTANT ILLUMINATION	
SUMMARY	HORIZONTAL FOOTCANDLES
	Entire Grid
Scan Average:	33.8
Maximum:	67
Minimum:	12
Avg / Min:	2.74
Max / Min:	5.41
UG (adjacent pts):	2.12
CV:	0.35
No. of Points:	121
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Rated Lamp Life:	5,000 hours
Avg Lumens / Lamp:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	19
Avg KW:	29.72 (32.3 max)

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

ENGINEERED DESIGN

By: Zach Strong, LC

File # / Date: 139369R9 04-Jun-13

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ILLUMINATION SUMMARY



MY PROJECT

Name:	Highland Park ISD SB And TE
Location:	Dallas, TX

GRID SUMMARY

Name:	Blanket Grid
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		HORIZONTAL FOOT CANDLES	
		Entire Grid	
Scan Average:	1.0		
Maximum:	67		
Minimum:	0		
Avg / Min:	442.94		
Max / Min:	28697.68		
UG (adjacent p's):	10.30		
CV:	4.77		
No. of Points:	1247		
LUMINAIRE INFORMATION			
Luminaire Type:	Green Generation		
Rated Lamp Life:	5,000 hours		
Avg Lumens / Lamp:	134,000		
Avg Lamp Tilt Factor:	1.000		
No. of Luminaires:	65		
Avg KW:	101.66 (110.5 max)		

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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

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

[illegible]

NOTES: The blue line represents the point at which the light reaches 0.0 FC.

SCALE IN FEET 1 : 120



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

ENGINEERED DESIGN

By: Zach Strong, LC
File # / Date: 139369R9 04-Jun-13

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ILLUMINATION SUMMARY



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Street Spill
Spacing: 30.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid		
	Maximum:	4.726	
	Minimum:	32.06	
No. of Points:		0.01	84
LUMINAIRE INFORMATION			
Luminaire Type: Green Generation			
Rated Lamp Life: 5,000 hours			
Avg Lumens / Lamp: 134,000			
Avg Lamp Tilt Factor: 1.000			
No. of Luminaires: 65			
Avg KW: 101.66 (110.5 max)			

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

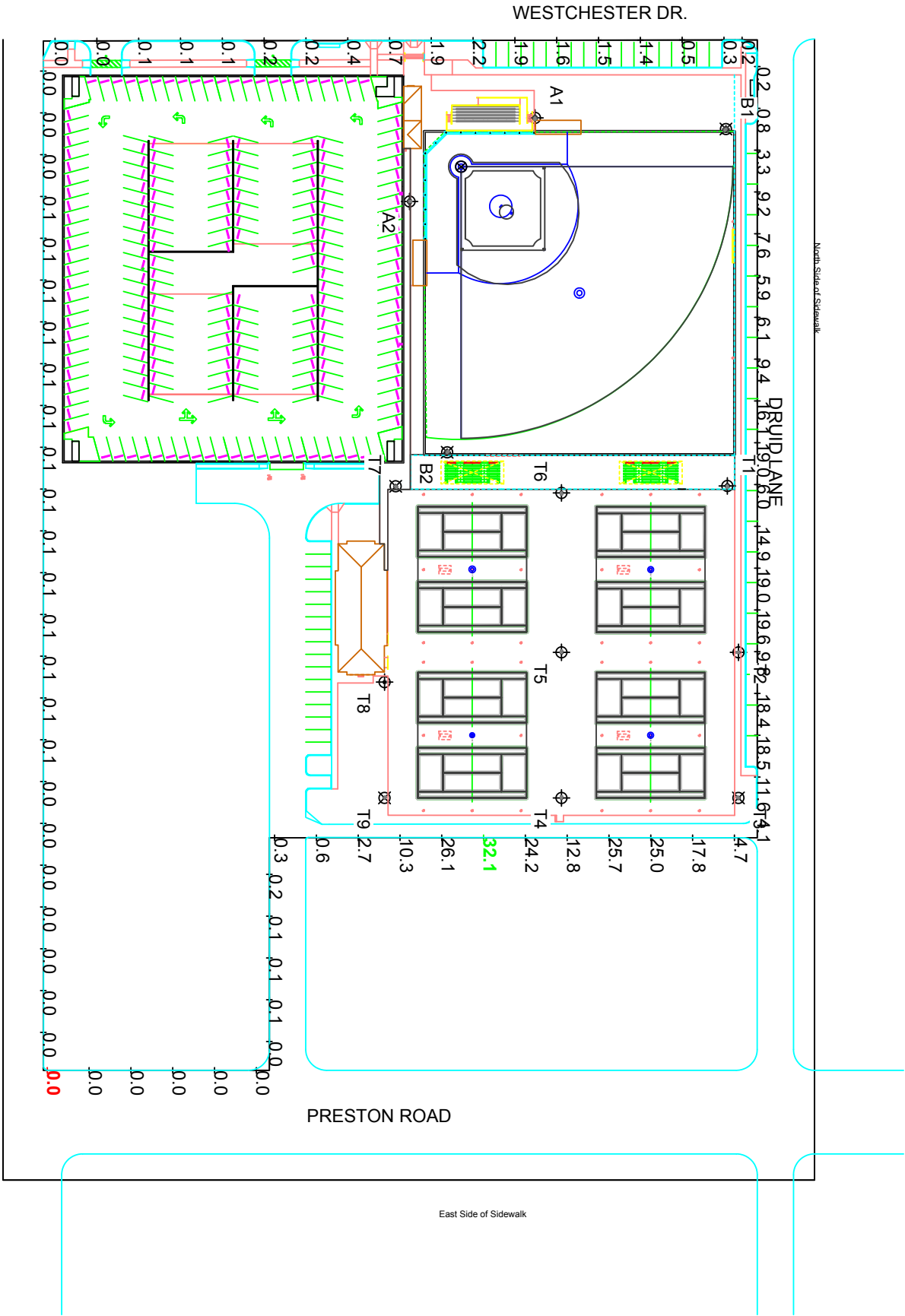
Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN								
Pole					Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
3	A1-A2, T9	60'	-	60'	1500W MZ	3	3	0
2	B1-B2	70'	-	70'	1500W MZ	5	5	0
1	T1	50'	-	50'	1500W MZ	2/3*	5	0
1	T2	50'	-	50'	1500W MZ	4	4	0
1	T3	50'	-	50'	1500W MZ	2	2	0
1	T4	60'	-	60'	1500W MZ	5	5	0
1	T5	60'	-	60'	1500W MZ	7/5*	12	0
2	T6, T8	60'	-	60'	1500W MZ	7	7	0
1	T7	60'	-	60'	1500W MZ	4	4	0
13	TOTALS					65	65	0

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 100



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

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ILLUMINATION SUMMARY



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Street Spill
Spacing: 30.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		MAX VERTICAL FOOTCANDLES
Scan Average:	Entire Grid	
	Maximum:	6,562
	Minimum:	36.78
No. of Points:		84
LUMINAIRE INFORMATION		
Luminaire Type: Green Generation		
Rated Lamp Life: 5,000 hours		
Avg Lumens / Lamp: 134,000		
Avg Lamp Tilt Factor: 1.000		
No. of Luminaires: 65		
Avg KW: 101.66 (110.5 max)		

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

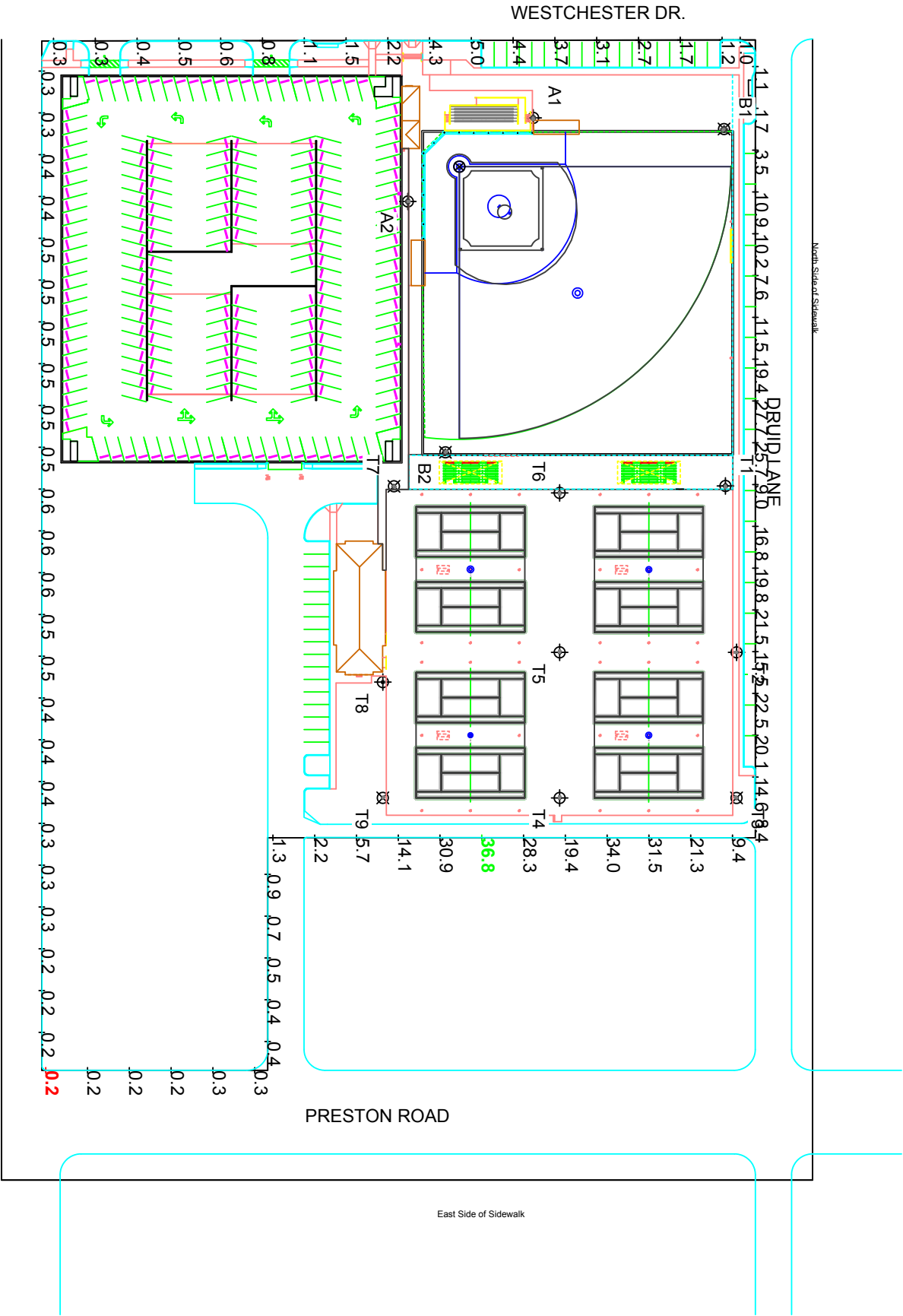
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY/ POLE	THIS GRID	OTHER GRIDS
3	A1-A2, T9	60"	-	60"	1500W MZ	3	3	0
2	B1-B2	70"	-	70"	1500W MZ	5	5	0
1	T1	50"	-	50"	1500W MZ	2/3*	5	0
1	T2	50"	-	50"	1500W MZ	4	4	0
1	T3	50"	-	50"	1500W MZ	2	2	0
1	T4	60"	-	60"	1500W MZ	5	5	0
1	T5	60"	-	60"	1500W MZ	7/5*	12	0
2	T6, T8	60"	-	60"	1500W MZ	7	7	0
1	T7	60"	-	60"	1500W MZ	4	4	0
13	TOTALS					65	65	0

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 100



Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

ENGINEERED DESIGN

By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Residential Spill
Spacing: 30.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid		
	0.272		
	Maximum:	1.46	
Minimum:		0.01	
No. of Points:		74	
LUMINAIRE INFORMATION			
Luminaire Type: Green Generation			
Rated Lamp Life: 5,000 hours			
Avg Lumens / Lamp: 134,000			
Avg Lamp Tilt Factor: 1.000			
No. of Luminaires: 65			
Avg KW: 101.66 (110.5 max)			

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

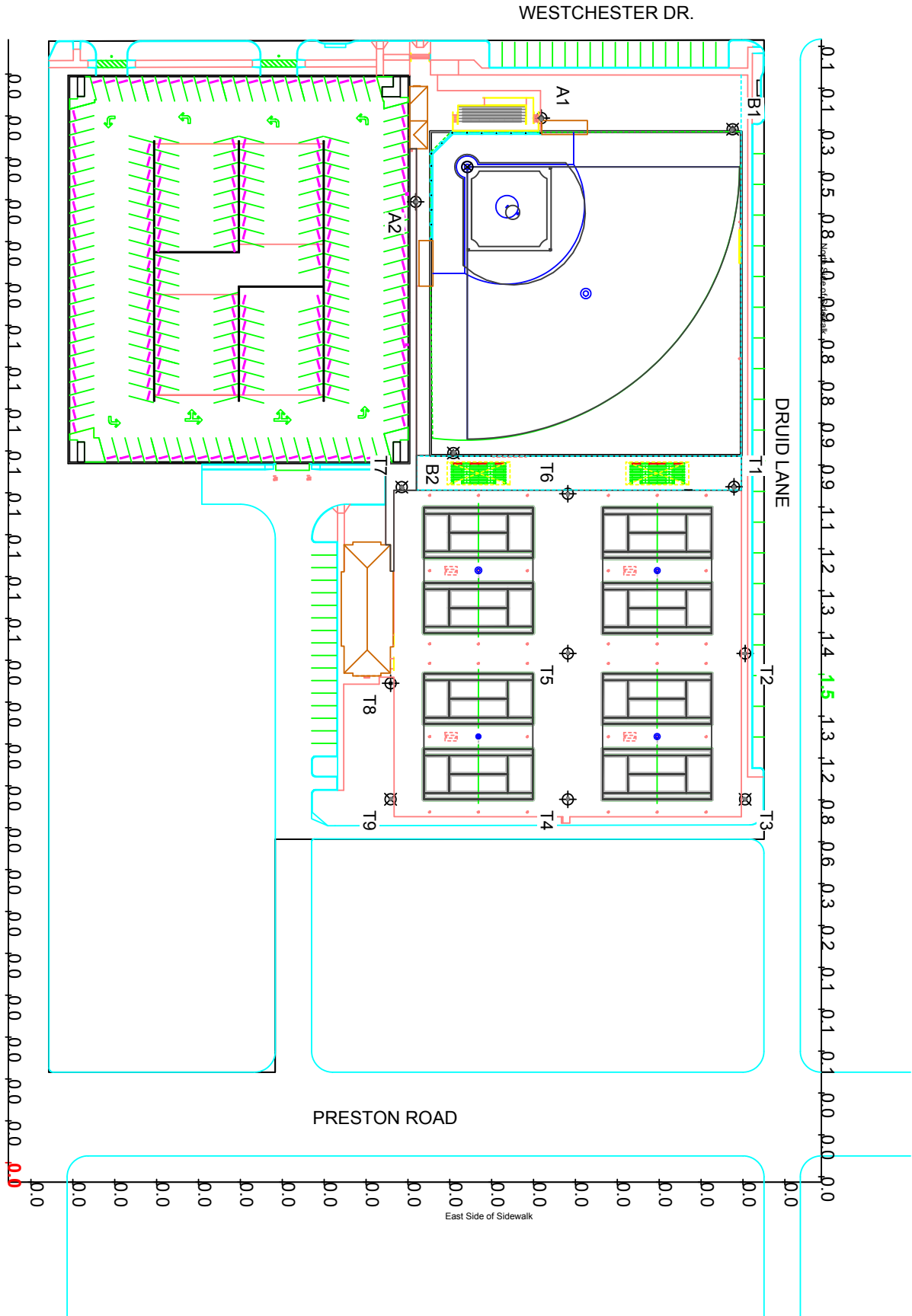
Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
3	A1-A2, T9	60"	-	60"	1500W MZ	3	3	0
2	B1-B2	70"	-	70"	1500W MZ	5	5	0
1	T1	50"	-	50"	1500W MZ	2/3*	5	0
1	T2	50"	-	50"	1500W MZ	4	4	0
1	T3	50"	-	50"	1500W MZ	2	2	0
1	T4	60"	-	60"	1500W MZ	5	5	0
1	T5	60"	-	60"	1500W MZ	7/5*	12	0
2	T6, T8	60"	-	60"	1500W MZ	7	7	0
1	T7	60"	-	60"	1500W MZ	4	4	0
13	TOTALS					65	65	0

* This structure utilizes a back-to-back mounting configuration



SCALE IN FEET 1 : 100



Pole location(s) ⓧ dimensions are relative to 0.0 reference point(s) ⊗

ENGINEERED DESIGN		
By:	Zach Strong, LC	04-Jun-13
File # / Date:	139369R9	

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ILLUMINATION SUMMARY



MY PROJECT

Name: Highland Park ISD SB And TE
Location: Dallas, TX

GRID SUMMARY

Name: Residential Spill
Spacing: 30.0'
Height: 3.0' above grade

CONSTANT ILLUMINATION

SUMMARY		MAX VERTICAL FOOTCANDLES
Scan Average:	Entire Grid	
Maximum:	0.937	
Minimum:	0.11	
No. of Points:	74	
LUMINAIRE INFORMATION		
Luminaire Type:	Green Generation	
Rated Lamp Life:	5,000 hours	
Avg Lumens / Lamp:	134,000	
Avg Lamp Tilt Factor:	1.000	
No. of Luminaires:	65	
Avg KW:	101.66 (110.5 max)	

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the rated life of the lamp.

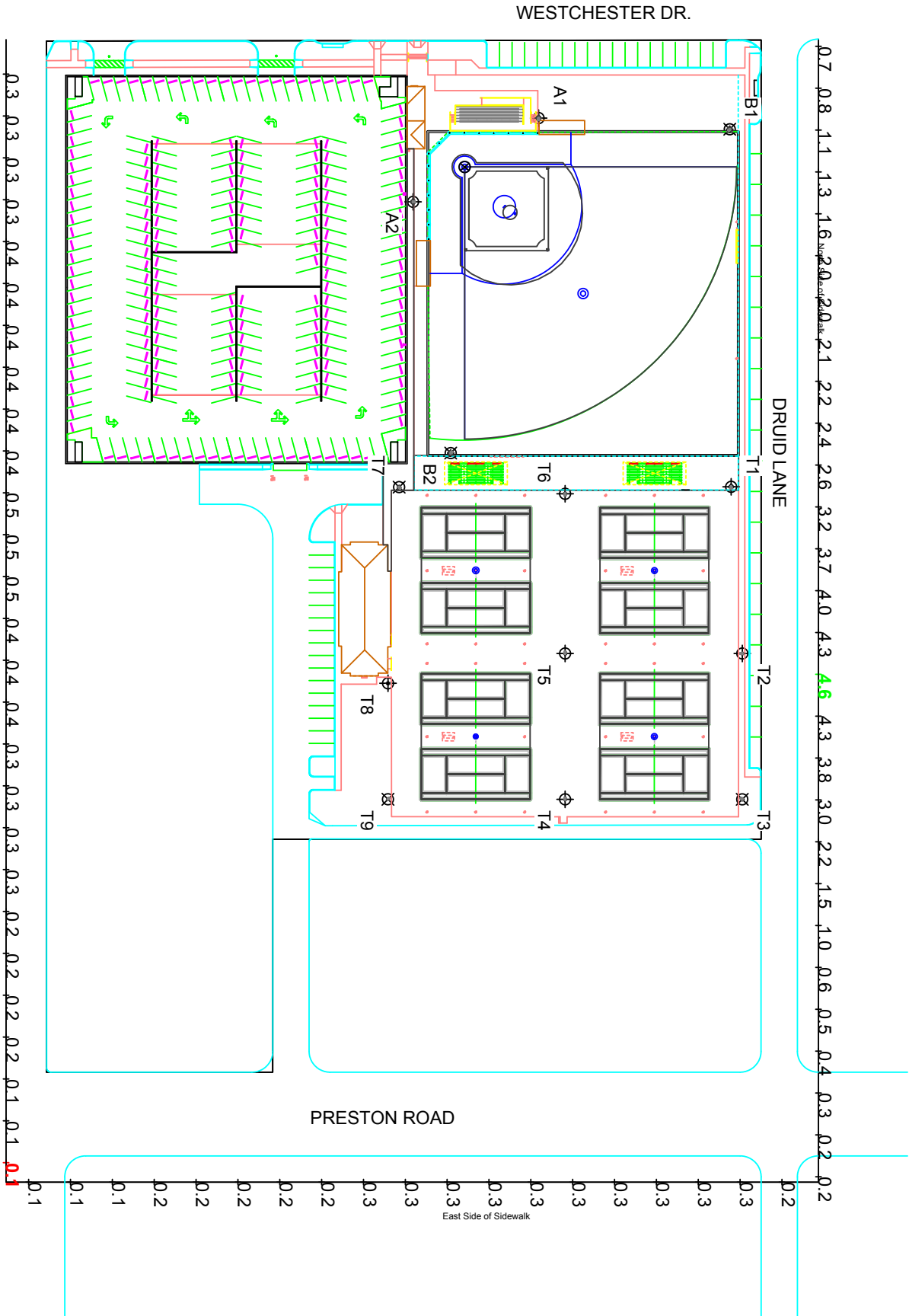
Field Measurements: Illumination measured in accordance with IESNA LM-5-04 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

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 ballast and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN						
Pole			Luminaires			
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE
3	A1-A2, T9	60"	-	60"	1500W MZ	3
2	B1-B2	70"	-	70"	1500W MZ	5
1	T1	50"	-	50"	1500W MZ	2/3*
1	T2	50"	-	50"	1500W MZ	4
1	T3	50"	-	50"	1500W MZ	2
1	T4	60"	-	60"	1500W MZ	5
1	T5	60"	-	60"	1500W MZ	7/5*
2	T6, T8	60"	-	60"	1500W MZ	7
1	T7	60"	-	60"	1500W MZ	4
13	TOTALS					65

* This structure utilizes a back-to-back mounting configuration



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04-Jun-13

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ILLUMINATION SUMMARY

NOTES: Pole T8 location is not recommended as it is located within a glare zone and could create playability issues on court #7.



MY PROJECT
Name: Highland Park ISD SB And TE
Location: Dallas, TX

EQUIPMENT LAYOUT

- INCLUDES:**
- Area
 - Softball
 - Tennis 1-2
 - Tennis 3-4
 - Tennis 5-6
 - Tennis 7-8

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 ballast and structures located within 3 feet (1m) of design locations.

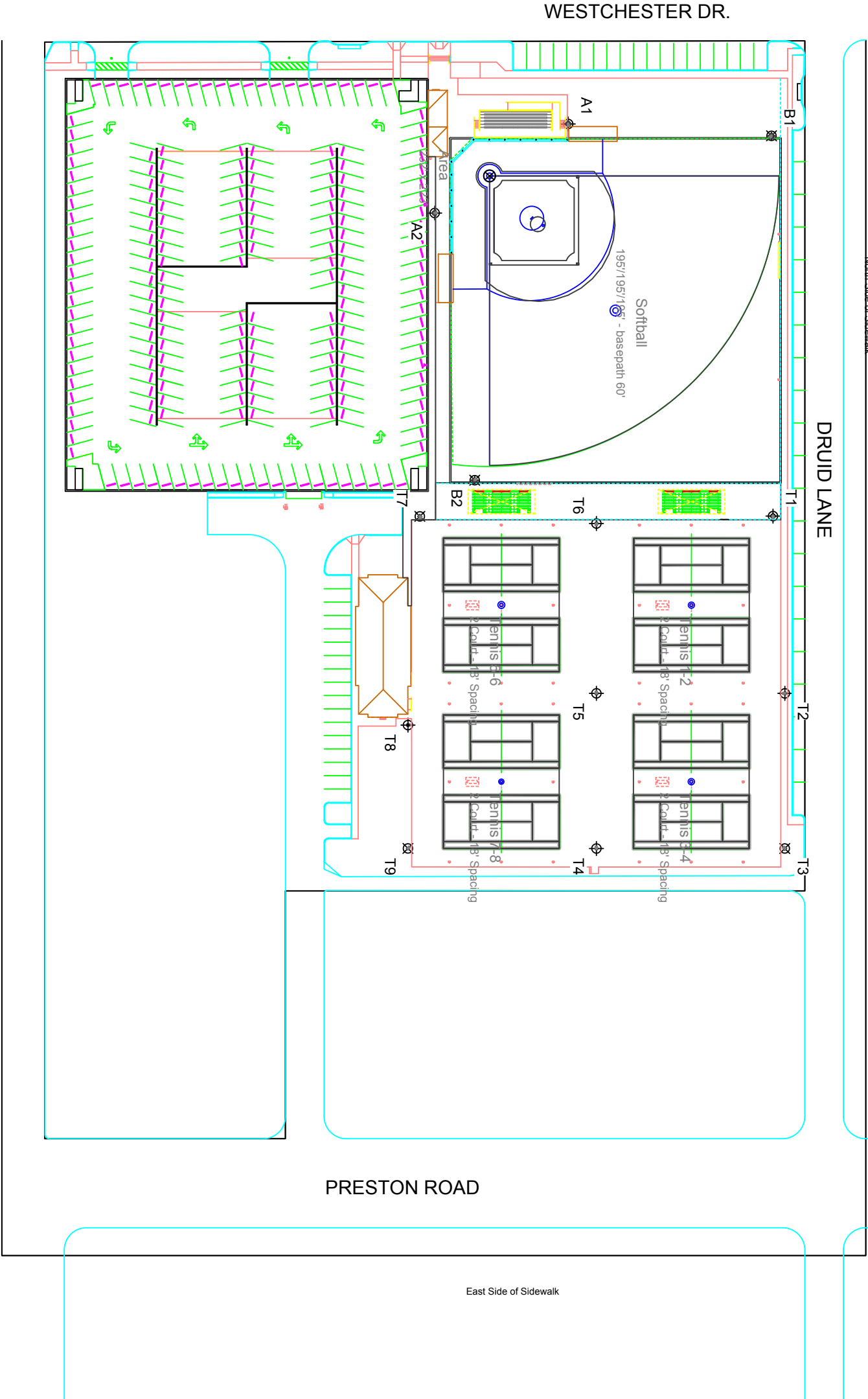
EQUIPMENT LIST FOR AREAS SHOWN

Pole					Luminaires	
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE
3	A1-A2, T9	60'	-	60'	1500W MZ	3
2	B1-B2	70'	-	70'	1500W MZ	5
1	T1	50'	-	50'	1500W MZ	2/3*
1	T2	50'	-	50'	1500W MZ	4
1	T3	50'	-	50'	1500W MZ	2
1	T4	60'	-	60'	1500W MZ	5
1	T5	60'	-	60'	1500W MZ	7/5*
2	T6, T8	60'	-	60'	1500W MZ	7
1	T7	60'	-	60'	1500W MZ	4
TOTALS						65

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (30 min power factor)		Line Amperage Per Luminaire (max draw)					
Single Phase Voltage		208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
1500 watt MZ		8.6	8.3	7.5	6.5	5.1	4.7



SCALE IN FEET 1 : 80

0 80' 160'

Pole location(s) ⚡ dimensions are relative to 0.0 reference point(s) ⊗

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EQUIPMENT LAYOUT