Goodwyn Mills Cawood

2400 5th Avenue South
Suite 200
Birmingham, AL 35233

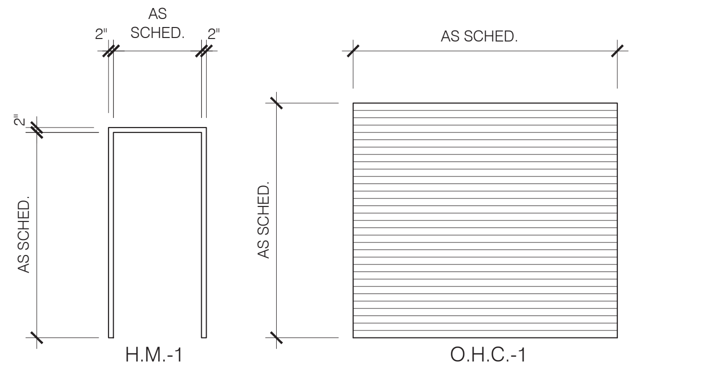
T (205) 879-4462

www.gmcnetwork.com

Mountain Brook Junior High School Athletics

Scope of Project:

Project to include conversion of existing grass sports field to synthetic turf for multiple sports to include Sports Field Lighting, protective netting and padding. New construction of 4 tennis courts with lighting and new parking lot. A small restroom building to be built on site as well.



DOOR / FRAME TYPES

SCALE: 3/16" = 1'-0"

DOOR HARDWARE

NOTE: ALL DOOR HARDWARE SHALL BE COMMERCIAL, HEAVY DUTY WITH FINISH AS PER OWNER.

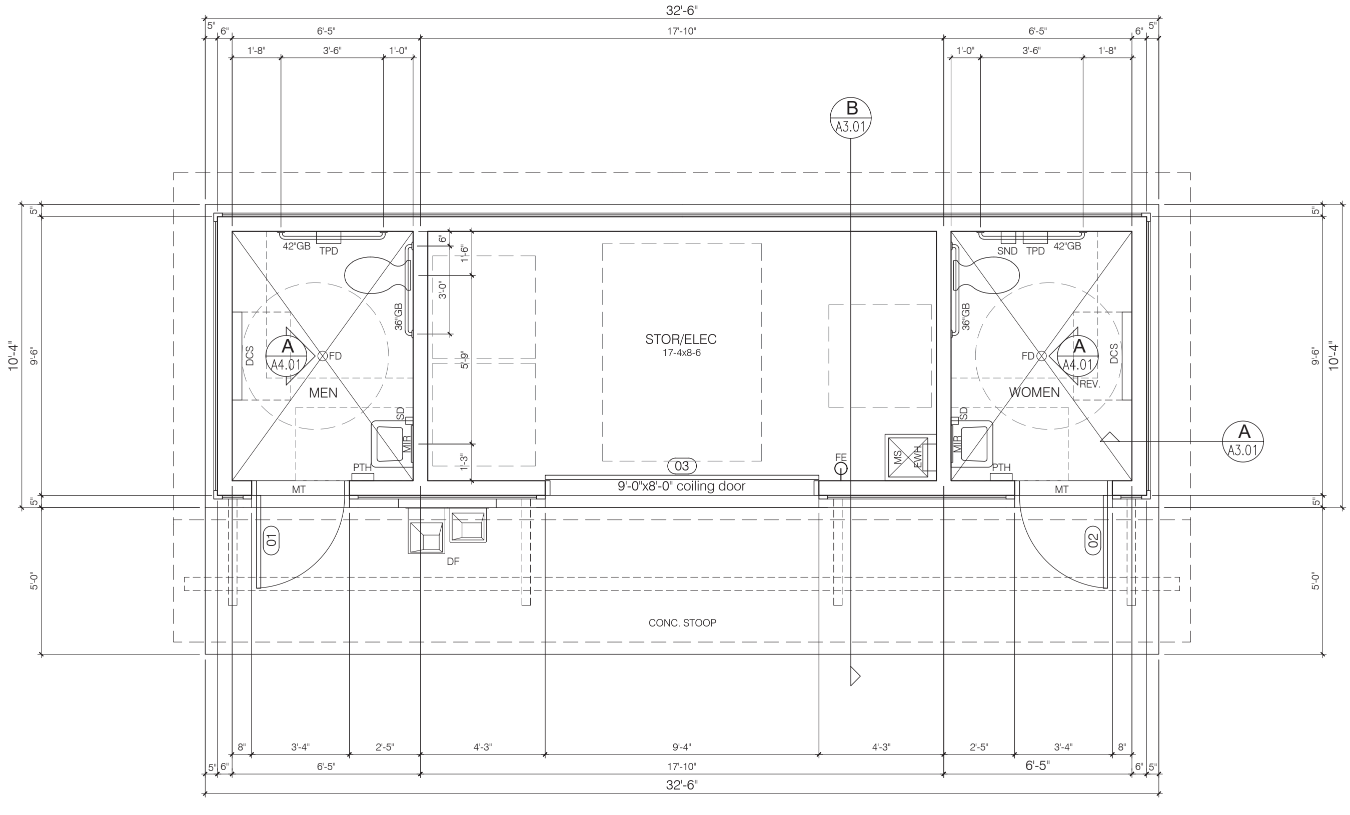
SET-1 HINGES, CLOSER, WEATHER SEALS, LEVER, THRESHOLD, PRIVACY LOCKSET.

FINISH SCHEDULE

ROOM NAME	FLOOR		BASE	WALL		CEILING			REMARKS
	MAT'L.	FINISH	MAT'L.	MAT'L.	FINISH	MAT'L.	FINISH	HEIGHT	
MEN	CONCRETE	SEALED	4" VINYL	GYP.BD. FRP	PREFIN.	PLYWD. W/ BATTENS	PAINTED	10'-0"	
WOMEN	CONCRETE	SEALED	4" VINYL	GYP.BD. FRP	PREFIN.	PLYWD. W/ BATTENS	PAINTED	10'-0"	
STORAGE / ELEC	CONCRETE	SEALED	4" VINYL	GYP.BD. FRP	PREFIN.	PLYWD. W/ BATTENS	PAINTED	10'-0"	

DOOR SCHEDULE

DOOR NO.	DOOR TYPE	SIZE			FRAME TYPE	FIRE RATING	HDWR. SET NO.	REMARKS
		WIDTH	HEIGHT	THICK.				
01	H.M. - 1	3'-0"	7'-0"	1 3/4"	H.M. - 1	--------	set no.-1	
02	H.M. - 1	3'-0"	7'-0"	1 3/4"	H.M. - 1	--------	set no.-1	
03	O.H.C. - 1	9'-0"	8'-0"	--------	STEEL CHANNELS	--------	per MANUF.	OVERHEAD COILING DOOR



FLOOR PLAN

SCALE: 1/2" = 1'-0"

FLOOR PLAN LEGEND

2x6 WOOD STUDS WITH GYPSUM BOARD with FRP. BATT INSUL., 1x WD. FURRING, NON-ROT SIDING ON BUILDING WRAP ON PLYWD. SHEATHING & BRICK BASE BELOW

2x6 WOOD STUDS WITH BATT INSUL. & GYPSUM BOARD with FRP EACH SIDE

TPD	TOILET PAPER DISPENSER
SD	SOAP DISPENSER
MIR	MIRROR
GB	GRAB BAR (see plan for size)
SND	SANITARY NAPKIN DISPOSAL UNIT
MT	METAL THRESHOLD
FD	FLOOR DRAIN
MS	MOP SINK
DF	DRINKING FOUNTAIN
FE	FIRE EXTINGUISHER
FRP	FIBERGLASS REINFORCED PANELS

GMC

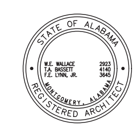
2660 East Chase Lane, Suite 200
Montgomery, AL 36117
T 334.271.3200
GMCNETWORK.COM

ISSUE	DATE
Preliminary	11.29.2022
DCM Submittal	12.21.2022

DRAWN BY:
CHECKED BY:

MOUNTAIN BROOK JR. HIGH ATHLETICS
MOUNTAIN BROOK, AL

GMC Project#LBHM220030



FLOOR PLAN AND SCHEDULES

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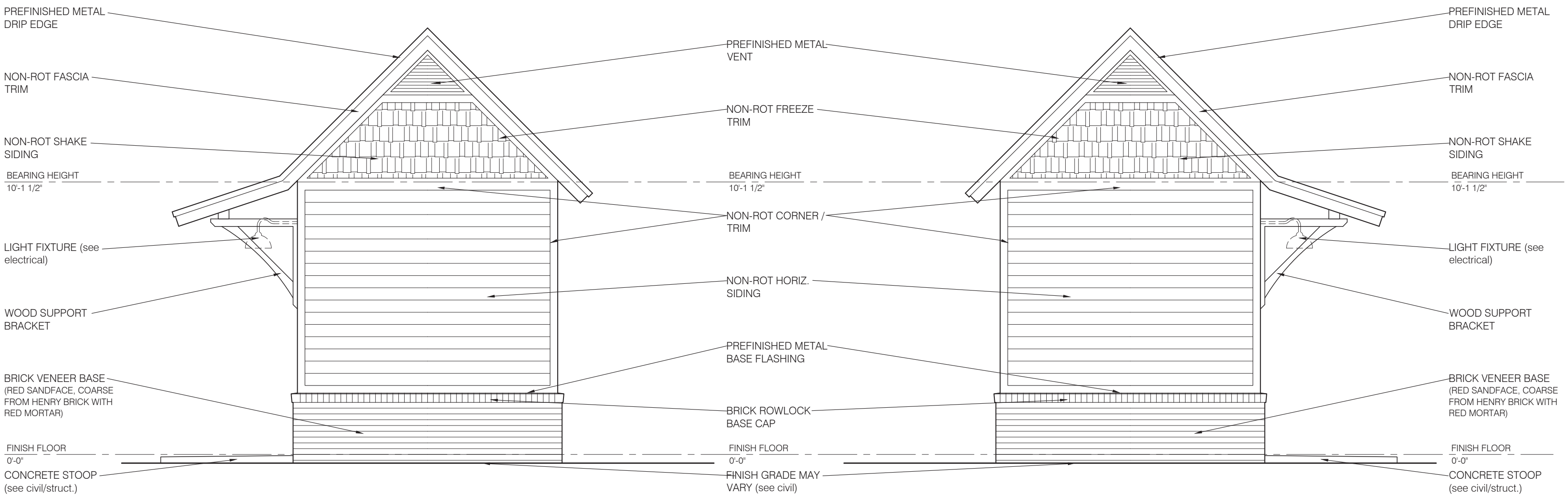

RIGHT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

LEFT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

FRONT ELEVATION

SCALE: 1/2" = 1'-0"

REAR ELEVATION-SIMILAR

GMC

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MOUNTAIN BROOK JR. HIGH ATHLETICS
MOUNTAIN BROOK, AL

GMC Project#LBHM220030

STATE OF ALABAMA — REGISTERED ARCHITECT — W.E. WALLACE 2923, T.A. BASSETT 4140, T.E. LYNN, JR. 3645 — MONTGOMERY, ALABAMA

ELEVATIONS

A2.01

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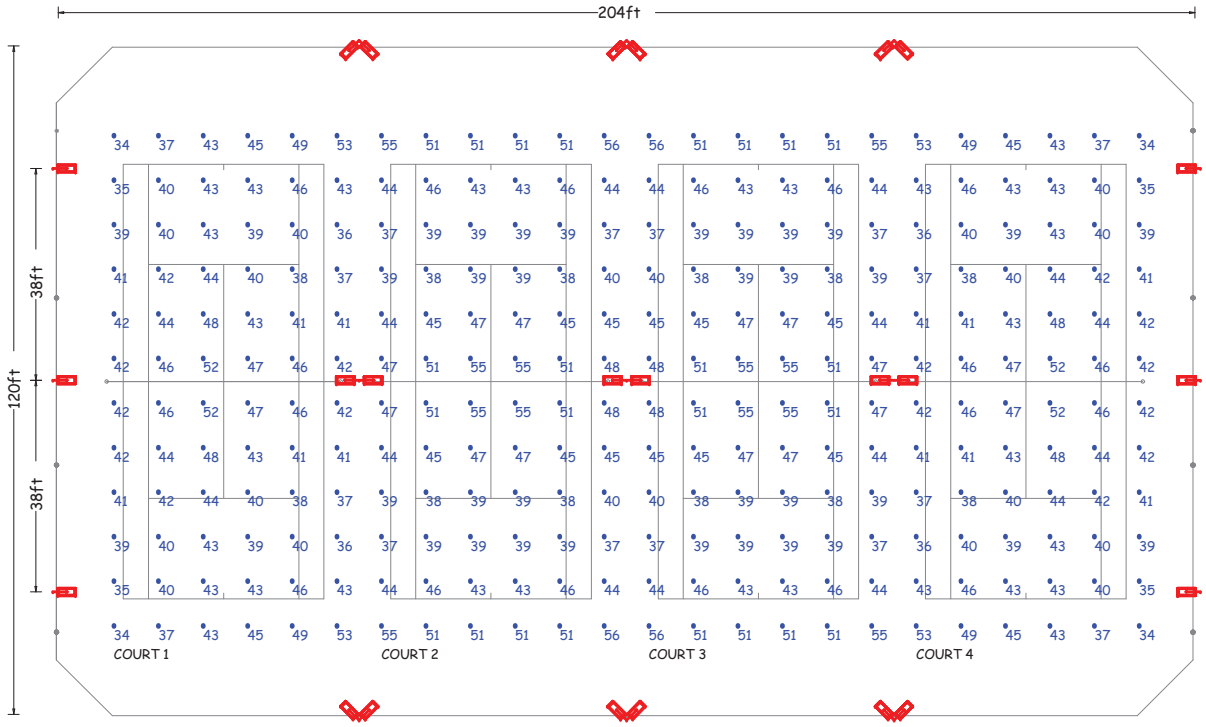


Calculation Summary					
Project: MOUNTAIN BROOK JR HIGH SCHOOL					
Label	CalcType	Avg	Max	Min	Max/Min
COURT 1	Illuminance	42.33	53	34	1.56
COURT 2	Illuminance	45.11	56	37	1.51
COURT 3	Illuminance	45.11	56	37	1.51
COURT 4	Illuminance	42.33	53	34	1.56

The light levels shown are maintained using a .94 light loss factor (LLF). Light loss factors are used to adjust the light output of a luminaire operating in a controlled laboratory environment to the output obtained under actual field conditions. The LLF used in these calculations includes both recoverable and non-recoverable factors. Recoverable factors include luminaire dirt depreciation (LDD). Non-recoverable factors include optical system variations, and depreciation in initial luminaire lumen output. The use of the light loss factor shown requires making certain assumptions about the lighting system, the specific application, and the maintenance of the system over time. Therefore, actual light levels measured in the field may vary from the calculated values, especially in regards to individual location measurements.

Calculations use a LED Maintained Lamp Lumen factor based upon 50,000 hours of life, derived from IES TM21-11, and based upon an In-situ case temperature of 55°C.

Based on the information provided, all dimensions and luminaire Locations shown represent recommended positions. The engineer and / or architect must determine applicability of the layout to existing or future field conditions.

Filename: MOUNTAINBROOK1.AGI
Date:10/20/2022

Luminaire Schedule								
Project: MOUNTAIN BROOK JR HIGH SCHOOL								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	6	A	Single	ZNL-60L-CT-50 (ZONE LARGE) @ 24' MTG. HT.	0.940	60978	448	2688
	3	B	TWIN 180	ZNL-60L-CT-50 (ZONE LARGE) @ 24' MTG. HT.	0.940	60978	448	2688
	6	C	TWIN 90	ZNL-60L-CT-50 (ZONE LARGE) @ 24' MTG. HT.	0.940	60978	448	5376

Mountain Brook Jr. High School
Mountain Brook, AL

LSI Industries
10000 Alliance Road
Cincinnati, OH 45242
Voice Number : 513-666-4242

Date:10/20/2022

Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

ZONE™ Large (ZNL)

Outdoor Sports Light

IP66 IK08

OVERVIEW	
Lumen Range	50,000 - 78,000
Wattage Range	375 - 648
Efficacy Range (LPW)	114 - 146
Weight lbs (kg)	60 (27.2)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 68 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types CT and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377.
- Minimum CRI of 70
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

Electrical

- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L90 Calculated Life: >100k Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: 50L and 60L: -40°C to +50°C (-40°F to +122°F). 65L and 78L: -40°C to +40°C (-40°F to +104°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ programmable motion and photocell sensor. Fixtures operate idependently and can be commmissioned via iOS or Android configuration app.
- LSI's AirLink wireless control system options allow for programming and group control while reducing energy and maintenance costs and optimizing light quality (see controls section for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block (accepts up to 12 ga. wire).
- 5' Dimming and Power leads included when Fixed Mounting Studs are ordered.
- Utilizes both B3 and B5 drill patterns for easy fastening of LSI products. (See drawing in poles section)

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applicationsapplicationsare qualified.
- IK08 rated luminiare per IEC 66262 mechanical impact code.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)

Type: _____

ZONE Large Outdoor Sports Light

ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: **ZNL 60L CT UNV 50 ALBCS1 BLK IH**

Prefix	Output	Distribution	Orientation	Voltage	Color Temperature
ZNL - Zone Large	**50L** - 50,000 lms **60L** - 60,000 lms **65L** - 65,000 lms **78L** - 78,000 lms Custom Lumen Packages[1]	**CT** - Court Optic **FT** - Forward Throw	**(Blank)** - Standard (no rotation) **L** - Optics rotated left 90° **R** - Optics rotated right 90°	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480V)	**50** - 5,000 CCT **40** - 4,000 CCT **30** - 3,000 CCT

Controls	Finish	Options
(Blank) - None **Wireless Controls System** **ALSC** - AirLink Synapse Control System **ALSCS02** - AirLink Synapse Control System with 12-20' Motion Sensor **ALSCS04** - AirLink Synapse Control System with 20-40' Motion Sensor **ALSC B** - Airlink Synapse Integral Controller and Dynamic Behaviors Drivers **ALSC UNV TL7** - Airlink Synapse 7 Pin Twist Lock Controller 120V-277V **ALSC HV TL7** - Airlink Synapse 7 Pin Twist Lock Controller 347V-480V **ALSSM WIFI-VER-CEL** - AirLink Synapse Central Base Station **ALS RMT ACCESS** - AirLink Synapse Remote Access 12 month subscription **ALS DYN SCENE** - AirLink Synapse Dynamic Behavior Software **ALBCS1** - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) **ALBCS2** - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) **Stand-Alone Controls** **EXT** - 0-10v Dimming leads extended to housing exterior **CR7P** - 7 Pin Control Receptacle ANSI C136.41[2] **IMSBT1** - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height[3,4] **IMSBT2** - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height[3,4]	**BRZ** - Bronze **BLK** - Black **GPT** - Graphite **MSV** - Metallic Silver **PLP** - Platinum Plus **GRN** - Green **WHT** - White	**(Blank)** - None **IH** - Integral Half Louver (Moderate Spill Light Cutoff) **IL** - Integral Louver (Sharp Spill Light Cutoff) **FMS** - Fixed Mounting Studs[5]

Accessory Ordering Information[6]

Controls Accessories[6]

Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514
Twist Lock Photocell (208-277V) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	225180
Shorting Cap for use with CR7P[7]	149328

Fusing Options[8]

Description	Order Number
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

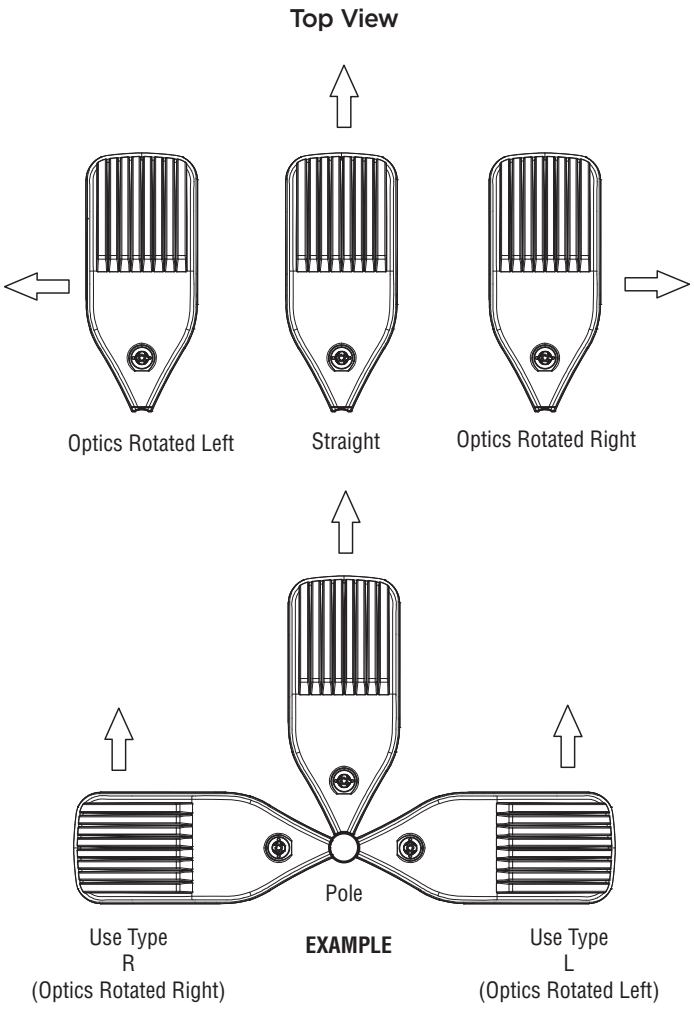
Shielding Options

Zone Medium	See Shielding Guide
Zone Large	

1 Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2 Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
3 Consult facotry for 347-480V.
4 IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
5 For use with ZNL upswept arm only. Please see accessory table for ordering detials.
6 Accessories are shipped separately and field installed.
7 Fusing must be located in hand hole of pole. See Fusing Accessory Guide for compatability.
8 "CLR" denotes finish. See Finish options.

ZONE Large Outdoor Sports Light

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options

7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P

ZONE Large Outdoor Sports Light

PERFORMANCE

Back to Quick Links

DELIVERED LUMENS*

Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
50L	CT	70	50680	135	B4-U0-G3	52572	140	B4-U0-G3	54622	146	B4-U0-G3	375
	FT		50082	134	B4-U0-G5	51952	139	B4-U0-G5	53978	144	B4-U0-G5	
60L	CT		57428	128	B4-U0-G3	59446	133	B4-U0-G3	60978	133	B4-U0-G3	448
	FT		56949	127	B4-U0-G5	59083	132	B5-U0-G5	60561	135	B5-U0-G5	
65L	CT		65005	125	B4-U0-G3	67432	130	B5-U0-G3	70062	135	B5-U0-G3	518
	FT		64239	124	B5-U0-G5	66638	129	B5-U0-G5	69237	134	B5-U0-G5	
78L	CT		74805	115	B5-U0-G3	77599	120	B5-U0-G3	80625	124	B5-U0-G3	648
	FT		73925	114	B5-U0-G5	76685	118	B5-U0-G5	79676	123	B5-U0-G5	

*LEDs are frequently updated therefore values are nominal

ELECTRICAL DATA* (AMPS)

Lumen Package	120V	208V	240V	277V	347V	480V
50L	3.13	1.80	1.56	1.35	1.08	0.78
60L	3.73	2.15	1.87	1.62	1.29	0.93
65L	4.32	2.49	2.16	1.87	1.49	1.08
78L	5.40	3.12	2.70	2.34	1.87	1.35

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

RECOMMENDED LUMEN MAINTENANCE[10]

Ambient Temp	Lumen Multiplier				
C	0 hrs.[11]	25K hrs.[11]	50K hrs.[11]	75K hrs.[12]	100K hrs.[12]
0 C - 40 C	100%	100%	97%	94%	92%

PHOTOMETRICS

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Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

ZNL-60L-CT-40

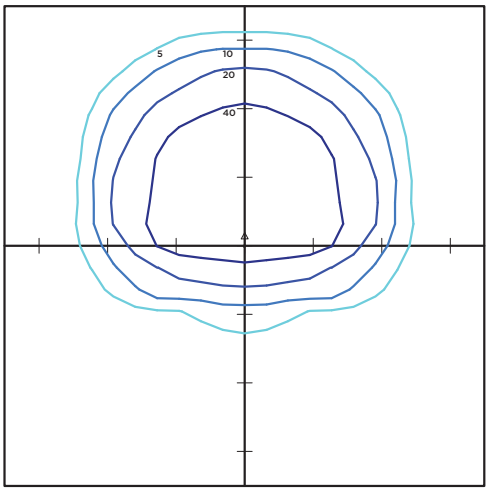
LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	67,432
Watts	518
Efficacy	130
IES Type	Type III - Very Short
BUG Rating	B5-U0-G3

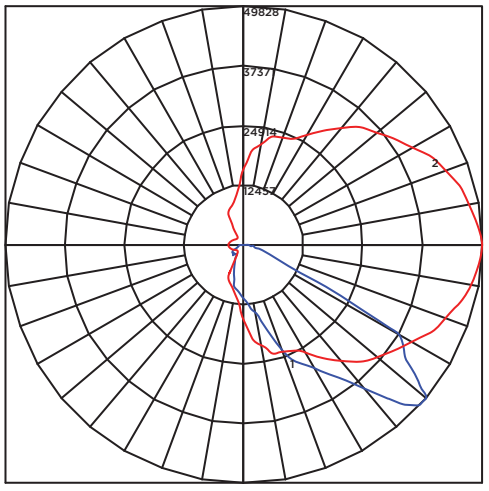
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	13837	9%
Medium (30-60)°	44654	43%
High (60-80)°	8162	48%
Very High (80-90)°	779	1%
Uplight (90-180)°	0	0%
Total Flux	67432	100%

ISO FOOTCANDLE



POLAR CURVE



15' Mounting Height/10' Grid Spacing

40 FC **20 FC** **10 FC** **5 FC**

10 Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
11 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X)the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
12 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

ZONE Large Outdoor Sports Light

PHOTOMETRICS

ZNL-65L-FT-40

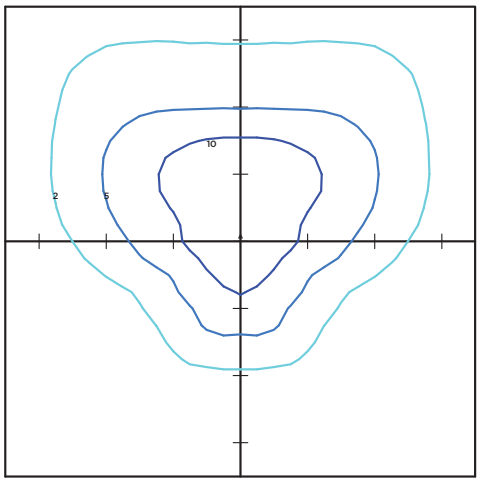
LUMINAIRE DATA

Type CT-IL Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	66,638
Watts	518
Efficacy	129
IES Type	Type IV - Short
BUG Rating	B5-U0-G5

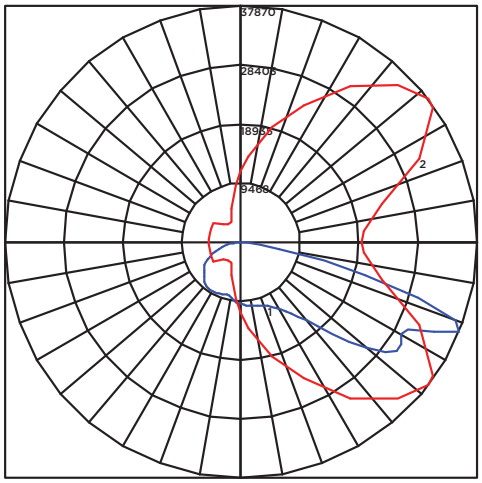
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	8542	13%
Medium (30-60)°	33055	50%
High (60-80)°	23973	36%
Very High (80-90)°	1069	2%
Uplight (90-180)°	0	0%
Total Flux	66638	100%

ISO FOOTCANDLE



POLAR CURVE



25' Mounting Height/20' Grid Spacing

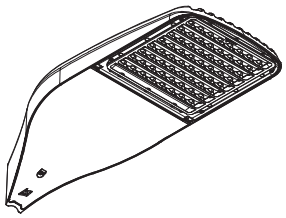
20 FC **10 FC** **5 FC** **2 FC**

ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (IL) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward-reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with Integral Louver (IL)

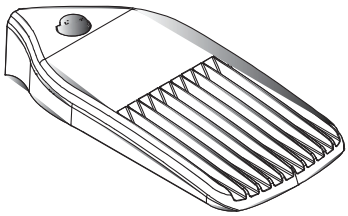


Luminaire Shown with IMSBT Option

7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P



PRODUCT DIMENSIONS

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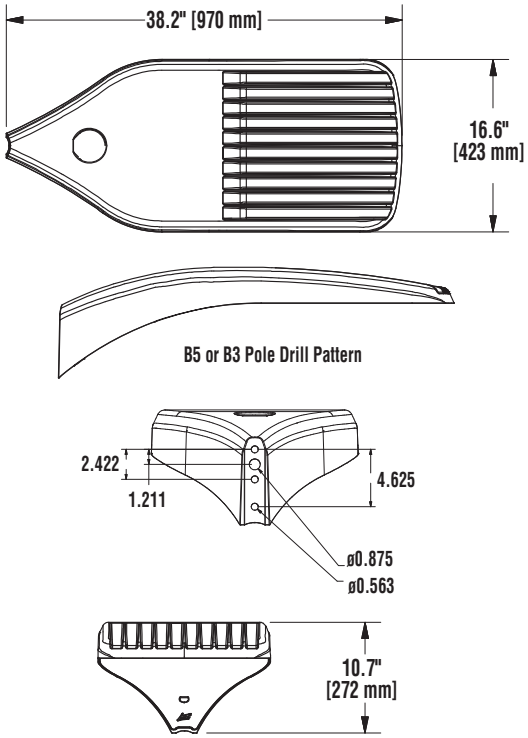


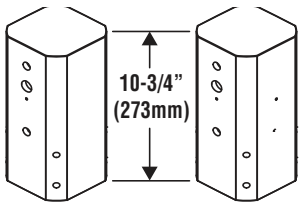
LUMINAIRE EPA CHART - ZNL

Tilt Degree		0°	30°	45°
	Single	0.8	2.2	2.9
	D180°	1.6	2.2	2.9
	D90°	1.2	3.0	3.7

Tilt Degree		0°	30°	45°
	T90°	2.0	3.8	4.5
	TN120°	2.0	5.0	6.0
	Q90°	2.0	3.8	4.5

BRACKETS

BKA-NM-*-CLR: Tenon Mount Fitter

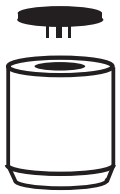


Single/D-180 (Drilled 2 Sides)

D90/T90/Q90 (Drilled 4 Sides)

For flat surface brackets

BRKT-4ESF-*-CLR: Pole Top Hub



S - Single
D180 - Double
D70 - Double
D90 - Double
Q90 - Quad
Q90 - Quad

Fits over 4" OD pole or tenon

CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

https://www.lsicorp.com/wp-content/uploads/documents/products/imsbt-specsheet.pdf

AirLink Wireless Lighting Controller (ALSC)

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture. It also includes the ability to add Dynamic Behaviors and save scenes for specific sporting events.

Click the link below to learn more details about AirLink.

https://www.lsicorp.com/wp-content/uploads/documents/products/airlink-outdoor-specsheet.pdf

AirLink Blue (ALBCS 1 & 2)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

https://www.lsicorp.com/product/airlink-blue/

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.

https://www.lsicorp.com/products/poles-brackets/

BKA UMB CLR

The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" – 5".

BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a onto a 2" iron pipe , 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.

BKS PQM15 CLR

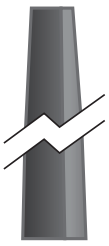
The Pole Quick Mount Bracket allows for preset 15° uptilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.

BKS PQMH CLR

The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.

Square Pole
14'-39'

Round Pole
10'-30'



Tapered Pole
20'-39'

MTN. BROOK JUNIOR HIGH SCHOOL ATHLETICS

MOUNTAIN BROOK, ALABAMA 12/16/2022

0 20 40 60

SCALE: 1" = 20'

N

GMC

Mountain Brook Junior High Tennis And Multi Purpose

Mountain Brook,AL

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F4	60'	60'	2	TLC-LED-1200	2.34 kW	A
		60'	3	TLC-LED-900	2.67 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
4			***28***		***24.64 kW***	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Football	24.64 kW	28

Fixture Type Summary

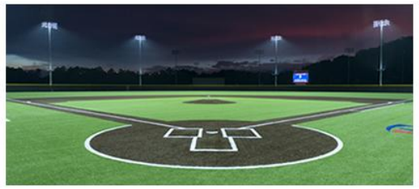
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	8
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	12
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Football Spill	Horizontal Illuminance	0	0	0	0.00		A	28
Football Spill	Max Candela Metric	6.93	0	32	0.00		A	28
Football Spill	Max Vertical Illuminance Metric	0	0	0	0.00		A	28
Football	Horizontal Illuminance	30.3	23	38	1.70	1.32	A	28
Property Line Spill	Horizontal	0.16	0	1.45	0.00		A	28
Property Line Spill	Max Vertical Illuminance Metric	0.33	0	3.14	0.00		A	28

From Hometown to Professional



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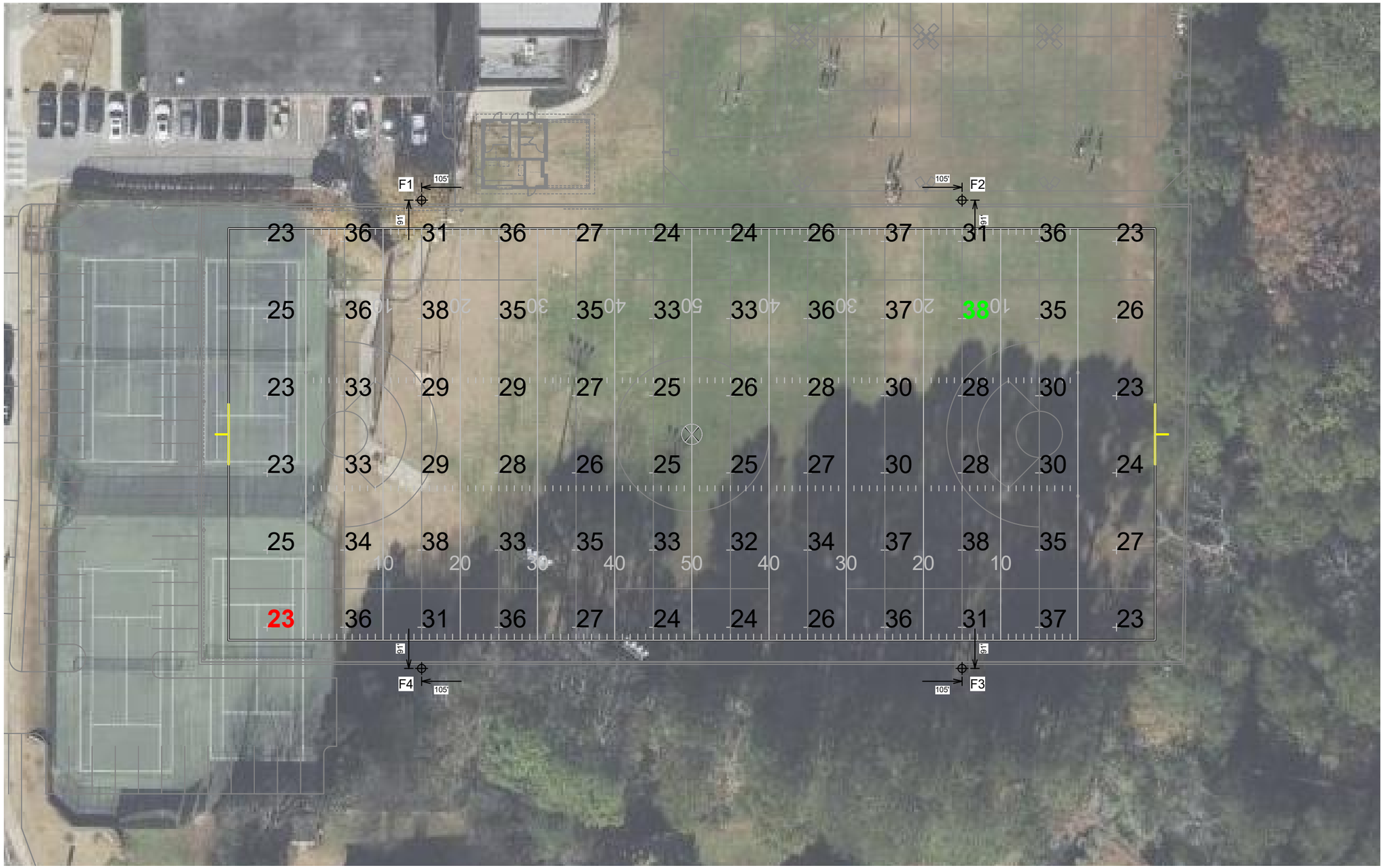
EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0



SCALE IN FEET 1 : 40

0' 40' 80'

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

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Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Football**
Size:	360' x 160'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**30**
Scan Average:	30.26
Maximum:	38
Minimum:	23
Avg / Min:	1.34
Guaranteed Max / Min:	**2.5**
Max / Min:	1.70
UG (adjacent pts):	1.61
CU:	0.75
No. of Points:	72

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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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
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0

SCALE IN FEET 1 : 80

0' 80' 160'

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

ENGINEERED DESIGN By: William Isiminger · File #174791B · 12-Dec-22

Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Football Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	0.0000
Maximum:	0.00
Minimum:	0.00
No. of Points:	66

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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.

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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
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0

SCALE IN FEET 1 : 80

0' 80' 160'

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

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Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Football Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	0.0001
Maximum:	0.00
Minimum:	0.00
No. of Points:	66

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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.

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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
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0

SCALE IN FEET 1 : 80

0' 80' 160'

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

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Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Football Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

	Entire Grid
Scan Average:	6.9287
Maximum:	32.00
Minimum:	0.00
No. of Points:	66

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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.

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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
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0

Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Property Line Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	0.1588
Maximum:	1.45
Minimum:	0.00
No. of Points:	42
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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.

N

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 LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	2	2	0
4	TOTALS					28	28	0

SCALE IN FEET 1 : 80

0' 80' 160'

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

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Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

GRID SUMMARY

Name:	**Property Line Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	0.3304
Maximum:	3.14
Minimum:	0.00
No. of Points:	42

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**28**
Total Load:	24.64 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.

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.

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Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL

EQUIPMENT LAYOUT

INCLUDES:
· Football

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.

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0	3.0
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5

SCALE IN FEET 1 : 80
0' 80' 160'

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

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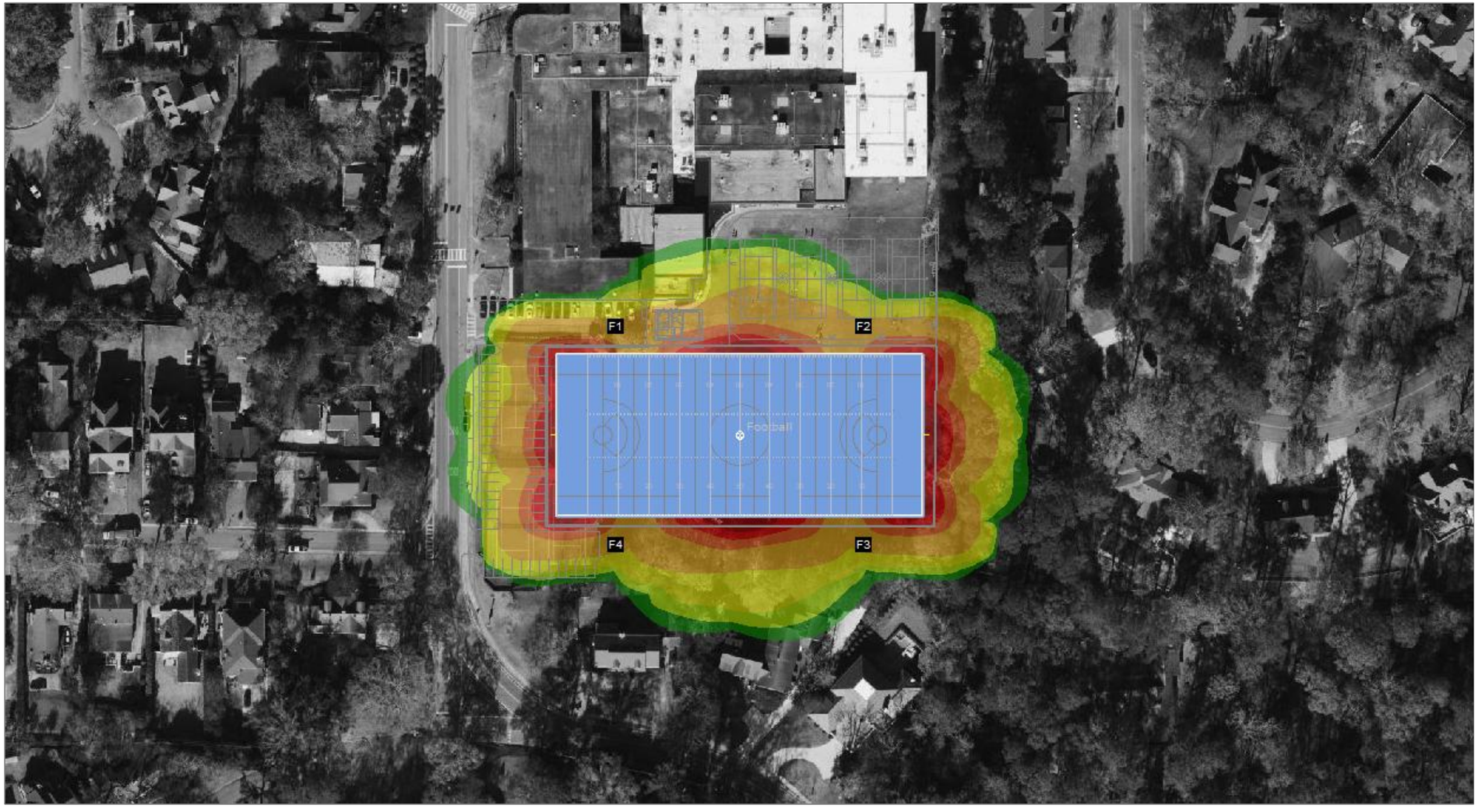
Mountain Brook Junior High Tennis And Multi Purpose
Mountain Brook,AL



Candelas:

+	150,000	100,000	50,000	5,000	1,000	500	250

GLARE IMPACT

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

GLARE

Candela Levels

High Glare: 150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

Significant Glare: 25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

Minimal to No Glare: 500 or less candela
Equivalent to 100W incandescent light bulb.

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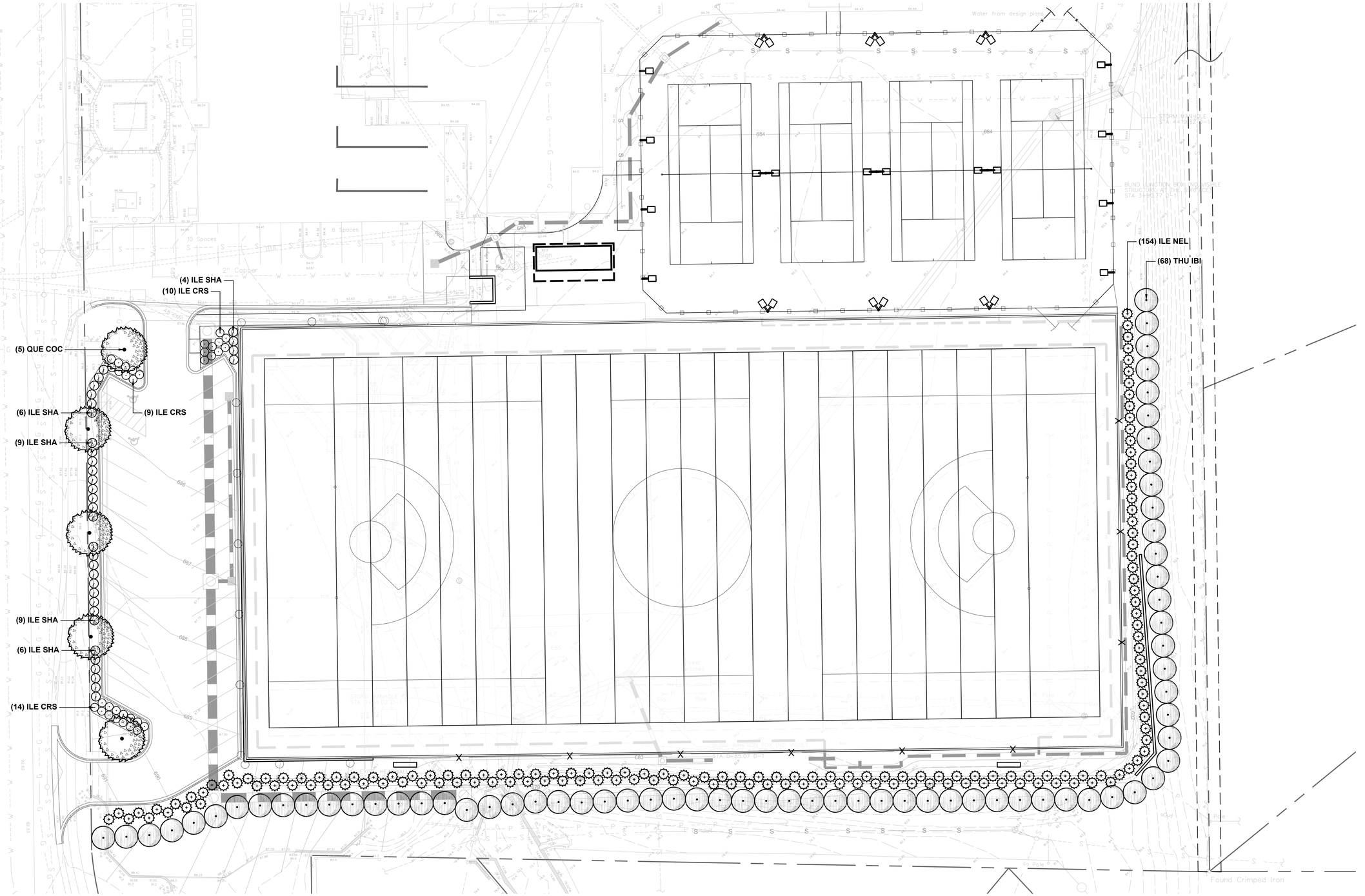


LANDSCAPE PLAN

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	CAL. / HT.	ROOTBALL	FORM		REMARKS
ILE NEL	154	ILEX X 'NELLIE R. STEVENS'	NELLIE R. STEVENS HOLLY	3` HT	3 GAL.	FULL-TO-GROUND		
QUE COC	5	QUERCUS COCCINEA	SCARLET OAK	3.0" CAL.	B&B			
THU IBI	68	THUJA X 'GREEN GIANT'	GREEN GIANT ARBORVITAE	5`-6` HT.	B&B	FULL-TO-GROUND		
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HT.		SPACING	
ILE CRS	33	ILEX CORNUTA 'CARISSA'	CARISSA CHINESE HOLLY	3 GAL			42" o.c.	
ILE SHA	34	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	3 GAL			48" o.c.	

NORTH

0' 20' 40' 80'

SCALE: 1 IN = 20 FT

GMC
2400 5th Avenue S, Suite 200
Birmingham, AL 35233
T 205.879.4462

ISSUE DATE
OWNER REVIEW 12.16.2022

AF
JBB

MOUNTAIN BROOK JR.
HIGH ATHLETICS
MOUNTAIN BROOK, AL

LBHM220030

NOT FOR CONSTRUCTION

LANDSCAPE PLAN AND PLANT SCHEDULE

L1.00

Mountain Brook Junior High Athletic Field

Lighting Evaluation:

Existing Field Lighting

1. Number of poles = 7
2. Total number of fixtures = 36
3. 1500 Watt metal halide lamp = 160,000 lumens
4. 36 x 160,000 = 5,760,000 lumens

New Field Lighting

1. Number of poles = 4
2. Total number of fixtures = 28
   A. 16 (1200watt) x 136,000 lumens = 2,176,000
   B. 4 (900watt) x 89,600 lumens = 358,400
   C. 8 (575watt) x 52,000 lumens = 416,000

Total = 2,950,400 lumens

New Field lumen percentile of existing field = 51%

Total Decrease = 49% less lumens

DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE LOCATION OF ALL UTILITIES IN ALL AREAS TO BE REMOVED OR DEMOLISHED, PRIOR TO COMMENCEMENT OF WORK. THE UTILITIES TO BE LOCATED SHALL INCLUDE, BUT NOT BE LIMITED TO WATER, GAS, SANITARY SEWER, STORM SEWER, SITE LIGHTING, IRRIGATION, SECURITY, CABLE, SITE ELECTRICAL, FIBER OPTIC, AND TELEPHONE.

2. ALL UTILITIES TO BE REMOVED SHALL BE CUT, REMOVED, CAPPED, ETC. ACCORDING TO ALL GOVERNING AGENCIES SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY AGENCIES PRIOR TO ANY WORK BEING PERFORMED ON THEIR RESPECTIVE LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND INFORMING EACH UTILITY AGENCY OF THE SCOPE OF WORK AND SCHEDULE OF COMPLETION, AND SHALL COORDINATE ALL INSPECTIONS.

3. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AND SHALL LOCATE ON THE GROUND WITH PAINT OR OTHER EASILY VISIBLE MEANS ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION EFFORTS. THE UTILITIES TO BE LOCATED SHALL INCLUDE, BUT NOT BE LIMITED TO WATER, GAS, SANITARY SEWER, STORM SEWER, SITE LIGHTING, IRRIGATION, SECURITY, CABLE, SITE ELECTRICAL, AND TELEPHONE. CONFLICTS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER IMMEDIATELY. THE UTILITIES SHOWN ARE ILLUSTRATED AS LOCATED ON THE GROUND BY LINE LOCATORS, SURVEY OF ABOVE GROUND STRUCTURES, AND/OR ACCORDING TO UTILITY MAPS OR UTILITY ADMINISTRATOR'S RECOLLECTION, AND ARE PROVIDED AS INFORMATION ONLY.

4. THE CONTRACTOR SHALL PRESERVE AND PROTECT, ACCORDING TO THE INSTRUCTIONS OF THE UTILITY INVOLVED, ANY "LIVE" UTILITIES LOCATED BY THE UTILITY COMPANY OR THE CONTRACTOR.

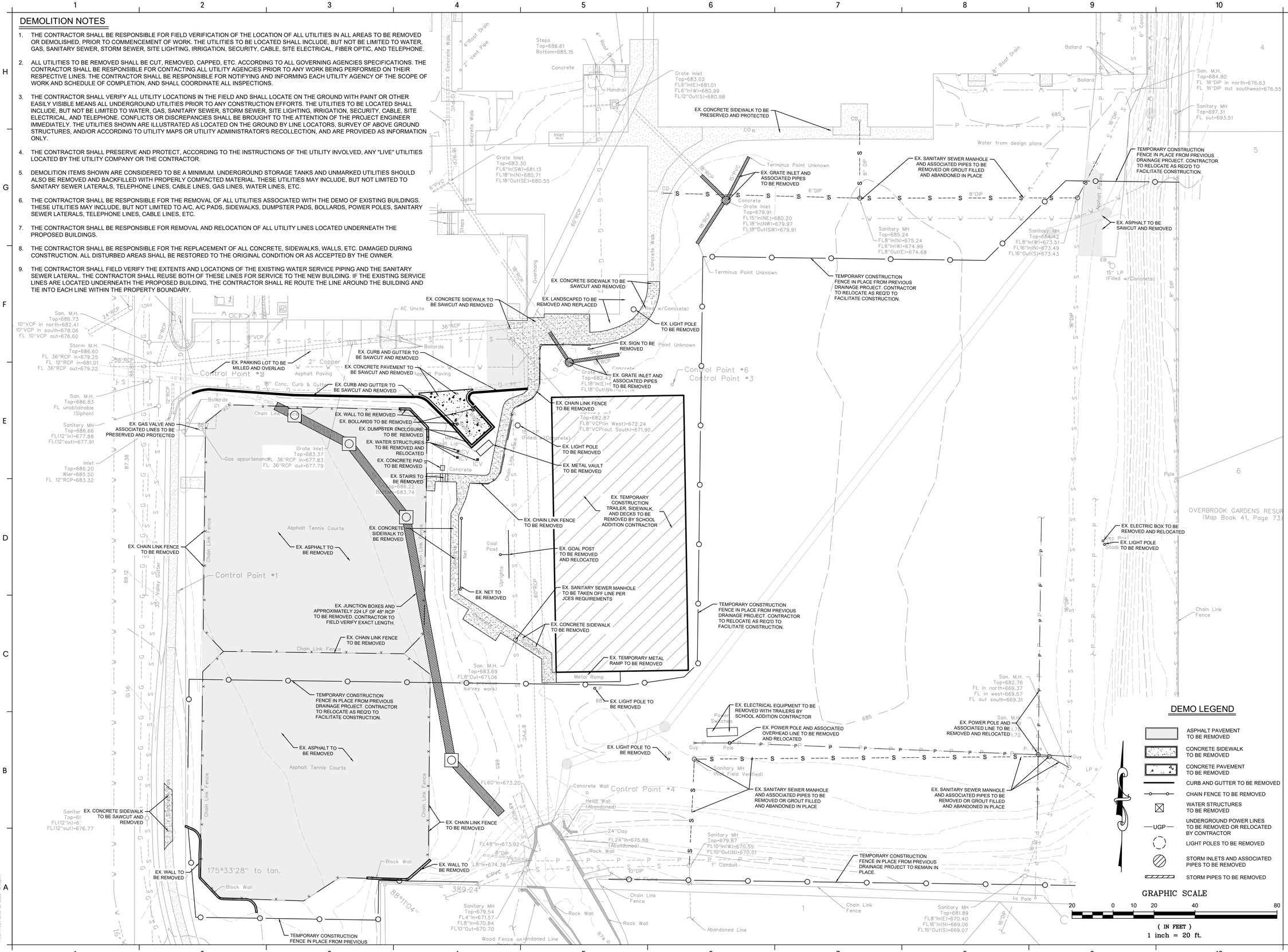
5. DEMOLITION ITEMS SHOWN ARE CONSIDERED TO BE A MINIMUM. UNDERGROUND STORAGE TANKS AND UNMARKED UTILITIES SHOULD ALSO BE REMOVED AND BACKFILLED WITH PROPERLY COMPACTED MATERIAL. THESE UTILITIES MAY INCLUDE, BUT NOT LIMITED TO SANITARY SEWER LATERALS, TELEPHONE LINES, CABLE LINES, GAS LINES, WATER LINES, ETC.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UTILITIES ASSOCIATED WITH THE DEMO OF EXISTING BUILDINGS. THESE UTILITIES MAY INCLUDE, BUT NOT LIMITED TO A/C, A/C PADS, SIDEWALKS, DUMPSTER PADS, BOLLARDS, POWER POLES, SANITARY SEWER LATERALS, TELEPHONE LINES, CABLE LINES, ETC.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND RELOCATION OF ALL UTILITY LINES LOCATED UNDERNEATH THE PROPOSED BUILDINGS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL CONCRETE, SIDEWALKS, WALLS, ETC. DAMAGED DURING CONSTRUCTION. ALL DISTURBED AREAS SHALL BE RESTORED TO THE ORIGINAL CONDITION OR AS ACCEPTED BY THE OWNER.

9. THE CONTRACTOR SHALL FIELD VERIFY THE EXTENTS AND LOCATIONS OF THE EXISTING WATER SERVICE PIPING AND THE SANITARY SEWER LATERAL. THE CONTRACTOR SHALL REUSE BOTH OF THESE LINES FOR SERVICE TO THE NEW BUILDING. IF THE EXISTING SERVICE LINES ARE LOCATED UNDERNEATH THE PROPOSED BUILDING, THE CONTRACTOR SHALL RE ROUTE THE LINE AROUND THE BUILDING AND TIE INTO EACH LINE WITHIN THE PROPERTY BOUNDARY.



GMC
2400 5th Avenue S, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE | DATE
PLANNING COMMISSION | 12/16/2022

DRAWN BY:
CHECKED BY:

MOUNTAIN BROOK JR. HIGH ATHLETICS
MOUNTAIN BROOK, AL

CBHM220085

DEMOLITION PLAN

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sheet of

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PLOTTED: Dec 16, 2022 - 3:38pm

SITE LAYOUT PLAN

MOUNTAIN BROOK JR.
HIGH ATHLETICS
MOUNTAIN BROOK, AL

ISSUE	DATE
PLANNING COMMISSION	12/16/2022
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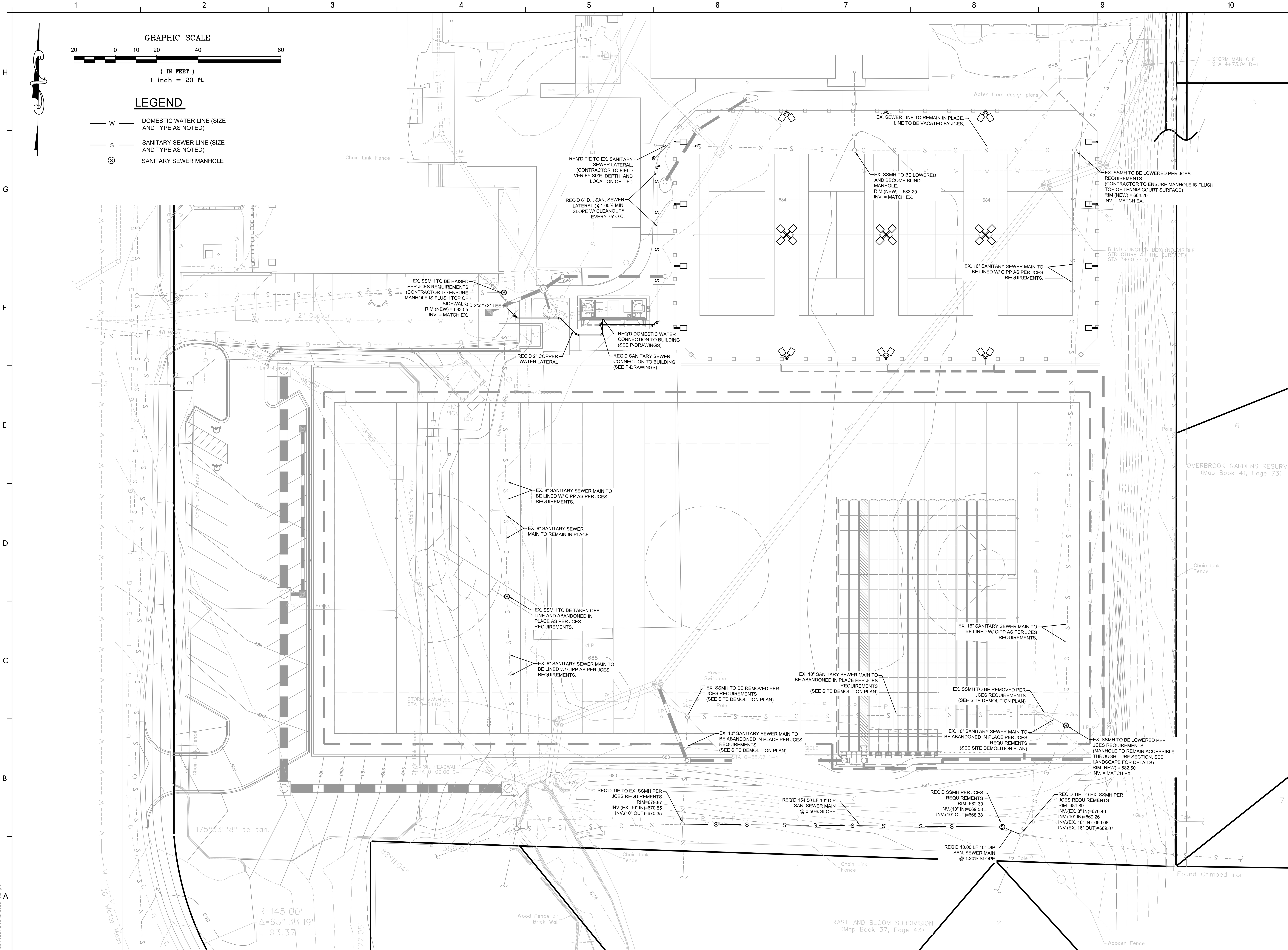

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PLOTTED: Dec 16, 2022 - 3:34pm

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SITE UTILITY PLAN

C2.0

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GRADING PLAN

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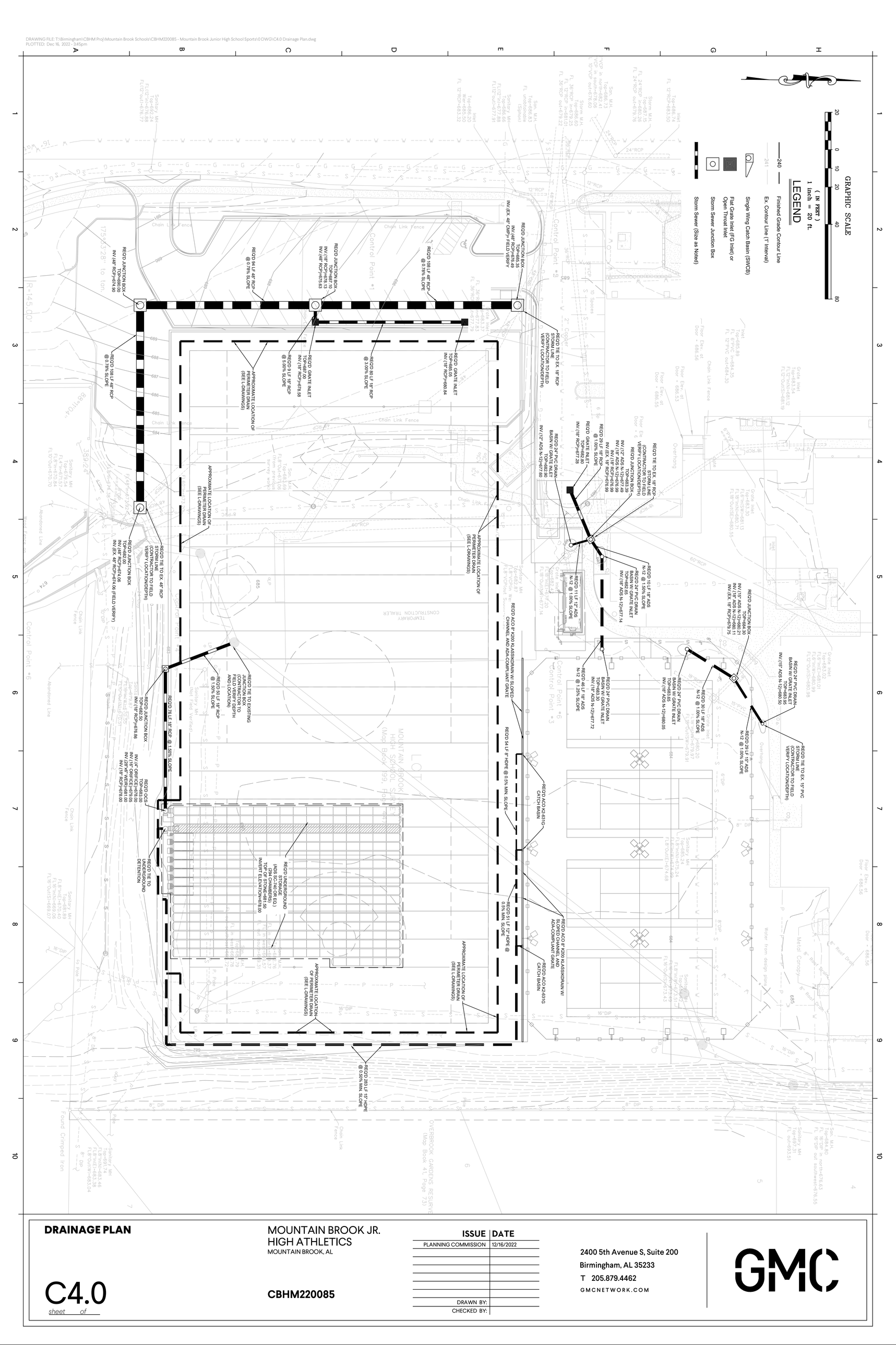

DRAINAGE PLAN

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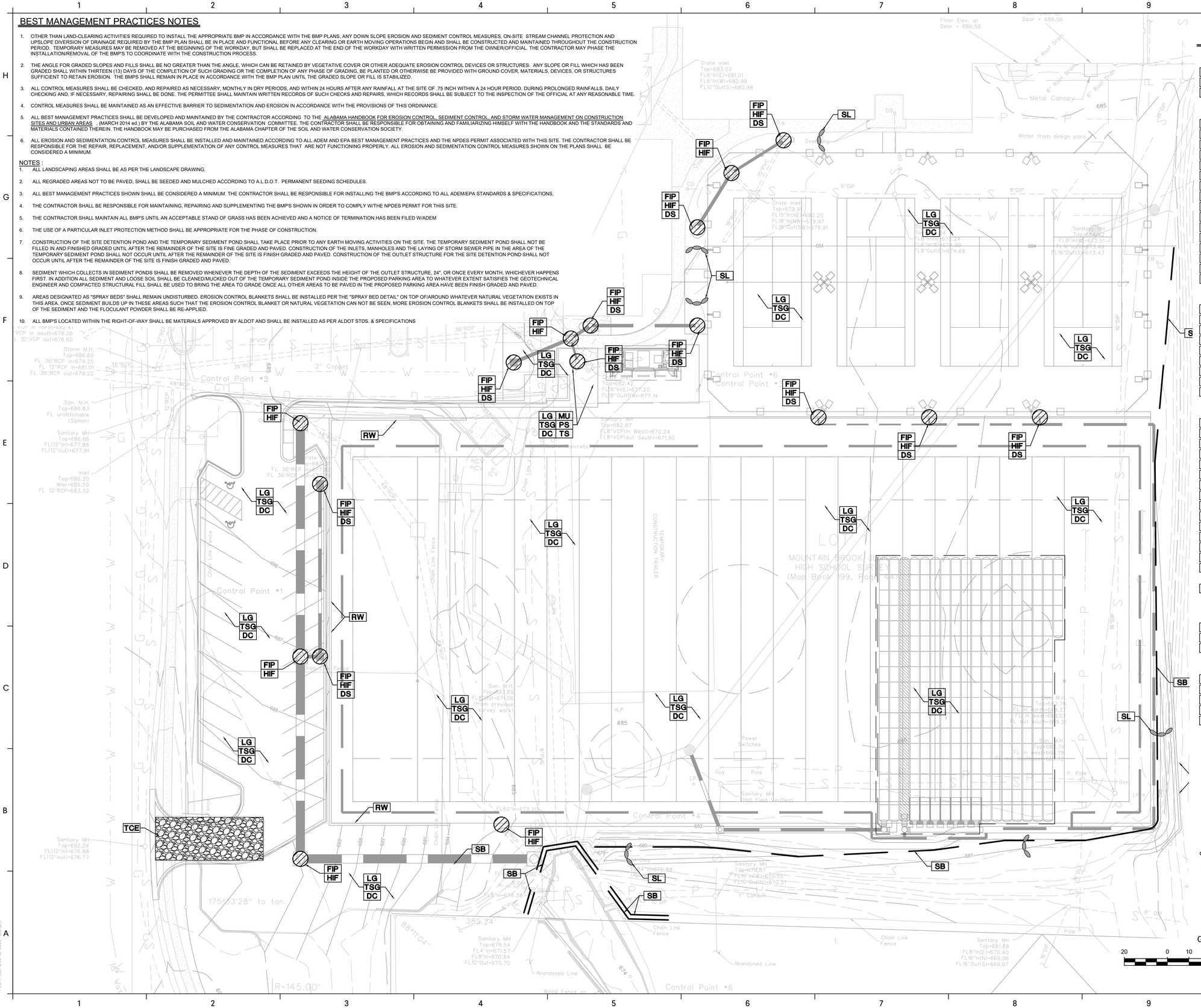
BEST MANAGEMENT PRACTICES NOTES

1. OTHER THAN LAND-CLEARING ACTIVITIES REQUIRED TO INSTALL THE APPROPRIATE BMP IN ACCORDANCE WITH THE BMP PLANS, ANY DOWN SLOPE EROSION AND SEDIMENT CONTROL MEASURES, ON-SITE STREAM CHANNEL PROTECTION AND UPSLOPE DIVERSION OF DRAINAGE REQUIRED BY THE BMP PLAN SHALL BE IN PLACE AND FUNCTIONAL BEFORE ANY CLEARING OR EARTH MOVING OPERATIONS BEGIN AND SHALL BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT SHALL BE REPLACED AT THE END OF THE WORKDAY WITH WRITTEN PERMISSION FROM THE OWNER/OFFICIAL. THE CONTRACTOR MAY PHASE THE INSTALLATION/REMOVAL OF THE BMP'S TO COORDINATE WITH THE CONSTRUCTION PROCESS.
2. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE, WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. ANY SLOPE OR FILL WHICH HAS BEEN GRADED SHALL WITHIN THIRTEEN (13) DAYS OF THE COMPLETION OF SUCH GRADING OR THE COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE BE PROVIDED WITH GROUND COVER, MATERIALS, DEVICES, OR STRUCTURES SUFFICIENT TO RETAIN EROSION. THE BMPS SHALL REMAIN IN PLACE IN ACCORDANCE WITH THE BMP PLAN UNTIL THE GRADED SLOPE OR FILL IS STABILIZED.
3. ALL CONTROL MEASURES SHALL BE CHECKED, AND REPAIRED AS NECESSARY, MONTHLY IN DRY PERIODS, AND WITHIN 24 HOURS AFTER ANY RAINFALL AT THE SITE OF .75 INCH WITHIN A 24 HOUR PERIOD. DURING PROLONGED RAINFALLS, DAILY CHECKING AND, IF NECESSARY, REPAIRING SHALL BE DONE. THE PERMITTEE SHALL MAINTAIN WRITTEN RECORDS OF SUCH CHECKS AND REPAIRS, WHICH RECORDS SHALL BE SUBJECT TO THE INSPECTION OF THE OFFICIAL AT ANY REASONABLE TIME.
4. CONTROL MEASURES SHALL BE MAINTAINED AS AN EFFECTIVE BARRIER TO SEDIMENTATION AND EROSION IN ACCORDANCE WITH THE PROVISIONS OF THIS ORDINANCE.
5. ALL BEST MANAGEMENT PRACTICES SHALL BE DEVELOPED AND MAINTAINED BY THE CONTRACTOR ACCORDING TO THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS , (MARCH 2014 ed.) BY THE ALABAMA SOIL AND WATER CONSERVATION COMMITTEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND FAMILIARIZING HIMSELF WITH THE HANDBOOK AND THE STANDARDS AND MATERIALS CONTAINED THEREIN. THE HANDBOOK MAY BE PURCHASED FROM THE ALABAMA CHAPTER OF THE SOIL AND WATER CONSERVATION SOCIETY.
6. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED ACCORDING TO ALL ADEM AND EPA BEST MANAGEMENT PRACTICES AND THE NPDES PERMIT ASSOCIATED WITH THIS SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND/OR SUPPLEMENTATION OF ANY CONTROL MEASURES THAT ARE NOT FUNCTIONING PROPERLY. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE CONSIDERED A MINIMUM.

NOTES :

1. ALL LANDSCAPING AREAS SHALL BE AS PER THE LANDSCAPE DRAWING.
2. ALL REGRADED AREAS NOT TO BE PAVED, SHALL BE SEEDED AND MULCHED ACCORDING TO A.L.D.O.T. PERMANENT SEEDING SCHEDULES.
3. ALL BEST MANAGEMENT PRACTICES SHOWN SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE BMP'S ACCORDING TO ALL ADEM/EPA STANDARDS & SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING, REPAIRING AND SUPPLEMENTING THE BMP'S SHOWN IN ORDER TO COMPLY W/THE NPDES PERMIT FOR THIS SITE.
5. THE CONTRACTOR SHALL MAINTAIN ALL BMP'S UNTIL AN ACCEPTABLE STAND OF GRASS HAS BEEN ACHIEVED AND A NOTICE OF TERMINATION HAS BEEN FILED W/ADEM
6. THE USE OF A PARTICULAR INLET PROTECTION METHOD SHALL BE APPROPRIATE FOR THE PHASE OF CONSTRUCTION.
7. CONSTRUCTION OF THE SITE DETENTION POND AND THE TEMPORARY SEDIMENT POND SHALL TAKE PLACE PRIOR TO ANY EARTH MOVING ACTIVITIES ON THE SITE. THE TEMPORARY SEDIMENT POND SHALL NOT BE FILLED IN AND FINISHED GRADED UNTIL AFTER THE REMAINDER OF THE SITE IS FINE GRADED AND PAVED. CONSTRUCTION OF THE INLETS, MANHOLES AND THE LAYING OF STORM SEWER PIPE IN THE AREA OF THE TEMPORARY SEDIMENT POND SHALL NOT OCCUR UNTIL AFTER THE REMAINDER OF THE SITE IS FINISH GRADED AND PAVED. CONSTRUCTION OF THE OUTLET STRUCTURE FOR THE SITE DETENTION POND SHALL NOT OCCUR UNTIL AFTER THE REMAINDER OF THE SITE IS FINISH GRADED AND PAVED.
8. SEDIMENT WHICH COLLECTS IN SEDIMENT PONDS SHALL BE REMOVED WHENEVER THE DEPTH OF THE SEDIMENT EXCEEDS THE HEIGHT OF THE OUTLET STRUCTURE, 24", OR ONCE EVERY MONTH, WHICHEVER HAPPENS FIRST. IN ADDITION ALL SEDIMENT AND LOOSE SOIL SHALL BE CLEANED/MUCKED OUT OF THE TEMPORARY SEDIMENT POND INSIDE THE PROPOSED PARKING AREA TO WHATEVER EXTENT SATISFIES THE GEOTECHNICAL ENGINEER AND COMPACTED STRUCTURAL FILL SHALL BE USED TO BRING THE AREA TO GRADE ONCE ALL OTHER AREAS TO BE PAVED IN THE PROPOSED PARKING AREA HAVE BEEN FINISH GRADED AND PAVED.
9. AREAS DESIGNATED AS "SPRAY BEDS" SHALL REMAIN UNDISTURBED. EROSION CONTROL BLANKETS SHALL BE INSTALLED PER THE "SPRAY BED DETAIL" ON TOP OF/AROUND WHATEVER NATURAL VEGETATION EXISTS IN THIS AREA. ONCE SEDIMENT BUILDS UP IN THESE AREAS SUCH THAT THE EROSION CONTROL BLANKET OR NATURAL VEGETATION CAN NOT BE SEEN, MORE EROSION CONTROL BLANKETS SHALL BE INSTALLED ON TOP OF THE SEDIMENT AND THE FLOCULANT POWDER SHALL BE RE-APPLIED.
10. ALL BMP'S LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE MATERIALS APPROVED BY ALDOT AND SHALL BE INSTALLED AS PER ALDOT STDS. & SPECIFICATIONS



EROSION AND SEDIMENTATION CONTROL LEGEND

Site Preparation

- CEP Construction Exit Pad
- LG Land Grading
- TSG Top soiling

Surface Stabilization

- CHS Chemical Stabilization
- DSF Dune Sand Fence
- DVP Dune Vegetation Planting
- DW Dune Walkover
- DC Dust Control
- ECB Erosion Control Blanket
- GK Grounds keeping
- MU Mulching
- PS Permanent Seeding
- PV Preservation of Vegetation
- RW Retaining Wall
- SVG Shrub, Vine and Ground cover Plantings
- SOD Sodding
- TS Temporary Seeding
- TP Tree Planting on Disturbed Areas
- CFM Cotton Fiber Matrix Hydroseeding

Runoff Conveyance

- CD Check Dam
- DV Diversion Channel
- DRS Drop Structure
- GS Grass Swale
- LS Lined Swale
- OP Outlet Protection
- RS Riprap-lined Swale
- SD Subsurface Drain
- TDS Temporary Slope Drains

Sediment Control

- BIP Block and Gravel Inlet
- BFB Brush/Fabric Barrier
- EIP Excavated Drop Inlet Protection
- FIP Fabric Drop Inlet Protection
- FS Filter Sack
- DS Dandy Sack
- FB Floating Turbidity Barrier
- RD Rock Filter Dam
- SB Sediment Barrier
- SBN Sediment Basin
- SST Straw Bale Sediment Trap
- TST Temporary Sediment Trap
- SL Sediment Log (20") / Wattle
- HIF HDPE Inlet Filter
- PFL Anionic Polyacrylamide Storm Water Floculant Log
- PFP Anionic Polyacrylamide Storm Water Floculant Powder

Storm water Management

- PP Porous Pavement
- SDB Storm Water Detention Basin
- TRE Temporary Inlet Riser Extension

Stream Protection

- BZ Buffer Zone
- CS Channel Stabilization
- SP Stream bank Protection
- TSC Temporary Stream Crossing
- BG Baffle Grid

LEGEND

- CLASS-A WIRE REINFORCED SILTFENCE
- FILTER SACK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- 20" SEDIMENT LOG / WATTLE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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EROSION AND SEDIMENT CONTROL PLAN

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Mountain Brook Junior High School Athletics

in

Mountain Brook, Alabama

Storm Water Runoff Calculations Report

by

Goodwyn Mills Cawood, LLC

on

December 16, 2022

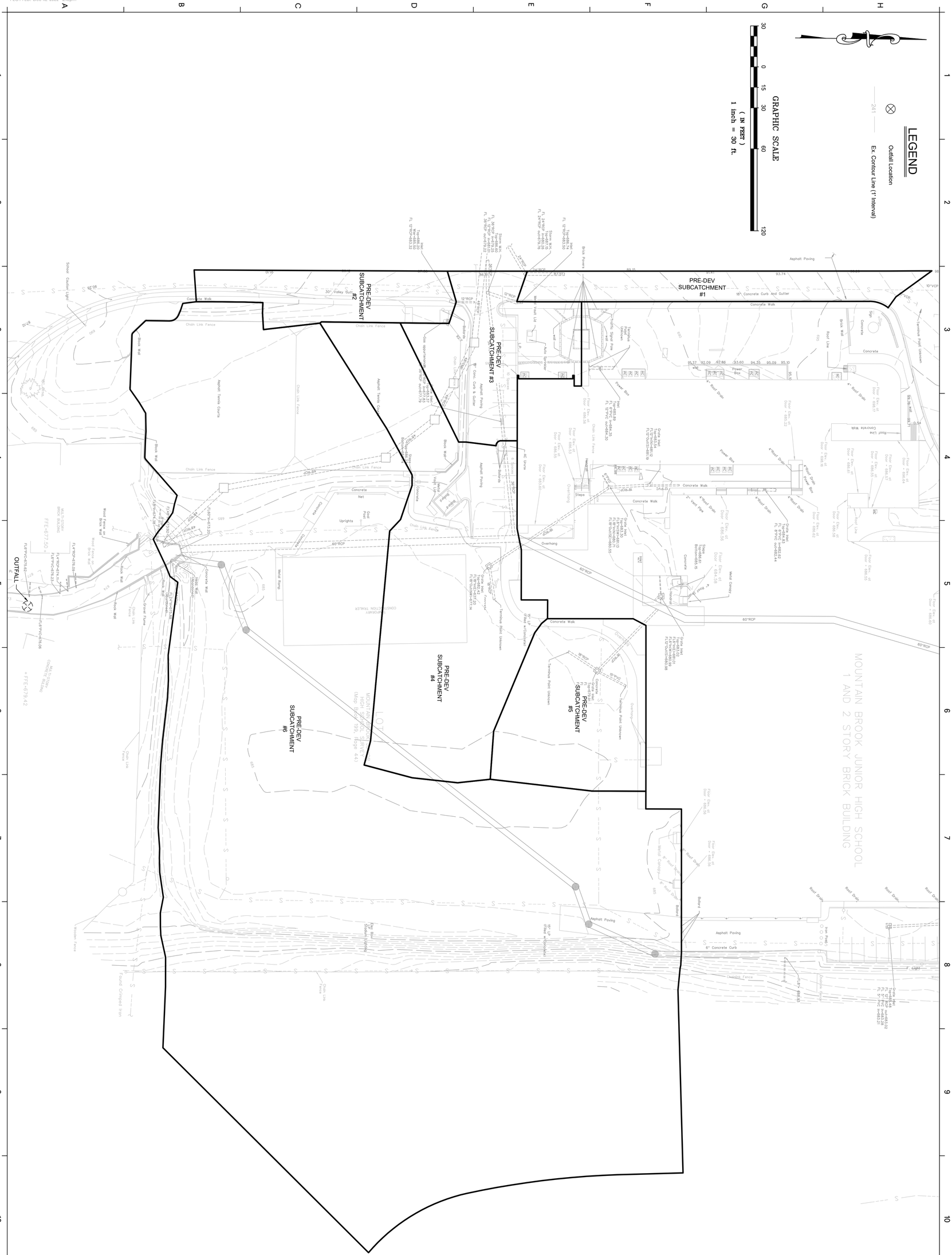
Table of Contents

Mountain Brook Junior High School Athletics

Runoff Calculations Summary

12.16.2022

Design Storm	2-YR (i=4.12")	5-YR (i=5.02")	10-YR (i=5.85")	25-YR (i=7.13")	100-YR (i=9.39")
Pre-Development Flow @ Outfall	12.00 cfs	15.65 cfs	19.04 cfs	24.29 cfs	33.44 cfs
Post-Development Flow @ Outfall	9.77 cfs	13.34 cfs	16.74 cfs	22 cfs	30.62 cfs
Pre-Development vs Post-Development @ Outfall	-2.23 cfs	-2.31 cfs	-2.30 cfs	-2.29 cfs	-2.82 cfs
Underground Detention Inflow	8.00 cfs	9.77 cfs	11.4 cfs	13.92 cfs	18.35 cfs
Underground Detention Outflow	2.89 cfs	4.28 cfs	5.68 cfs	7.38 cfs	11.84 cfs



PRE-DEVELOPMENT DRAINAGE AREA MAP

MOUNTAIN BROOK JR. HIGH ATHLETICS
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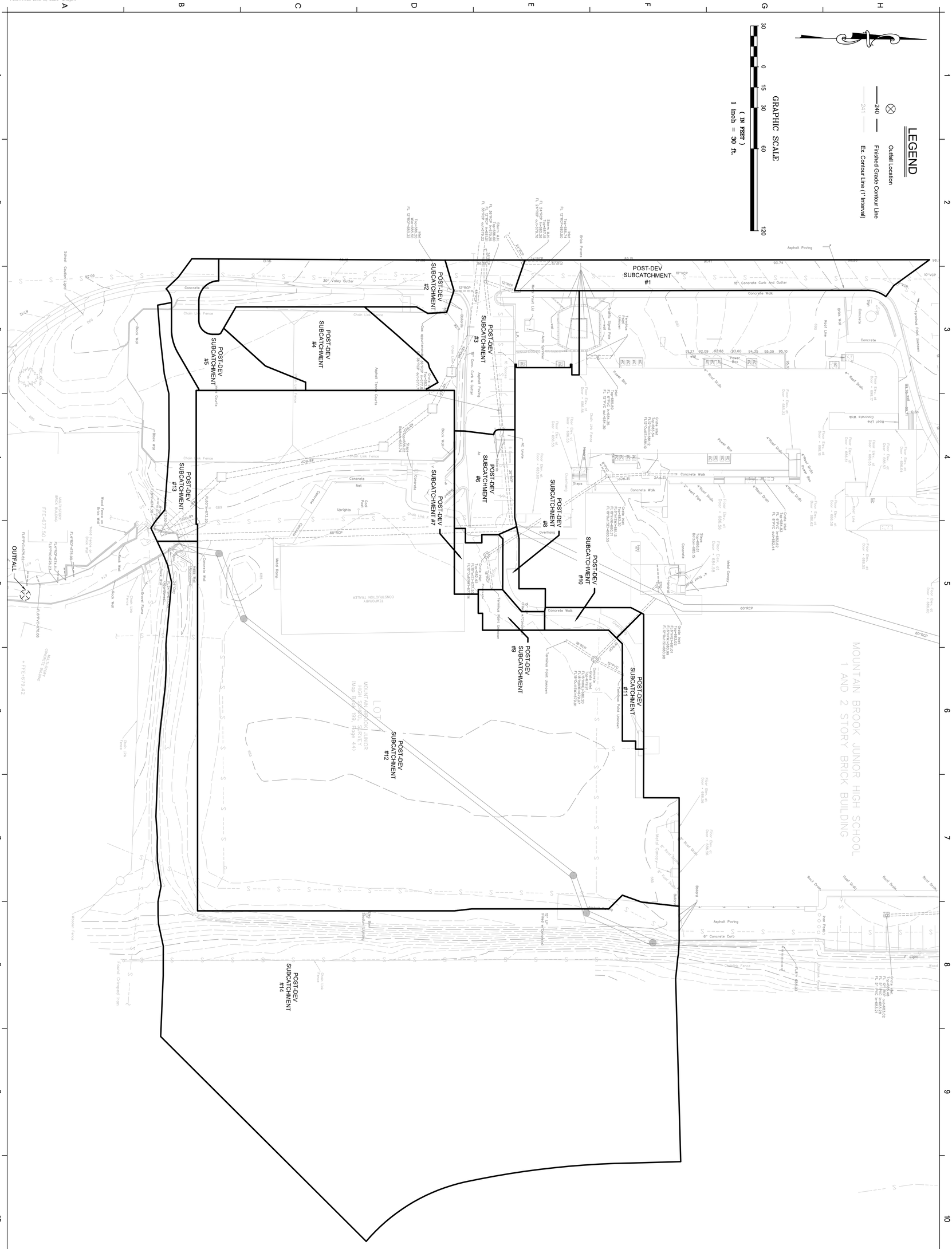

POST-DEVELOPMENT DRAINAGE AREA MAP

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Project Description

File Name	Mountain Brook Junior High School Sports.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-20
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Dec 01, 2022	00:00:00
End Analysis On	Dec 02, 2022	00:00:00
Start Reporting On	Dec 01, 2022	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:01:00	days hh:mm:ss
Routing Time Step	30	seconds

Number of Elements

	Qty
Rain Gages	0
Subbasins	20
Nodes	44
Junctions	41
Outfalls	2
Flow Diversions	0
Inlets	0
Storage Nodes	1
Links	44
Channels	2
Pipes	39
Pumps	0
Orifices	2
Weirs	1
Outlets	0
Pollutants	0
Land Uses	0

Subbasin Summary

SN	Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	Post-Dev-1	0.15	98.00	7.13	6.89	1.01	0.88	0 00:05:00
2	Post-Dev-10	0.03	91.60	7.13	6.09	0.16	0.15	0 00:05:00
3	Post-Dev-11	0.03	90.25	7.13	5.95	0.19	0.18	0 00:05:00
4	Post-Dev-12	2.32	98.00	7.13	6.89	15.98	13.92	0 00:05:00
5	Post-Dev-13	0.08	80.00	7.13	4.81	0.37	0.38	0 00:05:00
6	Post-Dev-14	1.78	83.49	7.13	5.21	9.26	9.26	0 00:05:00
7	Post-Dev-2	0.15	97.49	7.13	6.83	1.03	0.92	0 00:05:00
8	Post-Dev-3	0.24	92.64	7.13	6.26	1.49	1.38	0 00:05:00
9	Post-Dev-4	0.16	98.00	7.13	6.89	1.09	0.96	0 00:05:00
10	Post-Dev-5	0.09	98.00	7.13	6.89	0.60	0.54	0 00:05:00
11	Post-Dev-6	0.08	96.81	7.13	6.75	0.52	0.46	0 00:05:00
12	Post-Dev-7	0.03	92.20	7.13	6.18	0.21	0.19	0 00:05:00
13	Post-Dev-8	0.02	86.68	7.13	5.50	0.12	0.10	0 00:05:00
14	Post-Dev-9	0.02	93.48	7.13	6.31	0.15	0.15	0 00:05:00
15	Pre-Dev-1	0.15	98.00	7.13	6.89	1.01	0.88	0 00:05:00
16	Pre-Dev-2	0.15	93.41	7.13	6.35	0.95	0.86	0 00:05:00
17	Pre-Dev-3	0.23	94.15	7.13	6.43	1.50	1.36	0 00:05:00
18	Pre-Dev-4	0.65	88.70	7.13	5.80	3.75	3.04	0 00:16:03
19	Pre-Dev-5	0.28	82.38	7.13	5.08	1.44	1.26	0 00:13:33
20	Pre-Dev-6	3.75	84.15	7.13	5.28	19.80	17.39	0 00:13:09

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft²)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	Jun-01	Junction	673.20	680.00	673.20	680.00	0.00	24.34	674.23	0.00	5.77	0 00:00	0.00	0.00
2	Jun-02	Junction	674.53	678.53	674.53	0.00	0.00	1.74	674.84	0.00	3.69	0 00:00	0.00	0.00
3	Jun-03	Junction	675.74	679.74	675.74	0.00	0.00	1.74	676.05	0.00	3.69	0 00:00	0.00	0.00
4	Jun-04	Junction	676.19	680.19	676.19	680.19	0.00	1.74	676.50	0.00	3.69	0 00:00	0.00	0.00
5	Jun-05	Junction	676.82	680.82	676.82	680.82	0.00	1.75	677.13	0.00	3.69	0 00:00	0.00	0.00
6	Jun-06	Junction	677.11	681.11	677.11	681.11	0.00	1.75	680.41	0.00	0.70	0 00:00	0.00	0.00
7	Jun-07	Junction	683.50	686.74	683.50	686.74	0.00	0.88	683.80	0.00	2.94	0 00:00	0.00	0.00
8	Jun-08	Junction	683.32	685.50	683.32	685.50	0.00	0.86	683.49	0.00	2.01	0 00:00	0.00	0.00
9	Jun-09	Junction	674.76	679.76	674.76	679.76	0.00	5.36	677.05	0.00	2.72	0 00:00	0.00	0.00
10	Jun-10	Junction	677.79	683.37	677.79	683.37	0.00	1.36	678.08	0.00	5.29	0 00:00	0.00	0.00
11	Jun-11	Junction	674.84	679.84	674.84	679.84	0.00	4.30	677.39	0.00	2.45	0 00:00	0.00	0.00
12	Jun-12	Junction	677.14	682.42	677.14	682.42	0.00	3.04	677.69	0.00	4.73	0 00:00	0.00	0.00
13	Jun-13	Junction	675.53	680.53	675.53	680.53	0.00	1.25	679.35	0.00	1.18	0 00:00	0.00	0.00
14	Jun-14	Junction	679.97	683.90	679.97	683.90	0.00	1.26	680.29	0.00	3.61	0 00:00	0.00	0.00
15	Jun-15	Junction	673.20	680.00	673.20	680.00	0.00	22.05	674.08	0.00	5.92	0 00:00	0.00	0.00
16	Jun-16	Junction	674.06	682.00	674.06	682.00	0.00	3.34	674.51	0.00	7.49	0 00:00	0.00	0.00
17	Jun-17	Junction	674.90	690.00	674.90	690.00	0.00	3.32	675.36	0.00	14.64	0 00:00	0.00	0.00
18	Jun-18	Junction	675.63	687.55	675.63	687.55	0.00	3.30	678.39	0.00	9.16	0 00:00	0.00	0.00
19	Jun-19	Junction	676.49	685.35	676.49	685.35	0.00	1.80	676.82	0.00	8.53	0 00:00	0.00	0.00
20	Jun-20	Junction	676.82	680.82	676.82	680.82	0.00	1.80	677.13	0.00	3.69	0 00:00	0.00	0.00
21	Jun-21	Junction	677.11	681.11	677.11	0.00	0.00	1.80	677.64	0.00	3.47	0 00:00	0.00	0.00
22	Jun-22	Junction	683.50	686.74	683.50	686.74	0.00	0.88	683.74	0.00	3.00	0 00:00	0.00	0.00
23	Jun-23	Junction	683.32	685.50	683.32	685.50	0.00	0.92	683.55	0.00	1.95	0 00:00	0.00	0.00
24	Jun-24	Junction	678.58	687.00	678.58	687.00	0.00	1.50	678.84	0.00	8.16	0 00:00	0.00	0.00
25	Jun-25	Junction	680.84	685.05	680.84	685.05	0.00	0.96	681.21	0.00	3.84	0 00:00	0.00	0.00
26	Jun-26	Junction	674.76	679.76	674.76	679.76	0.00	2.61	677.04	0.00	2.72	0 00:00	0.00	0.00
27	Jun-27	Junction	677.79	683.37	677.79	68.37	0.00	1.38	678.08	0.00	5.29	0 00:00	0.00	0.00
28	Jun-28	Junction	674.84	679.84	674.84	679.84	0.00	1.23	677.15	0.00	2.69	0 00:00	0.00	0.00
29	Jun-29	Junction	676.99	683.39	676.99	683.39	0.00	0.90	677.64	0.00	5.75	0 00:00	0.00	0.00
30	Jun-30	Junction	677.27	682.80	677.27	682.80	0.00	0.46	677.49	0.00	5.31	0 00:00	0.00	0.00
31	Jun-31	Junction	677.60	682.90	677.60	682.90	0.00	0.19	677.75	0.00	5.15	0 00:00	0.00	0.00
32	Jun-32	Junction	677.14	682.65	677.14	682.65	0.00	0.25	677.28	0.00	5.37	0 00:00	0.00	0.00
33	Jun-33	Junction	677.72	683.30	677.72	683.30	0.00	0.15	677.83	0.00	5.47	0 00:00	0.00	0.00
34	Jun-34	Junction	675.53	680.53	675.53	680.53	0.00	0.34	679.20	0.00	1.33	0 00:00	0.00	0.00
35	Jun-35	Junction	679.75	684.30	679.75	684.30	0.00	0.33	680.35	0.00	3.95	0 00:00	0.00	0.00
36	Jun-36	Junction	680.05	683.65	680.05	683.65	0.00	0.15	680.17	0.00	3.48	0 00:00	0.00	0.00
37	Jun-37	Junction	680.50	683.95	680.50	683.95	0.00	0.18	680.65	0.00	3.30	0 00:00	0.00	0.00
38	Jun-38	Junction	673.50	680.00	673.50	680.00	0.00	7.38	674.11	0.00	5.89	0 00:00	0.00	0.00
39	Jun-39	Junction	673.94	677.94	673.94	677.94	0.00	7.38	676.92	0.00	1.02	0 00:00	0.00	0.00
40	Jun-40	Junction	676.86	682.50	676.86	682.50	0.00	7.38	677.67	0.00	4.83	0 00:00	0.00	0.00
41	Jun-41	Junction	678.00	683.00	678.00	683.00	0.00	7.38	678.82	0.00	4.18	0 00:00	0.00	0.00
42	Post-Dev Outfall	Outfall	673.00					22.00	673.88					
43	Pre-Dev Outfall	Outfall	673.00					24.29	673.93					
44	Stor-01	Storage Node	678.00	681.50	678.00		0.00	13.92	680.67				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	Link-02	Pipe	Jun-02	Jun-01	61.00	674.53	673.92	1.0000	48.000	0.0130	1.74	143.64	0.01	3.89	0.31	0.08	0.00	Calculated
2	Link-03	Pipe	Jun-03	Jun-02	121.00	675.74	674.53	1.0000	48.000	0.0130	1.74	143.64	0.01	3.89	0.31	0.08	0.00	Calculated
3	Link-04	Pipe	Jun-04	Jun-03	45.00	676.19	675.74	1.0000	48.000	0.0130	1.74	143.64	0.01	3.89	0.31	0.08	0.00	Calculated
4	Link-05	Pipe	Jun-05	Jun-04	63.00	676.82	676.19	1.0000	48.000	0.0130	1.74	143.64	0.01	3.89	0.31	0.08	0.00	Calculated
5	Link-06	Pipe	Jun-06	Jun-05	29.00	677.11	676.82	1.0000	48.000	0.0130	1.75	143.64	0.01	3.89	0.31	0.08	0.00	Calculated
6	Link-07	Pipe	Jun-07	Jun-06	206.15	683.50	680.11	1.6400	12.000	0.0130	0.88	4.57	0.19	4.52	0.30	0.30	0.00	Calculated
7	Link-08	Pipe	Jun-08	Jun-06	19.00	683.32	680.11	16.8900	12.000	0.0130	0.86	14.64	0.06	10.20	0.16	0.16	0.00	Calculated
8	Link-09	Pipe	Jun-09	Jun-01	243.89	674.76	673.20	0.6400	60.000	0.0130	5.44	208.29	0.03	4.57	0.56	0.11	0.00	Calculated
9	Link-10	Pipe	Jun-10	Jun-09	84.00	677.79	676.77	1.2100	36.000	0.0130	1.36	73.50	0.02	3.99	0.28	0.09	0.00	Calculated
10	Link-11	Pipe	Jun-11	Jun-09	12.12	674.84	674.76	0.6600	60.000	0.0150	4.29	183.38	0.02	3.75	0.54	0.11	0.00	Calculated
11	Link-12	Pipe	Jun-12	Jun-11	30.00	677.14	676.84	1.0000	18.000	0.0130	3.04	10.50	0.29	5.15	0.55	0.37	0.00	Calculated
12	Link-13	Pipe	Jun-13	Jun-11	108.20	675.53	674.84	0.6400	60.000	0.0130	1.25	207.98	0.01	2.90	0.28	0.06	0.00	Calculated
13	Link-14	Pipe	Jun-14	Jun-13	63.00	679.97	679.03	1.4900	18.000	0.0130	1.25	12.83	0.10	4.62	0.32	0.21	0.00	Calculated
14	Link-16	Pipe	Jun-16	Jun-15	14.00	674.06	673.20	6.1400	48.000	0.0130	3.33	356.02	0.01	8.86	0.27	0.07	0.00	Calculated
15	Link-17	Pipe	Jun-17	Jun-16	108.00	674.90	674.06	0.7800	48.000	0.0130	3.34	126.68	0.03	4.34	0.45	0.11	0.00	Calculated
16	Link-18	Pipe	Jun-18	Jun-17	94.00	675.63	674.90	0.7800	48.000	0.0130	3.32	126.59	0.03	4.34	0.45	0.11	0.00	Calculated
17	Link-19	Pipe	Jun-19	Jun-18	108.00	676.49	675.63	0.8000	48.000	0.0130	1.80	128.18	0.01	3.63	0.33	0.08	0.00	Calculated
18	Link-20	Pipe	Jun-20	Jun-19	33.00	676.82	676.49	1.0000	48.000	0.0130	1.80	143.64	0.01	3.93	0.31	0.08	0.00	Calculated
19	Link-21	Pipe	Jun-21	Jun-20	29.00	677.11	676.82	1.0000	48.000	0.0130	1.80	143.64	0.01	3.93	0.31	0.08	0.00	Calculated
20	Link-22	Pipe	Jun-22	Jun-21	188.87	683.50	677.40	3.2300	18.000	0.0150	0.88	16.36	0.05	4.95	0.24	0.16	0.00	Calculated
21	Link-23	Pipe	Jun-23	Jun-21	159.94	683.32	677.40	3.7000	18.000	0.0150	0.92	17.51	0.05	5.25	0.23	0.16	0.00	Calculated
22	Link-24	Pipe	Jun-24	Jun-18	9.00	678.58	678.13	5.0000	18.000	0.0130	1.50	23.49	0.06	7.42	0.26	0.17	0.00	Calculated
23	Link-25	Pipe	Jun-25	Jun-24	80.00	680.98	678.58	3.0000	18.000	0.0130	0.96	18.19	0.05	5.45	0.23	0.16	0.00	Calculated
24	Link-26	Pipe	Jun-26	Jun-15	243.89	674.76	673.20	0.6400	60.000	0.0130	2.61	208.29	0.01	3.67	0.39	0.08	0.00	Calculated
25	Link-27	Pipe	Jun-27	Jun-26	84.00	677.79	676.76	1.2300	36.000	0.0130	1.38	73.86	0.02	4.02	0.29	0.10	0.00	Calculated
26	Link-28	Pipe	Jun-28	Jun-26	12.12	674.84	674.76	0.6600	60.000	0.0130	1.23	211.60	0.01	2.91	0.27	0.05	0.00	Calculated
27	Link-29	Pipe	Jun-29	Jun-28	15.00	676.99	676.85	0.9300	18.000	0.0130	0.90	10.15	0.09	3.55	0.30	0.20	0.00	Calculated
28	Link-30	Pipe	Jun-30	Jun-29	29.00	677.28	676.99	1.0000	18.000	0.0130	0.46	10.50	0.04	2.99	0.21	0.14	0.00	Calculated
29	Link-31	Pipe	Jun-31	Jun-29	11.00	677.60	677.49	1.0000	12.000	0.0120	0.19	3.86	0.05	2.54	0.15	0.15	0.00	Calculated
30	Link-32	Pipe	Jun-32	Jun-29	10.00	677.14	676.99	1.5000	18.000	0.0120	0.25	13.94	0.02	3.02	0.14	0.09	0.00	Calculated
31	Link-33	Pipe	Jun-33	Jun-32	46.00	677.72	677.14	1.2500	18.000	0.0120	0.15	12.72	0.01	2.43	0.11	0.08	0.00	Calculated
32	Link-34	Pipe	Jun-34	Jun-28	108.20	675.53	674.84	0.6400	60.000	0.0130	0.33	207.98	0.00	1.97	0.15	0.03	0.00	Calculated
33	Link-35	Pipe	Jun-35	Jun-34	48.00	679.75	679.03	1.5000	18.000	0.0130	0.34	12.87	0.03	3.14	0.17	0.11	0.00	Calculated
34	Link-36	Pipe	Jun-36	Jun-35	30.00	680.05	679.75	1.0000	18.000	0.0120	0.15	11.38	0.01	2.24	0.12	0.08	0.00	Calculated
35	Link-37	Pipe	Jun-37	Jun-35	29.00	680.50	680.21	1.0000	15.000	0.0120	0.18	7.00	0.03	2.45	0.14	0.11	0.00	Calculated
36	Link-38	Pipe	Jun-38	Jun-15	34.02	673.50	673.20	0.8800	48.000	0.0120	7.38	146.13	0.05	6.09	0.61	0.15	0.00	Calculated
37	Link-39	Pipe	Jun-39	Jun-38	51.05	673.94	673.50	0.8600	48.000	0.0120	7.38	144.47	0.05	6.04	0.61	0.15	0.00	Calculated
38	Link-40	Pipe	Jun-40	Jun-39	50.00	676.86	676.11	1.5000	18.000	0.0130	7.38	12.87	0.57	7.53	0.81	0.54	0.00	Calculated
39	Link-41	Pipe	Jun-41	Jun-40	76.00	678.00	676.86	1.5000	18.000	0.0130	7.38	12.87	0.57	7.53	0.81	0.54	0.00	Calculated
40	Link-01	Channel	Jun-01	Pre-Dev Outfall	120.00	673.20	673.00	0.1700	42.000	0.0330	24.29	186.32	0.13	1.63	0.93	0.27	0.00	
41	Link-15	Channel	Jun-15	Post-Dev Outfall	120.00	673.20	673.00	0.1700	42.000	0.0330	22.00	186.32	0.12	1.58	0.87	0.25	0.00	
42	Orifice-01	Orifice	Stor-01	Jun-41		678.00	678.00		4.000		0.68							
43	Orifice-02	Orifice	Stor-01	Jun-41		678.00	678.00		16.000		6.70							
44	Weir-01	Weir	Stor-01	Jun-41		678.00	678.00				0.00							

Subbasin Hydrology

Subbasin : Post-Dev-1

Input Data

Area (ac) 0.15
Weighted Curve Number 98.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.15	D	98.00
Composite Area & Weighted CN	0.15		98.00

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.89
Peak Runoff (cfs) 0.88
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-10

Input Data

Area (ac) 0.03
Weighted Curve Number 91.60
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.02	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.03		91.60

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.09
Peak Runoff (cfs) 0.15
Weighted Curve Number 91.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-11

Input Data

Area (ac)	0.03
Weighted Curve Number	90.25
Rain Gage ID	*

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.02	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.03		90.25

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in)	7.13
Total Runoff (in)	5.95
Peak Runoff (cfs)	0.18
Weighted Curve Number	90.25
Time of Concentration (days hh:mm:ss)	0 00:05:00

Subbasin : Post-Dev-12

Input Data

Area (ac) 2.32
Weighted Curve Number 98.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	2.32	D	98.00
Composite Area & Weighted CN	2.32		98.00

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.89
Peak Runoff (cfs) 13.92
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-13

Input Data

Area (ac) 0.08
Weighted Curve Number 80.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
> 75% grass cover, Good	0.08	D	80.00
Composite Area & Weighted CN	0.08		80.00

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 4.81
Peak Runoff (cfs) 0.38
Weighted Curve Number 80.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-14

Input Data

Area (ac) 1.78
Weighted Curve Number 83.49
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.03	D	98.00
> 75% grass cover, Good	0.20	D	80.00
1/2 acre lots, 25% impervious	1.29	D	85.00
Woods, Good	0.26	D	77.00
Composite Area & Weighted CN	1.78		83.49

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 5.21
Peak Runoff (cfs) 9.26
Weighted Curve Number 83.49
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-2

Input Data

Area (ac) 0.15
Weighted Curve Number 97.49
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.15	D	98.00
> 75% grass cover, Good	0.00	D	80.00
Composite Area & Weighted CN	0.15		97.49

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.83
Peak Runoff (cfs) 0.92
Weighted Curve Number 97.49
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-3

Input Data

Area (ac) 0.24
Weighted Curve Number 92.64
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	D	98.00
> 75% grass cover, Good	0.07	D	80.00
Composite Area & Weighted CN	0.24		92.64

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.26
Peak Runoff (cfs) 1.38
Weighted Curve Number 92.64
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-4

Input Data

Area (ac) 0.16
Weighted Curve Number 98.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.16	D	98.00
Composite Area & Weighted CN	0.16		98.00

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.89
Peak Runoff (cfs) 0.96
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-5

Input Data

Area (ac) 0.09
Weighted Curve Number 98.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.09	D	98.00
Composite Area & Weighted CN	0.09		98.00

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.89
Peak Runoff (cfs) 0.54
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-6

Input Data

Area (ac) 0.08
Weighted Curve Number 96.81
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.07	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.08		96.81

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.75
Peak Runoff (cfs) 0.46
Weighted Curve Number 96.81
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-7

Input Data

Area (ac) 0.03
Weighted Curve Number 92.20
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.02	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.03		92.20

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.18
Peak Runoff (cfs) 0.19
Weighted Curve Number 92.20
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-8

Input Data

Area (ac) 0.02
Weighted Curve Number 86.68
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.01	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.02		86.68

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 5.50
Peak Runoff (cfs) 0.10
Weighted Curve Number 86.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Post-Dev-9

Input Data

Area (ac) 0.02
Weighted Curve Number 93.48
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.02	D	98.00
> 75% grass cover, Good	0.01	D	80.00
Composite Area & Weighted CN	0.03		93.48

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.31
Peak Runoff (cfs) 0.15
Weighted Curve Number 93.48
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Pre-Dev-1

Input Data

Area (ac) 0.15
Weighted Curve Number 98.00
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.15	D	98.00
Composite Area & Weighted CN	0.15		98.00

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.89
Peak Runoff (cfs) 0.88
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Pre-Dev-2

Input Data

Area (ac) 0.15
Weighted Curve Number 93.41
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.11	D	98.00
> 75% grass cover, Good	0.04	D	80.00
Composite Area & Weighted CN	0.15		93.41

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.35
Peak Runoff (cfs) 0.86
Weighted Curve Number 93.41
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Pre-Dev-3

Input Data

Area (ac) 0.23
Weighted Curve Number 94.15
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.18	D	98.00
> 75% grass cover, Good	0.05	D	80.00
Composite Area & Weighted CN	0.23		94.15

Time of Concentration

User-Defined TOC override (minutes): 5.00

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 6.43
Peak Runoff (cfs) 1.36
Weighted Curve Number 94.15
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Pre-Dev-4

Input Data

Area (ac) 0.65
Weighted Curve Number 88.70
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.31	D	98.00
> 75% grass cover, Good	0.33	D	80.00
Composite Area & Weighted CN	0.64		88.70

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	0.20	0.00	0.00
Flow Length (ft) :	160	0.00	0.00
Slope (%) :	1.93	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.12	0.00	0.00
Velocity (ft/sec) :	0.17	0.00	0.00
Computed Flow Time (min) :	16.06	0.00	0.00

Total TOC (min) 16.06

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 5.80
Peak Runoff (cfs) 3.04
Weighted Curve Number 88.70
Time of Concentration (days hh:mm:ss) 0 00:16:04

Subbasin : Pre-Dev-5

Input Data

Area (ac) 0.28
Weighted Curve Number 82.38
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.04	D	98.00
> 75% grass cover, Good	0.25	D	80.00
Composite Area & Weighted CN	0.29		82.38

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	0.20	0.00	0.00
Flow Length (ft) :	111.50	0.00	0.00
Slope (%) :	1.43	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.12	0.00	0.00
Velocity (ft/sec) :	0.14	0.00	0.00
Computed Flow Time (min) :	13.56	0.00	0.00

Total TOC (min) 13.56

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 5.08
Peak Runoff (cfs) 1.26
Weighted Curve Number 82.38
Time of Concentration (days hh:mm:ss) 0 00:13:34

Subbasin : Pre-Dev-6

Input Data

Area (ac) 3.75
Weighted Curve Number 84.15
Rain Gage ID ..... *

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.59	D	98.00
Woods, Good	0.50	D	77.00
1/2 acre lots, 25% impervious	1.29	D	85.00
> 75% grass cover, Good	1.37	D	80.00
Composite Area & Weighted CN	3.75		84.15

Time of Concentration

Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	0.20	0.00	0.00
Flow Length (ft) :	100	0.00	0.00
Slope (%) :	1.24	0.00	0.00
2 yr, 24 hr Rainfall (in) :	4.12	0.00	0.00
Velocity (ft/sec) :	0.13	0.00	0.00
Computed Flow Time (min) :	13.16	0.00	0.00

Total TOC (min) 13.16

Subbasin Runoff Results

Total Rainfall (in) 7.13
Total Runoff (in) 5.28
Peak Runoff (cfs) 17.39
Weighted Curve Number 84.15
Time of Concentration (days hh:mm:ss) 0 00:13:10

Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Minimum Pipe Cover (in)
1	Jun-01	673.20	680.00	6.80	673.20	0.00	680.00	0.00	0.00	0.00
2	Jun-02	674.53	678.53	4.00	674.53	0.00	0.00	-678.53	0.00	0.00
3	Jun-03	675.74	679.74	4.00	675.74	0.00	0.00	-679.74	0.00	0.00
4	Jun-04	676.19	680.19	4.00	676.19	0.00	680.19	0.00	0.00	0.00
5	Jun-05	676.82	680.82	4.00	676.82	0.00	680.82	0.00	0.00	0.00
6	Jun-06	677.11	681.11	4.00	677.11	0.00	681.11	0.00	0.00	0.00
7	Jun-07	683.50	686.74	3.24	683.50	0.00	686.74	0.00	0.00	0.00
8	Jun-08	683.32	685.50	2.18	683.32	0.00	685.50	0.00	0.00	0.00
9	Jun-09	674.76	679.76	5.00	674.76	0.00	679.76	0.00	0.00	0.00
10	Jun-10	677.79	683.37	5.58	677.79	0.00	683.37	0.00	0.00	0.00
11	Jun-11	674.84	679.84	5.00	674.84	0.00	679.84	0.00	0.00	0.00
12	Jun-12	677.14	682.42	5.28	677.14	0.00	682.42	0.00	0.00	0.00
13	Jun-13	675.53	680.53	5.00	675.53	0.00	680.53	0.00	0.00	0.00
14	Jun-14	679.97	683.90	3.93	679.97	0.00	683.90	0.00	0.00	0.00
15	Jun-15	673.20	680.00	6.80	673.20	0.00	680.00	0.00	0.00	0.00
16	Jun-16	674.06	682.00	7.94	674.06	0.00	682.00	0.00	0.00	0.00
17	Jun-17	674.90	690.00	15.10	674.90	0.00	690.00	0.00	0.00	0.00
18	Jun-18	675.63	687.55	11.92	675.63	0.00	687.55	0.00	0.00	0.00
19	Jun-19	676.49	685.35	8.86	676.49	0.00	685.35	0.00	0.00	0.00
20	Jun-20	676.82	680.82	4.00	676.82	0.00	680.82	0.00	0.00	0.00
21	Jun-21	677.11	681.11	4.00	677.11	0.00	0.00	-681.11	0.00	0.00
22	Jun-22	683.50	686.74	3.24	683.50	0.00	686.74	0.00	0.00	0.00
23	Jun-23	683.32	685.50	2.18	683.32	0.00	685.50	0.00	0.00	0.00
24	Jun-24	678.58	687.00	8.42	678.58	0.00	687.00	0.00	0.00	0.00
25	Jun-25	680.84	685.05	4.21	680.84	0.00	685.05	0.00	0.00	0.00
26	Jun-26	674.76	679.76	5.00	674.76	0.00	679.76	0.00	0.00	0.00
27	Jun-27	677.79	683.37	5.58	677.79	0.00	68.37	-615.00	0.00	0.00
28	Jun-28	674.84	679.84	5.00	674.84	0.00	679.84	0.00	0.00	0.00
29	Jun-29	676.99	683.39	6.40	676.99	0.00	683.39	0.00	0.00	0.00
30	Jun-30	677.27	682.80	5.53	677.27	0.00	682.80	0.00	0.00	0.00
31	Jun-31	677.60	682.90	5.30	677.60	0.00	682.90	0.00	0.00	0.00
32	Jun-32	677.14	682.65	5.51	677.14	0.00	682.65	0.00	0.00	0.00
33	Jun-33	677.72	683.30	5.59	677.72	0.00	683.30	0.00	0.00	0.00
34	Jun-34	675.53	680.53	5.00	675.53	0.00	680.53	0.00	0.00	0.00
35	Jun-35	679.75	684.30	4.55	679.75	0.00	684.30	0.00	0.00	0.00
36	Jun-36	680.05	683.65	3.60	680.05	0.00	683.65	0.00	0.00	0.00
37	Jun-37	680.50	683.95	3.45	680.50	0.00	683.95	0.00	0.00	0.00
38	Jun-38	673.50	680.00	6.50	673.50	0.00	680.00	0.00	0.00	0.00
39	Jun-39	673.94	677.94	4.00	673.94	0.00	677.94	0.00	0.00	0.00
40	Jun-40	676.86	682.50	5.64	676.86	0.00	682.50	0.00	0.00	0.00
41	Jun-41	678.00	683.00	5.00	678.00	0.00	683.00	0.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	Jun-01	24.34	17.37	674.23	1.03	0.00	5.77	673.98	0.78	0 12:08	0 00:00	0.00	0.00
2	Jun-02	1.74	0.00	674.84	0.31	0.00	3.69	674.59	0.06	0 12:07	0 00:00	0.00	0.00
3	Jun-03	1.74	0.00	676.05	0.31	0.00	3.69	675.80	0.06	0 12:07	0 00:00	0.00	0.00
4	Jun-04	1.74	0.00	676.50	0.31	0.00	3.69	676.25	0.06	0 12:07	0 00:00	0.00	0.00
5	Jun-05	1.75	0.00	677.13	0.31	0.00	3.69	676.88	0.06	0 12:07	0 00:00	0.00	0.00
6	Jun-06	1.75	0.00	680.41	3.30	0.00	0.70	680.17	3.06	0 12:07	0 00:00	0.00	0.00
7	Jun-07	0.88	0.88	683.80	0.30	0.00	2.94	683.56	0.06	0 12:07	0 00:00	0.00	0.00
8	Jun-08	0.86	0.86	683.49	0.17	0.00	2.01	683.35	0.03	0 12:07	0 00:00	0.00	0.00
9	Jun-09	5.36	0.00	677.05	2.29	0.00	2.72	676.82	2.06	0 12:07	0 00:00	0.00	0.00
10	Jun-10	1.36	1.36	678.08	0.29	0.00	5.29	677.84	0.05	0 12:07	0 00:00	0.00	0.00
11	Jun-11	4.30	0.00	677.39	2.55	0.00	2.45	676.93	2.09	0 12:12	0 00:00	0.00	0.00
12	Jun-12	3.04	3.04	677.69	0.55	0.00	4.73	677.23	0.09	0 12:12	0 00:00	0.00	0.00
13	Jun-13	1.25	0.00	679.35	3.82	0.00	1.18	679.08	3.55	0 12:11	0 00:00	0.00	0.00
14	Jun-14	1.26	1.26	680.29	0.32	0.00	3.61	680.02	0.05	0 12:11	0 00:00	0.00	0.00
15	Jun-15	22.05	9.62	674.08	0.88	0.00	5.92	673.36	0.16	0 12:08	0 00:00	0.00	0.00
16	Jun-16	3.34	0.00	674.51	0.45	0.00	7.49	674.15	0.09	0 12:04	0 00:00	0.00	0.00
17	Jun-17	3.32	0.00	675.36	0.46	0.00	14.64	674.99	0.09	0 12:03	0 00:00	0.00	0.00
18	Jun-18	3.30	0.00	678.39	2.76	0.00	9.16	678.18	2.55	0 12:07	0 00:00	0.00	0.00
19	Jun-19	1.80	0.00	676.82	0.33	0.00	8.53	676.55	0.06	0 12:07	0 00:00	0.00	0.00
20	Jun-20	1.80	0.00	677.13	0.31	0.00	3.69	676.88	0.06	0 12:07	0 00:00	0.00	0.00
21	Jun-21	1.80	0.00	677.64	0.53	0.00	3.47	677.45	0.34	0 12:07	0 00:00	0.00	0.00
22	Jun-22	0.88	0.88	683.74	0.24	0.00	3.00	683.55	0.05	0 12:07	0 00:00	0.00	0.00
23	Jun-23	0.92	0.92	683.55	0.23	0.00	1.95	683.36	0.04	0 12:07	0 00:00	0.00	0.00
24	Jun-24	1.50	0.54	678.84	0.26	0.00	8.16	678.63	0.05	0 12:07	0 00:00	0.00	0.00
25	Jun-25	0.96	0.96	681.21	0.37	0.00	3.84	681.03	0.19	0 12:07	0 00:00	0.00	0.00
26	Jun-26	2.61	0.00	677.04	2.28	0.00	2.72	676.81	2.05	0 12:07	0 00:00	0.00	0.00
27	Jun-27	1.38	1.38	678.08	0.29	0.00	5.29	677.84	0.05	0 12:07	0 00:00	0.00	0.00
28	Jun-28	1.23	0.00	677.15	2.31	0.00	2.69	676.90	2.06	0 12:07	0 00:00	0.00	0.00
29	Jun-29	0.90	0.00	677.64	0.65	0.00	5.75	677.52	0.53	0 12:07	0 00:00	0.00	0.00
30	Jun-30	0.46	0.46	677.49	0.22	0.00	5.31	677.32	0.05	0 12:07	0 00:00	0.00	0.00
31	Jun-31	0.19	0.19	677.75	0.15	0.00	5.15	677.63	0.03	0 12:07	0 00:00	0.00	0.00
32	Jun-32	0.25	0.11	677.28	0.14	0.00	5.37	677.16	0.02	0 12:07	0 00:00	0.00	0.00
33	Jun-33	0.15	0.15	677.83	0.11	0.00	5.47	677.73	0.01	0 12:06	0 00:00	0.00	0.00
34	Jun-34	0.34	0.00	679.20	3.67	0.00	1.33	679.06	3.53	0 12:07	0 00:00	0.00	0.00
35	Jun-35	0.33	0.00	680.35	0.60	0.00	3.95	680.23	0.48	0 12:04	0 00:00	0.00	0.00
36	Jun-36	0.15	0.15	680.17	0.12	0.00	3.48	680.07	0.02	0 12:07	0 00:00	0.00	0.00
37	Jun-37	0.18	0.18	680.65	0.15	0.00	3.30	680.52	0.02	0 12:04	0 00:00	0.00	0.00
38	Jun-38	7.38	0.00	674.11	0.61	0.00	5.89	673.65	0.15	0 12:15	0 00:00	0.00	0.00
39	Jun-39	7.38	0.00	676.92	2.98	0.00	1.02	676.29	2.35	0 12:15	0 00:00	0.00	0.00
40	Jun-40	7.38	0.00	677.67	0.81	0.00	4.83	677.04	0.18	0 12:15	0 00:00	0.00	0.00
41	Jun-41	7.38	0.00	678.82	0.82	0.00	4.18	678.18	0.18	0 12:14	0 00:00	0.00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Link-01	120.00	673.20	0.00	673.00	0.00	0.20	0.1700	Rectangular	3.500	16.000	0.0330	0.5000	0.5000	0.0000	0.00	No
2	Link-15	120.00	673.20	0.00	673.00	0.00	0.20	0.1700	Rectangular	3.500	16.000	0.0330	0.5000	0.5000	0.0000	0.00	No

Channel Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-01	24.29	0 12:10	186.32	0.13	1.63	1.23	0.93	0.27	0.00		
2	Link-15	22.00	0 12:08	186.32	0.12	1.58	1.27	0.87	0.25	0.00		

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	Link-02	61.00	674.53	0.00	673.92	0.72	0.61	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2	Link-03	121.00	675.74	0.00	674.53	0.00	1.21	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3	Link-04	45.00	676.19	0.00	675.74	0.00	0.45	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4	Link-05	63.00	676.82	0.00	676.19	0.00	0.63	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5	Link-06	29.00	677.11	0.00	676.82	0.00	0.29	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6	Link-07	206.15	683.50	0.00	680.11	3.00	3.39	1.6400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7	Link-08	19.00	683.32	0.00	680.11	3.00	3.21	16.8900	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8	Link-09	243.89	674.76	0.00	673.20	0.00	1.56	0.6400	CIRCULAR	60.000	60.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9	Link-10	84.00	677.79	0.00	676.77	2.01	1.02	1.2100	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10	Link-11	12.12	674.84	0.00	674.76	0.00	0.08	0.6600	CIRCULAR	60.000	60.000	0.0150	0.5000	0.5000	0.0000	0.00	No	1
11	Link-12	30.00	677.14	0.00	676.84	2.00	0.30	1.0000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12	Link-13	108.20	675.53	0.00	674.84	0.00	0.69	0.6400	CIRCULAR	60.000	60.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13	Link-14	63.00	679.97	0.00	679.03	3.50	0.94	1.4900	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14	Link-16	14.00	674.06	0.00	673.20	0.00	0.86	6.1400	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15	Link-17	108.00	674.90	0.00	674.06	0.00	0.84	0.7800	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16	Link-18	94.00	675.63	0.00	674.90	0.00	0.73	0.7800	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17	Link-19	108.00	676.49	0.00	675.63	0.00	0.86	0.8000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18	Link-20	33.00	676.82	0.00	676.49	0.00	0.33	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19	Link-21	29.00	677.11	0.00	676.82	0.00	0.29	1.0000	CIRCULAR	48.000	48.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20	Link-22	188.87	683.50	0.00	677.40	0.29	6.10	3.2300	CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00	No	1
21	Link-23	159.94	683.32	0.00	677.40	0.29	5.92	3.7000	CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00	No	1
22	Link-24	9.00	678.58	0.00	678.13	2.50	0.45	5.0000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
23	Link-25	80.00	680.98	0.14	678.58	0.00	2.40	3.0000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
24	Link-26	243.89	674.76	0.00	673.20	0.00	1.56	0.6400	CIRCULAR	60.000	60.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
25	Link-27	84.00	677.79	0.00	676.76	2.00	1.03	1.2300	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
26	Link-28	12.12	674.84	0.00	674.76	0.00	0.08	0.6600	CIRCULAR	60.000	60.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
27	Link-29	15.00	676.99	0.00	676.85	2.01	0.14	0.9300	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
28	Link-30	29.00	677.28	0.01	676.99	0.00	0.29	1.0000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
29	Link-31	11.00	677.60	0.00	677.49	0.50	0.11	1.0000	CIRCULAR	12.000	12.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
30	Link-32	10.00	677.14	0.00	676.99	0.00	0.15	1.5000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
31	Link-33	46.00	677.72	0.00	677.14	0.00	0.58	1.2500	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
32	Link-34	108.20	675.53	0.00	674.84	0.00	0.69	0.6400	CIRCULAR	60.000	60.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
33	Link-35	48.00	679.75	0.00	679.03	3.50	0.72	1.5000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
34	Link-36	30.00	680.05	0.00	679.75	0.00	0.30	1.0000	CIRCULAR	18.000	18.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
35	Link-37	29.00	680.50	0.00	680.21	0.46	0.29	1.0000	CIRCULAR	15.000	15.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
36	Link-38	34.02	673.50	0.00	673.20	0.00	0.30	0.8800	CIRCULAR	48.000	48.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
37	Link-39	51.05	673.94	0.00	673.50	0.00	0.44	0.8600	CIRCULAR	48.000	48.000	0.0120	0.5000	0.5000	0.0000	0.00	No	1
38	Link-40	50.00	676.86	0.00	676.11	2.17	0.75	1.5000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
39	Link-41	76.00	678.00	0.00	676.86	0.00	1.14	1.5000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

Pipe Results

SN	Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1	Link-02	1.74	0 12:08	143.64	0.01	3.89	0.26	0.31	0.08	0.00		Calculated
2	Link-03	1.74	0 12:07	143.64	0.01	3.89	0.52	0.31	0.08	0.00		Calculated
3	Link-04	1.74	0 12:07	143.64	0.01	3.89	0.19	0.31	0.08	0.00		Calculated
4	Link-05	1.74	0 12:07	143.64	0.01	3.89	0.27	0.31	0.08	0.00		Calculated
5	Link-06	1.75	0 12:07	143.64	0.01	3.89	0.12	0.31	0.08	0.00		Calculated
6	Link-07	0.88	0 12:07	4.57	0.19	4.52	0.76	0.30	0.30	0.00		Calculated
7	Link-08	0.86	0 12:07	14.64	0.06	10.20	0.03	0.16	0.16	0.00		Calculated
8	Link-09	5.44	0 12:08	208.29	0.03	4.57	0.89	0.56	0.11	0.00		Calculated
9	Link-10	1.36	0 12:07	73.50	0.02	3.99	0.35	0.28	0.09	0.00		Calculated
10	Link-11	4.29	0 12:12	183.38	0.02	3.75	0.05	0.54	0.11	0.00		Calculated
11	Link-12	3.04	0 12:12	10.50	0.29	5.15	0.10	0.55	0.37	0.00		Calculated
12	Link-13	1.25	0 12:11	207.98	0.01	2.90	0.62	0.28	0.06	0.00		Calculated
13	Link-14	1.25	0 12:11	12.83	0.10	4.62	0.23	0.32	0.21	0.00		Calculated
14	Link-16	3.33	0 12:04	356.02	0.01	8.86	0.03	0.27	0.07	0.00		Calculated
15	Link-17	3.34	0 12:04	126.68	0.03	4.34	0.41	0.45	0.11	0.00		Calculated
16	Link-18	3.32	0 12:04	126.59	0.03	4.34	0.36	0.45	0.11	0.00		Calculated
17	Link-19	1.80	0 12:07	128.18	0.01	3.63	0.50	0.33	0.08	0.00		Calculated
18	Link-20	1.80	0 12:07	143.64	0.01	3.93	0.14	0.31	0.08	0.00		Calculated
19	Link-21	1.80	0 12:07	143.64	0.01	3.93	0.12	0.31	0.08	0.00		Calculated
20	Link-22	0.88	0 12:07	16.36	0.05	4.95	0.64	0.24	0.16	0.00		Calculated
21	Link-23	0.92	0 12:07	17.51	0.05	5.25	0.51	0.23	0.16	0.00		Calculated
22	Link-24	1.50	0 12:07	23.49	0.06	7.42	0.02	0.26	0.17	0.00		Calculated
23	Link-25	0.96	0 12:07	18.19	0.05	5.45	0.24	0.23	0.16	0.00		Calculated
24	Link-26	2.61	0 12:08	208.29	0.01	3.67	1.11	0.39	0.08	0.00		Calculated
25	Link-27	1.38	0 12:07	73.86	0.02	4.02	0.35	0.29	0.10	0.00		Calculated
26	Link-28	1.23	0 12:07	211.60	0.01	2.91	0.07	0.27	0.05	0.00		Calculated
27	Link-29	0.90	0 12:07	10.15	0.09	3.55	0.07	0.30	0.20	0.00		Calculated
28	Link-30	0.46	0 12:07	10.50	0.04	2.99	0.16	0.21	0.14	0.00		Calculated
29	Link-31	0.19	0 12:07	3.86	0.05	2.54	0.07	0.15	0.15	0.00		Calculated
30	Link-32	0.25	0 12:07	13.94	0.02	3.02	0.06	0.14	0.09	0.00		Calculated
31	Link-33	0.15	0 12:06	12.72	0.01	2.43	0.32	0.11	0.08	0.00		Calculated
32	Link-34	0.33	0 12:07	207.98	0.00	1.97	0.92	0.15	0.03	0.00		Calculated
33	Link-35	0.34	0 12:07	12.87	0.03	3.14	0.25	0.17	0.11	0.00		Calculated
34	Link-36	0.15	0 12:07	11.38	0.01	2.24	0.22	0.12	0.08	0.00		Calculated
35	Link-37	0.18	0 12:04	7.00	0.03	2.45	0.20	0.14	0.11	0.00		Calculated
36	Link-38	7.38	0 12:15	146.13	0.05	6.09	0.09	0.61	0.15	0.00		Calculated
37	Link-39	7.38	0 12:15	144.47	0.05	6.04	0.14	0.61	0.15	0.00		Calculated
38	Link-40	7.38	0 12:15	12.87	0.57	7.53	0.11	0.81	0.54	0.00		Calculated
39	Link-41	7.38	0 12:15	12.87	0.57	7.53	0.17	0.81	0.54	0.00		Calculated

Storage Nodes

Storage Node : Stor-01

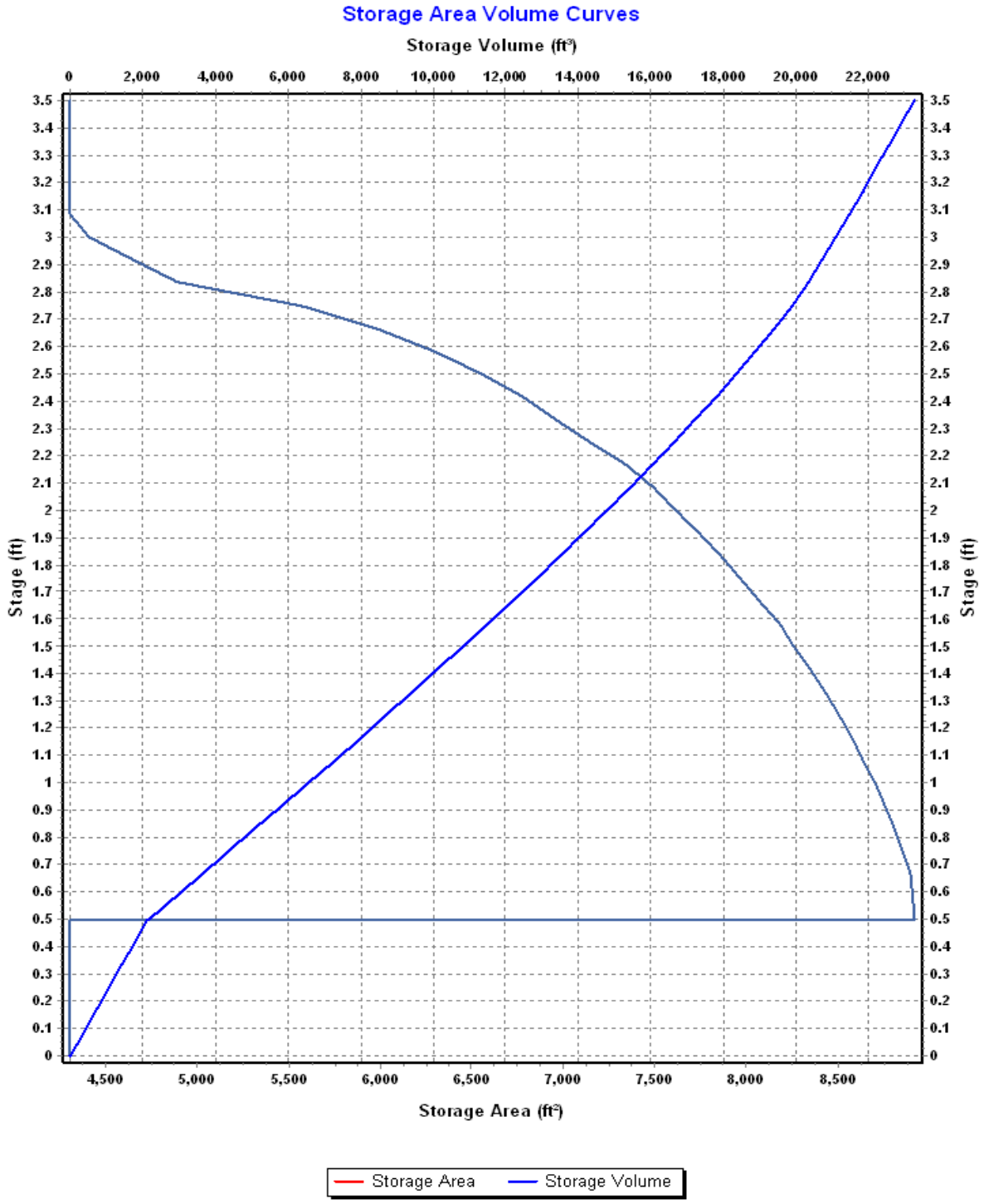
Input Data

Invert Elevation (ft)	678.00
Max (Rim) Elevation (ft)	681.50
Max (Rim) Offset (ft)	3.50
Initial Water Elevation (ft)	678.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Storage-01

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0.000	4306.5000	0.000
0.083	4306.5000	357.44
0.167	4306.5000	719.19
0.250	4306.5000	1076.63
0.333	4306.5000	1434.07
0.417	4306.5000	1795.82
0.500	4306.500	2153.26
0.501	8917.5000	2159.87
0.667	8896.6683	3638.45
0.750	8852.2017	4375.03
0.833	8803.7475	5107.75
0.917	8757.6907	5845.33
1.000	8701.5583	6569.89
1.083	8639.0207	7289.52
1.167	8576.4416	8012.57
1.250	8503.2147	8721.38
1.333	8430.2981	9424.12
1.417	8344.7017	10128.67
1.500	8259.2725	10817.73
1.583	8179.7392	11499.95
1.667	8070.7725	12182.47
1.750	7966.6142	12848.02
1.833	7855.0850	13504.62
1.917	7735.5808	14159.43
2.000	7610.3975	14796.29
2.083	7490.1297	15422.96
2.167	7342.6598	16045.94
2.250	7135.7642	16646.79
2.333	6949.1975	17231.32
2.417	6771.3647	17807.58
2.500	6550.0850	18360.42
2.583	6291.5017	18893.35
2.667	5980.4767	19408.77
2.750	5567.5766	19888.01
2.833	4895.1964	20322.22
2.917	4646.6758	20722.98
3.000	4410.9000	21098.87
3.083	4306.5000	21460.64
3.167	4306.5000	21822.39
3.250	4306.5000	22179.83
3.333	4306.5000	22537.27
3.417	4306.5000	22899.02
3.500	4306.5000	23256.46


Storage Area Volume Curves
Storage Volume (ft³)
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
18,000
20,000
22,000
Stage (ft)
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
4,500
5,000
5,500
6,000
6,500
7,000
7,500
8,000
8,500
Storage Area (ft²)
Storage Area
Storage Volume

Storage Node : Stor-01 (continued)

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	681.00	3.00	2.33	0.50	3.33

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-01	Side	CIRCULAR	No	4.00			678.00	0.61
2	Orifice-02	Side	CIRCULAR	No	16.00			679.05	0.61

Output Summary Results

Peak Inflow (cfs)	13.92
Peak Lateral Inflow (cfs)	13.92
Peak Outflow (cfs)	7.38
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	680.67
Max HGL Depth Attained (ft)	2.67
Average HGL Elevation Attained (ft)	678.79
Average HGL Depth Attained (ft)	0.79
Time of Max HGL Occurrence (days hh:mm)	0 12:14
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00