

PLANNING COMMISSION PACKET

December 2, 2022

Hello All,

Enclosed please find your packet for the meeting of December 5, 2022.

For consideration we have:

- 1 resurveys
- Amended development plan for MBJH

If you receive any citizen inquiries regarding these cases the plans may be viewed by going to:

www.mtnbrook.org

- Calendar (upper right corner)
- Planning Commission (December 5, 2022)
- Meeting Information (for agenda) and Supporting Documents (*to view proposed plans select link associated with the case number*)

If you have any questions about these cases please don't hesitate to give me a call at 802-3816 or send me an email at hazend@mtnbrook.org.

Looking forward to seeing you on Monday!

Dana

MEETING AGENDA
CITY OF MOUNTAIN BROOK
PLANNING COMMISSION
DECEMBER 5, 2022
PRE-MEETING: (ROOM A106) 5:00 P.M.
REGULAR MEETING: (ROOM A108) 5:30 P.M.
CITY HALL, 56 CHURCH STREET
MOUNTAIN BROOK, AL 35213

FOR APPLICANTS AND PERSONS WHO WISH TO SPEAK, THE MEETING IS TO BE HELD IN-PERSON AT CITY HALL.

ZOOM VIDEO CONFERENCING IS PROVIDED MERELY AS A CONVENIENCE FOR MEMBERS OF THE PUBLIC WHO WISH TO FOLLOW ALONG (BUT WILL NOT BE AFFORDED AN OPPORTUNITY TO SPEAK).

ZOOM ACCESS INSTRUCTIONS MAY BE FOUND ON CITY WEBPAGE AT: MTNBROOK.ORG - CALENDAR (UPPER RIGHT CORNER) - PLANNING COMMISSION – DECEMBER 5, 2022

1. Call To Order
2. Approval of Agenda
3. Approval of Minutes: November 7, 2022
4. **Case P-22-19:** Gunn's Resurvey of Mountain Brook Estates Canterbury Sector, being a Resurvey of Estate Lot 308 Mountain Brook Estates Canterbury Sector, as recorded in Map Book 19, Page 40 in the Office of the Judge of Probate Jefferson County, Alabama and acreage; situated in the SE ¼ of Section 8, Twp-18S, R-2W, Jefferson County, Alabama. - **3021 Cambridge Road**
5. **Case P-22-20:** Request to amend the master development plan for the Mountain Brook Junior High School athletic complex. – **205 Overbrook Road**
6. Next Meeting: **Tuesday, January 3, 2023**
7. Adjournment



Planning Commission Application PART I

Project Data

Address of Subject Property 3021 CAMBRIDGE RD

Zoning Classification RESIDENCE A

Name of Property Owner(s) JAMES S. GUNN

Phone Number _____ Email jsgunn182@gmail.com

Name of Representative Agent (if applicable)

RAY WEYGAND

Phone Number 205- 942-0086 Email ray@weygandsurveyor.com

Name of Engineer or Surveyor RAY WEYGAND

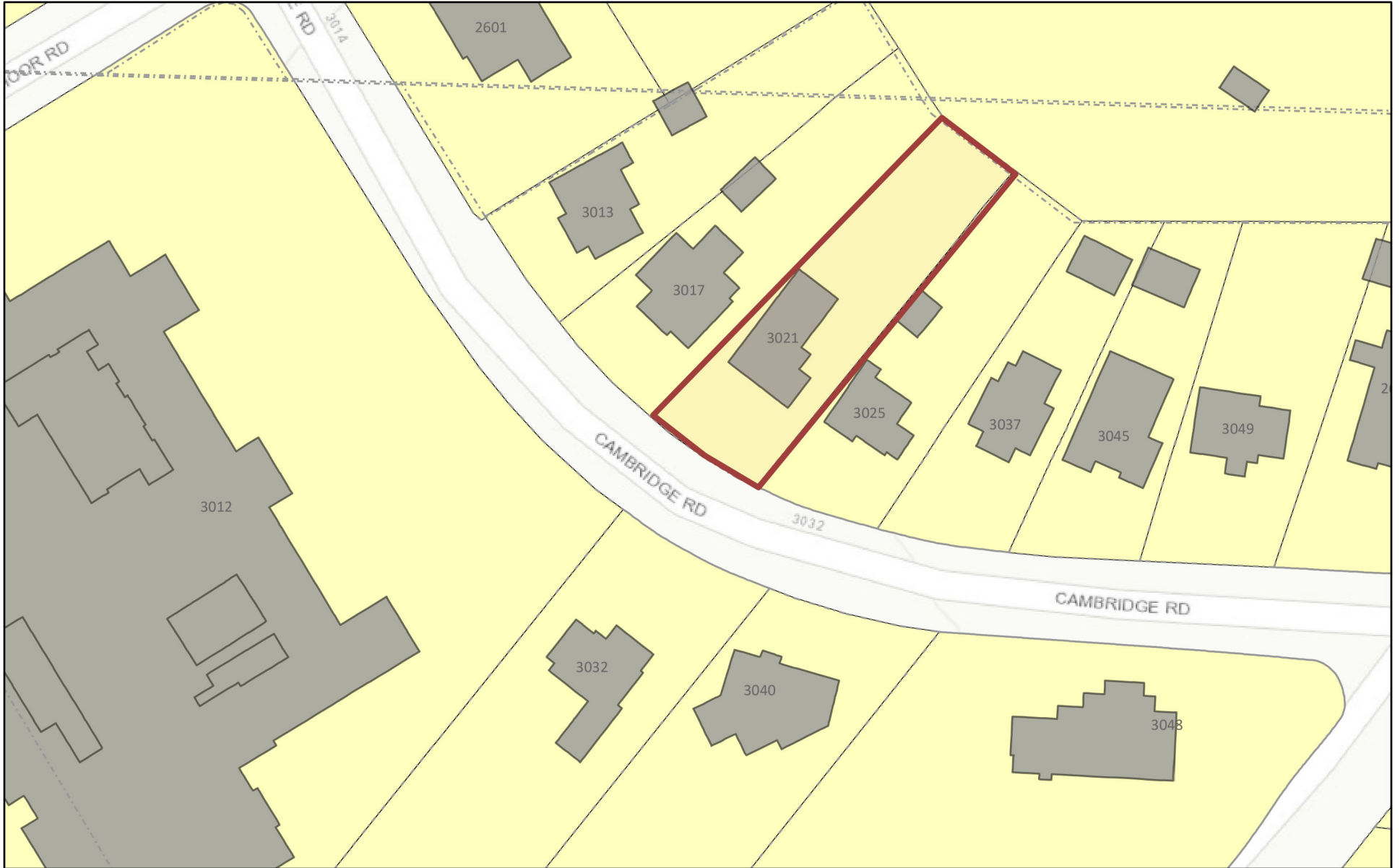
Phone Number 205- 942-0086 Email ray@weygandsurveyor.com

Property owner or representative agent must be present at hearing





Plans

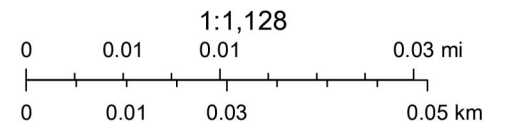
See applicable Section of the Zoning Ordinance for submittal requirements pertaining to your particular application. Applicable Code Section may be found in Part II, list of application types. Contact City Planner with any specific questions as to required plans submittal.

P-22-19



11/29/2022, 11:53:45 AM

-  Building Footprints 2020v1
-  Residence A District
-  Lot Lines
-  Tax_Parcels 2021



JeffCoAL, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

ArcGIS Web AppBuilder

P-22-19

Resurvey in Residence A zoning

- ✓ “Clean-up” resurvey combining portions of legacy lots.
- ☑ **May be approved as a final plat;** the following corrections for the final plat are required by the Subdivision Regulations, and **are suggested as conditions of approval:**

1) Indicate City of Mountain Brook PC Chairman and PC Secretary on signature blocks.

- ✓ Meets the Zoning Regulations for the Residence A district.
- ✓ **Overall layout is acceptable**, with the final plat to fully comply with all applicable requirements of the Mountain Brook Subdivision Regulations.
- ✓ No floodplain present.
- ✓ No relevant history or prior cases.

- **Project Data:**

NAME: Gunn’s Resurvey of Mountain Brook Estates

CURRENT ZONING: Residence A

OWNER: James Gunn

LOCATION: 3021 Cambridge Road

LEGEND

- SQ. FT..... SQUARE FEET
- AC..... ACRES
- +..... MORE OR LESS
- Δ..... DELTA ANGLE
- J..... DEFLECTION ANGLE
- T..... TANGENT
- R..... RADIUS
- CH..... CHORD
- L..... LENGTH
- ESMT..... EASEMENT
- EX..... EXISTING
- M.B..... MAP BOOK
- P.G..... PAGE
- FND..... FOUND
- ROW..... RIGHT-OF-WAY
- O..... REBAR SET
- MIN..... MINIMUM
- C..... CENTERLINE
- D.B..... DEED BOOK
- ↔..... NOT TO SCALE

GUNN'S RESURVEY OF MOUNTAIN BROOK ESTATES CANTERBURY SECTOR

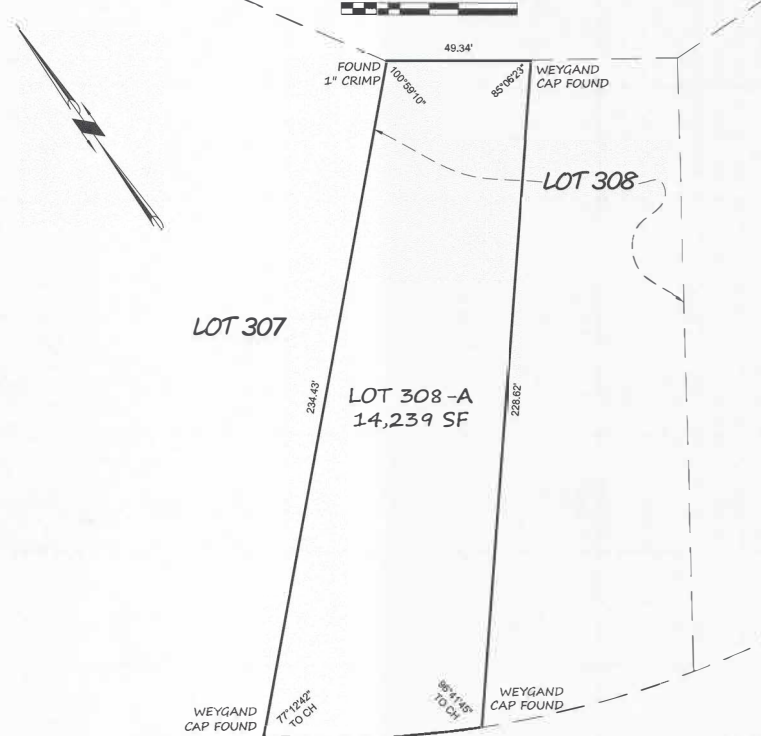
BEING A RESURVEY OF ESTATE 308 MOUNTAIN BROOK ESTATES CANTERBURY SECTOR,
AS RECORDED IN MAP BOOK 19, PAGE 40 IN THE OFFICE OF THE JUDGE OF PROBATE
JEFFERSON COUNTY, ALABAMA

SITUATED IN SE ¼ OF SECTION 8, TOWNSHIP 18 SOUTH, RANGE 2 WEST,
JEFFERSON COUNTY, ALABAMA

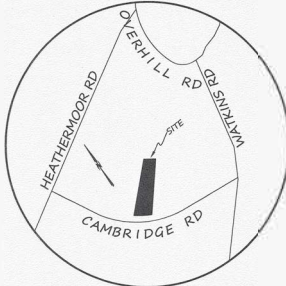
SCALE: 1" = 20'

WEYGAND SURVEYORS, INC.
Ray Weygand, Reg. L.S. #24973
169 Oxmoor Road, Homewood, AL 35209
Phone: (205) 942-0086 Fax: (205) 942-0087

DATE: NOVEMBER 2022



VICINITY MAP
(NOT TO SCALE)



NOTE:

THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA
(ZONE "X") AS PER MAP NO. 01073C055873, DATED SEPTEMBER 24TH, 2021.

CAMBRIDGE RD
(50' R.O.W.)

ZONING: RESIDENCE A
FRONT SETBACK: 40'
REAR SETBACK: 40'
SIDE SETBACK: 15'



STATE OF ALABAMA
JEFFERSON COUNTY

The undersigned, Ray Weygand, Registered Land Surveyor, State of Alabama, and James Gunn, Owner, hereby certify that this plot or map was made pursuant to a survey made by said surveyor, and that this plot or map was made at the instance of said owner, that this plot or map is a true and correct plot or map of land shown therein and known or to be known as Gunn's Resurvey of Mountain Brook Estates, showing the subdivisions into which it is proposed to divide said lands, giving the length and bearings of the boundaries of each lot and its number, showing the streets, alleys and public grounds, giving the bearings, length, width and name of each street, as well as the number of each lot and block, and showing the relation of the lands to the MOUNTAIN BROOK ESTATES (MAP BOOK 19, PAGE 40) and to government survey of Section 8, Township 18 South, Range 2 West, and that iron pins have been installed at all lot corners and curve points as shown and designated by small open circles on said plot or map. I, Ray Weygand, hereby state that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Alabama to the best of my knowledge, information and belief. Said owner agrees that the City of Birmingham may, at any time, change the natural or existing grade of any street, alley or public grounds, or any part thereof, from the natural or existing grade to the permanent grade without the payment of compensation or damages to the abutting owner, and this agreement shall be a covenant running with the lands.

In Witness Whereof, we have here unto set our hands this the ____ day of _____, 2022.

By: Ray Weygand By: James Gunn - Owner
Reg. L.S. #24973

STATE OF ALABAMA
JEFFERSON COUNTY

I, _____, a Notary Public in and for said County and State hereby certify that Ray Weygand, whose name is signed to the foregoing certificate as Land Surveyor and who is known to me, acknowledged before me, on this day, that being informed of the contents of the certificate, he executed the same voluntarily on the day the same bears date.

Given under my hand and seal this ____ day of _____, 2022.

By: _____
Notary Public - My commission expires: _____

STATE OF ALABAMA
JEFFERSON COUNTY

I, _____, a Notary Public in and for said County and State hereby certify that James Gunn, whose name is signed to the foregoing certificate as Owner, and who is known to me, acknowledged before me, on this day, that being informed of the contents of the certificate, she executed the same voluntarily on the day the same bears date.

Given under my hand and seal this ____ day of _____, 2022.

By: _____
Notary Public - My commission expires: _____

APPROVED: _____ DATE: _____
BIRMINGHAM PLANNING COMMISSION

APPROVED: _____ DATE: _____
CITY ENGINEER

NOTE:
Environmental Services Department approval indicates that this document has been reviewed for provision of future or existing sanitary sewers; however this does not mean sanitary sewers have been built or will be built in the future. Any change in Right of Way or Easement boundaries after this date may void this approval.

APPROVED: _____ DATE: _____
Director of Environmental Service

NOTES:
ALL EASEMENTS ON THIS MAP ARE FOR PUBLIC UTILITIES, SANITARY SEWERS, STORM SEWERS, STORM DITCHES, PRIVATE TELEVISION CABLE SYSTEMS, AND MAY BE USED FOR SUCH PURPOSES TO SERVE PROPERTY BOTH WITHIN AND WITHOUT THIS SUBDIVISION (UNLESS OTHERWISE NOTED). NO PERMANENT STRUCTURE OR OTHER OBSTRUCTION SHALL BE LOCATED WITHIN THE LIMITS OF A DEDICATED EASEMENT.

BUILDER IS RESPONSIBLE FOR THE DRAINAGE ON EACH LOT AND IN AND AROUND EACH BUILDING.
BUILDER WILL BE RESPONSIBLE FOR ADJUSTING THE LOS OR TOP ELEVATION FOR ALL MANHOLES AND YARD INLETS ON EACH LOT.
THE LOT OWNER/BUILDER SHALL USE APPROPRIATE METHODS, WHETHER PIPES, UNDERDRAIN, DITCHES, GRADING OR OTHER MEANS, TO PROVIDE A BUILDING SITE FREE OF SURFACE OR SUBSURFACE DRAINAGE PROBLEMS WITHOUT ADVERSELY AFFECTING ADJACENT LOTS.

THE LOT OWNER/BUILDER SHALL FIELD VERIFY THE LOCATION AND ELEVATION OF SANITARY SEWER SERVICE LINE OR SEPTIC TANK LOCATION PRIOR TO CONSTRUCTION OF BUILDING FOUNDATIONS.
ELEVATION OF ALL SANITARY SEWER LATERALS TO EACH LOT SHOULD BE VERIFIED BY BUILDER PRIOR TO SETTING LOWEST FLOOR OF RESIDENCE TO BE SERVICED.

NO HOUSE SHALL HAVE A FINISHED FLOOR ELEVATION LESS THAN TWO (2) FEET ABOVE TOP OF ANY ADJACENT STORM SEWER WITHOUT ENGINEER'S APPROVAL.

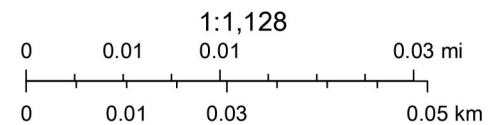
NO FENCE SHALL IMPEDE THE FLOW OF WATER IN ANY DRAINAGE WAY.
WEYGAND SURVEYORS, INC. IS NOT RESPONSIBLE FOR SOIL COMPACTIONS AND DID NOT CONDUCT ANY SURFACE OR SUBSURFACE INVESTIGATIONS.
NORTH ARROW SHOWN ON THIS MAP IS NOT TRUE NORTH AND SHOULD ONLY BE CONSIDERED AS APPROXIMATE.

P-22-19 Aerial



11/29/2022, 1:31:10 PM

----- Lot Lines Aerial 2021
Red: Band_1 Green: Band_2
Blue: Band_3



Jefferson County Department of Information Technology, JeffCoAL, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

ArcGIS Web AppBuilder



Planning Commission Application PART I

Project Data

Address of Subject Property 205 Overbrook Road

Zoning Classification Residence A District

Name of Property Owner(s) Mountain Brook Board of Education

Phone Number (205)871-4608 Email _____

Name of Representative Agent (if applicable)

John Bricken Goodwyn Mills Cawood, LLC

Phone Number (205)271-3200 Email john.bricken@gmcnetwork.com

Name of Engineer or Surveyor Corey Shoop Goodwyn Mills Cawood, LLC

Phone Number (205)879-4462 Email corey.shoop@gmcnetwork.com

Property owner or representative agent must be present at hearing

Plans

See applicable Section of the Zoning Ordinance for submittal requirements pertaining to your particular application. Applicable Code Section may be found in Part II, list of application types. Contact City Planner with any specific questions as to required plans submittal.



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.

Sec. 129-32. Conditions on certain permitted uses.

The uses referred to in subsections 129-31(d)—(o) shall not be subject to the area and dimensional requirements noted in subsection 129-34(b) and (c), and shall not be subject to the provisions in section 129-314 (accessory structures and buildings) and section 129-319 (fences and walls) of this chapter, but shall be subject to the following conditions: no permit shall be issued for any of such uses, structures or other improvements to be constructed in connection therewith (in this subsection such structures and improvements shall be individually referred to as "improvement" and collectively referred to as "improvements") except with the prior written approval of the planning commission and subject to such reasonable conditions as the planning commission may require to preserve and protect the established character of the area surrounding the property proposed to be used for such purpose (the property proposed to be used for such purpose shall be referred to in this subsection as "property"), and otherwise to promote the purposes of this chapter.

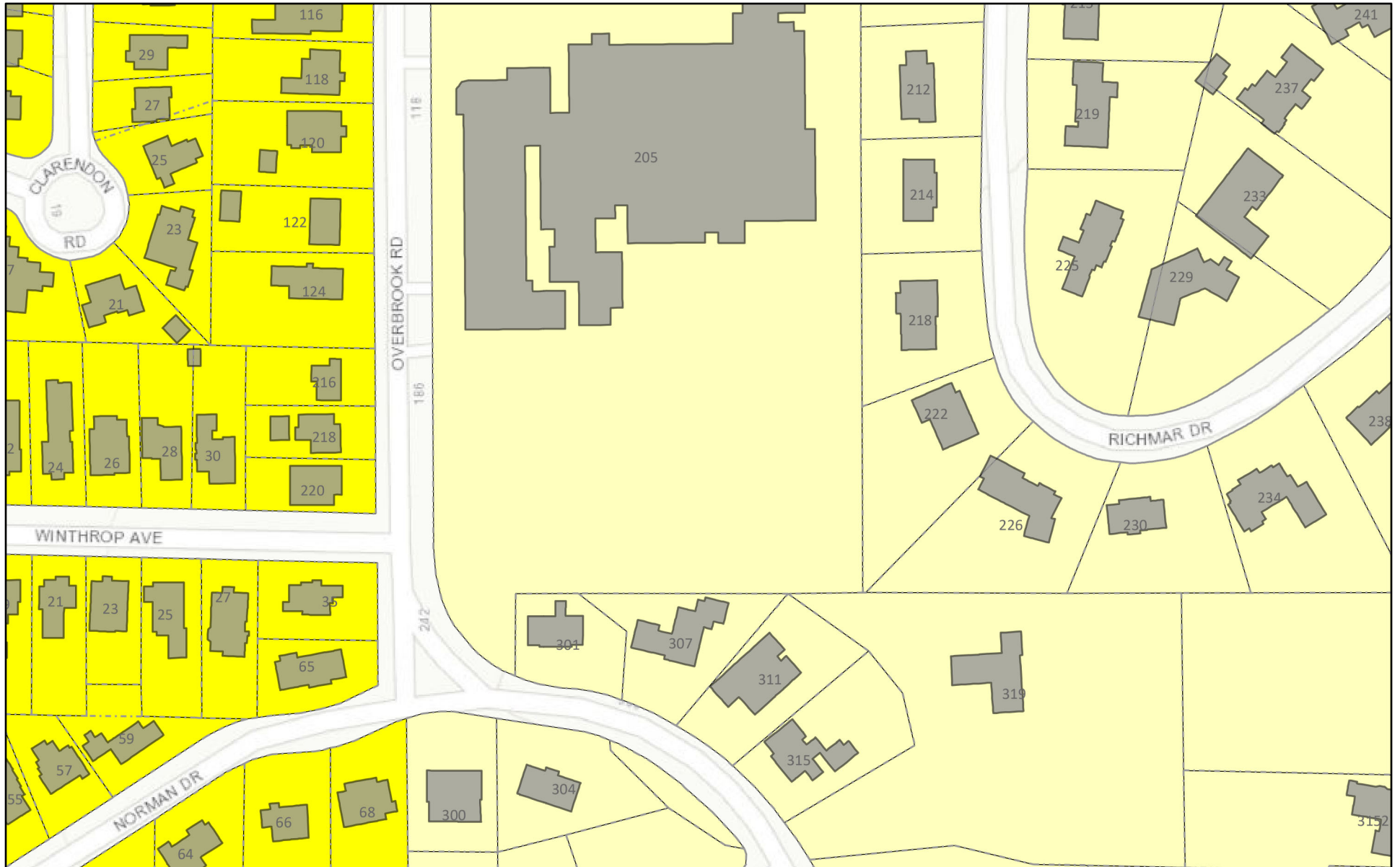
Such conditions shall include, without limitation, the establishment of such offstreet parking areas as may be required by the planning commission and the determination by the planning commission that the streets abutting the property are of sufficient width and arrangement to allow adequate, safe and unimpeded traffic flow to and from the property and the areas adjacent to the property. In determining whether any such use or improvement is proper, the planning commission may require the party applying for the approval of such use or improvement to furnish to the planning commission any or all of the following information and documents and such additional information and documents which the planning commission may consider necessary or helpful in deciding whether a proposed use or improvement is subject to its approval and, if it is, whether to approve such requested use or improvement:

- (a) A survey of the property; See Attached
- (b) A topographical survey of the property; See attached
- (c) A site plan for the property, showing the location, size, height and elevation of all existing and proposed improvements, the location, number and size of parking spaces and such other information about the existing and proposed improvements and the development plan for the property which the planning commission considers reasonably necessary for its consideration of the request for approval; See attached
- (d) Plans for all proposed improvements; The project consists of changing the natural grass field to all synthetic turf for playability of different sports. Protective netting and black vinyl chain link fencing to be used. The 4 tennis courts are being moved to create space for additional parking approximately 40 parking spaces. A restroom building is being proposed as well for use when the school is locked.
- (e) A map or drawing showing the proximity of the property, and any improvements on the property or to be located on the property, to buildings and other improvements located on property adjacent to or near the property; see attached
- (f) The type of construction materials to be used in the proposed improvements; Synthetic Turf, Asphalt/concrete tennis courts w/ acrylic surfacing, Black vinyl chain link fencing, concrete sidewalks, and asphalt parking lot.
- (g) A traffic study with respect to the traffic expected to be generated by the use; N/A
- (h) Information concerning outdoor lighting (including freestanding lighting fixtures and lighting fixtures to be attached to the improvements); Musco sports field lighting, LSI Courtsider tennis court lighting, and parking lot lighting
- (i) Information concerning fuel storage tanks (the type, size, location, proposed contents and other relevant facts concerning the fuel storage tanks shall be subject to the approval of the city's fire marshal); N/A





-
- (j) The hours of operation of the activities proposed to be conducted on the property; **Owner to provide b/t BOE and Parks and Recreation; dependent on time of year and sports being played.**
 - (k) Information concerning the visibility of the proposed improvements from adjacent property, buildings and public streets; **Improvements will be built on school property...**
 - (l) Information concerning the proposed screening of the proposed improvements by fences, walls, berms, shrubs, trees or other means; **N/A**
 - (m) Whether any trees or other vegetation which would serve to screen the proposed improvements and the use thereof from adjacent property will be removed from the property; and **TBD**
 - (n) Information concerning vehicles, equipment and materials which may be stored on the property or within the improvements. **N/A**

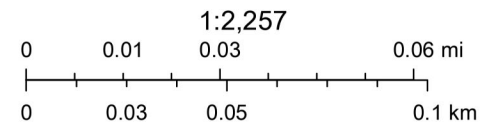
(Ord. No. 1778, § 2(19-3-2), 9-8-2008; Ord. No. 1840, § 1, 2-14-2011; Ord. No. 1972, § 1, 2-27-2017)

P-22-20 Zoning



11/30/2022, 2:36:12 PM

-  Building Footprints 2020v1
 -  Lot Lines
 -  Residence A District
 -  Residence B District
- Tax_Parcels 2021



JeffCoAL, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

ArcGIS Web AppBuilder

JeffCoAL, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA | Jefferson County Information Technology Services | Hunter Simmons | Jefferson County Department of Information Technology |

P-22-20

Petition Summary

Request to amend the master development plan for Mountain Brook Junior High School, specifically the athletic field/tennis complex.

Summary of Proposal

The proposed development plan includes:

- Reorientation of the existing sports field, and conversion of the existing grass field to synthetic turf (to include field lighting, protective netting and fencing.);
- Relocation of the existing 4 tennis courts (to include lighting and fencing);
- Addition of a new restroom;
- Addition of 48 new parking spaces (to include parking lot lighting) where the tennis courts are currently located along Overbrook Road.

Field

The existing sports field will be reoriented as shown on the attached site plan and will be converted to synthetic turf, utilized for use by football and lacrosse sports. The planning commission may find it helpful to request of the applicant that the new site plan be superimposed over an existing aerial photograph to better show the relationship of existing and proposed improvements.

Sporting events on the field are currently related to the Junior High, and the applicant has indicated that no change in the use is proposed. While there is no planned increase in sporting events in conjunction with this conversion, it has been noted by the city's Director of Parks and Recreation that the synthetic turf will not require "resting" in between games (as grass does) so it is reasonable to anticipate that there may be increased usage of the fields over time.

In an aerial view of the existing fields it appears that there are 6 light poles. The proposed field lighting includes 4 poles (60 feet high). There is to be 20-foot tall protective netting, primarily along the east and west ends of the new field (shown in red on the attached site plan); and a black chain-link fence along the north and south sides of the field (shown in yellow on the attached site plan). The planning commission may find it helpful to request of the applicant photographs of pole material and netting material/height in other similar applications.

Tennis Courts

As may be seen on the attached site plan, the 4 existing tennis courts will be relocated to the northeast side of the proposed field. The existing courts are not lighted, but the proposed courts are to be lighted with 15 pole fixtures (6 single fixtures and 9 twin fixtures), each to be 24 feet high. It is not clear why these lighting poles need to be 24 feet high, but the planning commission may be able to vet this in the hearing. The

proposed black chain-link fencing along the perimeter of the tennis court is proposed to be 10 feet high.

Lighting

While the attached illumination studies depict details about light spillage in the context of the field and tennis court, there is no specific reference to the spillage and adjoining properties (or properties across Overbrook Road). The planning commission may find it helpful to request that the illumination grids be superimposed over an aerial showing adjoining properties, and perhaps also that the distance of the “ovals” be dimensioned on the study illustrations as to their distance from the edge of the fields and tennis courts, and as to their distance to adjoining property lines and to residential property lines across Overbrook Road.

Staff has been unable to ascertain any description of when the field lighting currently occurs (typical days of week and typical hours of the evenings), nor to ascertain how this may change with the new proposed project. The planning commission may find it helpful to request details on how many days per week (and during what hours) the lighting is currently employed, and how it is proposed to be employed in future.

Restrooms

A new restroom/storage facility is proposed along the north side of the field; see attached floor plan and elevations.

Parking

No increase in on-site parking demand is anticipated as a result of the proposed improvements. However, 48 new parking spaces are proposed along Overbrook Road (in the previous tennis courts location) for use by the teachers and staff of the Junior High.

The applicant has indicated that the parking lot is to be lighted (although none is shown in the proposed plans). The applicant has indicated that the parking lot lighting is still under design, but that it will likely be composed of 4 new poles that will match that of the primary parking lot (20-foot high shoebox style). Section 129-356 of the zoning code generally limits parking lot lighting as follows:

Sec. 129-356. Lighting restrictions in parking areas.

Parking area lights shall be mounted no higher than 14 feet above the finished grade of the parking area and shall be located so that the main beam of light does not extend beyond the property line on which the parking area is located. All lights shall be shielded so that there is no direct visible light above 85 degrees from nadir, and so that the main beam of light shall be shielded from 80 degrees.

Landscape Buffers

No change to existing landscape buffers is proposed; however it may be prudent to require the installation of a landscape buffer and/or screening fence in accordance with Sec.129-296 *Buffers*, along the south side of the new parking lot. Sec. 129-296 reads as follows:

Sec. 129-296. Buffers and privacy fences and walls.

In cases in which a buffer, a green belt or a privacy fence is required between adjoining parcels, the following shall constitute the minimum requirements therefore, unless otherwise specified in individual cases:

- (1) *Buffers and green belts.* For a buffer or green belt, **a planted strip of land at least 15 feet in width, composed of living deciduous or evergreen trees spaced not more than ten feet apart, and at least one row of dense evergreen shrubs spaced not more than five feet apart**, all of which shall be maintained in perpetuity by the property owner who is required to establish such buffer or green belt, or his heirs, successors or assigns.
- (2) *Privacy fences and walls.* For a privacy fence or wall, a solid wooden fence or brick wall (meaning a fence or wall with no openings or gaps in it, except for a gate which must be closed at all times except when it is in use) six feet in height and, with respect to fences, with all supporting members being on the side of the fence which faces the parcel, the owner of which is required to provide the fence. The fence or wall must be at least five feet inside, and parallel to, the property line of the parcel which is to be screened from view. The area between the privacy fence or wall and the property line shall be grassed, landscaped or otherwise maintained as a buffer or green belt, and both said grassed or landscaped area and the fence or wall shall be perpetually maintained in a neat and orderly condition by the owner of the parcel which is to be screened from view. Nothing contained in this subsection shall permit the construction of a fence or wall more than four feet in height in the required front setback of a parcel or more than eight feet in height between the required front setback line and the existing front building line, or in any required side or rear setback, unless a fence or wall higher than herein specified is specifically permitted by another provision of this Code.

It should also be noted that the Sec. 129-357 governs the screening of parking lots for projects that are *professional, business, or commercial* in nature. Obviously a school doesn't technically fall into this category of uses, but as a matter of context the following section of the zoning code has been included, outlining the ways in which other non-residential parking lots are treated in the city when abutting residential uses:

Sec. 129-357. Screening of parking areas.

- (a) *Screening required.* Parking areas for multi-family residential use (other than duplexes) and for any *professional, business or commercial uses which are located adjacent to dwelling units* (including multi-family residential units) located on other parcels **shall have a privacy fence, wall or buffer which will substantially prevent the lights of motor vehicles from shining on such adjacent dwelling units.** The installation and maintenance of the privacy fence, wall or buffer shall be the responsibility of the owner of the parking area. The fence, wall or buffer shall be subject to the prior written approval of the planning commission, which may require such reasonable information about the proposed fence, wall or buffer which it considers necessary. Notwithstanding any other provision of this chapter, with the prior written approval of the planning commission, the height of such fence or wall may exceed four feet.
- (b) *Screening requirements.* In cases where a privacy fence, wall or buffer is required for the purpose of shielding residential uses or areas from parking areas, the following minimum requirements shall apply:
 - (1) The fence or wall shall be of solid, opaque permanent construction;
 - (2) Any such fence, wall, or buffer shall be maintained in perpetuity by the owner of the parking area being screened; and

- (3) The shielding effect created shall be no less than 80 percent opaque when viewed horizontally from between two feet and five feet above the average ground level of the adjacent residential area or areas.

The requirement for screening shall be waived within 40 feet of any entrance to, or exit from, such parking area to provide adequate view for, and of, pedestrians, vehicular traffic and the motorists entering and leaving the parking area.

Drainage

Attached are the topographic survey and the proposed drainage plan. The topographic survey indicates a grade change of roughly 2-7 feet from the north end of the field complex to the southernmost property line of the school (varies from east to west). However, drainage in general is concern of adjoining property owners to the south, and specifically as it relates to any potential increase in runoff from the turf conversion, and from the increased impervious area related to the tennis court relocation and new parking lot layout.

Background

On December 7, 2020 the planning commission approved an amendment to the master development plan for the Junior High. That proposal consisted of a new 3-story addition that connects the existing second floor levels and third floor level, including a new main entrance with a 2-story volume lobby space and grand stair, as well as an ICC-500 rated storm shelter on the first floor.

The second and third floor additions consist of 18 new classrooms. Other renovations throughout the interiors include expanding the existing cafeteria and connecting it to a multi-purpose overflow space. Also a new roof was proposed over part of the existing facility, as well as a new pitched roof and a turret next to the library.

Since the planning commission has new members that may not be familiar with these previously-approved renovations and additions, this link to that planning commission case is herein provided (Case P-20-33):

https://www.mtnbrook.org/sites/default/files/fileattachments/planning_commission/meeting/packets/12711/pc_packet_20201207.pdf

Subject Property and Surrounding Land Uses

The subject property is surrounded by single family zoning.

Affected Regulation

Article III, Residence A District; Section 129-32, Conditions on Certain Permitted Uses.

Appends

LOCATION: 205 Overbrook Road

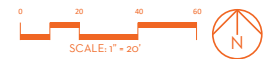
ZONING DISTRICT: Residence-A

OWNER: Mountain Brook Board of Education



MTN. BROOK JUNIOR HIGH SCHOOL ATHLETICS

MOUNTAIN BROOK, ALABAMA



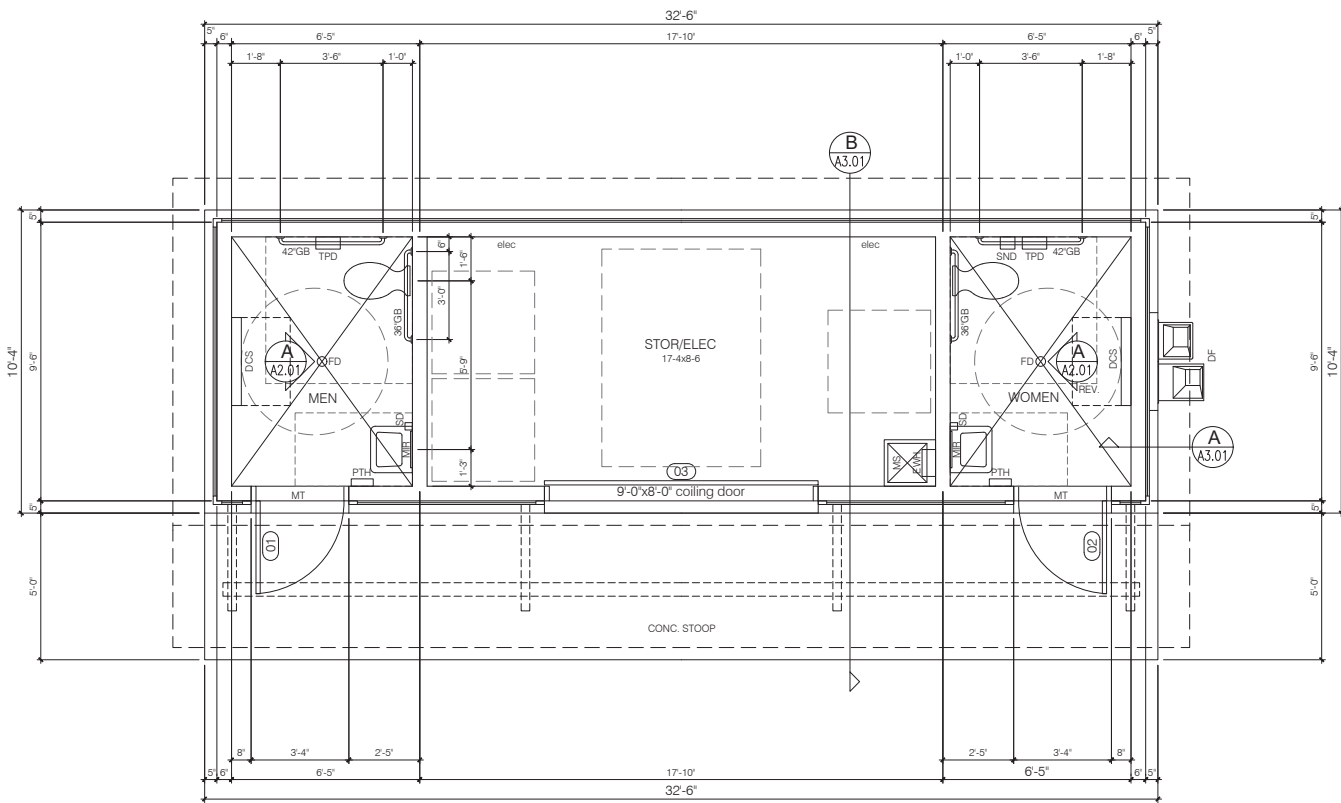




© 2022 Google



Google



FLOOR PLAN

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

335 SQ.FT. gross
(outside of brick base)



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

ISSUE | DATE
Preliminary | 11/23/2022

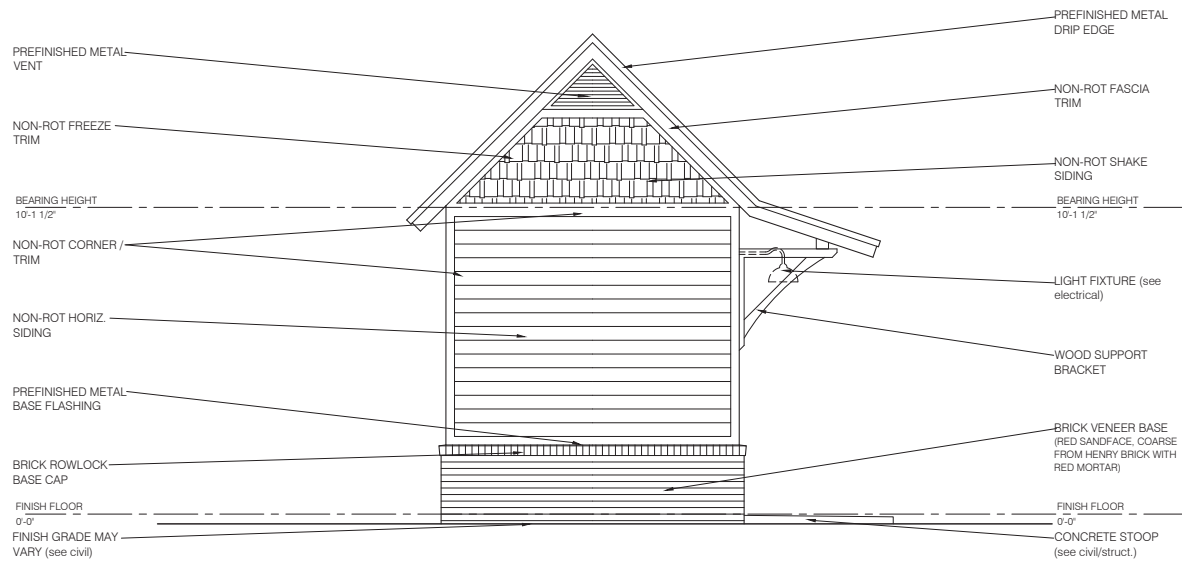
MOUNTAIN BROOK JR.
HIGH ATHLETICS
MOUNTAIN BROOK, AL

LBHM220030

FLOOR PLAN

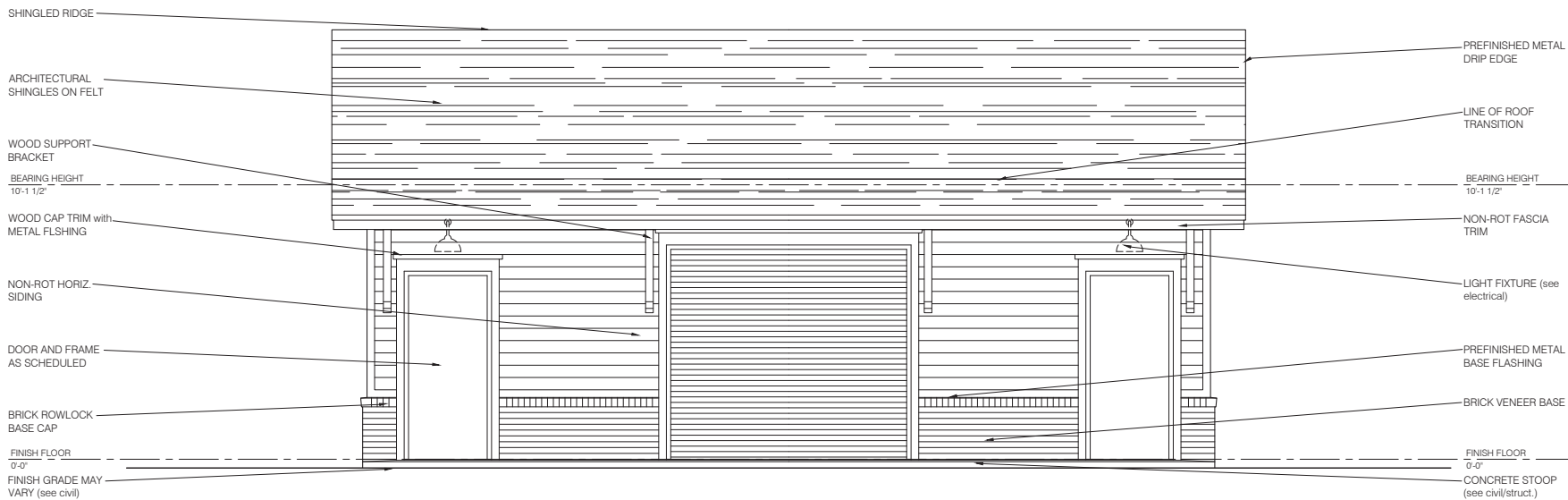
A1.01
Sheet of

DRAWN BY:
CHECKED BY:



SIDE ELEVATION

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



FRONT ELEVATION

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

ISSUE	DATE
Preliminary	11/29/2021

MOUNTAIN BROOK JR.
HIGH ATHLETICS
 MOUNTAIN BROOK, AL

LBHM220030

ELEVATIONS

A2.01
 Sheet of

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'	4	TLC-LED-1200	4.68 kW	A
		60'	1	TLC-LED-900	0.89 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
4			28		26.88 kW	

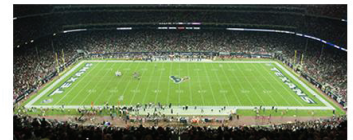
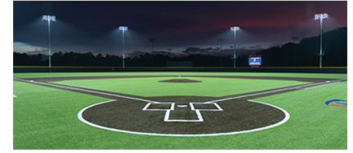
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	26.88 kW	28

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	16
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	4
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	0.03	0.00		A	28
Football Spill	Max Candela Metric	180	1.17	1328	1138.64	154.14	A	28
Football Spill	Max Vertical Illuminance Metric	0.01	0	0.06	0.00		A	28
Football	Horizontal Illuminance	34.2	27	42	1.59	1.27	A	28

From Hometown to Professional



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EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Luminaires				OTHER GRIDS
				MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	
4	F1-F4	60'		60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	4	4	0
4	TOTALS					28	28	0

**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

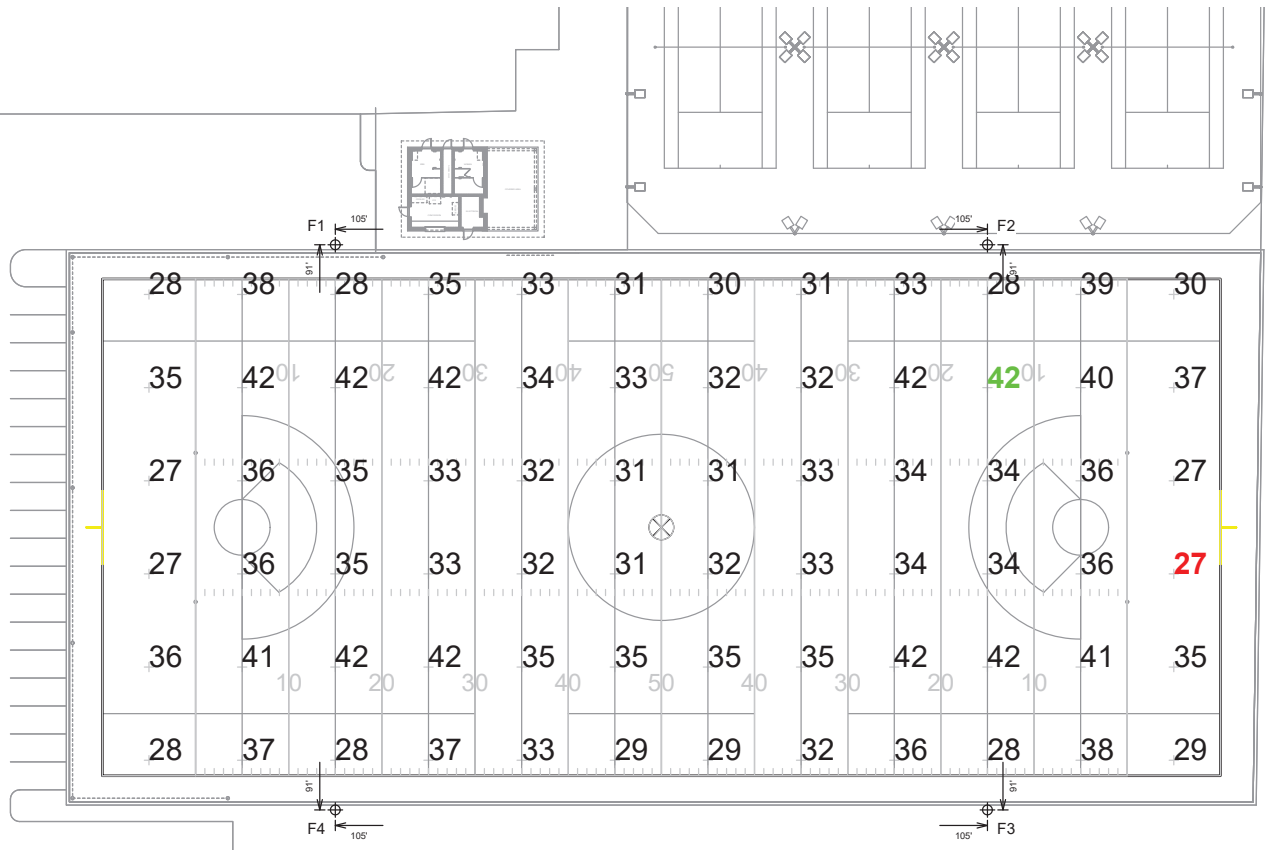
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Guaranteed Average:	30
Scan Average:	34.22
Maximum:	42
Minimum:	27
Avg / Min:	1.28
Guaranteed Max / Min:	2.5
Max / Min:	1.59
UG (adjacent pts):	1.50
CU:	0.75
No. of Points:	72
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	28
Total Load:	26.88 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.



ENGINEERED DESIGN By: William Isiminger · File #174791A · 28-Nov-22

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

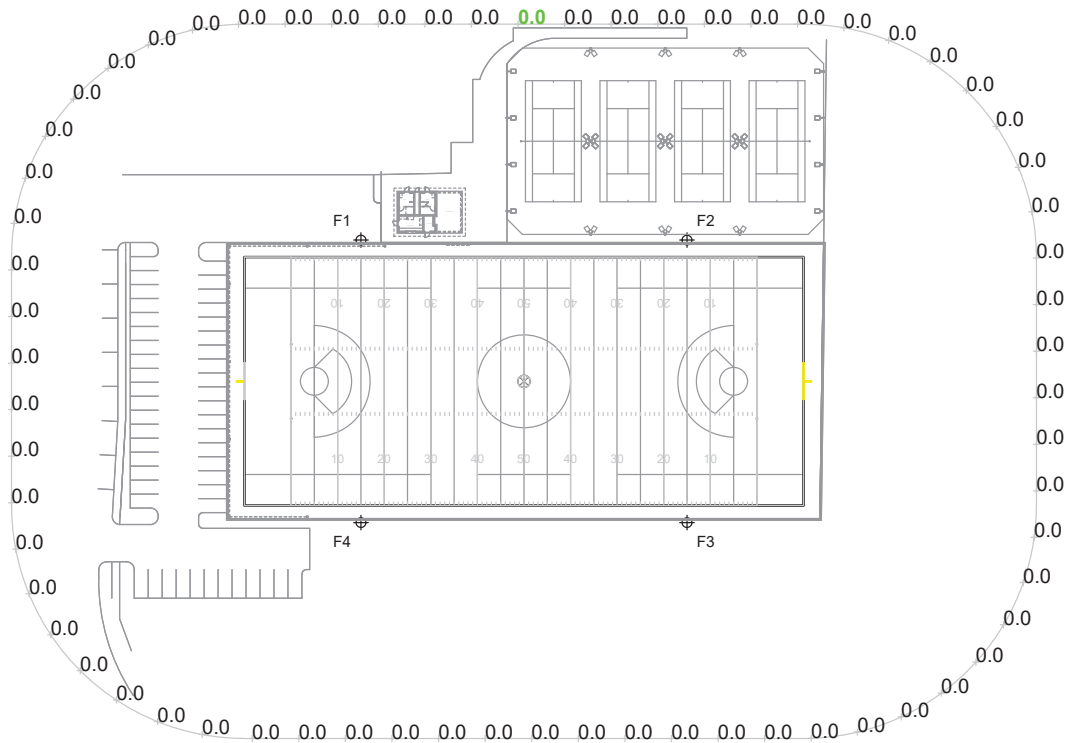


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
QTY	LOCATION	Pole		Luminaires				
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	4	4	0
TOTALS						28	28	0



**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:	0.0025
Maximum:	0.03
Minimum:	0.00
No. of Points:	66
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	28
Total Load:	26.88 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.



SCALE IN FEET 1 : 80



ENGINEERED DESIGN By: William Isiminger · File #174791A · 28-Nov-22

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

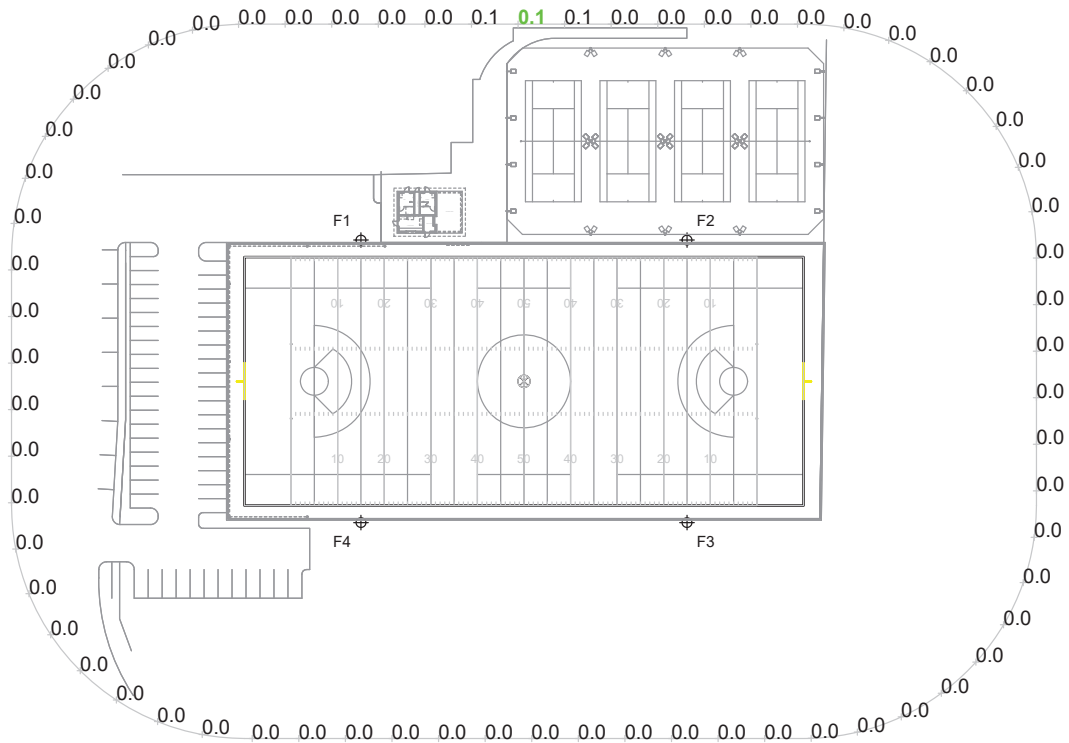


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
QTY	LOCATION	Pole		Luminaires				
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	F1-F4	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	2	2	0
				60'	TLC-LED-1200	4	4	0
TOTALS						28	28	0



**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:	0.0070
Maximum:	0.06
Minimum:	0.00
No. of Points:	66
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	28
Total Load:	26.88 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.



ENGINEERED DESIGN By: William Isiminger · File #174791A · 28-Nov-22

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



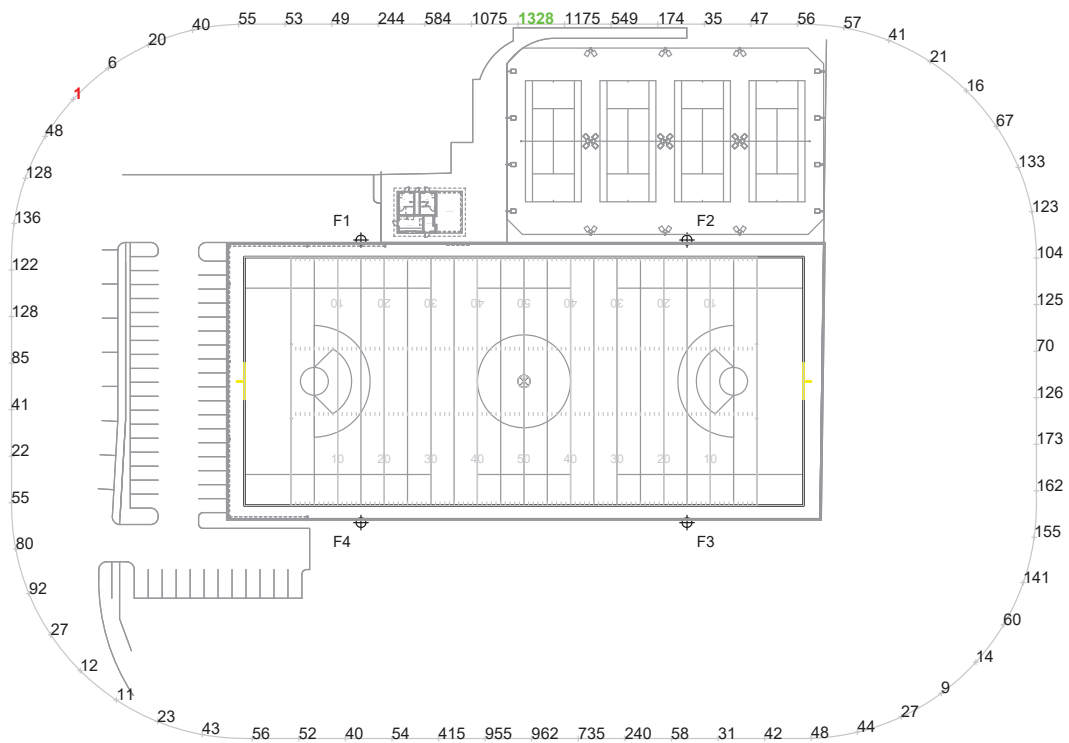
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires						
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS		
4	F1-F4	60'		60'	TLC-LED-900	1	1	0		
				15.5'	TLC-BT-575	2	2	0		
				60'	TLC-LED-1200	4	4	0		
4	TOTALS							28	28	0



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	180.3470
Scan Average:	180.3470
Maximum:	1327.68
Minimum:	1.17
No. of Points:	66
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	28
Total Load:	26.88 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.



SCALE IN FEET 1 : 80



ENGINEERED DESIGN By: William Isiminger · File #174791A · 28-Nov-22

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



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ILLUMINATION SUMMARY

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

EQUIPMENT LAYOUT

INCLUDES:

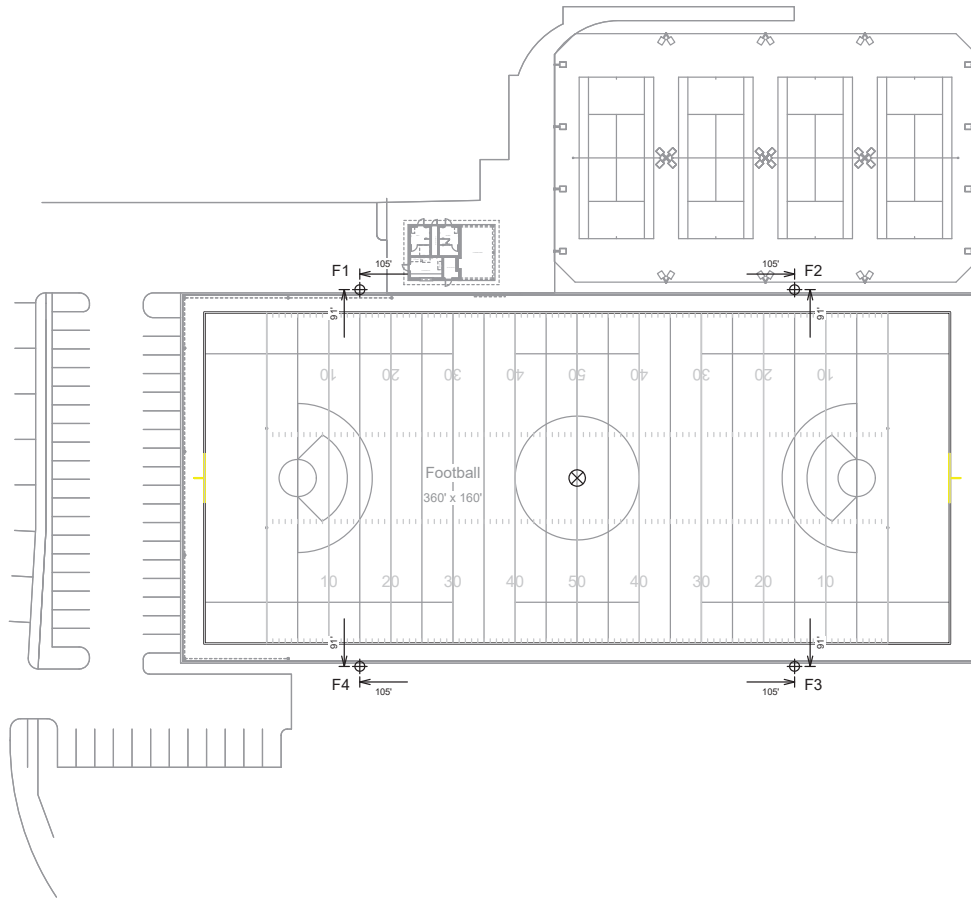
- Football

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)						
	208	220	240	277	347	380	480
Single Phase Voltage	160	160	160	160	160	160	160
TLC-LED-1200	7.0	6.6	6.3	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-87575	3.4	3.2	2.9	2.5	2.0	1.8	1.5



SCALE IN FEET 1 : 60



ENGINEERED DESIGN By: William Isiminger · File #174791A · 28-Nov-22

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



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EQUIPMENT LAYOUT

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

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.

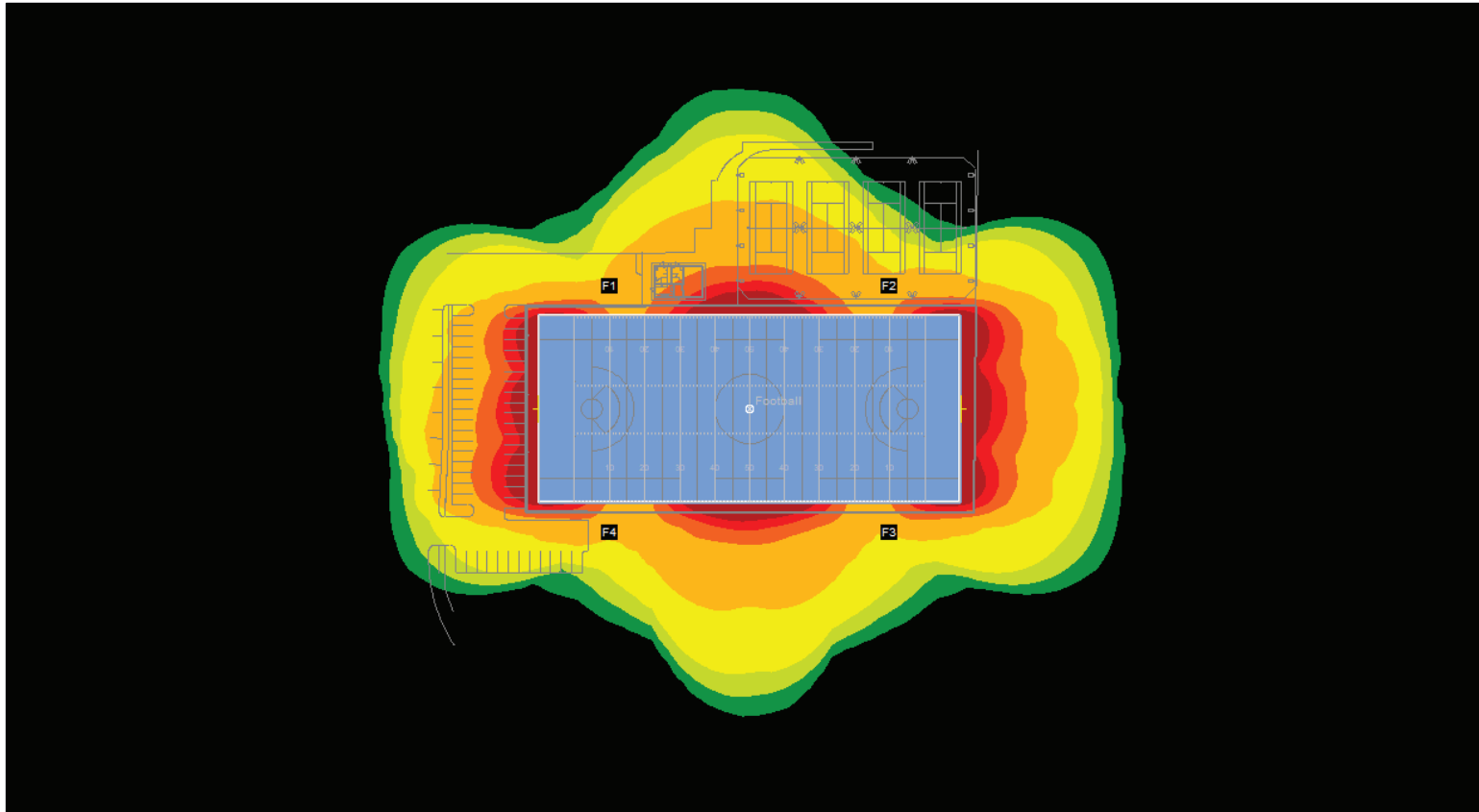
GLARE

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.

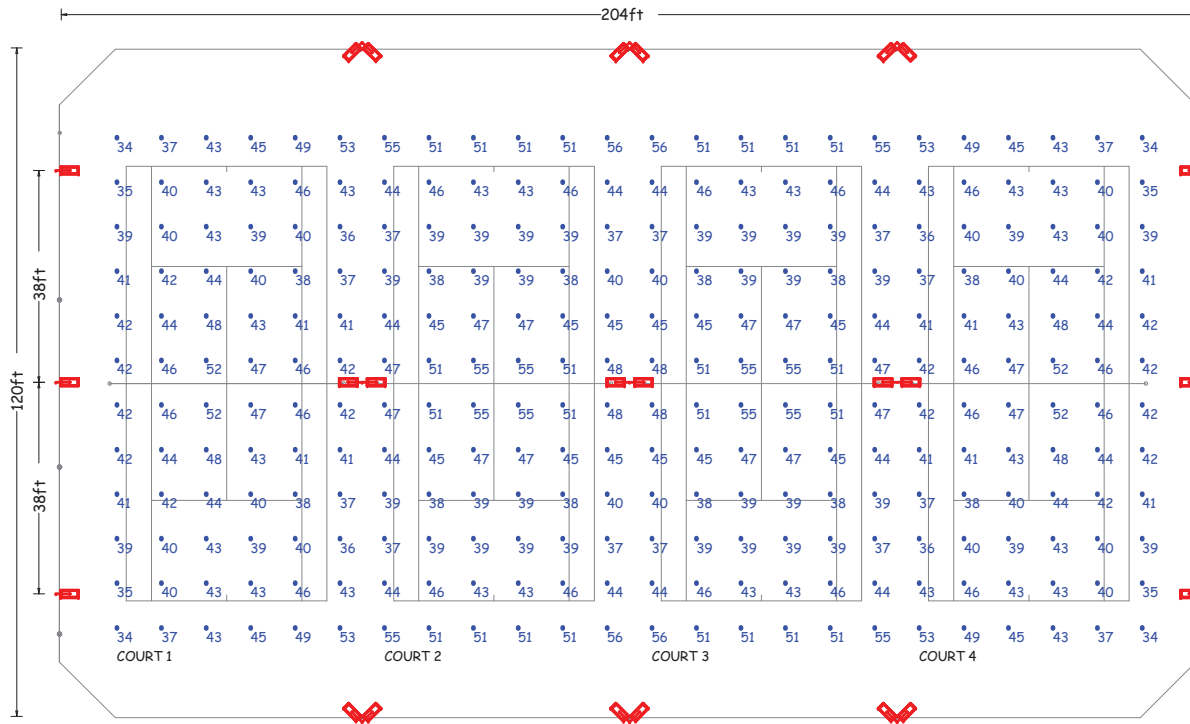
Significant Glare: 25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

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



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Calculation Summary					
Project: MOUNTAIN BROOK JR HIGH SCHOOL					
Label	CalcType	Avg	Max	Min	Max/Min
COURT 1	Iluminance	42.33	53	34	1.56
COURT 2	Iluminance	45.11	56	37	1.51
COURT 3	Iluminance	45.11	56	37	1.51
COURT 4	Iluminance	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.A6I
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 LAR6E) @ 24" MT6. HT.	0.940	60978	448	2688
	3	B	TWIN 180	ZNL-60L-CT-50 (ZONE LAR6E) @ 24" MT6. HT.	0.940	60978	448	2688
	6	C	TWIN 90	ZNL-60L-CT-50 (ZONE LAR6E) @ 24" MT6. 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





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 independently and can be commissioned 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 applications.
- IK08 rated luminaire 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)



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
<p>(Blank) - None</p> <p>Wireless Controls System</p> <p>ALSC - AirLink Synapse Control System</p> <p>ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor</p> <p>ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor</p> <p>ALSC B - Airlink Synapse Integral Controller and Dynamic Behaviors Drivers</p> <p>ALSC UNV TL7 - Airlink Synapse 7 Pin Twist Lock Controller 120V-277V</p> <p>ALSC HV TL7 - Airlink Synapse 7 Pin Twist Lock Controller 347V-480V</p> <p>ALSSM WIFI-VER-CEL - AirLink Synapse Central Base Station</p> <p>ALS RMT ACCESS - AirLink Synapse Remote Access 12 month subscription</p> <p>ALS DYN SCENE - AirLink Synapse Dynamic Behavior Software</p> <p>ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)</p> <p>ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)</p> <p>Stand-Alone Controls</p> <p>EXT - 0-10v Dimming leads extended to housing exterior</p> <p>CR7P - 7 Pin Control Receptacle ANSI C136.41²</p> <p>IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height^{3,4}</p> <p>IMSBT2 - Integral Bluetooth Motion and Photocell Sensor max 25-40' mounting height^{3,4}</p>	<p>BRZ - Bronze</p> <p>BLK - Black</p> <p>GPT - Graphite</p> <p>MSV - Metallic Silver</p> <p>PLP - Platinum Plus</p> <p>GRN - Green</p> <p>WHT - White</p>	<p>(Blank) - None</p> <p>IH - Integral Half Louver (Moderate Spill Light Cutoff)</p> <p>IL - Integral Louver (Sharp Spill Light Cutoff)</p> <p>FMS - Fixed Mounting Studs⁵</p>

Accessory Ordering Information⁶

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 factory 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 details.

⁶ Accessories are shipped separately and field installed.

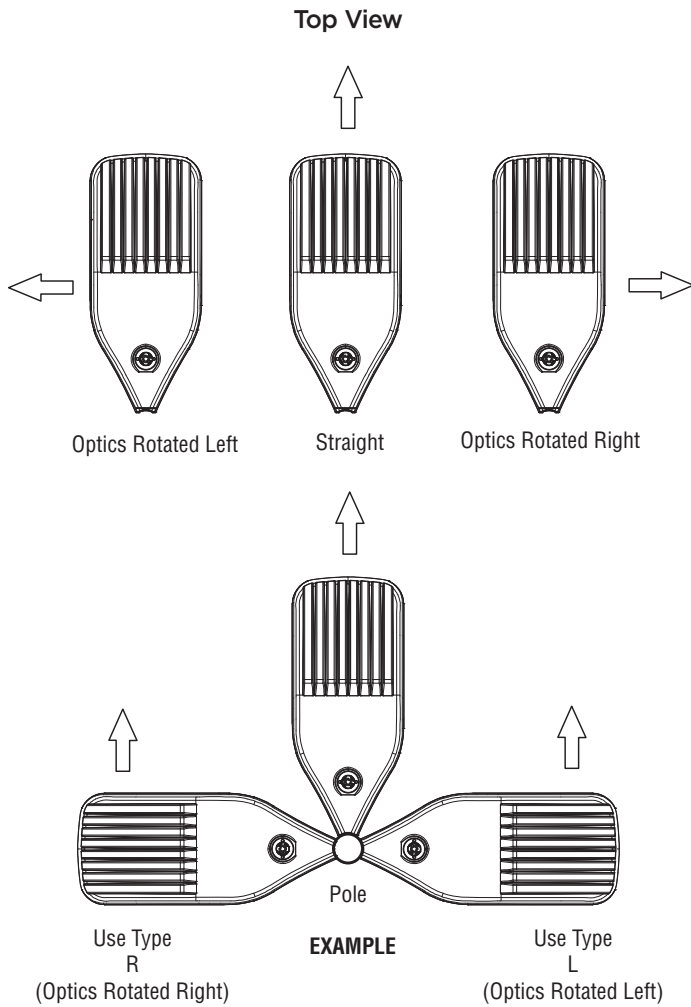
⁷ Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.

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

[Back to Quick Links](#)

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

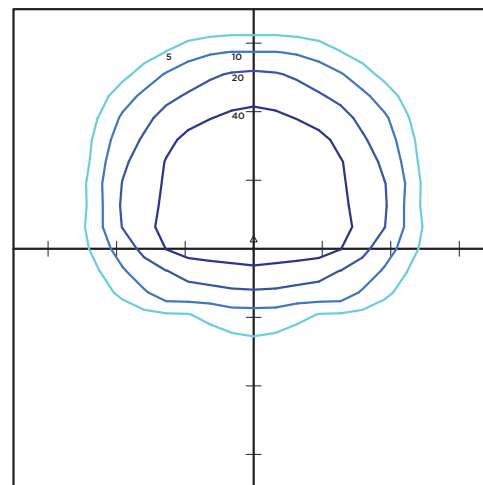
LUMINAIRE DATA

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

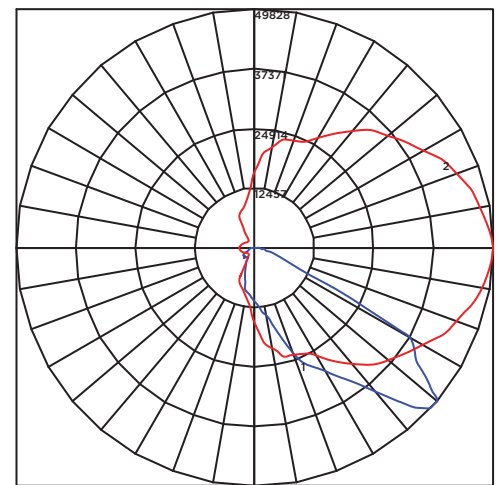
Zonal Lumen Summary

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

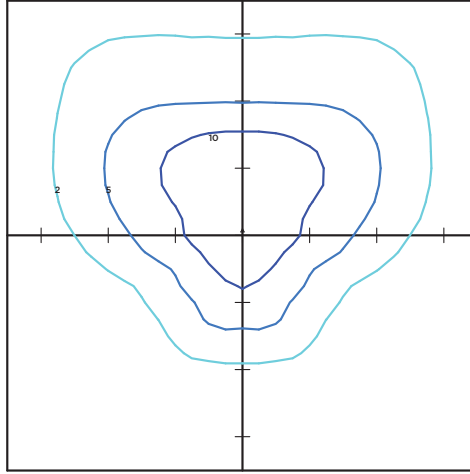
LUMINAIRE DATA

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

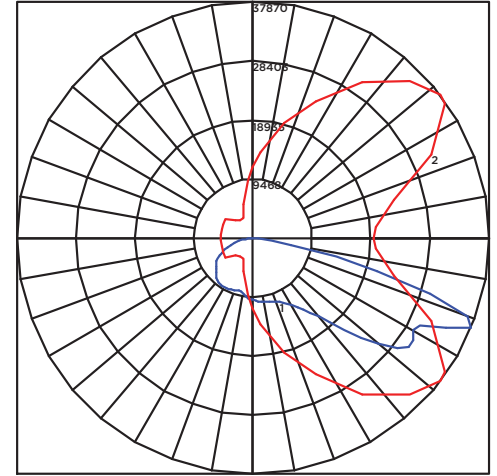
Zonal Lumen Summary

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



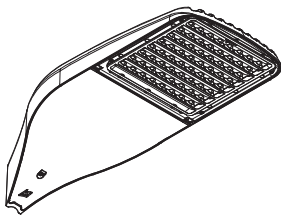
ZONE Large Outdoor Sports Light

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)



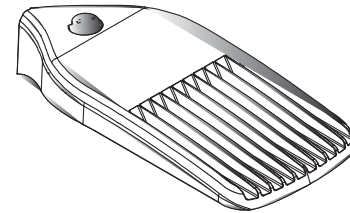
Luminaire Shown with IMSBT Option



7 Pin Photoelectric Control

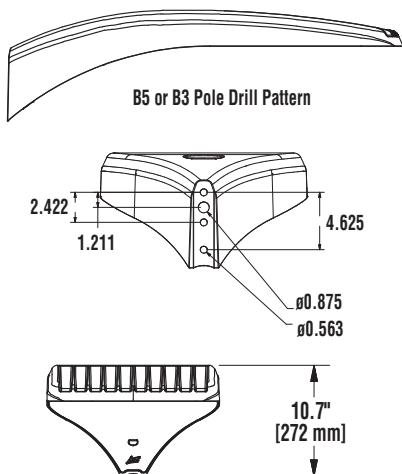
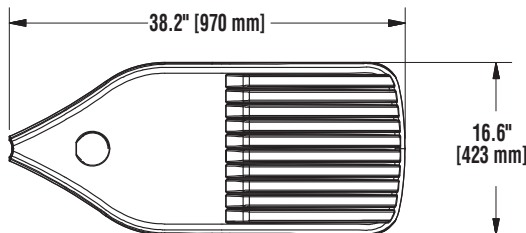
7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P



PRODUCT DIMENSIONS

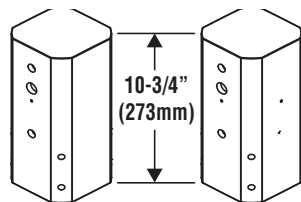
[Back to Quick Links](#)



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



ZONE Large Outdoor Sports Light

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".



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.



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 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'



Civil Engineering | Land Surveying | Landscape Architecture
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SCHUBEL

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 Fax: (205) 988-5101
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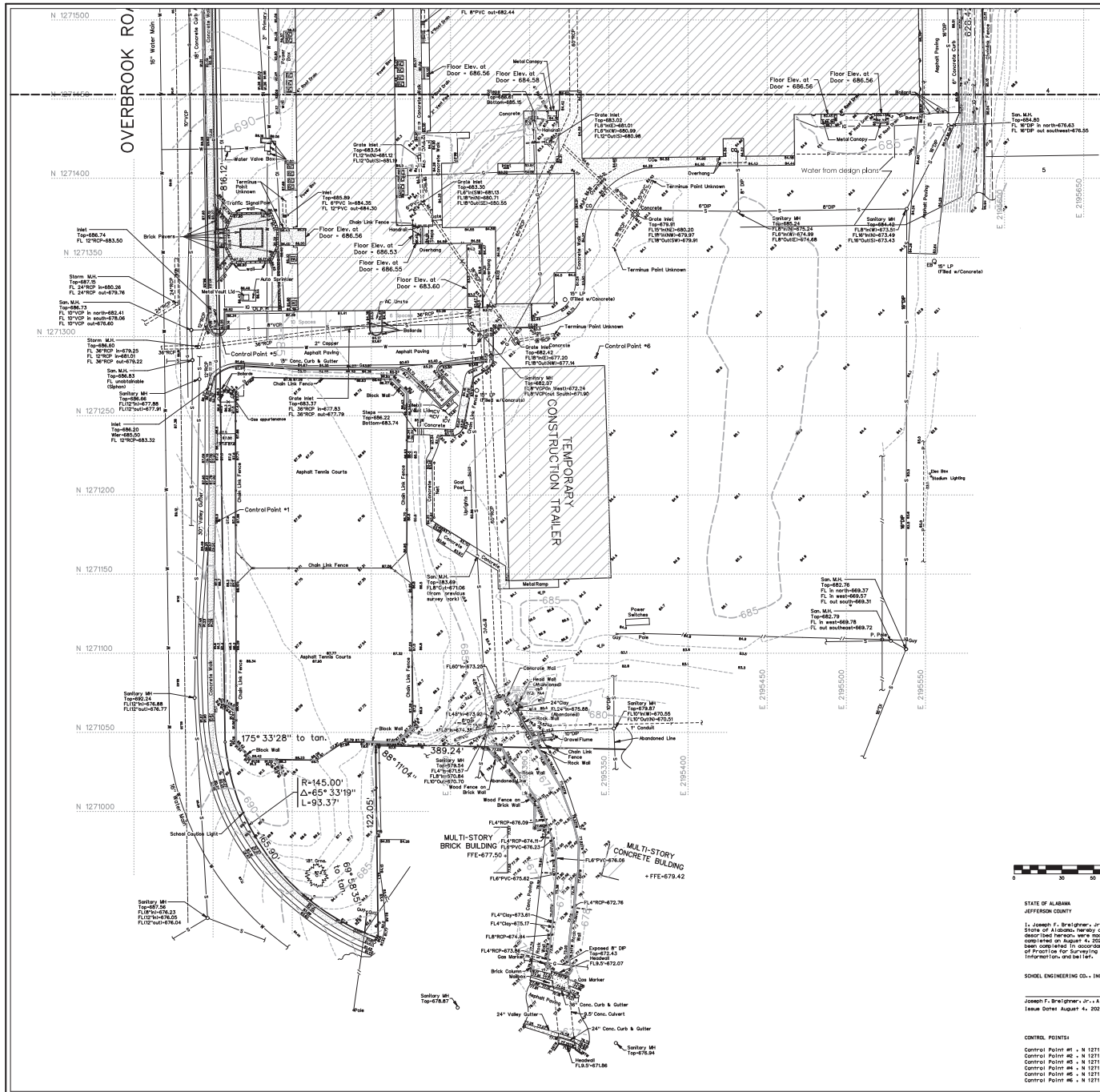


**MOUNTAIN BROOK JR. HIGH SCHOOL
 DRAINAGE IMPROVEMENTS
 MOUNTAIN BROOK, ALABAMA**

DRAWING SET: **BID SET**
 DATE: **10/02/22**

TOPOGRAPHIC SURVEY AREA 1

DATE: August 4, 2021
 DRAWN BY: JTB
 CHECKED BY: JTB
 REVISIONS:
 REVISION NAME: 2/14/07



MATCH LINE AREA 2
 MATCH LINE AREA 1

LEGEND

- UNDERGROUND WATER LINE
- SANITARY SEWER
- STORM SEWER
- OVERHEAD UTILITIES
- FENCE
- WATER VALVE
- IRRIGATION CONTROL VALVE
- LIGHT POLE
- MANHOLE
- CONCRETE WALL
- WALL
- CONTOUR
- SPOT ELEVATION
- TOP OF WALL ELEVATION



Scale: 1" = 30'
 Graphic Scale

- NOTES:**
1. All control datum is referenced to Alabama State Plane Coordinate System, East Zone, North 101, datum is referenced to this location.
 2. This property is not located within the 100 year flood area and is in drainage area "A" (cross referenced to the map of the Flood Insurance Program "FIRM" Flood Insurance Rate Map of Jefferson County, Alabama, according to Panel 827 of 755, Map Number 0107020573 dated September 3, 2010, as published by the Federal Emergency Management Agency.
 3. No investigation into the existence or location of underground utilities has been performed for the purpose of this survey. The information shown herein is from visible surface indications only.
 4. No investigation or reason has been performed for the purpose of determining the location of subsurface features, such as footings, foundation or structural supports of the building shown herein.
 5. No title commitment information was provided for the purpose of this survey. Therefore, there may be easements and other matters of record of which the surveyor has no knowledge that are not shown on the survey.
 6. This topographic survey is not a boundary survey. The property lines shown herein were taken from field evidence, plotted deeds and record plats or other references only.
 7. This survey is not valid without the original signature and seal of the Professional Land Surveyor.
 8. Joseph F. Breighner, Jr. can be contacted by telephone at (205) 315-1167 or by email at jfbreighner@aol.com.

STATE OF ALABAMA
 JEFFERSON COUNTY

JOSEPH F. BREIGHNER, JR., a Registered Professional Land Surveyor in the State of Alabama, hereby certifies that this survey and drawings of the parcel described herein were made by himself and/or by assistants in his full and complete compliance with all parts of this survey and drawing have been completed in accordance with the current requirements of the Statutes of Practice for Surveying in the State of Alabama to the best of his knowledge, information and belief.

Issue Date: August 4, 2021

CONTROL POINTS:

Control Point #1 = N 1271816.86, E 2198335.08, Elev. 688.75, Reference Iron
 Control Point #2 = N 121880.08, E 2195566.83, Elev. 688.12, Peg Nail
 Control Point #3 = N 1271971.27, E 2196148.72, Elev. 689.90, Hub & Tap
 Control Point #4 = N 121920.44, E 2195271.52, Elev. 689.24, Hub & Tap
 Control Point #5 = N 1271850.50, E 2196148.52, Elev. 689.90, Hub & Tap (Folio off map)
 Control Point #6 = N 1271774.37, E 2195559.87, Elev. 703.81, Cross (Folio off map)

UNDERGROUND UTILITIES SHOWN ON THIS MAP ARE FROM LOCAL UTILITY COMPANY RECORDS AND SHOULD BE FIELD VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION.

JOB SAFETY IS NOT THE RESPONSIBILITY OF THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SITE SAFETY.



2400 6th Avenue S, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

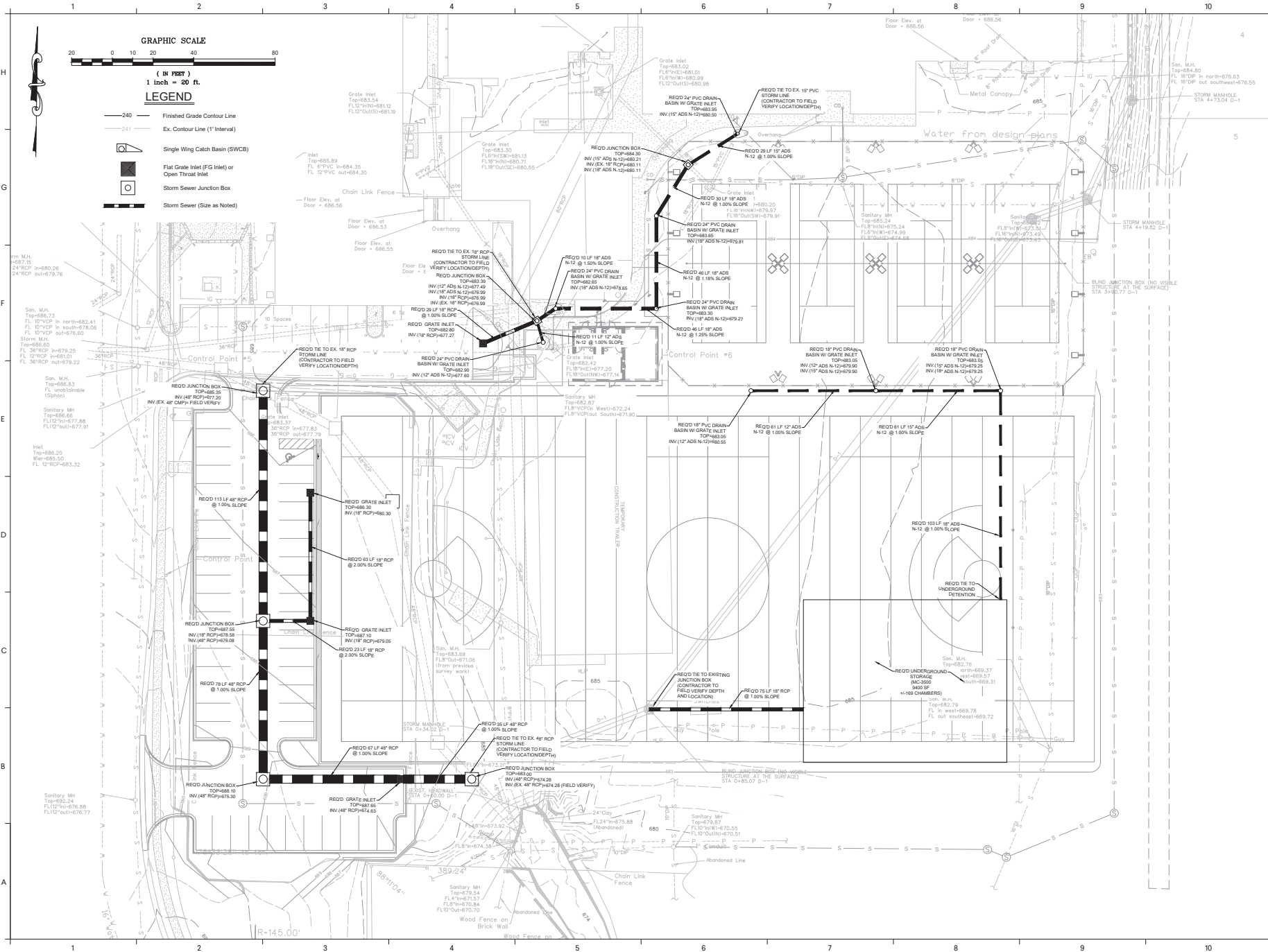
ISSUE DATE	DOSET
	10/27/22

MOUNTAIN BROOK JR.
HIGH ATHLETICS
MOUNTAIN BROOK, AL

CBHM220085

DRAINAGE PLAN

C4.0
Sheet of



GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

LEGEND

- 240 — Finished Grade Contour Line
- - - 241 - - - Ex. Contour Line (1' Interval)
- ◻ Single Wing Catch Basin (SWCB)
- ◻ Flat Grate Inlet (FG Inlet) or Open Trench Inlet
- ◻ Storm Sewer Junction Box
- ◻ Storm Sewer (Size as Noted)

DRAWING TITLE: MOUNTAIN BROOK JR. HIGH ATHLETICS; PROJECT NO: CBHM220085; DATE: 10/27/22; DRAWN BY: J. B. BROWN; CHECKED BY: J. B. BROWN; PLOTTED: 01/27/23 10:00 AM