

Planning Commission Report

Project Type:	Site Development Plan
Meeting Date:	June 28, 2021
From:	Natalie Nye, Planner
Location:	150 N. Eatherton Road
Description:	<u>150 N. Eatherton Rd. (Chesterfield Sports Complex):</u> A Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for a 10.78-acre parcel of land zoned "PI" Planned Industrial District located at 150 N. Eatherton Road.

PROPOSAL SUMMARY

The request is for a 98,000 square foot gymnasium known as the Chesterfield Sports Complex located at 150 N. Eatherton Road. The gymnasium will primarily be used for basketball and volleyball practices, games and tournaments. The subject site is zoned "PI" Planned Industrial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2939.

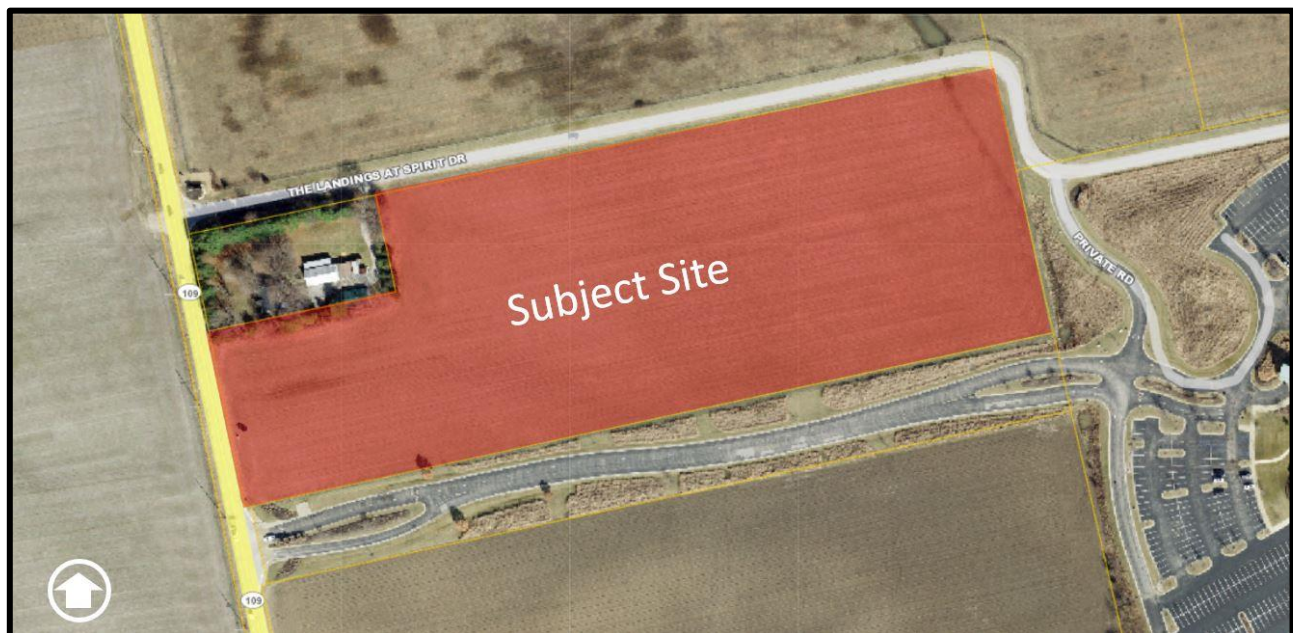


Figure 1: Aerial image of the subject site

SITE HISTORY

The subject site was zoned “NU” Non-Urban by St. Louis County prior to the City’s incorporation. On February 22, 2017 the subject site was rezoned from “NU” to “PI” Planned Industrial District through Ordinance 2939. The proposed use of “Gymnasium” is a permitted use in the governing ordinance. The subject site is vacant with no structures or improvements present.

LAND USE AND ZONING OF SURROUNDING PROPERTIES

The zoning and land use for the properties surrounding this parcel are as follows:

Direction	Zoning	Land Use
North	“M3” Planned Industrial District & “NU” Non-Urban District	Vacant Land & Single-Family Residential
East	“M3” Planned Industrial District & “NU” Non-Urban District	Vacant Land & The Crossing at Chesterfield Church
South	“NU” Non-Urban District	The Crossing at Chesterfield Church
West	“NU” Non-Urban District & City of Wildwood (“M3” Zoning)	Single-Family Residential & City of Wildwood (Single-Family Residential)

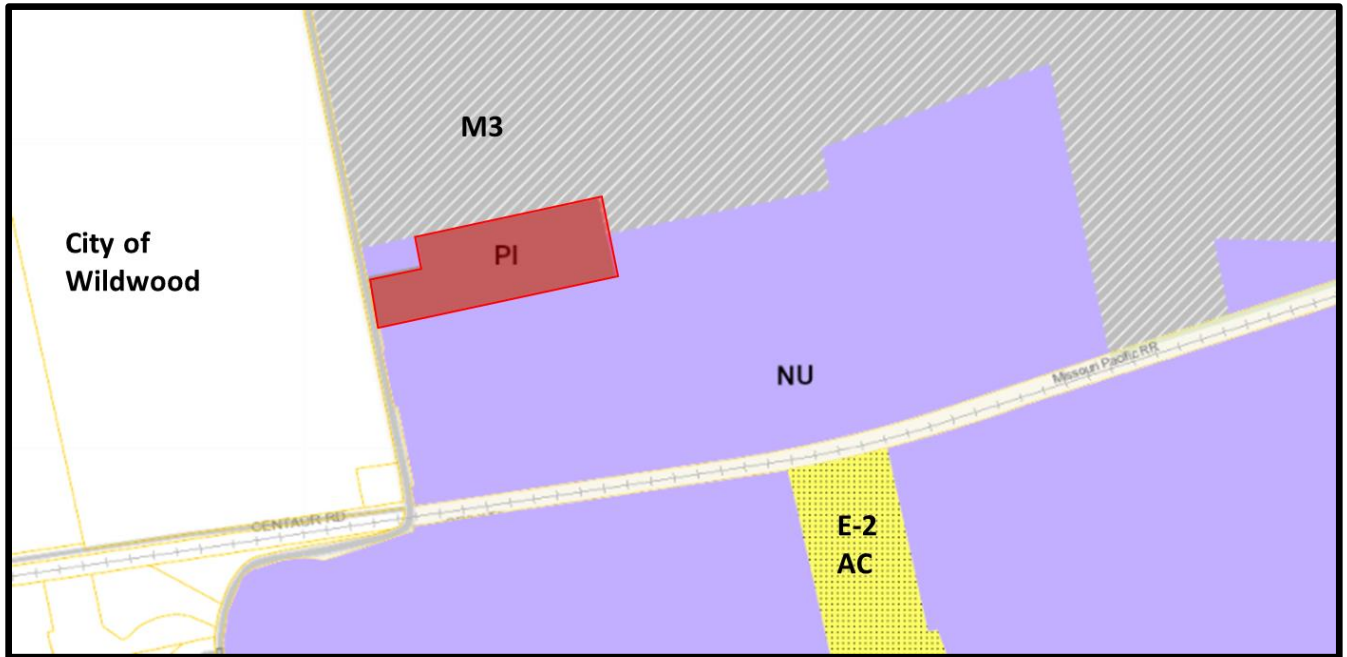


Figure 2: Zoning Map

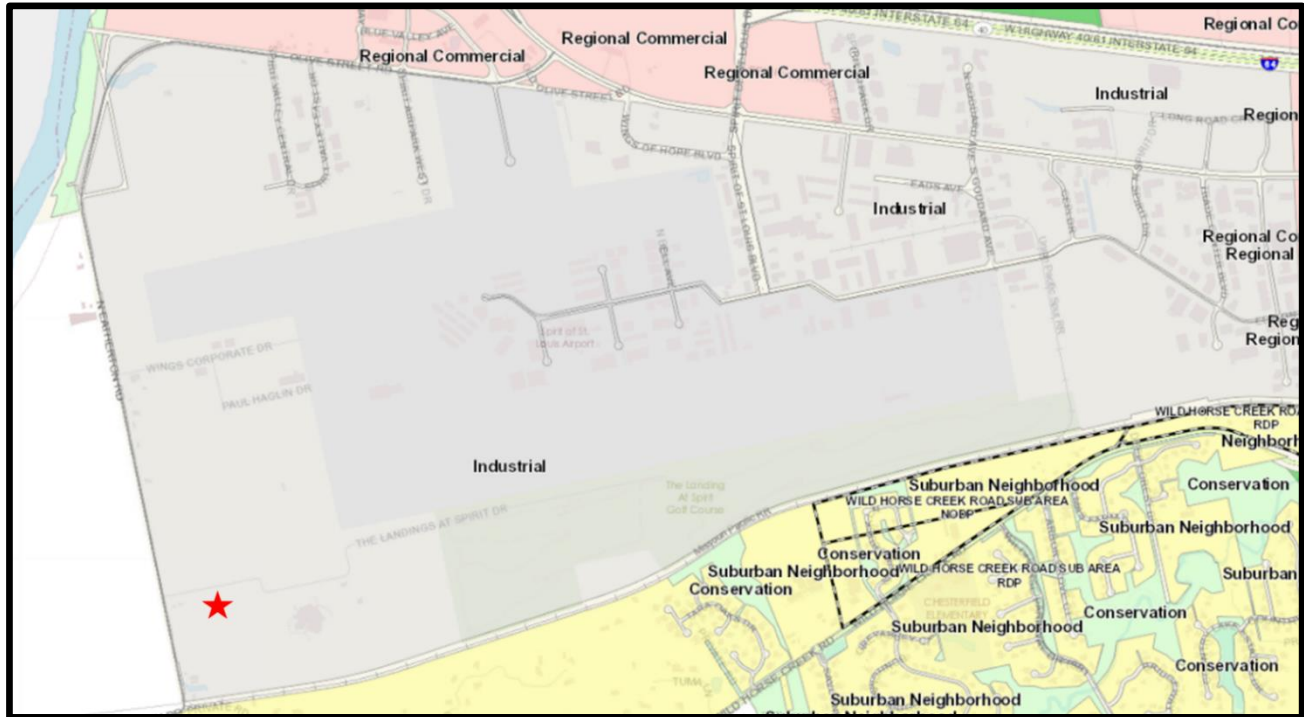


Figure 3: Land Use Map

COMPREHENSIVE PLAN

The City of Chesterfield Comprehensive Land Use Plan indicates the subject site as “Industrial” along with much of the surrounding area. The Land Use Plan identifies a large portion of the Chesterfield Valley south of Chesterfield Airport Road and west of Chesterfield Industrial Boulevard as “Industrial” as seen in Figure 3.

Additionally, a number of Comprehensive Plan Development Policies are applicable to this project. The following items identify the applicable policies followed by staff analysis:

- **Limit curb cuts on arterial streets, and where possible concentrate access at shared entrance points**

One new curb cut is proposed for this development. The new access point will be a full access drive off of Eatherton Road. Cross-access is also proposed to the existing drive to the north of the property. This existing drive is currently used to access the Landings at Spirit Golf Club.

- **Landscape buffering should be utilized between roadways to screen areas of surface parking**

A proposed 30’ landscape buffer is proposed along the frontage of the site. Additionally, the parking lot is set back over 300’ from the roadway.

- **Residential projects should be limited to areas outside of the Chesterfield Valley**

The proposed use is a Gymnasium and will primarily be used for volleyball and basketball practices, games and tournaments.

STAFF ANALYSIS

Off-Street Parking and Loading

The number of required spaces per the Unified Development Code is 405 spaces with a maximum permitted number of 540 spaces. There are 411 parking spaces proposed, 9 of which are ADA spaces. Parking is located to the west, north and east of the building.

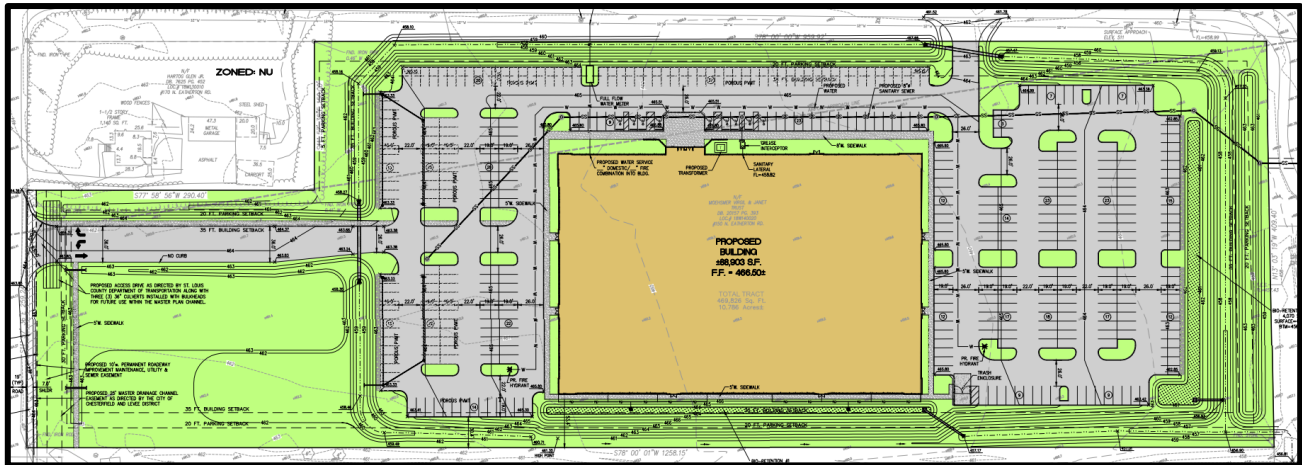


Figure 4: Color Site Plan with Parking denoted

Circulation and Access

The subject site will be accessed via the primary access drive off of N. Eatherton Road. This access drive is specifically permitted by City Ordinance 2939. The site will also have a cross access drive constructed to serve the site from the north. The site is bordered to the north by the Landings at Spirit Golf Club's access drive. The applicant has provided a supplementary traffic assessment, which is included as an exhibit in the Site Development Plan Submittal Packet. The assessment provided a summary with recommendations, most notably was a recommendation for a south-bound storage lane for incoming left-turning traffic into the site. N. Eatherton Road is a County roadway and the developer has provided right-of-way dedication as requested by St. Louis County along the property's frontage. The development will also contribute to the TGA and those funds will be used for future road improvements. The development also includes a new 5-foot sidewalk along the frontage of the site along North Eatherton Road. This sidewalk will connect to an internal sidewalk allowing for pedestrian access to and throughout the site.

Landscape Design

A variety of plantings have been provided in order to meet the City's landscape requirements. A 30-foot landscape buffer has been provided along the frontage of the site. Adequate parking lot landscaping, foundation plantings, and landscape screening have been provided. The trash enclosure and all ground level mechanical equipment are screened by landscaping. The proposed plantings have been selected from the City of Chesterfield's approved tree list. The plants chosen

offer color and texture throughout the site. Flowering trees are proposed at the entries and will provide a color contrast to the proposed building. Additionally, 98% of the trees on the site are to be preserved. These trees are situated in the northwestern corner of the site and provide screening for the existing single-family residence that is located just northwest of the subject property.

Screening

Mechanical equipment will be located on the rooftop of the building and screened from view by the parapet walls as shown in Figure 5. The proposed trash enclosure on the site will be screened by walls using the same materials as the building.

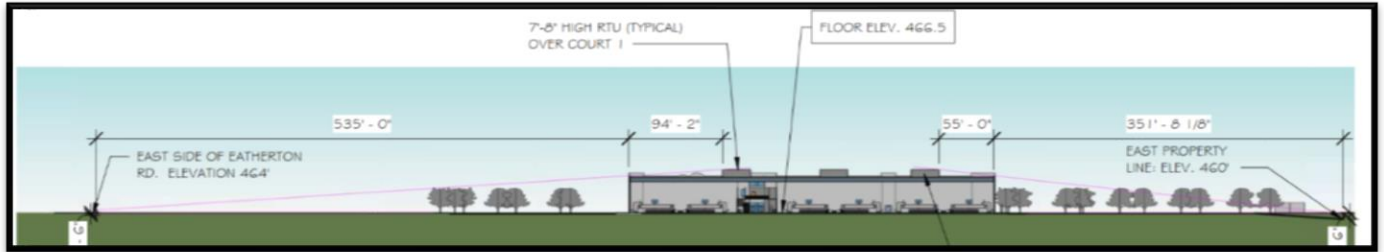


Figure 5: Screening Exhibit

Lighting

Lighting is planned in association with the proposed development as required by the City of Chesterfield. All proposed parking lot lighting will be full cut off, low profile, LED fixtures equipped with side shields at the property line to minimize glare and light trespass. Building entries will incorporate a combination of downlights and low-profile recessed LED can lighting. The illuminated bollards proposed are considered accent lighting and require approval by the Planning Commission. In total, there are 40 proposed fixtures in the parking area, 15 wall-mounted fixtures across all elevations of the building, 6 under-canopy lights at the main entrance, and 4 illuminated bollards. One new street light is proposed on an existing utility pole across from the main entrance to the development.



Figure 6: Lighting Fixtures

Elevations

The proposed building is 40 feet in height at its highest point, and the maximum building height for this development is 40 feet per the site-specific ordinance. The main entrance to the building is on the north elevation and is defined by a horizontal entry canopy. The proposed building is primarily comprised of painted concrete panels. The building also includes decorative reveals and aluminum storefronts with tinted glass. The color scheme consists of varying shades of blue and gray. The north and west elevations include architectural elements that support the interior function as a gymnasium. The orange and white ball elements, as well as the concrete horizontal weave that represents the netting, reinforce the building’s proposed use. These architectural designs are located on the elevations that face the site’s entry points and serve as the entrances to the building.

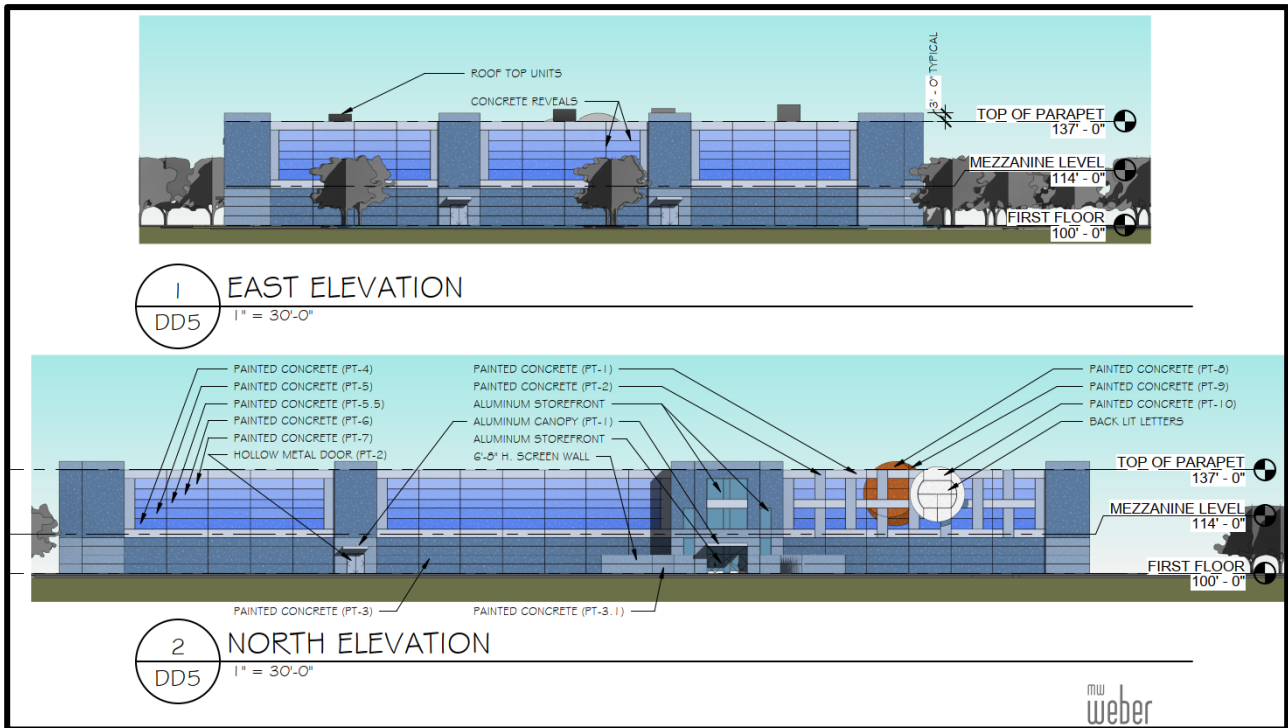


Figure 7: East/North Elevations

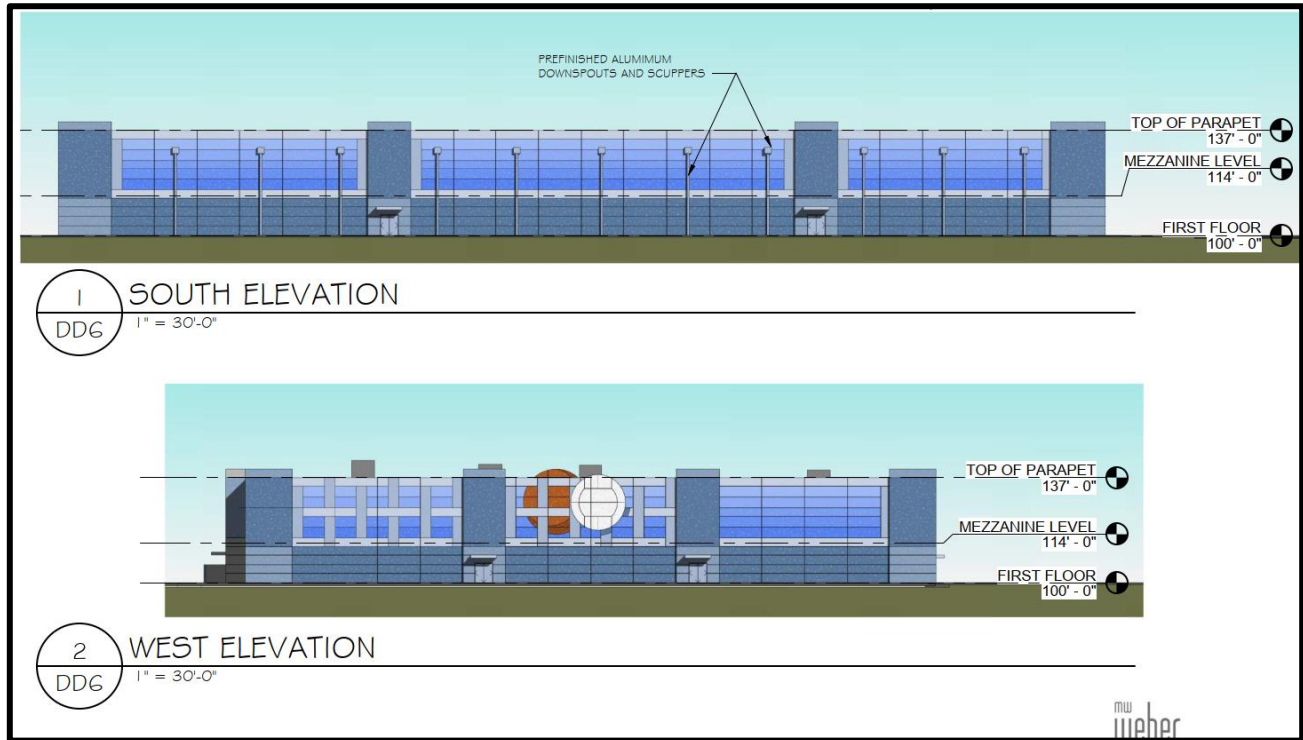


Figure 8: South/West Elevations

ARCHITECTURAL REVIEW BOARD INPUT

The request was initially reviewed by the Architectural Review Board on Thursday, March 11, 2021. Based on the discussion at that meeting, the Board made a motion to forward the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect’s Statement of Design to the Planning Commission with a recommendation to approve with the following conditions:

1. Provide additional plantings along the south elevation of the building.
2. The color of the roof-top mechanical units shall be a similar color palette to the building.
3. Provide adequate screening of the ground-mounted transformer.

Since the Architectural Review Board Meeting, the applicant has updated the Landscape Plan and Elevations to address the Board’s conditions. Additional landscaping has been added along the south elevation of the building. There is also adequate screening around the proposed transformer located just north of the building. The transformer will be partially screened by a wall and by additional landscaping. The color of the roof-top equipment, while screened from view at the property line by the parapet walls, will be painted a similar color to the building. The applicant has added General Note #10 to the plans that indicate their plan to match the paint color.

STAFF RECOMMENDATION

Staff has reviewed the project and has found the proposal to be in compliance with the site-specific ordinance, Comprehensive Plan, and all City Code requirements. Staff recommends approval of the 150 N. Eatherton Rd. (Chesterfield Sports Complex).

MOTION

The following options are provided to the Planning Commission for consideration relative to this application:

- 1) "I move to approve (or deny) the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for 150 N. Eatherton Rd. (Chesterfield Sports Complex), as presented".
- 2) "I move to approve the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for 150 N. Eatherton Rd. (Chesterfield Sports Complex), with the following conditions..." (Conditions may be added, eliminated, altered or modified)

Attachments: Site Development Plan Submittal Packet

CHESTERFIELD SPORTS COMPLEX

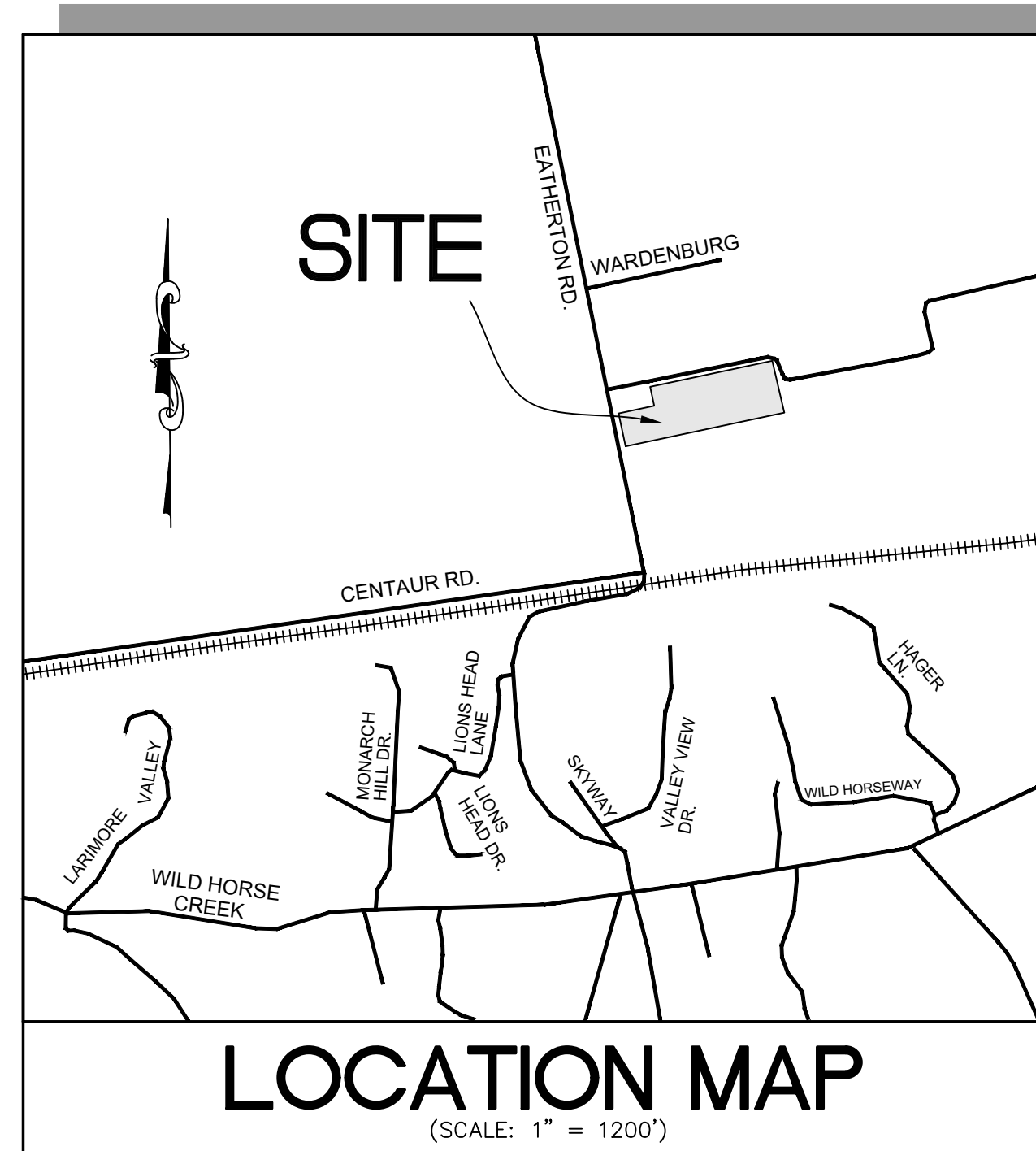
150 N. EATHERTON ROAD

A TRACT OF LAND IN U.S. SURVEY 362, TOWNSHIP 45 NORTH, RANGE 3 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

SITE DEVELOPMENT PLAN

LEGEND	
	BENCH MARK
	FOUND IRON ROD
	FOUND IRON PIPE
	RIGHT OF WAY MARKER
	UTILITY POLE
	SUPPORT POLE
	UTILITY POLE WITH LIGHT
	LIGHT STANDARD
	ELECTRIC METER
	ELECTRIC MANHOLE
	ELECTRIC PEDESTAL
	ELECTRIC SPICE BOX
	GAS DRIP
	GAS METER
	GAS VALVE
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	TELEPHONE SPICE BOX
	CABLE TV PEDESTAL
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	WATER MANHOLE
	WATER METER
	WATER VALVE
	POST INDICATOR VALVE
	CLEAN OUT
	STORM MANHOLE
	GRATED MANHOLE
	STORMWATER INLET
	GRATED STORMWATER INLET
	SANITARY MANHOLE
	TREE
	BUSH
	TRAFFIC SIGNAL
	PARKING METER
	STREET SIGN
	SPRINKLER
	MAIL BOX

ABBREVIATIONS	
C.O.	CLEANOUT
DB	DEED BOOK
E	ELECTRIC
FL	FLOWLINE
FT	FEET
FND.	FOUND
G	GAS
M.H.	MANHOLE
N/O	NOW OR FORMERLY
PB	PLAT BOOK
PG	PAGE
P.V.C.	POLYVINYL CHLORIDE PIPE
R.B.	RADIAL BEARING
R.C.P.	REINFORCED CONCRETE PIPE
SO.	SQUARE
T	TELEPHONE CABLE
V.C.P.	VERTIFIED CLAY PIPE
W	WATER
(86'W)	RIGHT-OF-WAY WIDTH



PERTINENT DATA

TRACT AREA: 10.786± AC. (10.726 AC. INCLUDING R/W DEDICATION)
 CURRENT OWNER: MOESMER VIRGIL E. & JANET R. TRUST
 OWNER UNDER CONTRACT: CHESTERFIELD SPORTS ASSOCIATION
 c/o: MR. STUART DUNCAN
 SITE ADDRESS: 150 N. EATHERTON ROAD, 63005
 LOCATOR NO: 18W140020
 FEMA FLOOD MAP: 29189C0145K (REVISED FEBRUARY 4, 2015)
 WUNNENBERG MAP: PAGE 20, GRID 18J
 EXISTING ZONING: "PI", PLANNED INDUSTRIAL DISTRICT (ORDINANCE NO. 2939)
 PROPOSED USE: GYMNASIUM
 FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT
 SCHOOL DISTRICT: ROCKWOOD
 SEWER DISTRICT: METROPOLITAN ST. LOUIS SEWER DISTRICT
 WATER SHED: MISSOURI RIVER
 WATER SERVICE: MISSOURI AMERICAN WATER COMPANY
 GAS SERVICE: SPIRE INC.
 ELECTRIC SERVICE: AMEREN MISSOURI
 PHONE SERVICE: AT&T
 CABLE SERVICE: CHARTER COMMUNICATIONS

PARKING CALCULATIONS

GYMNASIUM CRITERIA:
 1 SPACE PER EVERY 4 SEATS (MINIMUM), 1 SPACE FOR EVERY 3 SEATS (MAXIMUM)
 36 BENCHES = 1,620 SEATS
 1,620 * 1 SPACE/4 SEATS = 405 SPACES MIN. REQUIRED
 1,620 * 1 SPACE/3 SEATS = 540 SPACES MAX. REQUIRED
 TOTAL REQUIRED = 405 SPACES MIN. / 540 SPACES MAX. (INCLUDING 9 H.C. SPACES)
 TOTAL PROVIDED = 410 SPACES (INCLUDING 9 H.C. SPACES)

FLOOD NOTE

SUBJECT PROPERTY LIES WITHIN FLOOD ZONE SHADED X (AREAS OF 0.2% ANNUAL CHANCE FLOOD); AREAS OF 1% FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAP NUMBER 29189C0145K WITH AN EFFECTIVE DATE OF 02/04/2015.

BUILDING SETBACKS

FRONT YARD = THIRTY-FIVE (35) FEET
 SIDE YARD = THIRTY-FIVE (35) FEET
 REAR YARD = THIRTY-FIVE (35) FEET

OPENSAPCE

TOTAL LOT AREA: 467,233 S.F. = 10.726 A.C. (INCLUDES R/W DEDICATION)
 BUILDING: 88,903 S.F.
 PAVEMENT: 160,131 S.F.
 OPENSAPCE: 467,233 S.F. - 88,903 S.F. - 160,131 S.F. = 218,199 S.F.

PROVIDED OPENSAPCE: 218,199 S.F./467,233 S.F. = 46.7%
 REQUIRED OPENSAPCE: 35%

SHEET INDEX

- | | |
|---|--|
| 1 | TITLE SHEET |
| 2 | SITE DEVELOPMENT PLAN |
| 3 | SKY EXPOSURE PLANE, TRASH ENCLOSURE DETAIL & ADDITIONAL TOPO |

ST. LOUIS COUNTY NOTES

- ALL PROPOSED IMPROVEMENTS WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS.
- NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3' (HORIZONTAL) TO 1' (VERTICAL).
- STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
- ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM ST. LOUIS COUNTY SIGHT DISTANCE REQUIREMENTS.
- ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
- A SIGNED/SEALED NOTE SHALL BE ADDED TO THE CONSTRUCTION PLANS INDICATING THAT THE UNIMPROVED EXISTING SIDEWALK ALONG THE PROJECT FRONTAGE MEETS CURRENT ST. LOUIS COUNTY ADA STANDARDS.
- ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.
- ALL HYDRANTS, POWER POLES OR OTHER POTENTIAL OBSTRUCTIONS WITHIN THE ST. LOUIS COUNTY ROAD RIGHT-OF-WAY SHALL HAVE A MINIMUM TWO (2) FOOT SETBACK FROM FACE OF CURB OR EDGE OF PAVEMENT, AS DIRECTED BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC.
- ANY ENTITY THAT PERFORMS WORK ON ST. LOUIS COUNTY MAINTAINED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BODILY INJURY AND PROPERTY DAMAGE) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC ENTITIES. SUCH CERTIFICATE SHALL INCLUDE "ST. LOUIS COUNTY" AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. CERTIFICATE SHALL PROVIDE FOR A 30 DAY POLICY CANCELLATION NOTICE TO ST. LOUIS COUNTY. UPON REQUEST, THE COUNTY WILL PROVIDE THE SPECIFIC AMOUNTS FOR BOTH PER PERSON AND PER OCCURRENCE LIMITS.
- PRIOR TO "SPECIAL USE PERMIT" ISSUANCE BY ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MAY BE REQUIRED TO BE ESTABLISHED WITH THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.
- CONTINUOUS PEDESTRIAN ACCESS SHALL BE PROVIDED DURING CONSTRUCTION PROCESS. PRIOR TO THE START OF CONSTRUCTION, ADEQUATE PEDESTRIAN ACCESS AROUND THE SITE SHALL BE PROVIDED AND VERIFIED. NO EXISTING SIDEWALK SHALL BE REMOVED WITHOUT PROVIDING ADEQUATE PEDESTRIAN FACILITIES AND ROUTES DURING CONSTRUCTION ACTIVITIES.

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
- ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
- NO GRADE SHALL EXCEED 3:1 SLOPE.
- F.A.R. = 0.19 (88,903/467,233) (MAXIMUM F.A.R. = 0.55)
- BUILDING HEIGHT = 37' TO TOP OF PARAPET (MAXIMUM BUILDING HEIGHT = 40 FEET)
- GRADING AND STORM WATER PER M.S.D., ST. LOUIS COUNTY, THE CITY OF CHESTERFIELD, MISSOURI, AND THE MONARCH LEVEE DISTRICT.
- STORM WATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINTS.
- APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
- WATER QUALITY FOR THE SITE WILL BE PROVIDED THROUGH A COMBINATION OF BIORETENTION AND POROUS PAVEMENT TO BE DESIGNED WITH THE IMPROVEMENT PLANS.
- HVAC EQUIPMENT WILL BE ROOF MOUNTED AND SCREENED BY THE EXTERIOR PARAPET WALLS. ANY GROUND-MOUNTED ELECTRICAL BOXES MUST BE ADEQUATELY SCREENED FROM VIEW. THE COLOR OF THE ROOF-TOP MECHANICAL UNITS SHALL BE A SIMILAR COLOR PALATE TO BUILDING.
- ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
- OPPORTUNITY FOR RECYCLING WILL BE PROVIDED.

SITE BENCH MARK

TOP OF FOUND STONE AT SOUTHEAST PROPERTY CORNER
 (ELEVATION = 439.23 (NGVD23))

ST. LOUIS COUNTY BENCHMARK

ST. LOUIS COUNTY HIGHWAYS AND TRAFFIC BENCHMARK
 1109: STANDARD ALUMINUM DISK STAMPED S-41 1990.
 DISK IS SET ALONG THE EAST SIDE OF EATHERTON ROAD
 JUST NORTH OF THE SHELL PIPELINE MARKER. 10' EAST OF
 THE CENTERLINE OF EATHERTON AND 60' NORTH OF THE
 EAST PIPELINE MARKER. ELEVATION = 461.24 (NGVD23)

NOTE: SUBTRACT 0.14 FEET FROM ELEVATIONS SHOWN
 HEREON TO OBTAIN NAVD83 DATUM

PREPARED FOR:
CHESTERFIELD SPORTS ASSOCIATION
 17809 KEYSTONE TRAIL COURT
 CHESTERFIELD, MO 63005
 CONTACT:
 STUART DUNCAN
 PHONE: 636-251-0367
 EMAIL: SWDUNCAN6@GMAIL.COM

CHESTERFIELD SPORTS ASSOCIATION, THE OWNER(S) OF THE PROPERTY SHOWN ON THIS PLAN FOR AND IN CONSIDERATION OF BEING GRANTED APPROVAL OF SAID PLAN TO DEVELOP PROPERTY UNDER THE PROVISIONS OF SECTION 03. (applicable subsection) (present zoning) "PI", PLANNED INDUSTRIAL OF THE CITY OF CHESTERFIELD

UNIFIED DEVELOPMENT CODE, DO HEREBY AGREE AND DECLARE THAT SAID PROPERTY FROM THE DATE OF RECORDING THIS PLAN SHALL BE DEVELOPED ONLY AS SHOWN THEREON, UNLESS SAID PLAN IS AMENDED BY THE CITY OF CHESTERFIELD, OR VOIDED OR VACATED BY ORDER OF ORDINANCE OF THE CITY OF CHESTERFIELD COUNCIL.

CHESTERFIELD SPORTS ASSOCIATION

by: _____

STATE OF _____)
 COUNTY OF _____) SS.

ON THIS _____ DAY OF _____, 2021,
 BEFORE ME APPEARED _____ TO ME PERSONALLY
 KNOWN, WHO BEING BY ME DULY SWORN DID SAY THAT HE/SHE IS A
 _____ AND AN AUTHORIZED REPRESENTATIVE
 FOR _____ A MISSOURI
 AND THAT SAID INSTRUMENT WAS SIGNED IN BEHALF OF SAID COMPANY,
 AND SAID _____ ACKNOWLEDGED THE SIGNING OF
 SAID INSTRUMENT TO BE THE FREE ACT AND DEED OF SAID COMPANY.

IN WITNESS WHEREOF, I HAVE HERETO SET MY HAND AND AFFIXED MY
 NOTARIAL SEAL THE DAY AND YEAR LAST ABOVE WRITTEN.

 NOTARY PUBLIC

 PRINT NAME

MY COMMISSION EXPIRES: _____

THIS SITE DEVELOPMENT PLAN WAS APPROVED BY THE CITY OF CHESTERFIELD PLANNING COMMISSION AND DULY VERIFIED ON THE _____ DAY OF _____, 2021, BY THE CHAIRPERSON OF SAID COMMISSION, AUTHORIZING THE RECORDING OF THIS SITE DEVELOPMENT PLAN PURSUANT TO CHESTERFIELD ORDINANCE NUMBER 200, AS ATTESTED TO BY THE DIRECTOR OF PLANNING AND CITY CLERK.

BY: _____
 JUSTIN WYSE, DIRECTOR OF PLANNING

BY: _____
 VICKIE MCGOWND, CITY CLERK

PREPARED BY:
STOCK & ASSOCIATES
 Consulting Engineers, Inc.
 757 Chesterfield Business Parkway
 St. Louis, MO 63005 PH: (636) 590-9000
 590-9001 FAX: (636) 590-9000
 e-mail: general@stockassoc.com
 Web: www.stockassoc.com

SITE DEVELOPMENT PLAN FOR:
CHESTERFIELD SPORTS COMPLEX
 150 N. EATHERTON ROAD
 CHESTERFIELD, MISSOURI 63005



GEORGE M. STOCK E-25116
 CIVIL ENGINEER
 NUMBER PE-25114
 NUMBER OF AUTHORITY
 NUMBER: 000996

REVISIONS:
 1 3/5 ADRESSED CITY COMMENTS
 2 3/25 ADRESSED CITY COMMENTS
 3 5/19 ADRESSED CITY COMMENTS
 4 6/07 ADRESSED CITY COMMENTS

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS PREPARED THIS SITE DEVELOPMENT PLAN FROM A FIELD SURVEY AND DOES NOT REPRESENT A PROPERTY BOUNDARY SURVEY. THE INFORMATION SHOWN IS A CORRECT REPRESENTATION OF ALL EXISTING AND PROPOSED LAND DIVISIONS.

STOCK AND ASSOCIATES CONSULTING ENGINEERS INC.
 L.S. NO. 222-D

WALTER J. PFLEGER, MISSOURI P.L.S. NO. 2008000728

DISCLAIMER

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

UTILITY NOTE

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND, THEREFORE, DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

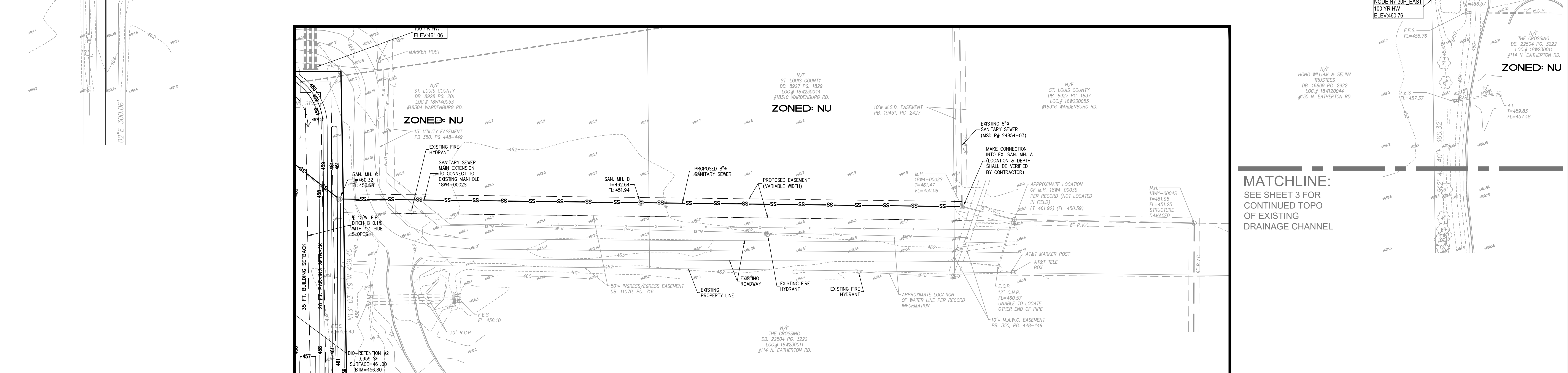
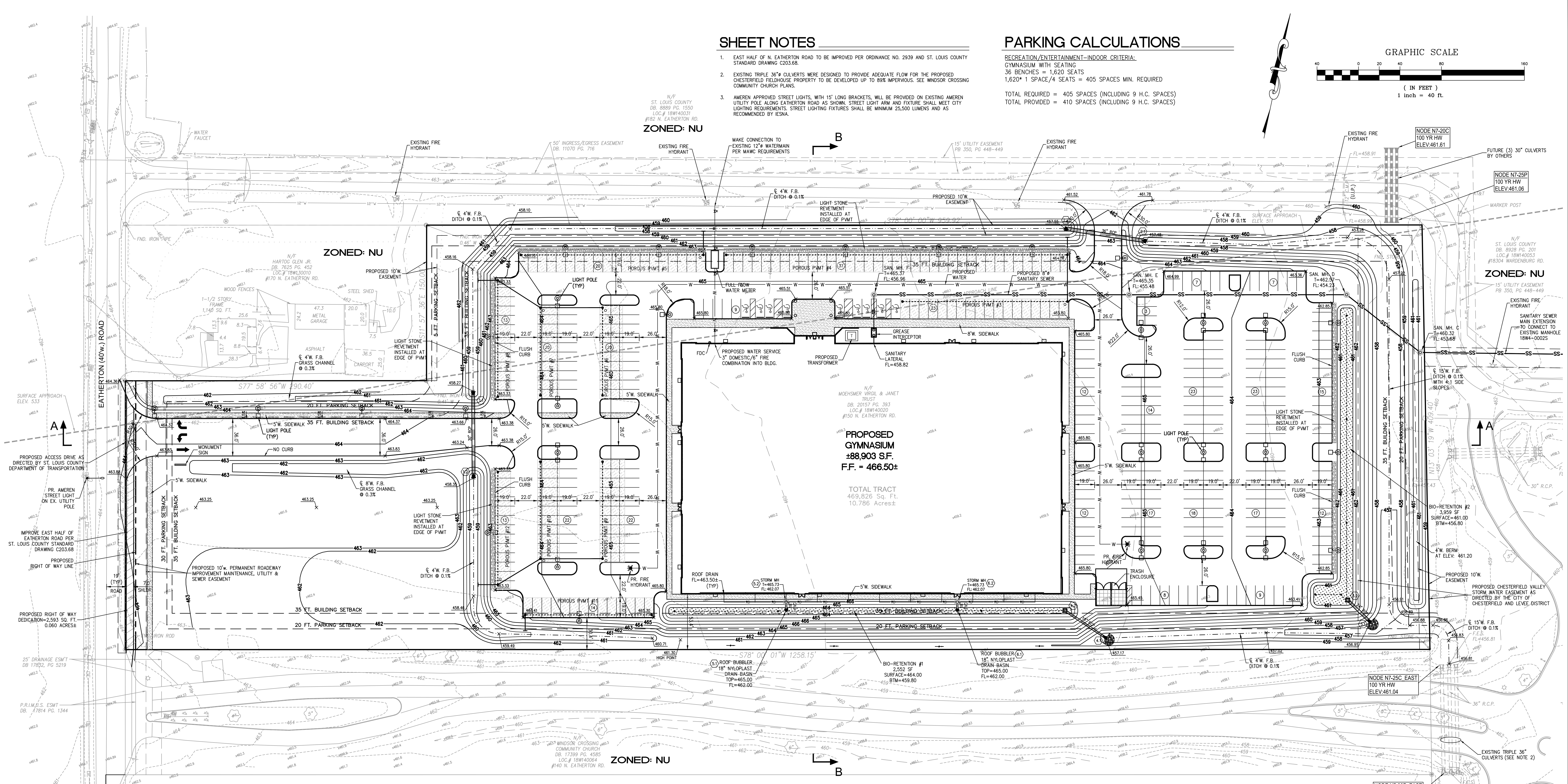
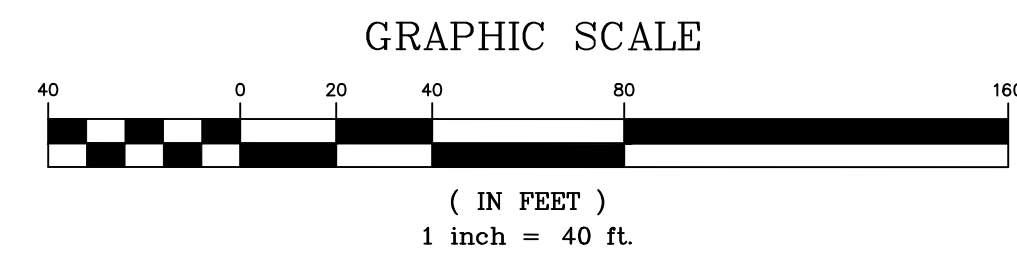
DRAWN BY: G.M.S.
 E.J.T./T.P.G.
 CHECKED BY: G.M.S.
 DATE: 03-04-2021
 JOB NO: 216-5868.2
 KES: P
 RAKE W/P: #
 21MSD-00141 18-W
 S.L.C. MAT # MAT S.U.P. #
 11-3347
 M.D.N.R. #
 SHEET TITLE:
TITLE SHEET
 SHEET NO.: 1

SHEET NOTES

- EAST HALF OF N. EATHERTON ROAD TO BE IMPROVED PER ORDINANCE NO. 2839 AND ST. LOUIS COUNTY STANDARD DRAWING C203.68.
- EXISTING TRIPLE 36" CULVERTS WERE DESIGNED TO PROVIDE ADEQUATE FLOW FOR THE PROPOSED CHESTERFIELD FIELDHOUSE PROPERTY TO BE DEVELOPED UP TO 89% IMPERVIOUS. SEE WINDSOR CROSSING COMMUNITY CHURCH PLANS.
- AMEREN APPROVED STREET LIGHTS, WITH 15' LONG BRACKETS, WILL BE PROVIDED ON EXISTING AMEREN UTILITY POLE ALONG EATHERTON ROAD AS SHOWN. STREET LIGHT ARM AND FIXTURE SHALL MEET CITY LIGHTING REQUIREMENTS. STREET LIGHTING FIXTURES SHALL BE MINIMUM 25,500 LUMENS AND AS RECOMMENDED BY BEMA.

PARKING CALCULATIONS

RECREATION/ENTERTAINMENT-INDOOR CRITERIA:
 GYMNASIUM WITH SEATING
 36 BENCHES = 1,620 SEATS
 1,620 * 1 SPACE/4 SEATS = 405 SPACES MIN. REQUIRED
 TOTAL REQUIRED = 405 SPACES (INCLUDING 9 H.C. SPACES)
 TOTAL PROVIDED = 410 SPACES (INCLUDING 9 H.C. SPACES)



PREPARED BY:
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 St. Louis, MO 63005 PH: (636) 591-3000
 500-3000 FAX: (636) 591-3000
 e-mail: general@stockinc.com
 Web: www.stockinc.com

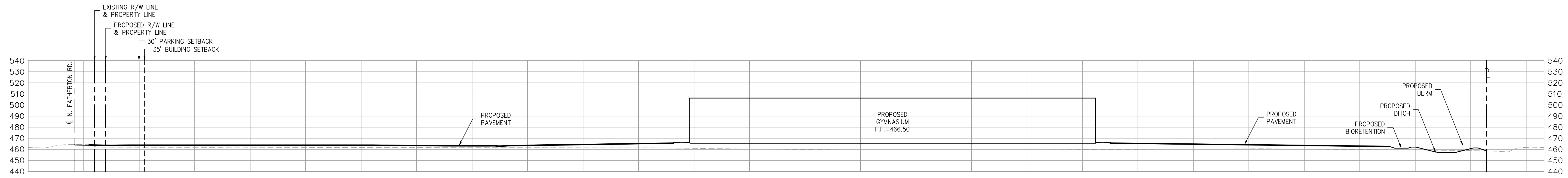
SITE DEVELOPMENT PLAN FOR:
CHESTERFIELD SPORTS COMPLEX
 150 N. EATHERTON ROAD
 CHESTERFIELD, MISSOURI 63005

STATE OF MISSOURI
 GEORGE MICHAEL STOCK
 CIVIL ENGINEER
 NUMBER PE-25114
 EXPIRES 6/07/2021

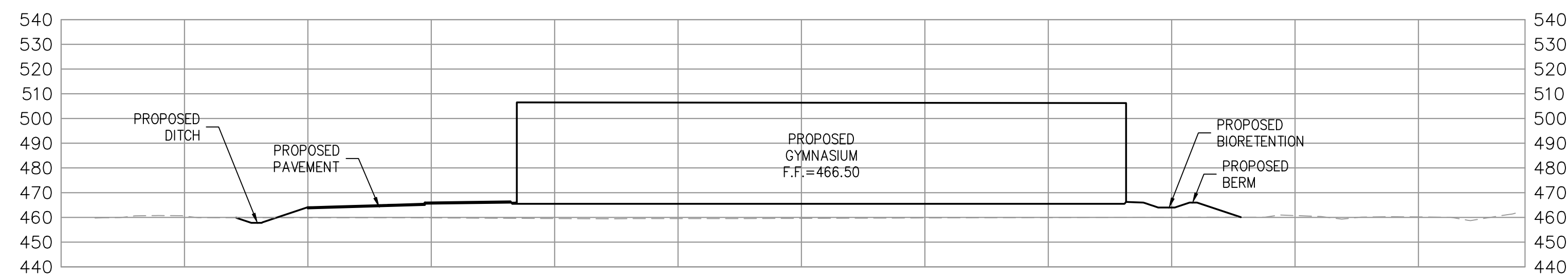
REVISIONS:
 1 3/5 ADRESSED CITY COMMENTS
 2 3/25 ADRESSED CITY COMMENTS
 3 5/19 ADRESSED CITY COMMENTS
 4 6/07 ADRESSED CITY COMMENTS

DRAWN BY: E.J.F./T.P.G. CHECKED BY: G.M.S.
 DATE: 03-04-2021 JOB NO: 216-5868.2
 M.S.D. # RAISE W.P. #
 S.L.C. # 18-W
 S.L.C. # 18-W
 M.D.N.R. #
 SHEET TITLE: SITE DEVELOPMENT PLAN
 SHEET NO.: 2

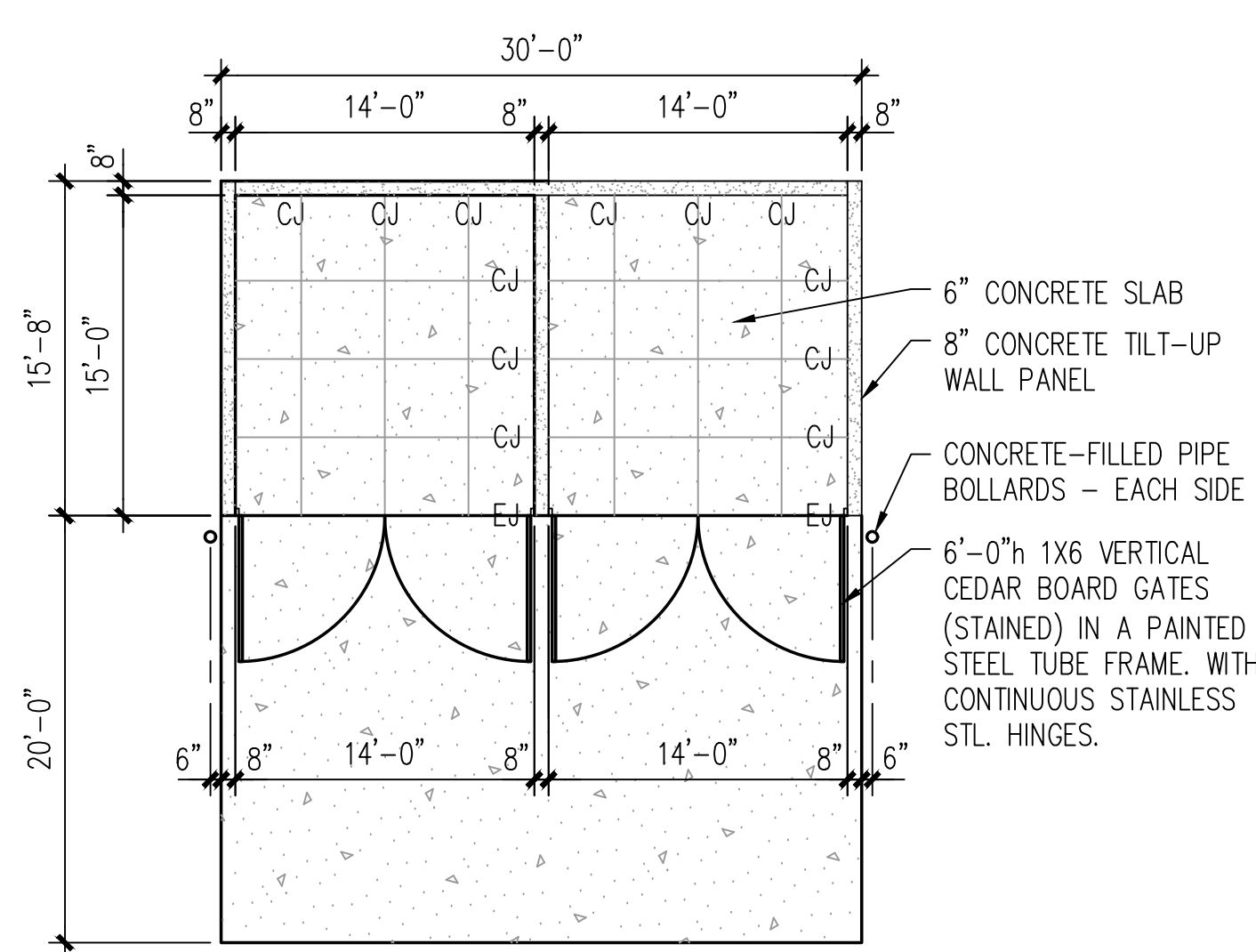
OFF-SITE SANITARY SEWER EXTENSION - PLAN VIEW
 HORIZONTAL SCALE: 1" = 40'



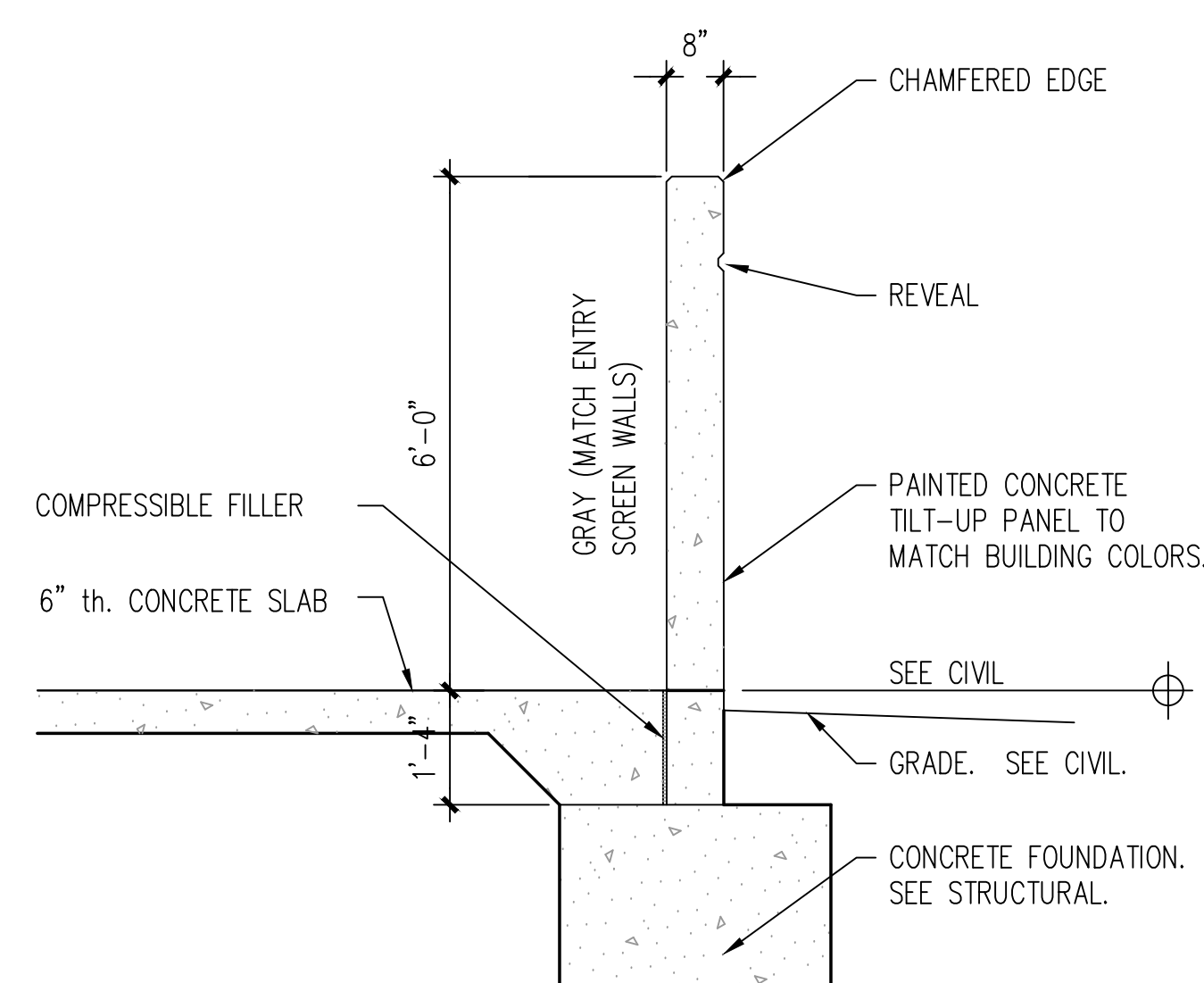
SKY EXPOSURE PLANE SECTION A-A
 HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 40'



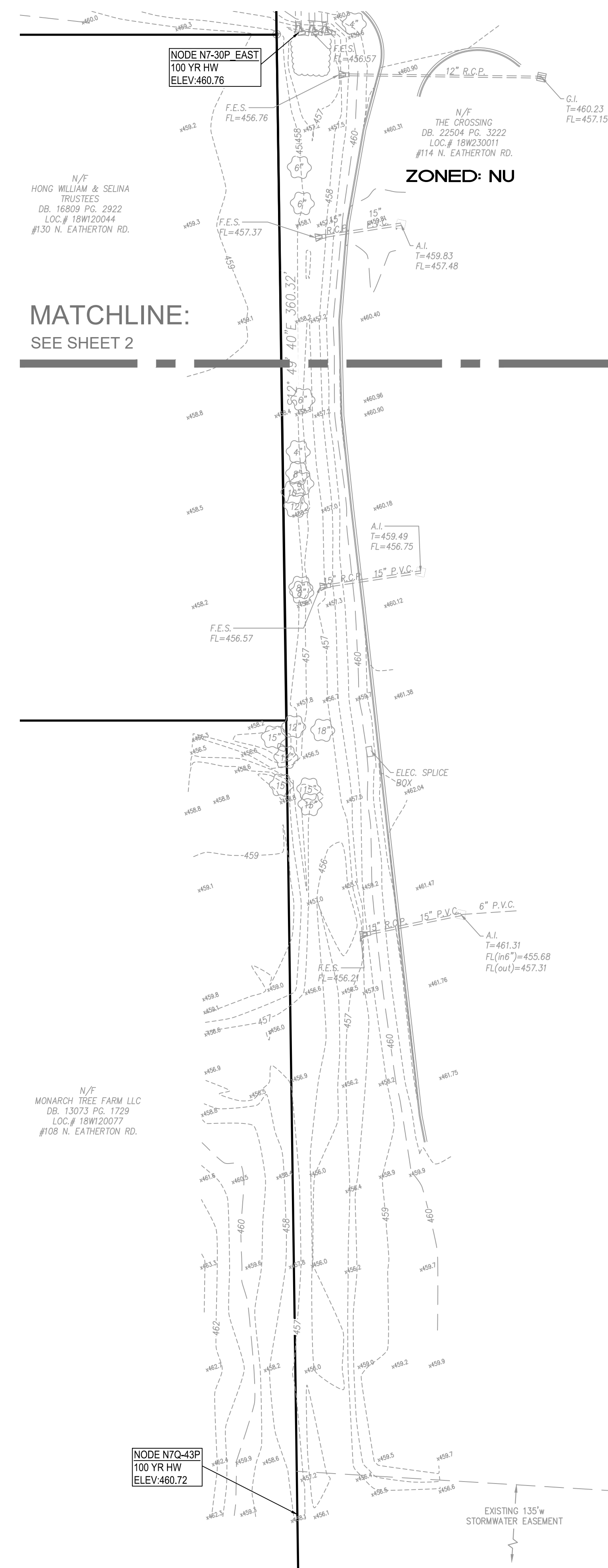
SKY EXPOSURE PLANE SECTION B-B
 HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 40'



TRASH / RECYCLING ENCLOSURE PLAN
 HORIZONTAL SCALE: 1" = 40'



SECTION AT TRASH ENCLOSURE
 HORIZONTAL SCALE: 1" = 40'



ADDITIONAL TOPO OF EXISTING DRAINAGE CHANNEL
 HORIZONTAL SCALE: 1" = 40'



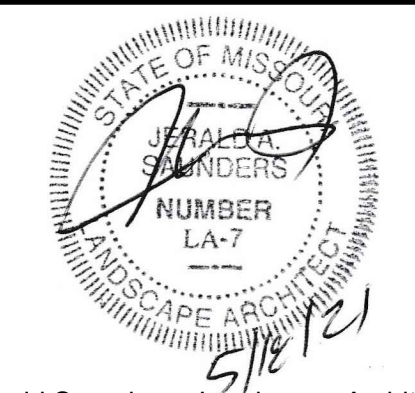
GEORGE M. STOCK E-25114
 CIVIL ENGINEER
 CERTIFICATE OF AUTHORITY
 NUMBER: 000996

REVISIONS:

1	3/5	ADDRESSED CITY COMMENTS
2	3/25	ADDRESSED CITY COMMENTS
3	5/19	ADDRESSED CITY COMMENTS
4	6/07	ADDRESSED CITY COMMENTS

DRAWN BY: E.J.F./T.P.G.	CHECKED BY: G.M.S.
DATE: 03-04-2021	JOB NO. 216-5868.2
SCALE: 21MSD-00141	SCALE: 18-W
SLC, HNT # 11-3347	HNT SUP. #
M.D.N.R. #	

SHEET TITLE:
SKY EXPOSURE PLANE, TRASH ENCLOSURE DETAIL & ADDITIONAL TOPO



Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

Chesterfield Fieldhouse

150 Eatherton Road
Chesterfield, Missouri

Revisions:

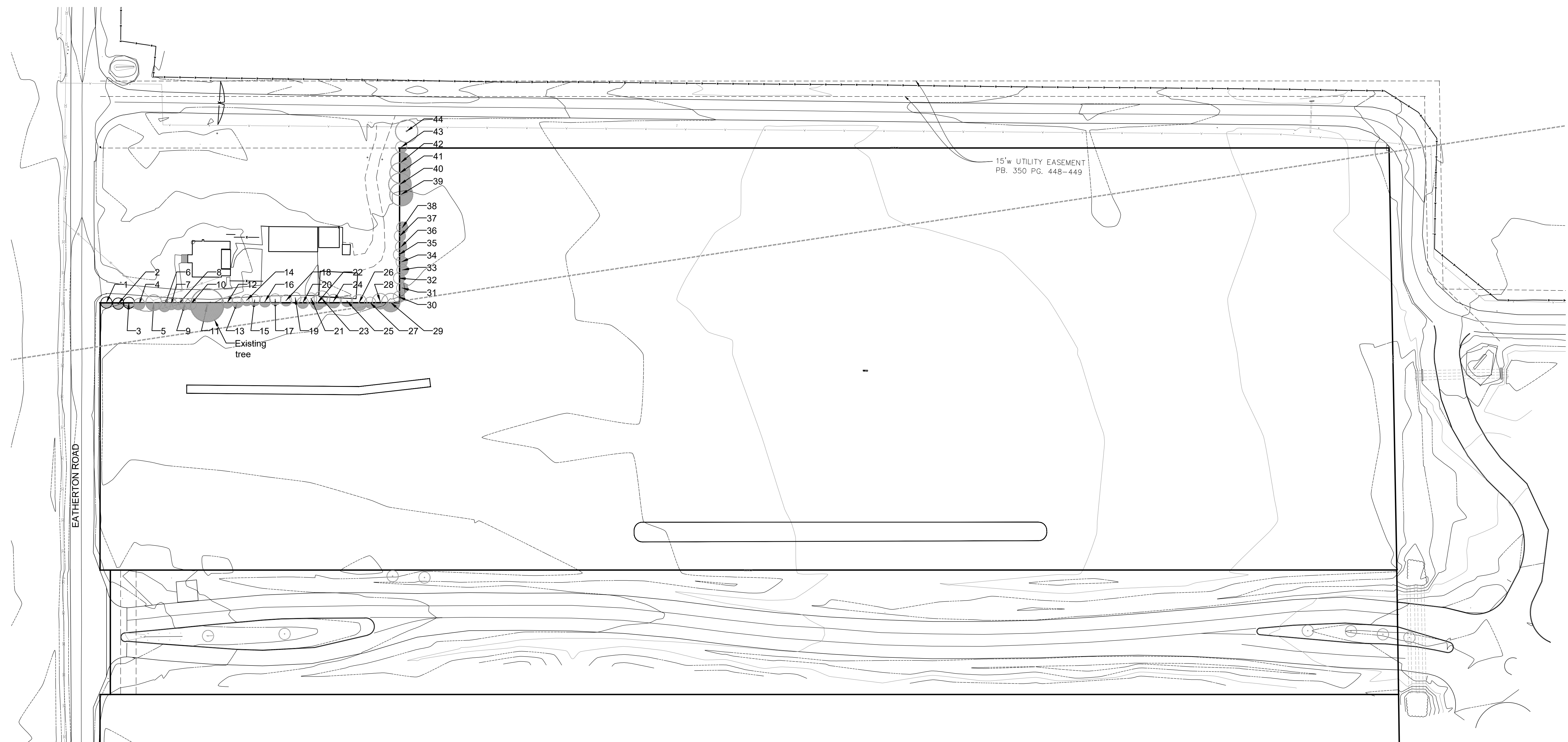
Date	Description	No.
3/5/21	City Comments	1
5/18/21	City Comments	3

Drawn: JAS
Checked: JAS

LOOMIS ASSOCIATES
landscape architects + planners
750 spirit of park drive, chesterfield, missouri 63005
t. 636-519-8668 www.loomis-associates.com

Loomis Associates Inc.
Missouri State Certificate of Authority #: LAC#0000191

Sheet Title:	Tree Stand Delineation
Sheet No.:	TSD
Date:	2/8/21
Job #:	687.018



Zoning Designation:

Present Zoning: NU "Non-Urban"

Total Site Area: 10.786 Acres ±

Floodplain Map Number: 29189C0145K

Tree Stand Delineation Summary:

Existing on-site tree canopy is approximately 2,727 square feet. Existing on-site and off-site trees located on both sides of the common boundary with the Hartog Property create the canopy.

Total Existing Tree Canopy Area = **2,727 s.f.** (0.075 acres)

Legend:

Symbol	Description
#	Existing individual tree
	Existing tree canopy

150 N. Eatherton Road Tree Inventory					
ID	Tree Name	DBH	Canopy Diam.	Condition Rating	Comment
1	Cedar	8	10	2	on property line
2	Cedar	8	10	2	on property line
3	Cedar	8	10	2	on property line
4	Cedar	8	10	2	on property line
5	Mulberry	12	32	1	on property line
6	Pine	8	12	2	on property line
7	Pine	8	12	2	on property line
8	Red Maple	10	20	2	
9	Pine	8	12	2	
10	Pine	8	12	2	
11	Silver Maple	30	30	2	
12	Cedar	8	10	2	offsite
13	Pine	8	12	2	offsite
14	Pine	8	12	2	offsite
15	Cedar	8	10	2	offsite
16	Pine	8	12	2	offsite
17	Cedar	8	10	2	offsite
18	Pine	8	12	2	offsite
19	Pine	8	12	2	offsite
20	Pine	8	12	2	offsite
21	Pine	8	12	2	offsite
22	Apple	10	24	1	offsite

150 N. Eatherton Road Tree Inventory					
ID	Tree Name	DBH	Canopy Diam.	Condition Rating	Comment
23	Pear	8	20	1	offsite
24	Silver Maple	8	15	2	offsite
25	Silver Maple	6	50	2	offsite
26	Silver Maple	12	40	2	offsite
27	Silver Maple	8	35	2	offsite
28	Silver Maple	12	25	2	offsite
29	Silver Maple	18	60	2	offsite
30	Cedar	10	50	2	offsite
31	Cedar	10	40	2	
32	Pine	12	45	2	offsite
33	Pine	12	40	2	
34	Cedar	10	30	2	
35	Pine	10	45	2	offsite
36	Cedar	8	50	2	
37	Cedar	8	50	3	offsite
38	Pine	12	25	2	
39	Mulberry	15	40	2	
40	Silver Maple	12	20	2	offsite
41	Silver Maple	12	20	2	offsite
42	Silver Maple	12	20	2	offsite
43	Cedar	10	12	2	offsite
44	Walnut	12	32	2	offsite

Tree Condition Rating

5 = Superior: Speciman quality with sound trunk, healthy bark, good limb structure and balance, no corrective pruning or maintenance needed, good foliage color, no insects or diseases, twigs showing excellent growth.
4 = Above Average: Similar to above except tree may have minor insect problems or need minor corrective maintenance.
3 = Average: Sound trunk and healthy bark, fair limb structure with minor broken branch stubs, moderate maintenance needed, insect or disease problem present, fair twig growth and leaf color.
2 = Fair: Similar to above plus evidence of trunk scars and early stages of decay present
1 = Poor: Advanced stage of decline with major problems in roots, trunk, and foliage.

Tree Stand Delineation Prepared under direction of:
Kristin Provinse
Certified Arborist MW-6075A

Kristin Provinse

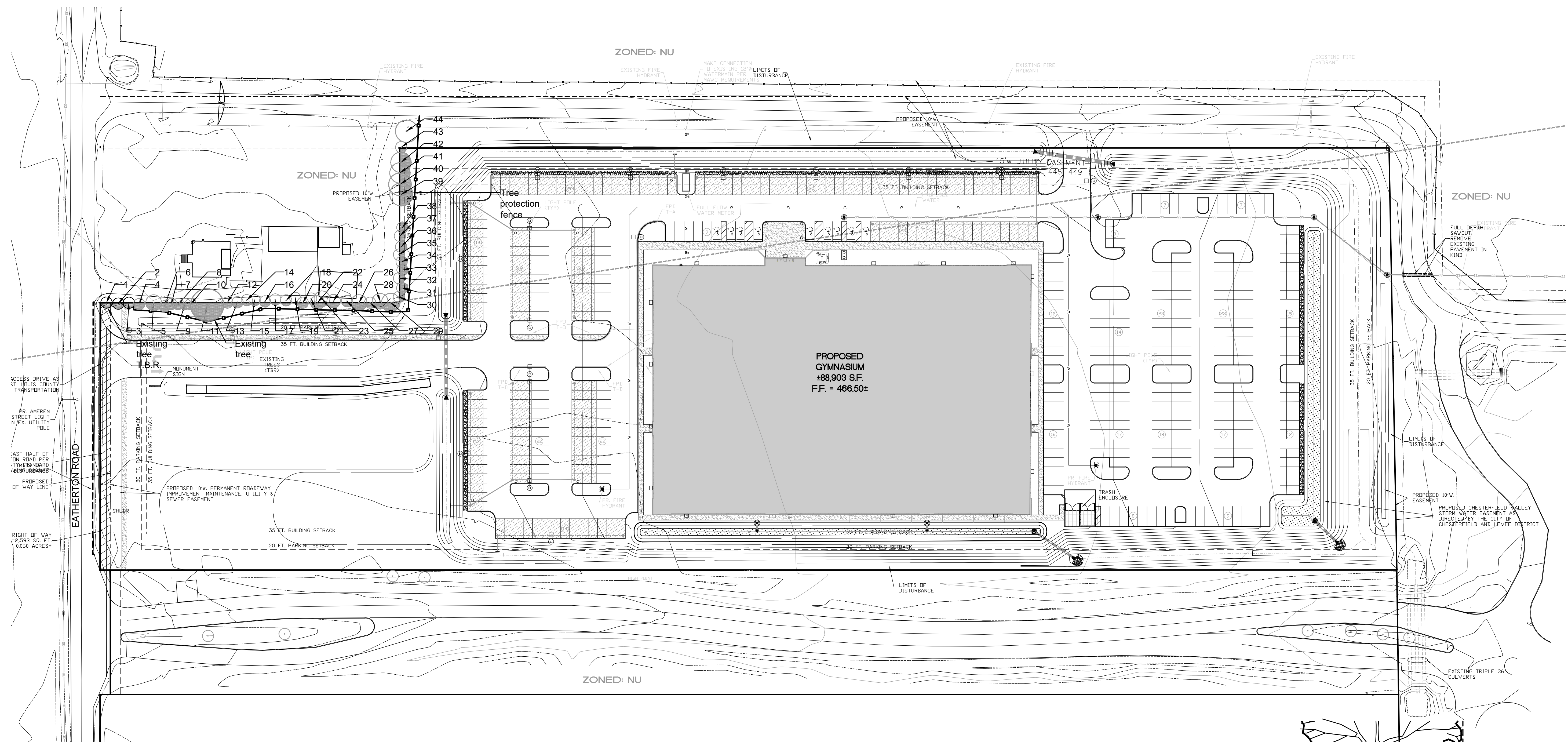


Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

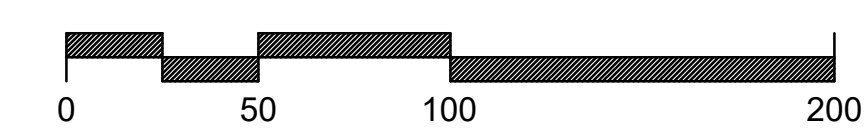
Chesterfield Fieldhouse

150 Eatherton Road
Chesterfield, Missouri



Tree Preservation Plan

SCALE 1"=50'



Zoning Designation:

Present Zoning: NU "Non-Urban"
Total Site Area: 10.786 Acres ±
Floodplain Map Number: 29189C0145K

Tree Canopy Totals:

Individual Tree Canopy Area (to be preserved) = 2,582 s.f. (0.071 acres)
Individual Tree Canopy Area (to be removed) = 145 s.f. (0.004 acres)
Total Existing Tree Canopy Area = 2,582 s.f. (0.071 acres) (94.68 % preserved)

Legend:

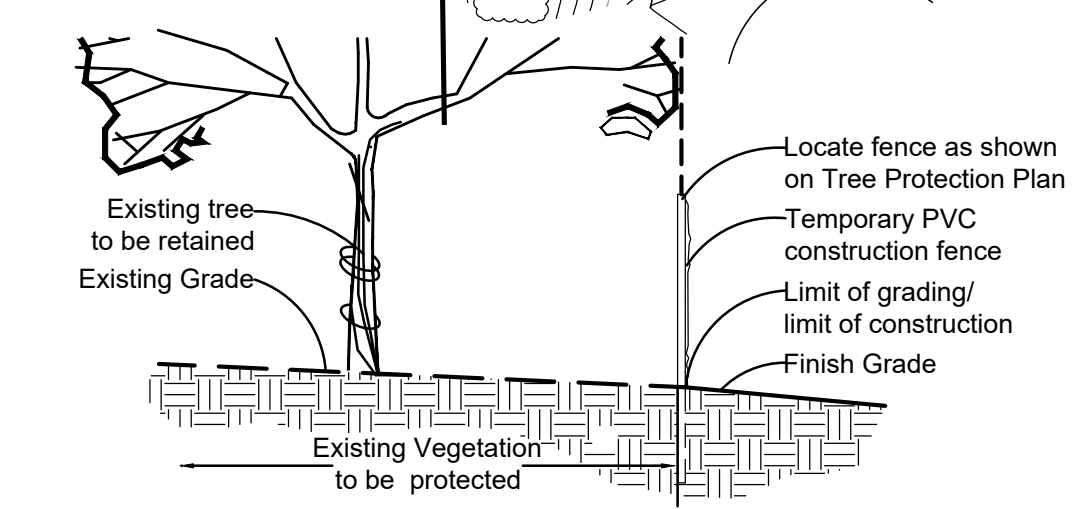
Symbol	Description
○	Existing individual tree
■	Existing tree canopy

Tree Protection Notes:

- Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators; construction supervisors; developer's representative; and city zoning inspector.
- Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required.
- No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed, including the installation of tree protection fencing as shown on the plan. Where necessary, Contractor may perform minor tree clearing prior to installing silt fencing and tree protection fencing provided they maintain tree protection area.
- Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. All ground plane in planting areas shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.
- Tree protection measures to be maintained throughout construction sequence.

Tree Protection Action Key Sequence:

- Survey limit of disturbance.
- Perform root pruning.
- Install tree protection fencing.
- Post tree protection signage on fence (No signs will be posted on trees).
- Maintain tree protection area as an off-limits zone.



Tree Protection Detail

150 N. Eatherton Road Tree Inventory

ID	Tree Name	DBH	Canopy Diam.	Condition Rating	Comment	Preserved	To Be Removed
1	Cedar	8	10	2	on property line		X
2	Cedar	8	10	2	on property line		X
3	Cedar	8	10	2	on property line		X
4	Cedar	8	10	2	on property line	X	
5	Mulberry	12	32	1	on property line	X	
6	Pine	8	12	2	on property line	X	
7	Pine	8	12	2	on property line	X	
8	Red Maple	10	20	2		X	
9	Pine	8	12	2		X	
10	Pine	8	12	2		X	
11	Silver Maple	30	30	2		X	
12	Cedar	8	10	2	offsite	X	
13	Pine	8	12	2	offsite	X	
14	Pine	8	12	2	offsite	X	
15	Cedar	8	10	2	offsite	X	
16	Pine	8	12	2	offsite	X	
17	Cedar	8	10	2	offsite	X	
18	Pine	8	12	2	offsite	X	
19	Pine	8	12	2	offsite	X	
20	Pine	8	12	2	offsite	X	
21	Pine	8	12	2	offsite	X	
22	Apple	10	24	1	offsite	X	

150 N. Eatherton Road Tree Inventory

ID	Tree Name	DBH	Canopy Diam.	Condition Rating	Comment	Preserved	To Be Removed
23	Pear	8	20	1	offsite	X	
24	Silver Maple	8	15	2	offsite	X	
25	Silver Maple	6	50	2	offsite	X	
26	Silver Maple	12	40	2	offsite	X	
27	Silver Maple	8	35	2	offsite	X	
28	Silver Maple	12	25	2	offsite	X	
29	Silver Maple	18	60	2	offsite	X	
30	Cedar	10	50	2	offsite	X	
31	Cedar	10	40	2	offsite	X	
32	Pine	12	45	2	offsite	X	
33	Pine	12	40	2	offsite	X	
34	Cedar	10	30	2	offsite	X	
35	Pine	10	45	2	offsite	X	
36	Cedar	8	50	2	offsite	X	
37	Cedar	8	50	3	offsite	X	
38	Pine	12	25	2	offsite	X	
39	Mulberry	15	40	2	offsite	X	
40	Silver Maple	12	20	2	offsite	X	
41	Silver Maple	12	20	2	offsite	X	
42	Silver Maple	12	20	2	offsite	X	
43	Cedar	10	12	2	offsite	X	
44	Walnut	12	32	2	offsite	X	

Tree Condition Rating

5 = Superior: Specimen quality with sound trunk, healthy bark, good limb structure and balance, no corrective pruning or maintenance needed, good foliage color, no insects or diseases, twigs showing excellent growth.
4 = Above Average: Similar to above except tree may have minor insect problems or need minor corrective maintenance.
3 = Average: Sound trunk and healthy bark, fair limb structure with minor broken branch stubs, moderate maintenance needed, insect or disease problem present, fair twig growth and leaf color.
2 = Fair: Similar to above plus evidence of trunk scars and early stages of decay present.
1 = Poor: Advanced stage of decline with major problems in roots, trunk, and foliage.

Tree Preservation Plan Prepared under direction of:
Kristin Province
Certified Arborist MW-6075A

Kristin Province

Revisions:

Date	Description	No.
3/5/21	City Comments	1
3/25/21	City Comments	2
5/18/21	City Comments	3

Drawn: JAS
Checked: JAS

LOOMIS ASSOCIATES
landscape architects + planners
750 spirit of park drive, chesterfield, missouri 63005
t. 636-519-6668 www.loomis-associates.com

Sheet Title:	Tree Preservation Plan
Sheet No.:	TPP
Date:	2/8/21
Job #:	687.018

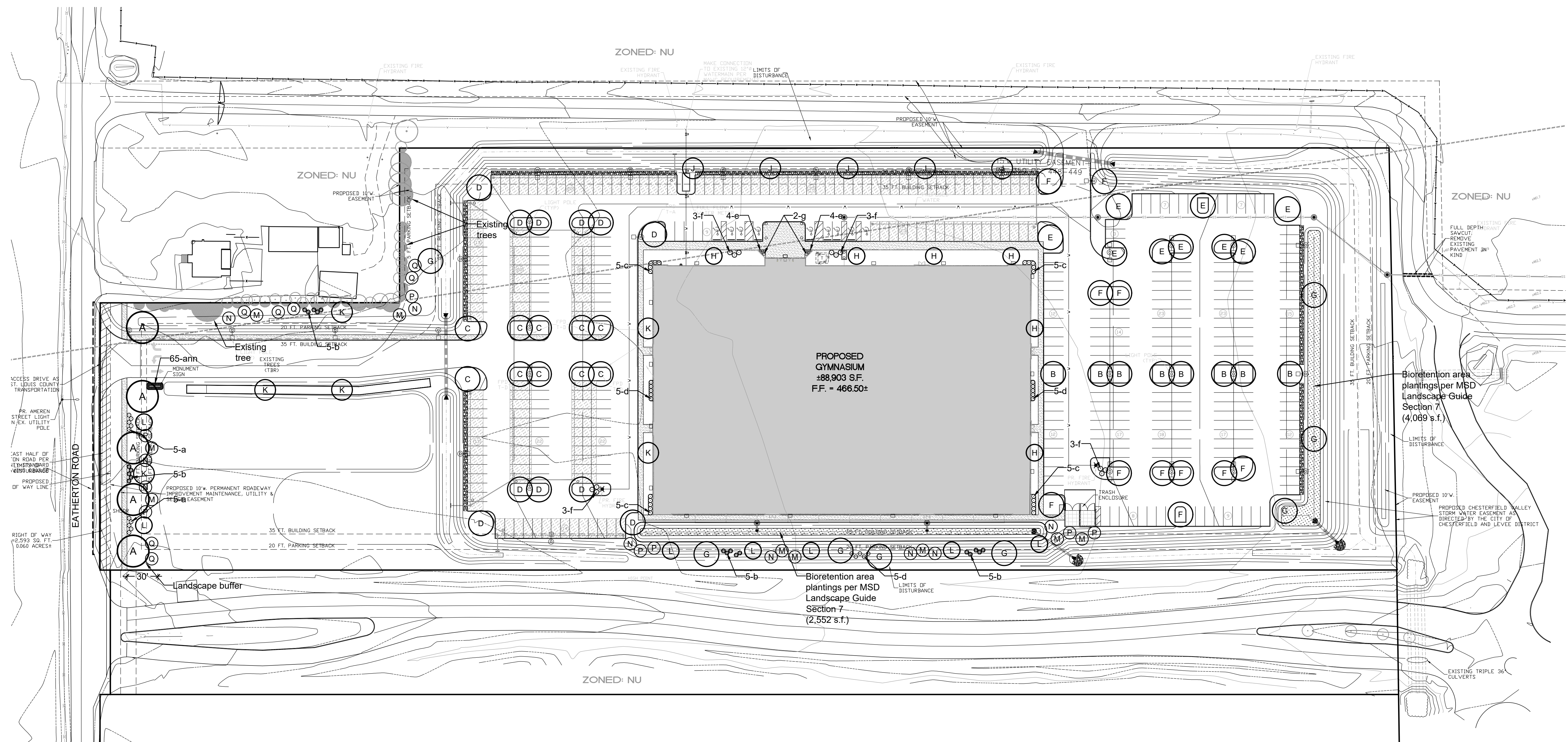


Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

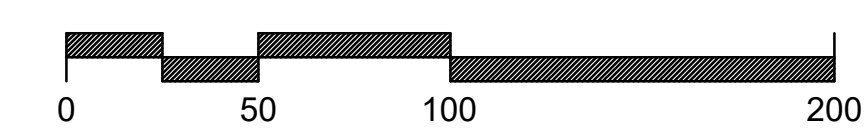
Chesterfield Fieldhouse

150 Eatherton Road
Chesterfield, Missouri



Landscape Plan

SCALE 1"=50'



Open Space = 46.7 %

ZONING DESIGNATION:
Present Zoning: NU "Non-Urban"

Total Site Area: 10.786 Acres±

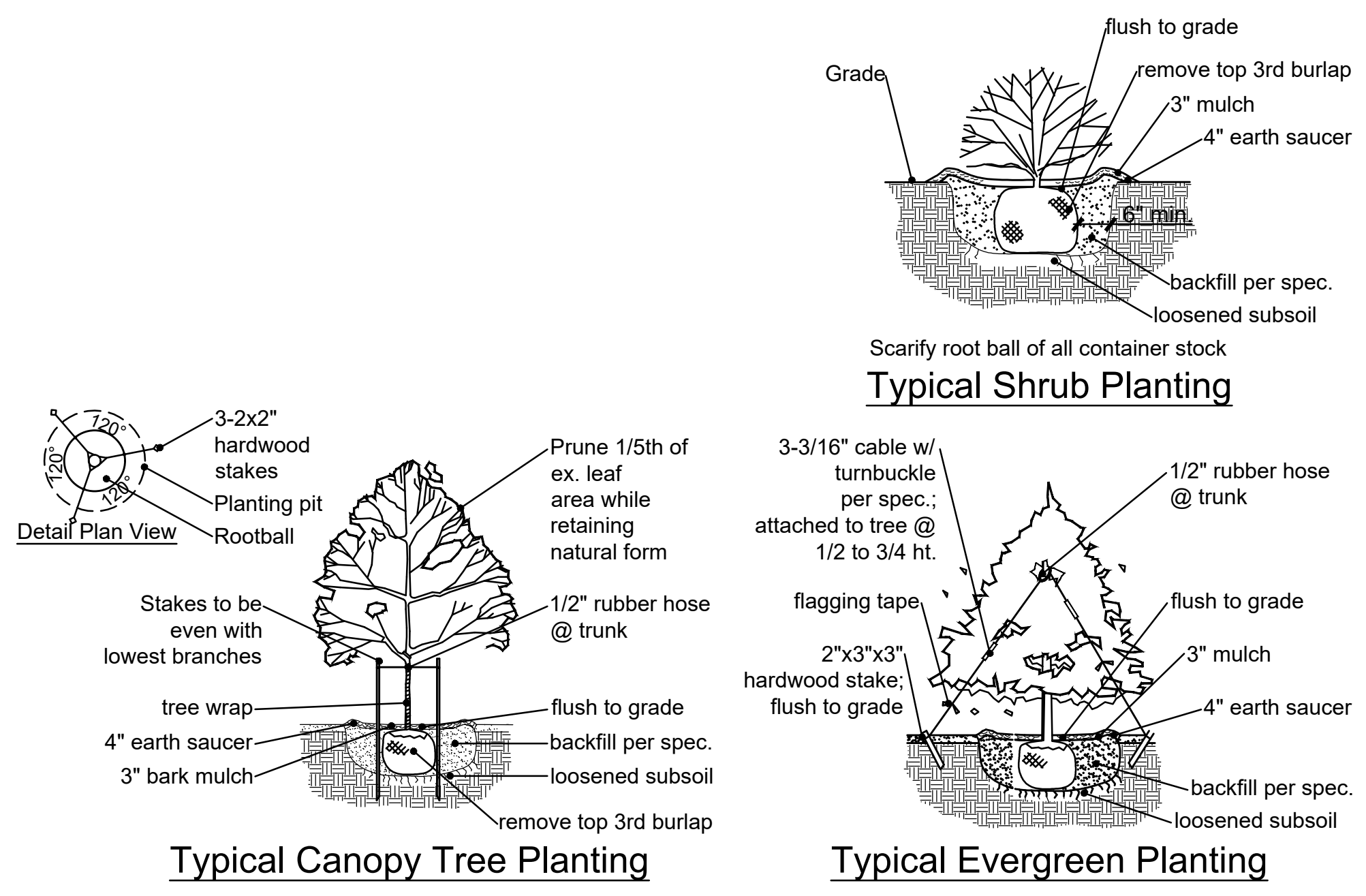
Floodplain Map Number: 29189C0145K

General Notes:

- All new landscape shall be irrigated with an automatic underground sprinkler system per the City of Chesterfield Unified Code Section 04-02.
- No proposed street trees shall be planted closer than three (3) feet to any curb per UDC.
- No proposed street trees shall be planted closer than twenty-five (25) feet of streetlights, street signs, and intersections per UDC.
- No street trees shall be planted within ten (10) feet of street inlets or manholes per UDC.

Landscape Notes:

- Mulch to be double ground bark mulch.
- All 3:1 or steeper slopes shall be seeded and have erosion control blanket. all other areas to be sodded with turf-type Tall Fescue.
- Topsoil in all disturbed lawn areas at 6" depth.
- Soil mix in all shrub beds at 8" depth.
- Provide underground irrigation system. Contractor to provide design-build drawings for review by Landscape Architect.



PLANTING SCHEDULE									
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SIZE/GROWTH RATE	SLOW/MEDIUM GROWTH RATE	MATURE HEIGHT (IN FEET)	
CANOPY-SHADE TREES									
A	5	Ulmus 'Valley Forge'	Valley Forge Elm	2.5" cal.	B&B	Lg/Medium	4.2 %	70	
B	8	Gleditsia triacanthos f. inermis 'Skycole'	Skyline Honeylocust	2.5" cal.	B&B	Lg/Fast		45+	
C	10	Acer rubrum	Red Maple	2.5" cal.	B&B	Lg/Fast		45+	
D	11	Quercus rubra	Red Oak	2.5" cal.	B&B	Lg/M-Fast		45+	
E	9	Quercus bicolor	Swamp White Oak	2.5" cal.	B&B	Lg/Medium	7.6 %	45+	
F	11	Liriodendron tulipifera	Tuliptree	2.5" cal.	B&B	Lg/Fast		45+	
G	8	Taxodium distichum	Bald Cypress	2.5" cal.	B&B	Lg/Medium	6.8 %	45+	
UNDERSTORY-ORNAMENTAL TREES									
H	6	Amelanchier arborea	Serviceberry	2.5" cal.	B&B	Med/Slow-M	5.1 %	25-30	
J	5	Carpinus betulus	Common Hornbeam	2.5" cal.	B&B	Med/Slow-M	4.2 %	30-40	
K	6	Carpinus caroliniana	American Hornbeam	2.5" cal.	B&B	Small/Med	5.1 %	20-35	
L	7	Syringa reticulata	Japanese Lilac Tree	2.5" cal.	B&B	Med/Slow-M	5.9 %	25-30	
EVERGREEN TREES									
M	9	Picea abies	Norway Spruce	6" h.	B&B	Lg/Med	7.6 %	45	
N	9	Picea glauca	White Spruce	6" h.	B&B	Med/Med	7.6 %	30-40	
P	7	Picea pungens	Colorado Blue Spruce	6" h.	B&B	Med/Med	5.9 %	30-40	
Q	7	Thuja 'Green Giant'	Green Giant Arborvitae	6" h.	B&B	Lg/Fast		45+	
SHRUBS-GRASSES-PERENNIALS-ANNUALS-GROUNDCOVER									
a	10	Syringa x 'SMSJBP7'	Bloomerang Dark Purple Reblooming Lilac	18"	Container				
b	20	Ilex glabra	Inkberry	18"	Container				
c	20	Buxus microphylla 'Bulthouse'	Sprinter Boxwood	18"	Container				
d	15	Itea virginica	Itea	18"	Container				
e	8	Hypericum prolificum	St. John's Wort	18"	Container				
f	12	Miscanthus sinensis 'Gracillimus'	Maiden Grass	3 gal.	Container				
g	2	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	3 gal.	Container				
ann	65	Annuals (3 seasons - various species T.B.D.)		2" c.p.	12" o.c.				
									Total 60 %
6,621 s.f. Bioretention area plantings per MSD specifications									DCP 24" o.c.

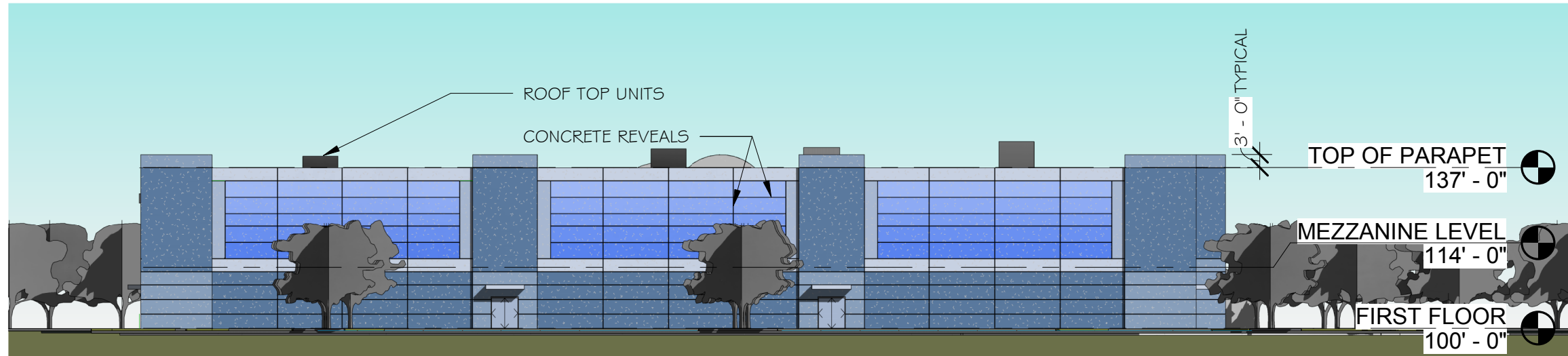
Revisions:		
Date	Description	No.
3/5/21	City Comments	1
3/25/21	City Comments	2
5/18/21	City Comments	3

Drawn: JAS
Checked: JAS

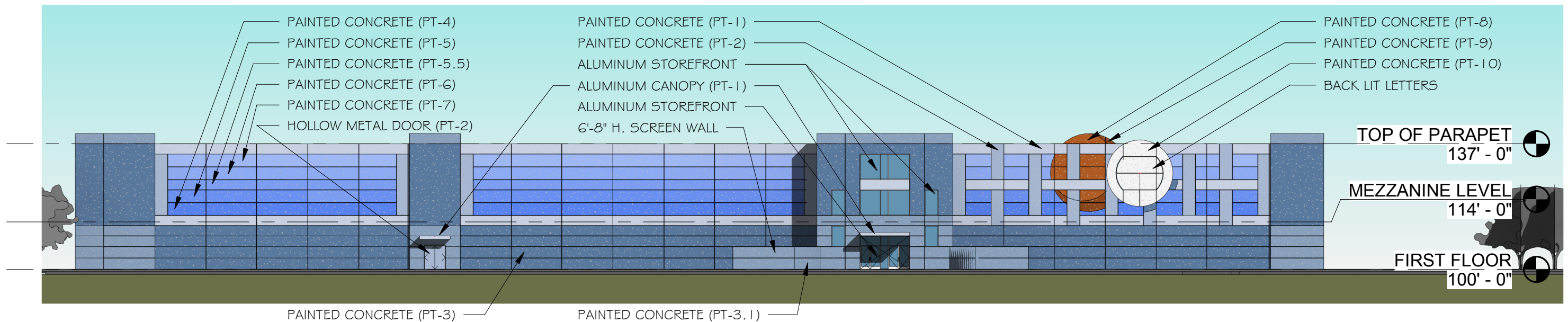
Sheet Title:	Landscape Plan
Sheet No.:	L1.01
Date:	2/8/21
Job #:	687.018

Chesterfield Fieldhouse

Chesterfield, Missouri 63005



1 EAST ELEVATION
DD5 1" = 30'-0"



2 NORTH ELEVATION
DD5 1" = 30'-0"

EXTERIOR ELEVATIONS - N/E

1" = 30'-0"

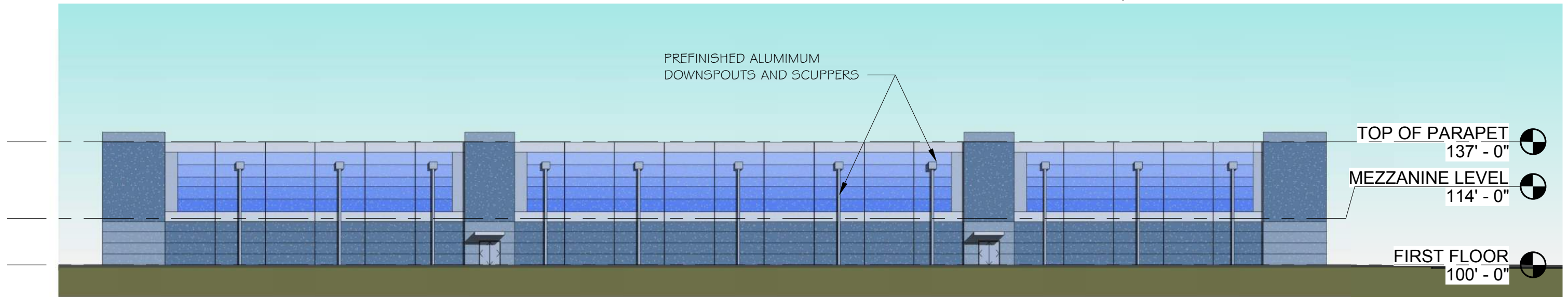
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weber
architects

636.519.1400

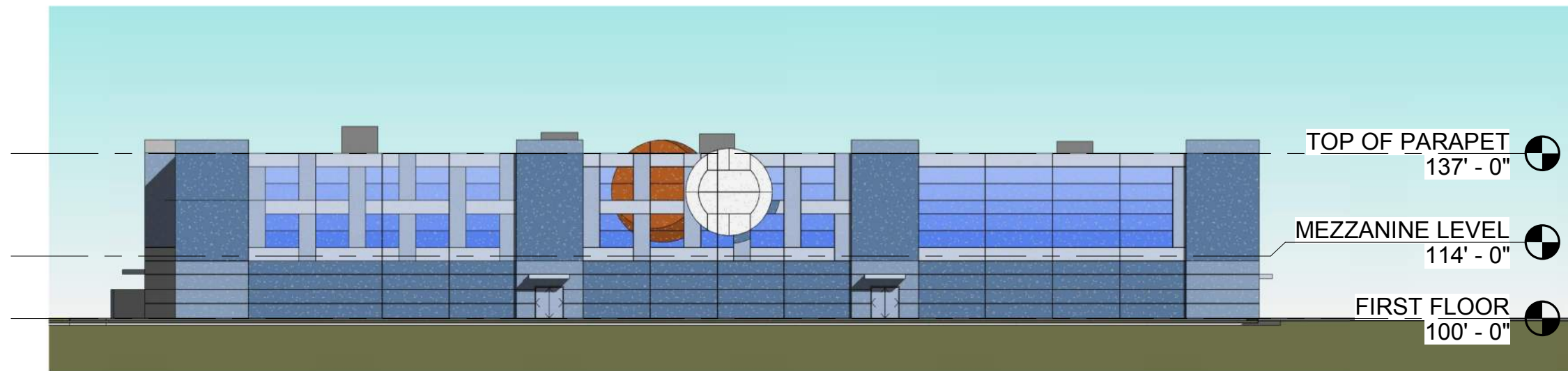
03/01/2021
20.086

Chesterfield Fieldhouse

Chesterfield, Missouri 63005



1 SOUTH ELEVATION
DD6 1" = 30'-0"



2 WEST ELEVATION
DD6 1" = 30'-0"

EXTERIOR ELEVATIONS- S/W

1" = 30'-0"

mw
weber
architects

636.519.1400

03/01/2021
20.086

March 11, 2021

Architectural Review Board
City of Chesterfield
Department of Planning
690 Chesterfield Parkway West
Chesterfield, MO 63017-0760

Re: Architect's Statement: Chesterfield Fieldhouse

Dear members of the Architectural Review Board,

The following is the Architect's Statement for the Chesterfield Fieldhouse, located at 150 N. Eatherton Road, Chesterfield Missouri.

The Site:

Physical features and Access:

The relatively level 10.78 acre site is currently an open field adjacent to a future industrial area. Proposed will be a one story, 98,000 sf Volleyball and Basketball Fieldhouse, with a 10,000 sf mezzanine level. This is in keeping with the sporting and golf activities in the area. The site is adjacent to the Crossing Church to the east, N. Eatherton Road (road leading to the Spirit Landing Golf Course) to the north, and fronts on N. Eatherton road to the west as the primary site entrance.

Site Relationship & Circulation:

The building's main public entry will be located on the north side of the building with parking areas on the west, north and east side of the building. The access to the site will be served by 2 ingress and egress points. Parking is located to shorten the distance to the main entry from several points around the property.

Green space buffers/detention will be located primarily on the south side however multiple locations will be incorporated around the building property lines to soften all elevations of the building from offsite visibility. The larger green space at the southwest corner off N Eatherton road will create a more open approach to the building from the primary access point. In addition, the trash dumpsters will be located on the building's south side and will be screened with a 6' high tilt up concrete enclosure with stained wood swinging gates.

Mechanical equipment will all be mounted on the roof and will be screened from the all property line views naturally by the building's parapet (see attached site section).

The type and location of site and building lighting fixtures were designed to reduce excess glare into the neighboring properties. Many of the fixtures are indirect fixtures and will be located within the entry alcove, which allows the mass of the building to shield the glare from the side neighboring properties.

Topography & Retaining walls:

The natural topography is relatively level and will not require any retaining walls. The storm water management systems includes a bio-retention basin to handle water quality, and will be approved by the City and MSD.

The Building:***Materials:***

The materials on the building include painted concrete panels with decorative reveals, aluminum storefront with tinted glass, and color-matched prefinished aluminum canopies and flashings. The color scheme is composed of shades of blue gray creating depth and a motif that is reinforced by the sporting activities within the building. The vertical panels around the elevations break the parapet line and add a rhythm to the façade. The colors at the upper 2/3's of the building are lighter shades of blue in order to accentuate its lightness, which is in contrast to the heavy base and corner elements.

Scale & Design:

The building is setback significantly from the main entrance at N. Eatherton and sets up a formality and on axis approach drive to the building. The main entrance to the building is on the north elevation and is pulled out from the main building mass to express it as the primary focal. The treatment of the color scheme at the west and north entry further reinforces this area as the dominant entry portal. The other building entries are played down however still are identified and broken down to a human scale with simple horizontal entry canopies that are integrated with the projecting panels that modulate the proportions of the elevations. Lastly, a light concrete horizontal band is used as a linear thread that weaves throughout the building and acts as a unifying element that forms an edge between the upper mass and the more humane lower mass while supporting the netting imagery that supports and reinforces the interior function as a sporting events center.

Landscape design and screening:

The required number of trees have been provided and landscaping is also added to the building to provide a buffer between parking drives and the concrete walks around the building. The main entry is set up to receive safely a large volume of patrons and create a clarity of arrival enhanced with the softer landscape forms.

The plant palette, designed for low maintenance, has been selected from Chesterfield's list of approved trees. The chosen plants also provide pollinators (especially at the bio-retention pond) and seasonal color & texture throughout the site. Flowering trees will be used at the entries and will contrast the building color scheme.

Signage:

The signage will be integral and become part of the architectural design, in order to reinforce the building architecture with the sporting design motif. Signage shall be designated in the area on the west and north entry to address the 2 points of site entry.

Lighting standards:

The parking areas will be illuminated by full cutoff, low profile, LED roadway fixtures and equipped with house side shields where located at property lines to minimize glare and light trespass. Building entries will incorporate a combination of downlights, low profile, recessed LED can lighting and wall washer fixtures to up light the wall at the projecting panel entry masses.

Sincerely,
mw Weber Architects

Michael J. Reardon
Project Manager

TECHNICAL MEMORANDUM

Date: June 18, 2021

To: Mr. Tom Kaiman
Mia Rose Holdings

From: Mr. Srinivas Yanamanamanda, P.E., PTOE, PTP

CBB Job Number: 064-21

Project: Traffic Assessment
Proposed Chesterfield Fieldhouse
Chesterfield, Missouri

As requested, CBB has completed a Traffic Assessment related to the proposed Chesterfield Fieldhouse development located at 150 North Eatherton Road in the City of Chesterfield, Missouri. The site is approximately 10.78 acres located on the east side of North Eatherton Road, between The Landings at Spirit Drive to the north and The Crossing Church Driveway to the south in Chesterfield, Missouri.

It is our understanding that the proposed development would consist of a 98,000 square foot (SF) gymnasium and would be accessed via a curb cut on North Eatherton Road and a curb cut on The Landings at Spirit Drive. The site location is shown in **Figure 1**. The preliminary site plan provided by the owner is shown in **Figure 2**.



Figure 1 – Site Location Map

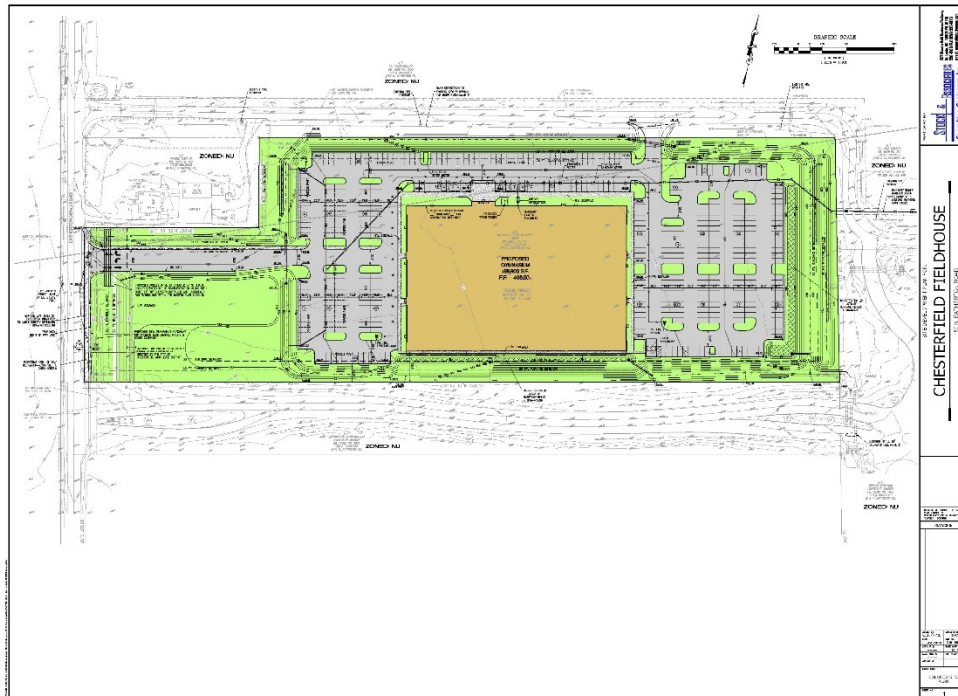


Figure 2 – Preliminary Site Plan (Provided by Others)

The purpose of this traffic assessment is to determine the planning level impact of the proposed development and to identify, fatal flaws, if any, that cannot be overcome by the addition of roadway improvements to North Eatherton Road.

EXISTING CONDITIONS

Existing Roadway Conditions: The proposed development is along North Eatherton Road, which is a generally an undivided, two lane roadway (one lane in each direction). Within the study area, North Eatherton Road is a north-south major collector roadway under the jurisdiction of the St. Louis County Department of Transportation (SLCDOT). The posted speed limit on the roadway is 45 miles per hour.

The Landings at Spirit Drive is an east-west roadway that provides access to the Crossing Church and the Landings at Spirit Golf Club. The intersection of North Eatherton Road at The Landings at Spirit Drive is under side-street stop control. The northbound approach provides a shared through/right-turn lane. The southbound approach provides a shared left-turn/through lane. The westbound approach provides a shared left-turn/right-turn.

Crossing Church Driveway is an east-west roadway that primarily provides access to the Crossing Church. The intersection of North Eatherton Road at Crossing Church Driveway is under side-street stop control. The northbound approach provides a shared through/right-turn lane. The southbound approach provides a shared left-turn/through lane. The westbound approach provides a left-turn lane and a right-turn lane.



Existing Traffic Volumes: Average Weekday Traffic (AWDT) and Saturday Traffic (SAT) counts collected in 2017 were obtained from SLCDOT database and are summarized in **Figure 3**. In addition, hourly volumes were collected by us during June of 2021. In general, traffic volumes and patterns are similar between the two sets of traffic volume data. The AWDT and SAT on North Eatherton Road south of Olive Street Road is 12,080 vehicles per day (vpd) and 11,205 vpd, respectively. The AWDT and SAT on North Eatherton Road north of Centaur Road is 11,285 vpd and 10,510 vpd, respectively.



Figure 3 – AWDT and SAT from St. Louis County Department of Transportation

PROPOSED SITE

Proposed Development: The proposed development would consist of a 98,000 square foot (SF) gymnasium on an approximately 10.78-acre parcel of land. Access is proposed via a curb cut on North Eatherton Road and a curb cut on The Landings at Spirit Drive

Trip Generation: As a primary step in this analysis, forecasts were prepared to estimate the increase in daily traffic that the proposed development would generate during the weekday and Saturday. These forecasts were based upon information provided by the facility operator.

During the weekdays, the proposed site is expected to operate from 4:30 PM to 8:30 PM. During this time the site will provide three (3) basketball slots and two (2) volleyball slots. Each basketball slot is expected to generate 70 vehicles in and 70 vehicles out while each volleyball slot is expected to generate 75 vehicles in and 75 vehicles out. Based on this information it can be reasonably estimated that the proposed site is expected to generate approximately 1,000 trips per day during typical weekday operations.



During Saturday and Sunday, the proposed site is expected to operate from 7:00 AM to 9:00 PM. During this time the site will provide twelve (12) basketball slots and two (2) volleyball slots. Each basketball slot is expected to generate 70 vehicles in and 70 vehicles out while each volleyball slot is expected to generate 350 vehicles in and 350 vehicles out. The morning volleyball slot is expected to have all incoming traffic between 6am and 7am and all exiting traffic between 2pm and 3pm. The afternoon volleyball slot is expected to have all incoming traffic between 3pm and 4pm and all exiting traffic between 8pm and 9pm. Based on this information it can be reasonably estimated that the proposed site is expected to generate approximately 3,000 trips per day during typical Saturday and Sunday operations.

Directional Distribution: The increase in traffic generated by the proposed development will be assigned to the adjoining roadway system based on the current area traffic patterns. The anticipated directional distribution for the trips accessing the site would be as follows:

- 80% To/From the north on Eatherton Road; and
- 20% To/From the south on Eatherton Road.

Trip Assignment: Based on the trip generation and directional distribution noted above, the daily traffic assignments were calculated as shown in **Table 1**. The site traffic assignments were added to the existing traffic levels to forecast total traffic on Eatherton Road to the north and south of the site.

Table 1: Site Trip Assignments

<i>Road Segment</i>	<i>Weekday Daily Traffic</i>	<i>SAT/SUN Daily Traffic</i>
Eatherton Road – North of Site		
Existing Traffic	12,080 vpd	11,205 vpd
Site Trips Added	800 vpd	2,400 vpd
Total Traffic Forecast	12,880 vpd	13,605 vpd
Eatherton Road – South of Site		
Existing Traffic	11,285 vpd	10,510 vpd
Site Trips Added	200 vpd	600 vpd
Total Traffic Forecast	11,485 vpd	11,110 vpd

QUALITY LEVEL OF SERVICE

As a part of CBB’s due diligence work effort, we estimated the Annual Average Daily (AAD) volume for North Eatherton Road based on the existing roadway conditions. The AAD volumes were based upon information provided in the latest edition of the *Quality/Level of Service Handbook*, published by the State of Florida Department of Transportation. The *Quality/Level of Service Handbook* (QLOS) determines the maximum levels of service (LOS) capacity of a roadway based upon different variables such as the posted speed limit and if it an urban or rural roadway. Furthermore, LOS is a measure of traffic flow which considers such factors as speed, delay, traffic interruptions, safety, driver comfort, and convenience. Level C, which is normally used for highway design, represents a roadway with volumes ranging from 70% to



80% of its capacity. However, Level D is generally considered acceptable for peak period conditions.

North Eatherton Road is a two-lane undivided urbanized arterial roadway with a posted speed limit of 45 mph. The QLOS handbook determines that such a roadway has a AAD maximum capacity for QLOS D as 17,700 vehicles. Furthermore, QLOS provides adjustment factors based on if the roadway provides exclusive left turn lanes or exclusive right turn lanes. North Eatherton Road does not currently provide exclusive left or right turn lanes along the site frontage, which results in a reduction of 20% to the maximum capacity of vehicles for each QLOS. With the 20% reduction, the AAD maximum capacity of North Eatherton Road for QLOS D is 14,160 vehicles.

To determine if the proposed development will exceed the maximum capacity provided by QLOS, the trip forecasts from Table 1 were compared to the AAD volumes. The forecasted total AWDT of 13,605 vpd is below the maximum capacity of 14,160 vpd for QLOS D.

Consequently, it can be reasonably deduced that North Eatherton Road has adequate capacity to handle the additional trips expected to be generated by the proposed development.

ADJACENT USES INTERACTION

As noted earlier, the Crossings Church is located in the immediate vicinity of the proposed gymnasium development. Based on our field observations and publicly available information, it is our understanding that the Church's predominant trip generating operations are generally limited to Saturdays between 4:30pm and 6:30pm and Sundays between 9am and noon. As described earlier, the peak trip generation of the proposed site is expected to occur on Saturdays and Sundays before 7am and after 2pm. As such, we expected minimal interactions between these two sites. However, it is not atypical for 'predominantly commuter off-peak' uses like the proposed gymnasium and the Church to have special events that occur at the same time. While we do not expect any impact to commuter peak hour traffic, it is recommended that the two entities coordinate their operations to minimize disruption to mainline through traffic on North Eatherton Road.

NORTH EATHERTON ROAD LANE CONFIGURATION

Within the study area, North Eatherton Road is a generally an undivided, two lane roadway (one lane in each direction). Based solely on current traffic volumes and turning movement patterns along the roadway, a center turn lane would provide significant traffic operational benefits and safety improvements. This is particularly true for the two driveways in the immediate vicinity of the proposed site. Southbound left-turn storage lanes for The Landings at Spirit Drive and The Crossing Church driveway are strongly recommended based on existing traffic volumes and patterns.



From a long-term perspective, it is our opinion that widening North Eatherton Road to 3-lanes north of Centaur Road would be a regional roadway improvement that would provide significant operational and safety benefits.

While not required based on commuter weekday peak period traffic operations, we recommend a short southbound left-turn storage lane for the proposed site driveway on North Eatherton Road to facilitate driver safety. This storage lane should be constructed when feasible depending on right-of-way availability.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

The following is a summary of our findings and recommendations:

- North Eatherton Road has adequate capacity to handle the additional trips expected to be generated by this proposed gymnasium development. No fatal flaws were identified based on our traffic assessment.
- The proposed development is expected to have negligible impacts to adjacent roadway network during the morning and evening peak periods of a typical weekday.
- We expect minimal interactions with adjacent uses. We recommend ongoing coordination with adjacent uses to minimize significant conflicts.
- A southbound storage lane for incoming left-turning traffic is recommended to be constructed at the proposed site driveway when feasible depending on right-of-way availability.
- While we don't foresee a regular occurrence of extreme queuing, the long stretch of unsignalized two-lane corridor along North Eatherton Road has the potential to create unexpected lack of gaps for vehicles turning out of the site; and thus resulting in long wait times for outgoing traffic. Deployment of manual traffic control personnel could be a necessity on special event days.

We trust that you will find this traffic assessment useful. Please contact me via email at ryanamananda@cbbtraffic.com or by phone at 314-449-8240 should there be any questions or need for additional information.