General Notes:

1. The construction covered by these plans shall conform to the current "City Standards" and specifications of the Public Works Department, Kansas City, Missouri, except as noted. It shall be the Contractors responsibility to have one copy of these approved plans and the most current standards and specifications on the job site at all times.
2. The location and size of existing utilities is approximate. The location and elevation of all utilities must be verified in the field by the contractor prior to the start of construction and notify the Engineer of any discrepancies.
3. Existing elevations shown are on Kansas City, Missouri datum. The contractor shall field verify existing ground conditions prior to the start of construction.
4. Contractor shall control downstream erosion and silting during construction.
5. Any debris/material that is to be hauled off site requires a haul permit from the KCMO Public Works Department at City Hall (5th Floor). Contractor to Contact Jerry Tapscott for permitting and/or details at (816)513-2678.

Project Watershed:

The project is located in the Missouri River watershed.

Utility Companies:

Kansas City, MO Pollution Control Department	(816) 513-2178
Kansas City, MO Public Works Department	(816) 513-2600
Kansas City, MO Water Services Department	(816) 513-2215
Kansas City Power and Light Company	(816) 556-2200
Missouri Gas Energy	(816) 756-5261
AT&T	(816) 275-8337
Missouri State Highway Department	(816) 622-6500
Missouri One Call System	1-800-DIG-RITE

This project has been designed, and these plans prepared, to meet or exceed the design criteria of Kansas City, Missouri in current usage.

Legal Description:

Description (Commitment Number 16-4755):

A tract of land being a part of said Tract "J", EXECUTIVE PARK, FOURTH PLAT, in Kansas City, Jackson County, Missouri, more particularly described as: Beginning at the most Northwest corner of said Tract "J"; thence South 87 degrees 44 minutes 03 seconds East, along the North line of said Tract "J", a distance of 347.67 feet; thence South 2 degrees 15 minutes 57 seconds West, a distance of 215.44 feet; thence South 62 degrees 15 minutes 57 seconds West, a distance of 92.77 feet, to a point of curvature; thence Westerly along a curve to the right, radius of said curve being 270.00 feet, an arc distance of 141.37 feet; thence North 87 degrees 44 minutes 03 seconds West, a distance of 72.65 feet; thence North 2 degrees 15 minutes 57 seconds East, a distance of 2.00 feet to a point of curvature; thence along a curve to the right, the tangent to which bears North 87 degrees 44 minutes 03 seconds West, radius of said curve being 22.00 feet, an arc distance of 34.56 feet, to a point on the Easterly right of way line of Universal Avenue, as now established; thence North 2 degrees 15 minutes 57 seconds East, along Easterly right of way line of said Universal Avenue, a distance of 50.54 feet to a point of curvature; thence continuing along the Easterly right of way line of said Universal Avenue, on a curve to the left, radius of said curve being 681.52 feet, an arc distance of 227.67 feet to the point of beginning.

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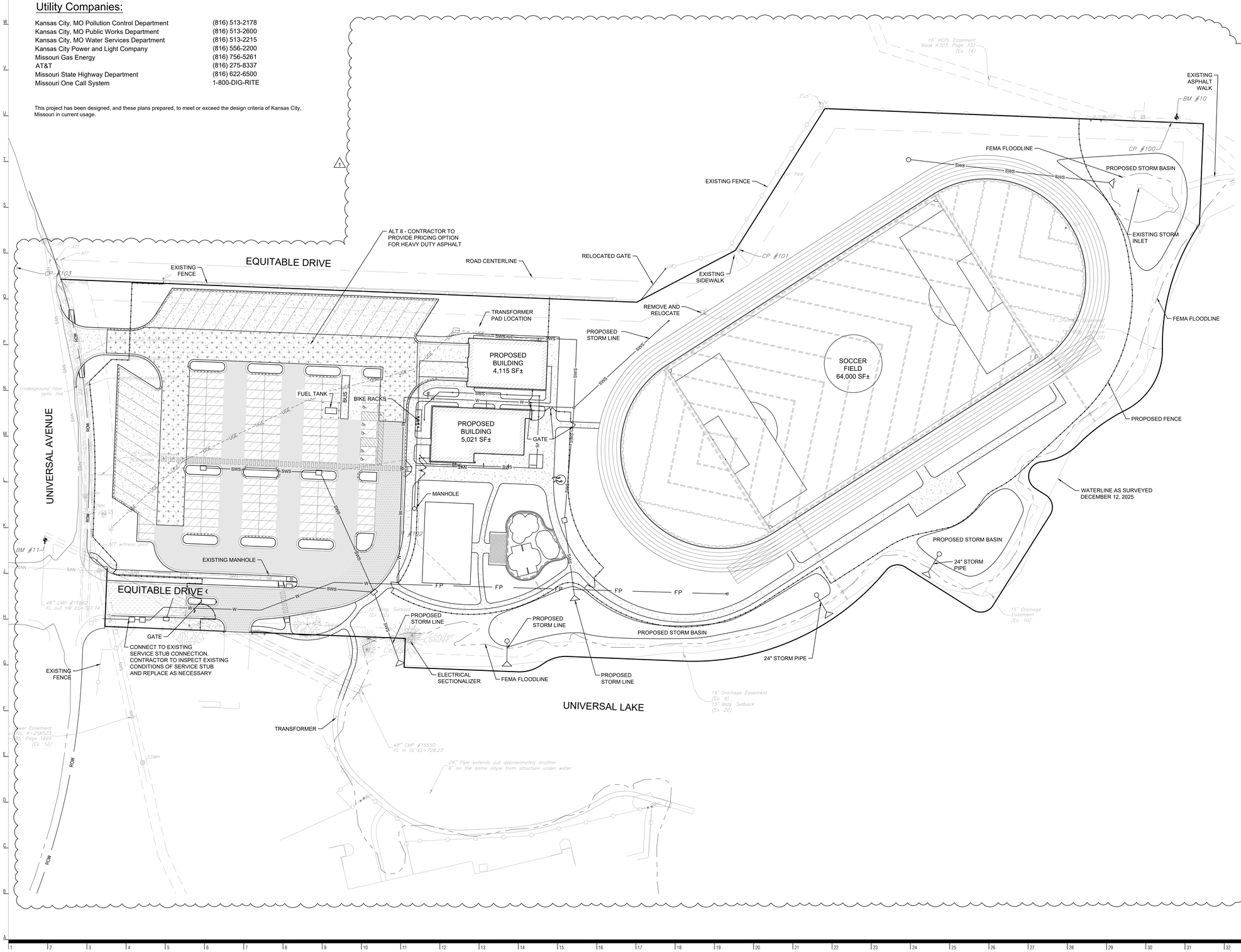
811 Know what's below. Call before you dig.

Missouri One Call System
1-800-344-7483 (DIG-RITE) or 811

FLOODPLAIN:

According to FEMA Flood Insurance Rate Map Number 29095C0144H, Map Revised December, 2023, the site lies within Zone X, Areas of 0.2% annual chance flood; areas of 1% annual chance 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; and partially within Zone AH, Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.



Legend

- Existing Tree
- E.M. Electric Meter
- E.T. Electrical Transformer
- Elec. Ped. Electric Pedestal
- T.P. Telephone Pole
- T.V. Television Vault
- GP Gate Post
- DI Drop Inlet
- JB Junction Box
- S.C.O. Sanitary Cleanout
- L.P. Light Pole Base
- Y.L. Yard Light
- BM#27 Benchmark
- Sign
- Control Point
- Tel. Ped. Telephone Pedestal
- Centerline
- FO Fiber Optic Line
- Property Line
- ROW Right-of-Way Line
- UGE Proposed Underground Electric
- UGT Existing Underground Telephone
- W Existing Water Line
- W Proposed Water Line
- SWS Existing Storm Line
- SAN Existing Sanitary Sewer Line
- SAN Proposed Sanitary Sewer Line
- FP Proposed Fire Protection Line
- Existing Fenceline
- Proposed Fenceline
- Proposed Underdrain
- FEMA Floodline
- Existing Storm Sewers
- F.H. Fire Hydrant
- W.M. Water Meter
- Proposed Heavy Duty Asphalt Pavement
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Mill and Overlay Existing Drive
- Proposed Concrete Pavement
- Proposed Building Footprint

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI — SCHWEIKERT NUMBER PE-2023029947 — 06/18/2026 — PROFESSIONAL ENGINEER

SITE PLAN

C101

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- UGT Existing Underground Telephone
- W Existing Water Line
- SWS Existing Storm Line
- Existing Fenceline
- Existing Storm Sewers
- F.H. Fire Hydrant
- W.M. Water Meter
- Existing Building Footprint

EQUITABLE DRIVE

UNIVERSAL AVENUE

UNIVERSAL LAKE

EXISTING FENCE

ASPHALT PARKING LOT

EXISTING FIRE HYDRANT

ASPHALT PARKING LOT

EXISTING BUILDING FOOTPRINT PREVIOUSLY DEMOLISHED ~73,194.78 SF

EXISTING FIRE HYDRANT

ASPHALT PARKING LOT

EXISTING WATER VALVE

WATERLINE AS SURVEYED DECEMBER 12, 2026

CP #100

CP #101

CP #102

CP #103

BM #10

BM #11

MH #1518
4' Dia. Conc.
Concentric
Top EL=734.49
FL out SE 15" PVC=723.93
FL in NW 15" PVC=723.97

MH #1345
4' Dia. Conc.
Concentric
Top EL=735.46
FL out SE 15" PVC=723.51
FL in NW 15" PVC=723.56

MH #1082
4' Dia. Conc.
Concentric
Top EL=733.37
FL out WNW 8" PVC=724.46
FL in SE 8" PVC=724.79
FL in NE 8" PVC=724.79

MH #1245
4' Dia. Conc.
Concentric
Top EL=735.03
FL out WNW 15" PVC=723.56
FL in NNW 15" PVC=723.65
FL in ESE 8" PVC=727.68
FL in SSE 8" PVC=727.68

MH #1065
4' Dia. Conc.
Eccentric
Top EL=733.42
FL out SW 8" PVC=726.55
FL in NE 8" PVC=726.74

MH #1065
4' Dia. Conc.
Eccentric
Top EL=732.54
FL out NW 8" PVC=726.79
FL in NE 8" PVC=726.92

MH #1140
4' Dia. Conc.
Concentric
Top EL=735.24
FL out NW 12" PVC=724.03
FL in SE 12" PVC=724.06

48" CMP #15562
FL out NW EL=727.14

48" CMP #15550
FL in SE EL=728.23

24" Pipe extends out approximately another 6' on the same slope from structure under water

10' KCPL Easement
Book K707, Page 332
(Ex. 14)

10' KCPL Easement
(Per field location of line)
Book 920, Page 792)
(Exception #15)

15' Drainage Easement
(Ex. 9)
15' Bldg. Setback
(Ex. 20)

15' Drainage Easement
(Ex. 10)

25' Utility Easement
(Exception #10 & Per Plat)

Underground telephone line
Underground telephone line
Underground telephone line
Underground fiber optic line

Sewer Easement
c. No. K-256523
-585, Page 1669
(Ex. 12)

Abandoned

ATT witness post

48" Elm
42" Tree
40" Tree
36" Oak
33" Tree
30" Maple
30" Sycamore
27" Maple
21" Elm
18" Elm
18" Birch
12" Sycamore
Conifer
Ornamental

SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
SCHWEIKERT
NUMBER
PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

EXISTING CONDITIONS

C102

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CAUTION!
Numerous Utilities on site. Contractor to verify location and elevation of all utilities prior to commencing construction.

Know what's below. Call before you dig.

Missouri One Call System
1-800-344-7483 (DIG-RITE) or 811

Legend

- Existing Tree Removal
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Proposed Concrete Pavement
- Ex. pavement removal, curb and gutter, brick pavers, concrete. Contractor to remove materials down to ex grade. Clearing and Grubbing. See Landscape Plans
- Existing Light Pole Base Removal
- Existing Water Line
- Proposed Water Line
- Proposed Fire Protection Line
- Proposed Underground Electric
- Right of Way
- Property Line
- Existing Sanitary Sewer Line
- Existing Sanitary Sewer Line To Be Removed/Abandoned
- Proposed Sanitary Sewer Line
- Existing Storm To Be Removed
- Proposed Fence
- Sawcut Line

Demolition Notes:

1. It is understood that contractor may not be able to accomplish saw cuts exactly as shown on this plan. Contractor shall determine suitability of concrete in areas depicted hereon and adjust saw cuts to include tangents to allow cuts suitable for the proposed construction intended. Contractor shall adhere to these locations as close as practical.
2. Existing Utilities - The locations of existing underground utilities are approximate and have not been field verified by the Owner or its representative. The Contractor or Sub-Contractor shall determine the exact location of all existing utilities before commencing work. The Contractor or Sub-Contractor is fully responsible for any and all damages occurring from his failure to do so. The Contractor shall coordinate the relocation of any utilities that may be encountered prior to the start of construction.
3. Existing Site Conditions - The Contractor shall, prior to commencing work, investigate surface and subsurface conditions to be encountered across the project site and notify the Engineer if any discrepancies or changed conditions are noted.
4. All Clearing and Grubbing, Stripping and Grading operations shall be performed in accordance with the recommendations as found in the erosion control and grading plans prepared for this site.
5. All demolition shall adhere to all local, State and Federal laws, ordinances, codes, and statutes governing such demolition as required.
6. All trash and debris identified on site should be properly handled and disposed in accordance with State of Missouri regulations.
7. All pavement and concrete shall be cleanly sawcut to full depth prior to removal.
8. The contractor is responsible for interim stormwater drainage throughout the project.
9. Complete Site demolition plans have NOT been prepared for this project, However contractor shall adhere to information found herein during his execution of construction activities on this site.
10. The purpose of this site demolition sheet is ONLY to provide direction for pavement removals.
11. The contractor is responsible for the protection of all survey control points, property corners and/or section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Missouri, at the Contractor's expense.
12. Contractor to coordinate removal of any existing utility services (i.e. electric, water, sanitary, etc.) with the Owner. Contractor shall remove ALL wiring, piping and fixtures for such identified utility services noted for removal or relocation.
13. Any demolition, relocation and installation of irrigation systems shall be coordinated with the owner.
14. Do not disturb any trees not marked for removal. Contractor to protect trees during construction.
15. Existing building utility services shall be abandoned in place. Isolation valves shall be placed on active utilities.
16. Abandoned water lines to be plugged with concrete.
17. Abandoned valves to be removed two feet below grade.
18. Contractor shall remove existing light pole bases as shown on the plan.
19. ~~Contractor shall remove existing pervious and subgrade~~ surrounding areas to be demolished called out on the plan.
20. All dimensions shown on this plan sheet are for the contractor's convenience and not verified for field conditions. Contractor shall adjust all demolition activities as necessary in cases of differing dimensions. The contractor is responsible for verifying all extent of demolition with the associated utility contact or owner.
21. Contractor responsible for locating existing sanitary sewer lines for abandonment. Where conflicts occur with proposed storm line, contractor shall remove 10 LF centered on storm line and grout and cap existing sanitary line to abandon in place.

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

I Joseph Schweikert
STATE OF MISSOURI
JOSEPH M. SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

DEMOLITION PLAN

C103

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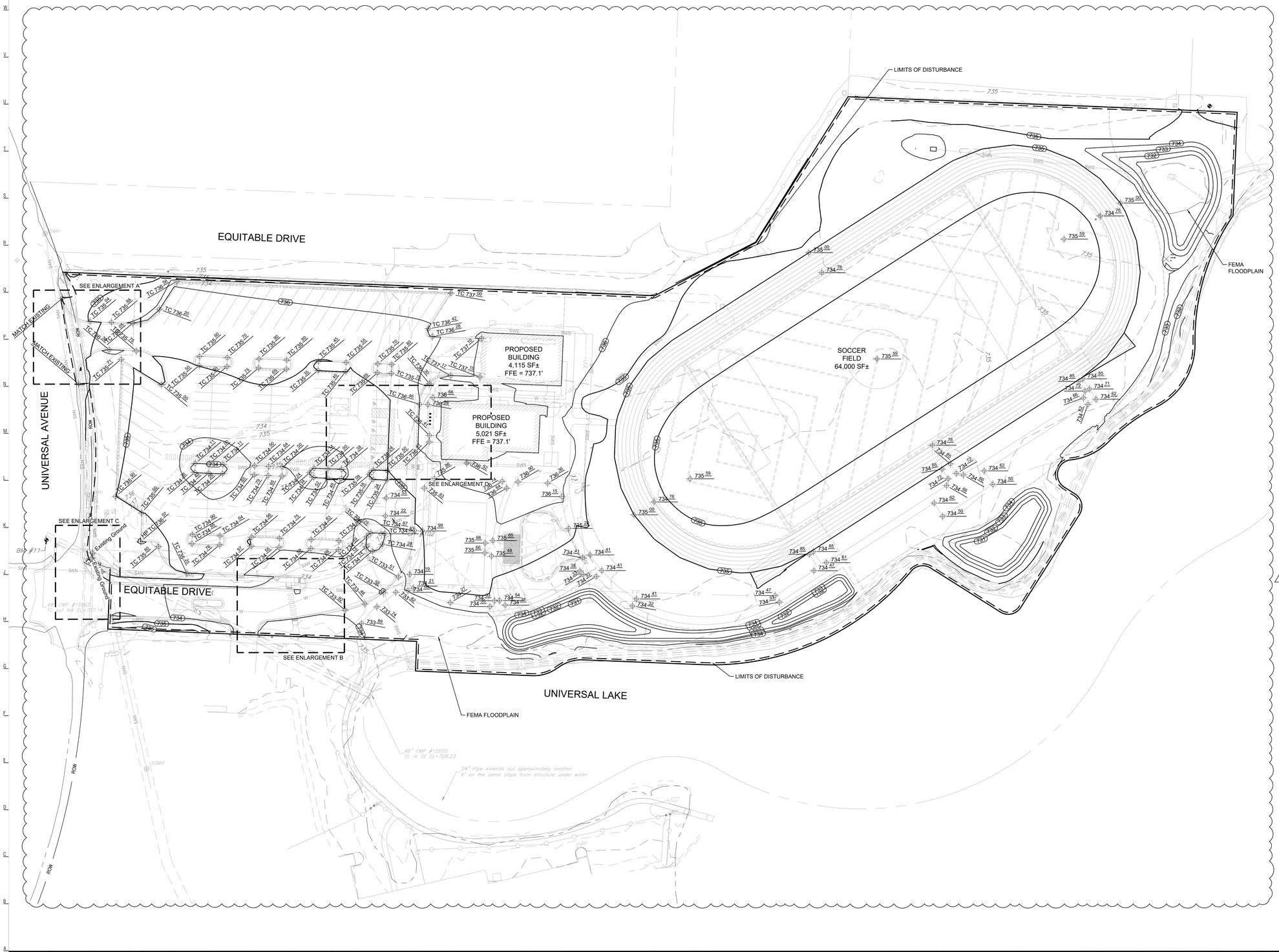

Legend

- Existing Contour
- Proposed Contour
- Drainage Flow Arrow
- TC 900.00 — Proposed Top of Curb
- 900.00 — Proposed Spot Grade
- Limits of Disturbance
- Property Line

Notes:

1. TW and BW elevations noted on plans are to the top of the wall and to the surface grade at the base of wall. Any additional depth of wall required for structural purposes is the responsibility of the structural Engineer designing the wall.
2. All ADA accessible parking spaces are to be constructed at 2.0% maximum slope in any direction. ADA accessible routes shall be constructed with 2.0% maximum cross slope and a maximum 5.0% longitudinal slope.
3. All fills outside of the Right-Of-Way shall be placed in 8 inch lifts and compacted to 95% of standard proctor density, or per the Geotechnical Report.
4. All earthwork within the Right-Of-Way shall be governed by City Specifications, unless specifically modified by the Geotechnical report.
5. The Contractor shall be responsible for engaging a Geotechnical Engineer to monitor compaction for the project. The Engineer shall prepare a report detailing the compaction across the site.
6. Topsoil is to be stripped from the project site and stockpiled separately from other earthwork materials. Topsoil is to be evenly respread over areas to be reestablished with vegetation.
7. Grading enlargements on sheet C105.
8. Track and field to be installed per product supplier and landscape plans.

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120

Project No: 14018.20

Construction Documents

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1	Addendum #1	06.18.2026

STATE OF MISSOURI
DAVID M. SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

GRADING PLAN

C104

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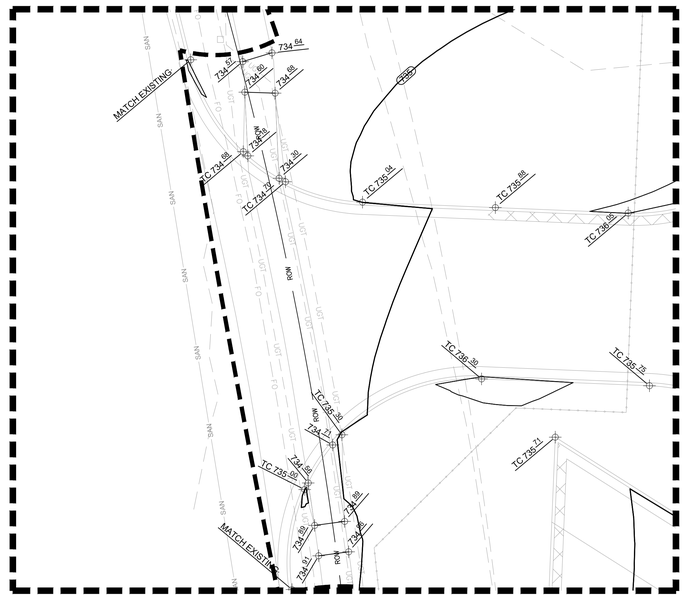
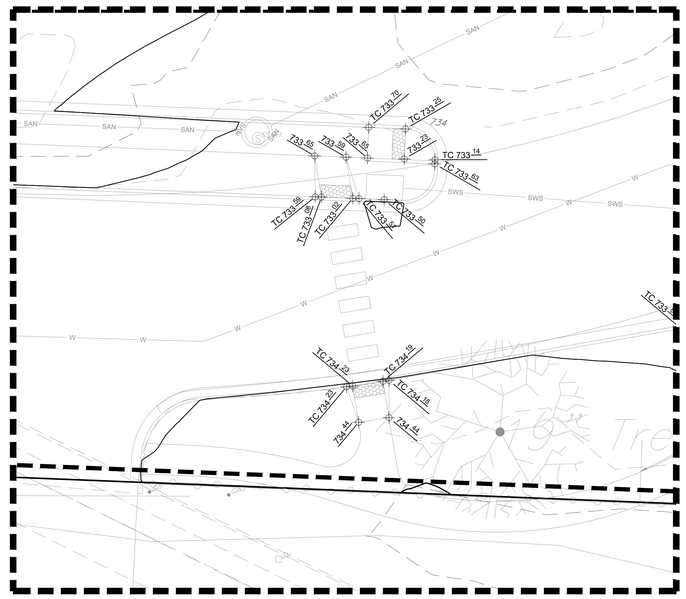
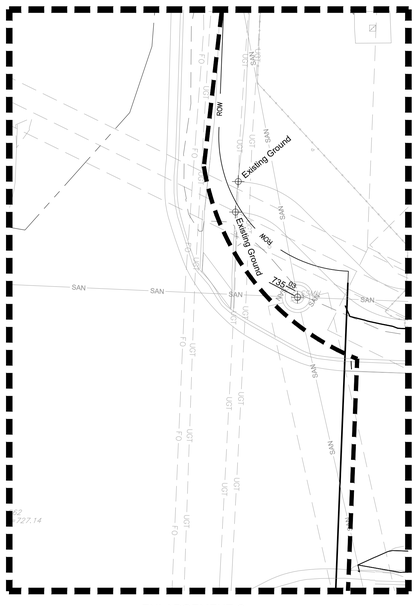


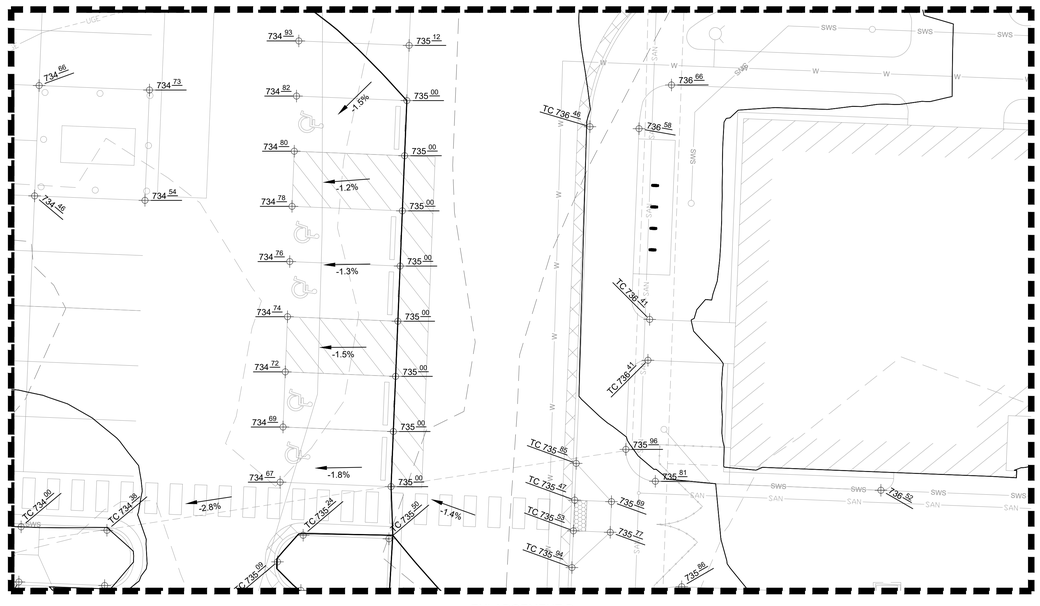
ENLARGEMENT A
SCALE : 1 INCH = 10 FEET



ENLARGEMENT B
SCALE : 1 INCH = 10 FEET



ENLARGEMENT C
SCALE : 1 INCH = 10 FEET



ENLARGEMENT D
SCALE : 1 INCH = 10 FEET

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Legend

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- 900 — Proposed Contour
- Drainage Flow Arrow
- TC 900.00 — Proposed Top of Curb
- 900.00 — Proposed Spot Grade
- Limits of Disturbance
- Property Line

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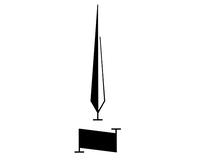

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06/18/2026
PROFESSIONAL ENGINEER

GRADING ENLARGEMENTS

C105

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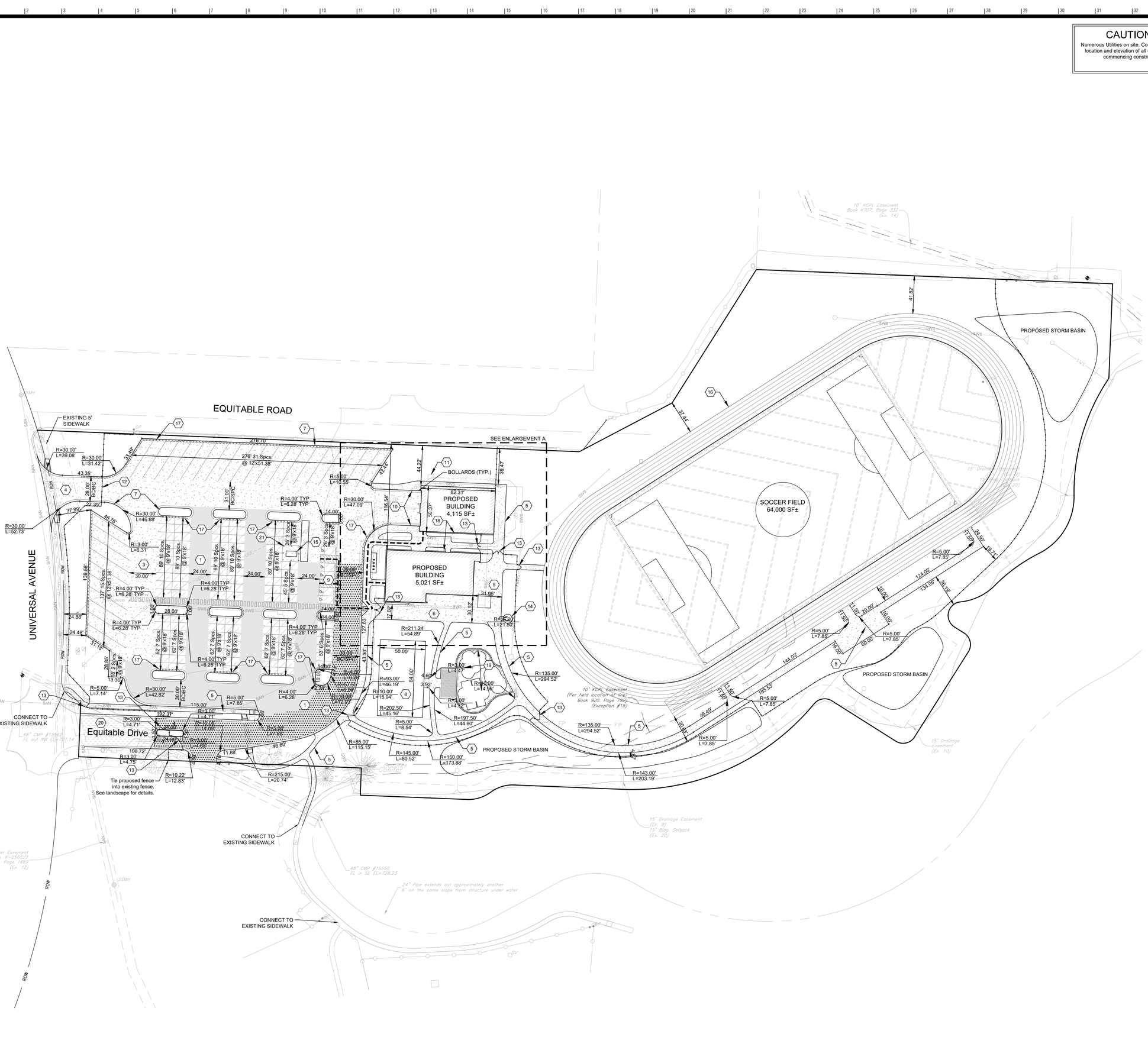

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- Proposed Heavy Duty Asphalt Pavement
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Mill and Overlay Existing Drive
- Proposed Concrete Pavement
- Proposed Building Footprint

CONSTRUCTION NOTES:

1. Construct Drive Lane Asphalt Pavement
2. Construct Car Parking Asphalt Pavement
3. Construct Concrete Pavement
4. Construct Commercial Drive Entry
5. Construct Concrete Sidewalk
6. Construct Emergency Vehicle Concrete Path
7. Construct Concrete Curb & Gutter
8. Futsal Court. See Landscape plans for additional details
9. Install 9'X18' ADA Parking space w/9'X18' painted access aisle
10. Curb transition to Flush Curb
11. Evergy Transformer Pad
12. Rolling Gate
13. Swing Gate
14. Flag Pole
15. Fuel Tank
16. Track. See Landscape plans for additional details
17. Construct Dry Curb. See sheet C113
18. Construct 12" Wide Concrete Apron
19. Playground Equipment. See Landscape plans for additional details
20. Mill and overlay existing drive
21. Bollard
22. Construct ADA Sidewalk and Ramp. See detail sheet C113

General Notes:

1. Dimensions shown are back of curb.

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Certificate of Authority

Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120

Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
SCHWEIKERT
NUMBER
PE-2023029947
06/10/2026
PROFESSIONAL ENGINEER

DIMENSION PLAN

C106

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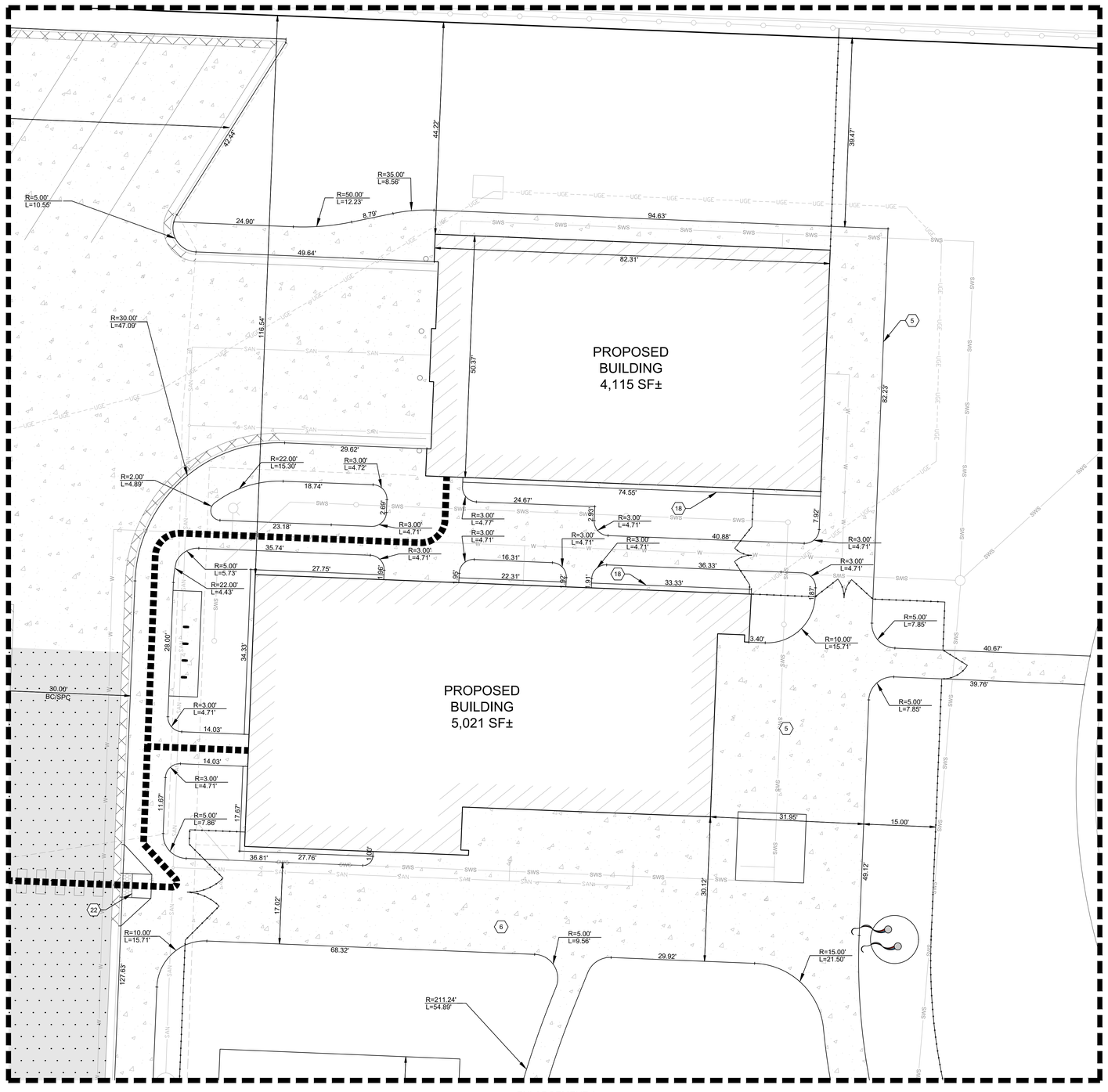

ENLARGEMENT A
SCALE : 1 INCH = 10 FEET

CAUTION!

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Legend

- Existing Tree
- E.M. Electric Meter
- E.T. Electrical Transformer
- Elec. Ped. Electric Pedestal
- T.P. Telephone Pole
- T.V. Television Vault
- GP Gate Post
- DI Drop Inlet
- JB Junction Box
- C.O. Sanitary Cleanout
- L.P. Light Pole Base
- Y.L. Yard Light
- SBM27 Benchmark
- Sign
- Control Point
- Tel. Ped. Telephone Pedestal
- Centerline
- FO Fiber Optic Line
- Property Line
- ROW Right-of-Way Line
- UGE Proposed Underground Electric
- UGT Existing Underground Telephone
- W Existing Water Line
- W Proposed Water Line
- SWS Existing Storm Line
- SAN Existing Sanitary Sewer Line
- SAN Proposed Sanitary Sewer Line
- FP Proposed Fire Protection Line
- Existing Fenceline
- Proposed Fenceline
- Proposed Underdrain
- ADA Path
- Existing Storm Sewers
- F.H. Fire Hydrant
- W.M. Water Meter
- Proposed Heavy Duty Asphalt Pavement
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Mill and Overlay Existing Drive
- Proposed Concrete Pavement
- Proposed Building Footprint

CONSTRUCTION NOTES:

1. Construct Drive Lane Asphalt Pavement
2. Construct Car Parking Asphalt Pavement
3. Construct Concrete Pavement
4. Construct Commercial Drive Entry
5. Construct Concrete Sidewalk
6. Construct Emergency Vehicle Concrete Path
7. Construct Concrete Curb & Gutter
8. Futsal Court. See Landscape plans for additional details
9. Install 9'X18' ADA Parking space w/9'X18' painted access aisle
10. Curb transition to Flush Curb
11. Evergy Transformer Pad
12. Rolling Gate
13. Swing Gate
14. Flag Pole
15. Fuel Tank
16. Track. See Landscape plans for additional details
17. Construct Dry Curb. See sheet C113
18. Construct 12" Wide Concrete Apron
19. Playground Equipment. See Landscape plans for additional details
20. Mill and overlay existing drive
21. Bollard
22. Construct ADA Sidewalk and Ramp. See detail sheet C113

General Notes:

1. Dimensions shown are back of curb.

10' 0' 10' 20'
SCALE : 1 INCH = 10 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120

Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
SCHWEIKERT
NUMBER
PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

DIMENSION PLAN

106A

1

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General Notes:

1. All new water meters shall be located outside on private property, a minimum of one (1) foot inside the property line and five (5) feet from the building in an approved non-hazardous place and accessibility shall be maintained at all times.
2. A lawn irrigation system, yard hydrant or drinking fountain cannot be tapped from inside a meter vault or before the domestic backflow preventer assembly.
3. All water service installations including backflow devices are subject to field verification and approval by the Water Department inspector.
4. Service lines shall have a cover of not less than four (4) feet or more than five (5) feet, unless obstructions require deeper excavation for clearance that is approved by KC Water.
5. Branch service lines two inches and smaller in diameter shall conform to the latest Federal Specifications for Type K flexible copper tubing.
6. KC Water standards for 6" water meter pit.
7. Water and fire service lines must be at least 18" above the top of the other sewer or pipes where crossing. This vertical separation must be maintained for that portion of the service line within 10' horizontally of any sewer line that it crosses. Otherwise, line must be concrete encased.
8. Irrigation line to be tapped after domestic RPZ. A double checked backflow shall be installed on all lawn irrigation service.

Electric Construction Notes:

- (E1) Coordinate connection point with Evergy.
- (E2) Install transformer concrete pad per Evergy standards and requirements.
- (E3) Connect to building stub. See MEP for continuation.

Sanitary Construction Notes

- (S1) Connect to proposed manhole F.L. = 726.01. Install 42.80 LF 6" SDR26 @ 2.0% to S2.
- (S2) Install 6"x6"x6" tee. Install 70.00 LF 6" SDR26 @ 2.0% to S3. Install 92.16 LF 6" SDR26 @ 2.0% to S7.
- (S3) Install 6"x6"x4" tee. Install 15.00 LF 4" SDR26 @ 2.0% to S3.
- (S4) Connect to building stub, F.L. = 728.57.
- (S5) Install 90° bend. Install 15.00 LF 4" SDR26 @ 2.0% to S3.
- (S6) Connect to building stub, F.L. = 729.08.
- (S7) Install 6"x4"x4" tee. Install 70.00 LF 4" SDR26 @ 2.0% to S8. Install 92.16 LF 4" SDR26 @ 2.0% to S9.
- (S8) Connect to building stub, F.L. = 729.72.
- (S9) Install 90° bend. Install 50.49 LF 4" SDR26 @ 2.0% to S10.
- (S10) Connect to buildling stub, F.L. = 730.03.
- (S11) Install cleanout.
- (S12) Adjust top of existing manhole to finish grade.

Water Construction Notes:

- (W1) Connect to 12" water main via 12"x12"x6" cut-in tee, (2) 12" gate valves on main, (1) 6" gate valve on service line, sleeves, and backing block. See KCMO Cut-In Tee Detail. 6" Pipe shall be ductile iron.
- (W2) Install 6" full flow water meter in concrete vault for 6" domestic service line (See detail sheet C118). Construct 5.00 LF 6" ductile iron to W3.
- (W3) Install backflow preventer in concrete vault for 6" domestic service line (See detail sheet C118). Construct 5.00 LF 6" ductile iron to W4.
- (W4) Install 45° bend. Construct 5 LF 6" ductile iron then transition to PVC. Construct 14.29 LF 6" PVC to W5.
- (W5) Install 45° bend. Construct 100.78 LF 6" PVC to W6.
- (W6) Install 22.5° bend. Construct 81.03 LF 6" PVC to W7.
- (W7) Install 11.25° bend. Construct 67.21 LF 6" PVC to W8.
- (W8) Install 6"x6"x6" tee. Construct 193.86 LF 6" PVC to W9.Construct 340.15 LF 6" PVC to F1.
- (W9) Install 90° bend. Construct 24.67 LF 6" PVC to W10.
- (W10) Install 6"x6"x6" tee. Construct 5.00 LF 6" PVC to W11. Construct 4.45 LF 6" PVC to F1.
- (W11) Install 6"x4" reducer. Construct 55.98 LF 4" PVC to W12.
- (W12) Install 4"x4"x3" tee. Construct 8.22 LF 3" PVC to W13. Construct 66.14 LF 4" PVC to W14.
- (W13) Connect to building stub. See MEP for continuation.
- (W14) Install 90° bend. Construct 36.56 LF 4" PVC to W15.
- (W15) Install 90° bend. Construct 3.33 LF 4" PVC to W16.
- (W16) Install 4"x1" reducer. Construct 1.67 LF 1" PVC to W17.
- (W17) Connect to building stub. See MEP for continuation.
- (F1) Fire Hydrant.

Utility Crossing Notes:

- (UC1) Water service and storm sewer Line 200. 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.
- (UC2) Water service and storm sewer Line 100. 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.
- (UC3) Water service and storm sewer Line 300. 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.
- (UC4) Water service and storm sewer line. 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.
- (UC5) Water service and storm sewer line. 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.
- (UC6) Water service and storm sewer . 6" vertical separation required. Concrete encasement of water line required. 10LF centered on storm line.

Roof Drain Notes:

- (R1) Connect to storm Structure 302, F.L. = 733.14. Install 69.63 LF 10" HDPE @ 1.0% to R2. Install 35.28 LF 10" HDPE @ 1.0% to R5.
- (R2) Install 90° bend. Install 39.82 LF 10" HDPE @ 1.0% to R3.
- (R3) Install 10"x10"x10" tee. Install 67.12 LF 10" HDPE @ 1.0% to R4. Install 3.00 LF 10" HDPE @ 1.0% to downspout.
- (R4) Install 90° bend. Install 3.00 LF 10" HDPE @ 1.0% to downspout.
- (R5) Install 10"x10"x10" tee. Install 10.22 LF 10" HDPE @ 1.0% to R6. Install 61.24 LF 10" HDPE @ 1.0% to R9.
- (R6) Install 90° bend. Install 103.74 LF 10" HDPE @ 1.0% to R7.
- (R7) Install 45° bend. Install 20.71 LF 10" HDPE @ 1.0% to R8.
- (R8) Install 45° bend. Install 14.37 LF 10" HDPE @ 1.0% to R13.
- (R9) Install 10"x10"x10" tee. Install 3.00 LF 10" HDPE @ 1.0% to R10.
- (R10) Install 90° bend. Install 110.34 LF 10" HDPE @ 1.0% to R11.
- (R11) Install 90° bend. Install 3.00 LF 10" HDPE @ 1.0% to R12.
- (R11) Install 45° bend. Install 11.18 LF 10" HDPE @ 1.0% to R13.

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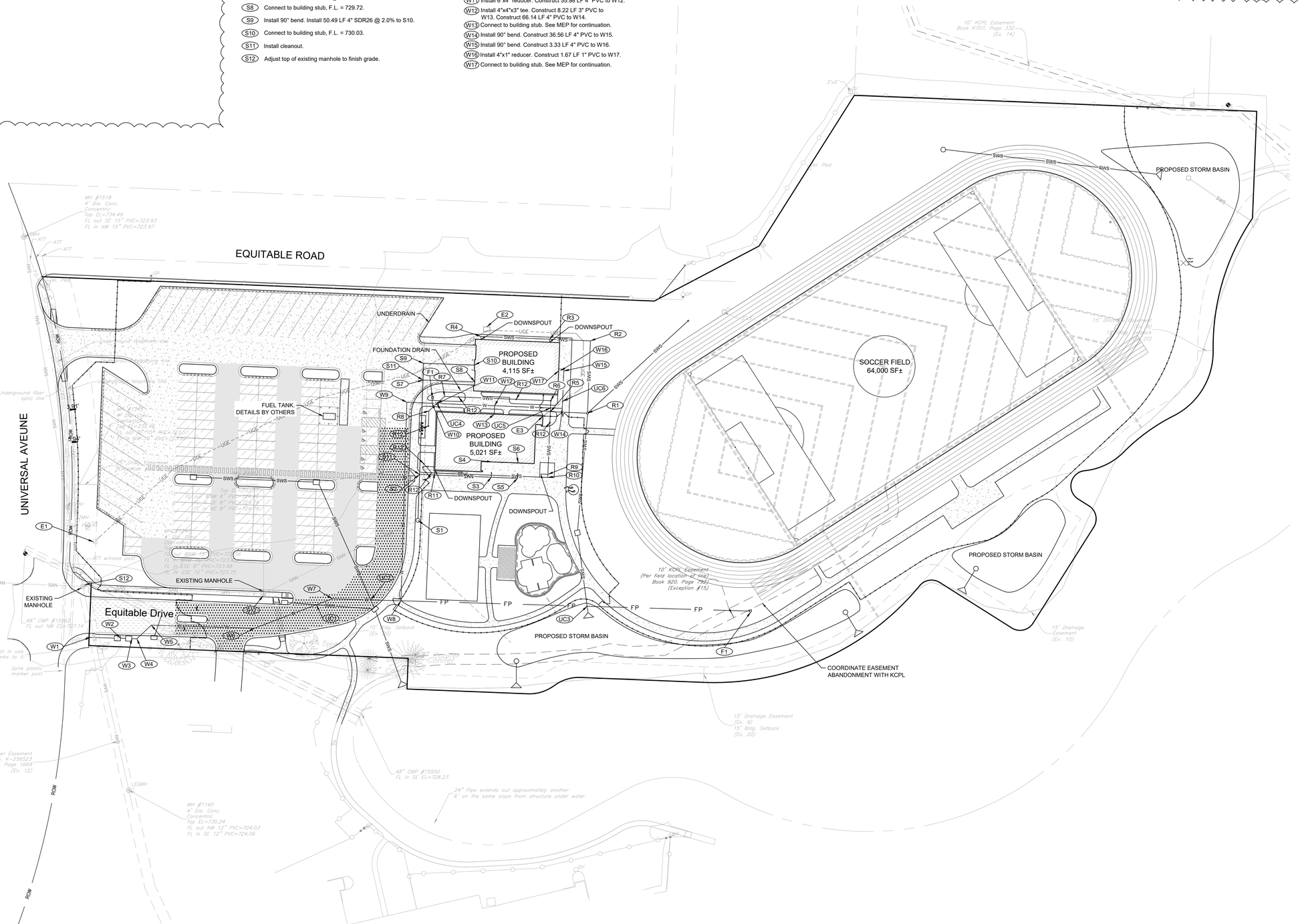

Legend

- Existing Tree
- E.M. Electric Meter
- E.T. Electrical Transformer
- Elec. Ped. Electric Pedestal
- T.P. Telephone Pole
- T.V. Television Vault
- GP Gate Post
- DI Drop Inlet
- JB Junction Box
- C.O. Sanitary Cleanout
- L.P. Light Pole Base
- Y.L. Yard Light
- BM#27 Benchmark
- Sign
- Control Point
- Tel. Ped. Telephone Pedestal
- Centerline
- FO Fiber Optic Line
- Property Line
- ROW Right-of-Way Line
- UGE Proposed Underground Electric
- UGT Existing Underground Telephone
- W Existing Water Line
- W Proposed Water Line
- SWS Existing Storm Line
- SAN Existing Sanitary Sewer Line
- SAN Proposed Sanitary Sewer Line
- FP Proposed Fire Protection Line
- Existing Fenceline
- Proposed Fenceline
- Existing Storm Sewers
- F.H. Fire Hydrant
- W.M. Water Meter
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Proposed Concrete Pavement
- Proposed Building Footprint

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
JOHN M. SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

UTILITY PLAN

C107

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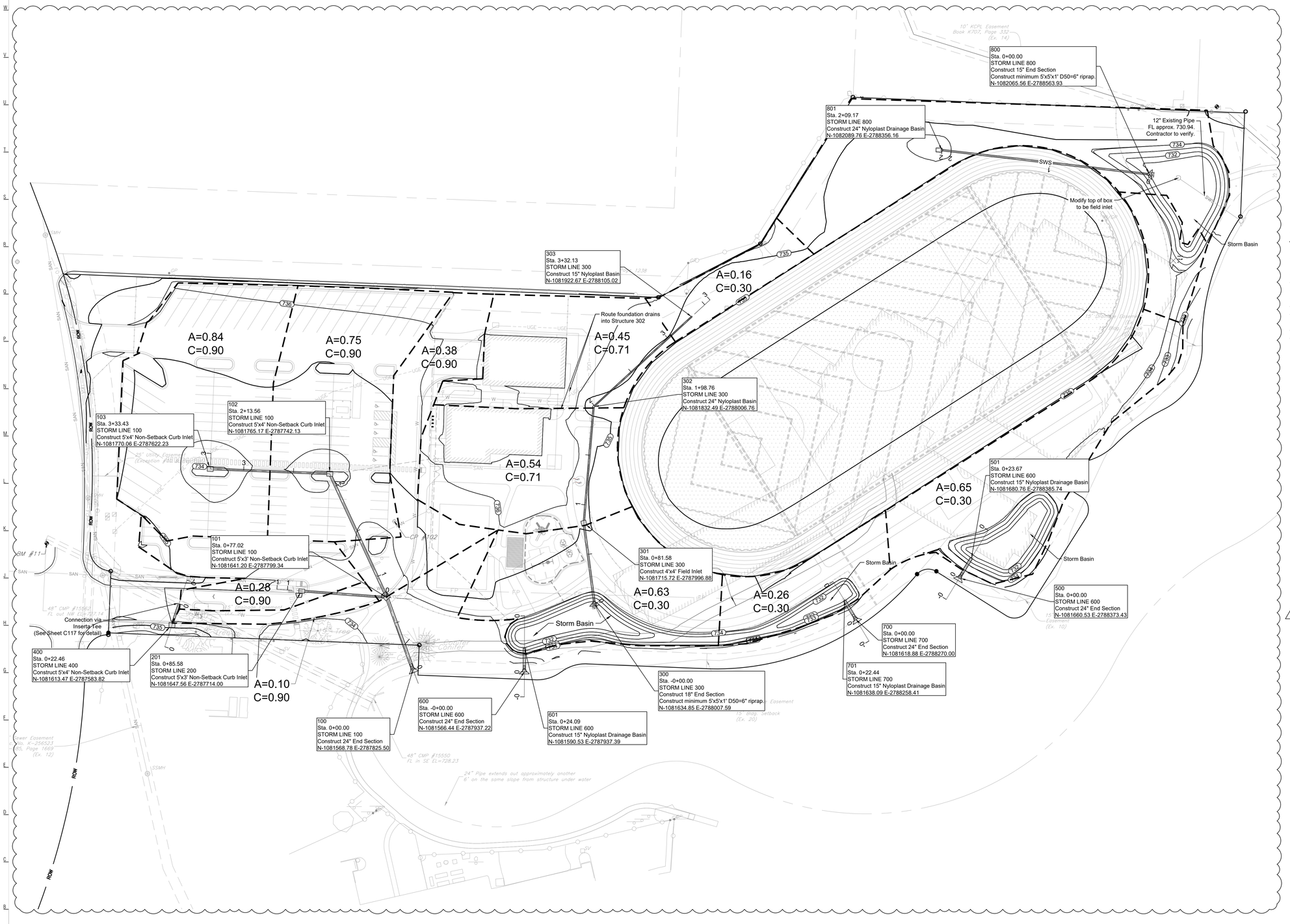

Legend

- Existing Tree
- Electric Meter
- Electrical Transformer
- Electric Pedestal
- Telephone Pole
- Television Vault
- Gate Post
- Drop Inlet
- Junction Box
- Sanitary Cleanout
- Light Pole Base
- Yard Light
- Benchmark
- Sign
- Control Point
- Telephone Pedestal
- Centerline
- Fiber Optic Line
- Property Line
- Right-of-Way Line
- Proposed Underground Electric
- Existing Underground Telephone
- Existing Water Line
- Proposed Water Line
- Existing Storm Line
- Existing Sanitary Sewer Line
- Proposed Sanitary Sewer Line
- Proposed Fire Protection Line
- Existing Fenceline
- Proposed Fenceline
- Drainage Area Boundary
- Existing Storm Sewers
- Fire Hydrant
- Water Meter
- Proposed Drive Lane Asphalt Pavement
- Proposed Car Parking Asphalt Pavement
- Proposed Concrete Pavement
- Proposed Building Footprint

Notes:

1. All storm sewer end sections to be installed with concrete toewall.
2. See sheet C117 for storm sewer details.
3. All tributary areas are in acres.

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.20

Construction Documents

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Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
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NUMBER PE-2023029947
05/18/2026
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STORMWATER PLAN

C108

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25 Year Storm

	Structures		Runoff Calculations									Pipe Design								Design Checks											
	From	To	Direct Area (acre)	Line In (acre)	Total Area (acre)	C	K	Tc (min)	Flow Time (min)	Intensity (in/hr)	Design Q (cfs)	Description	Pipe length (lin ft)	Pipe Slope Slope, %	Pipe dia (in)	Manning's n Value	Q full (cfs)	Pipe Area, sf	V full fps	Design V fps	Hw/D	outlet head, H	HW, Inlet Control, (ft)	HW, Outlet Control, (ft)	Inlet Top Elevation	Upstream flowline	Downstream flowline	Inlet Drop (ft)	Downstream Water Elevation	Hydraulic Grade Elev. (Calculated)	Hydraulic Grade (Allowable)	Comments
Line 100	103		0.84			0.90	1.10	5.00		8.53	7.1	Curb Inlet													734.03					732.79	733.53	
		102			0.84	0.90	1.10	0.00	0.40	10.80	9.0	HDPE	120.00	0.80	18	0.01	12.25	1.77	7.56	5.00	1.4	1.63	732.20	732.79		730.17	729.21		731.17			
	102		0.75			0.90	1.10	5.00		8.53	6.3	Curb Inlet													734.03			0.5		731.17	733.53	Connection to Line 200
		101			1.59	0.90	1.10	0.40	0.46	10.57	16.6	HDPE	136.54	0.80	24	0.01	26.38	3.14	9.18	5.00	1.2	1.49	731.17	730.95		728.71	727.62		729.46			
	101		0.38	0.28		0.90	1.10	5.00		8.53	3.2	Curb Inlet													733.53			0.5		729.46	733.03	
		100			2.25	0.79	1.10	0.86	0.26	10.33	20.1	HDPE	77.00	0.80	30	0.01	47.82	4.91	9.63	5.00	0.9	0.56	729.46	729.26		727.12	726.50		728.70			Connect to Basin
																													728.70		
Line 200	201		0.28			0.90	1.10	5.00		8.53	2.4	Curb Inlet													733.55					729.85	733.05	
		101			0.28	0.90	1.10	5.00	0.29	8.53	2.4	RCP	85.58	1.00	18	0.013	10.53	1.77	5.82	5.00	0.7	0.13	729.85	728.80		728.78	727.92		728.67			
																													728.67		Line 100
Line 300	303		0.16			0.30	1.10	5.00		8.53	0.5	Area Inlet													735.79			0		732.84	735.29	15" Nyloplast Basin
		302			0.16	0.30	1.10	0.00	0.44	10.80	0.6	HDPE	133.36	0.50	12	0.01	3.28	0.79	3.17	5.00	0.7	0.05	732.50	732.84		731.81	731.14		732.78			
	302		0.45			0.71	1.10	5.00		8.53	3.0	Area Inlet													734.70			0		732.78	734.20	24" Nyloplast Basin
		301			0.61	0.60	1.10	0.44	0.39	10.55	4.3	HDPE	117.19	0.80	15	0.01	7.53	1.23	6.33	5.00	1.1	0.89	732.46	732.78		731.14	730.21		731.89			
	301		0.54			0.71	1.10	5.00		8.53	3.6	Area Inlet													735.30			0.25		731.89	734.80	
		300			1.15	0.65	1.10	0.84	0.27	10.34	8.5	HDPE	81.58	0.40	18	0.01	8.66	1.77	5.57	5.00	1.3	1.14	731.89	731.52		729.96	729.63		730.38			Connect to Basin
																													730.38		
Line 400	400		0.07			0.90	1.10	5.00		8.53	0.6	Curb Inlet													734.29			0		728.89	733.79	
		NULL			0.07	0.90	1.10	0.00	0.07	10.80	0.8	RCP	22.46	1.00	18	0.013	10.53	1.77	3.51	5.00	0.7	0.01	728.89	728.41		727.87	727.65		728.40			Tee into Existing 48" Storm Line
																													728.40		
Line 500	501		0.65			0.30	1.10	5.00		8.53	1.8	Area Inlet													732.25					730.93	731.75	15" Nyloplast Basin
		500			0.65	0.30	1.10	5.00	0.08	8.53	1.8	RCP	23.67	0.80	15	0.013	5.79	1.23	4.16	5.00	0.7	0.08	730.93	730.52		730.00	729.81		730.44			Connect to Basin
																													730.44		
Line 600	601		0.63			0.30	1.10	5.00		8.53	1.8	Area Inlet													733.75					730.86	733.25	15" Nyloplast Basin
		600			0.63	0.30	1.10	5.00	0.08	8.53	1.8	RCP	24.09	0.80	24	0.013	20.29	3.14	3.98	5.00	0.7	0.01	730.86	730.32		729.50	729.31		730.31			Connect to Basin
																													730.31		
Line 700	701		0.26			0.30	1.10	5.00		8.53	0.7	Curb Inlet													732.25					731.34	731.75	15" Nyloplast Basin
		700			0.26	0.30	1.10	5.00	0.07	8.53	0.7	RCP	22.44	0.80	24	0.013	20.29	3.14	3.01	5.00	0.7	0.00	731.34	730.82		730.00	729.82		730.82			Connect to Basin
																													730.82		
Line 800	801		0.26			0.30	1.10	5.00		8.53	0.7	Area Inlet													732.25					730.50	731.75	24" Nyloplast Basin
		800			0.26	0.30	1.10	5.00	0.70	8.53	0.7	RCP	209.17	1.00	15	0.013	6.48	1.23	3.01	5.00	0.7	0.07	730.50	728.25		729.65	727.56		728.19			Connect to Basin
																													728.19		

25-YR STORM CALCULATIONS

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
JOSEPH A. SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

STORMWATER CALCULATIONS

108A

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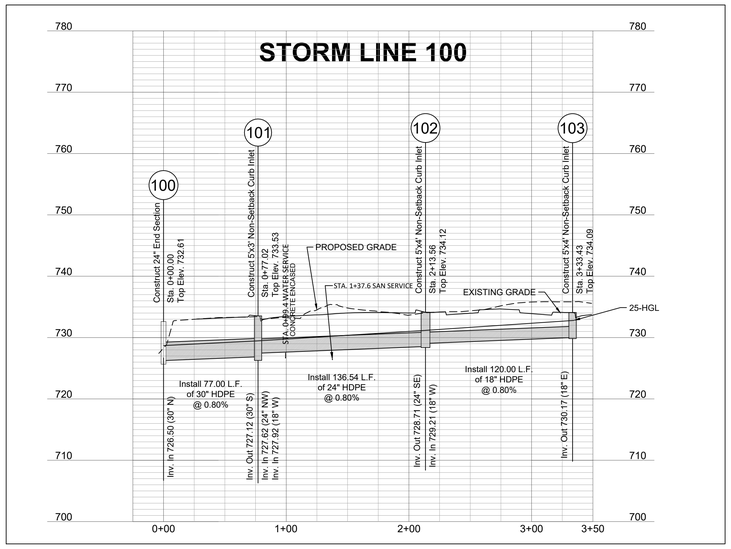

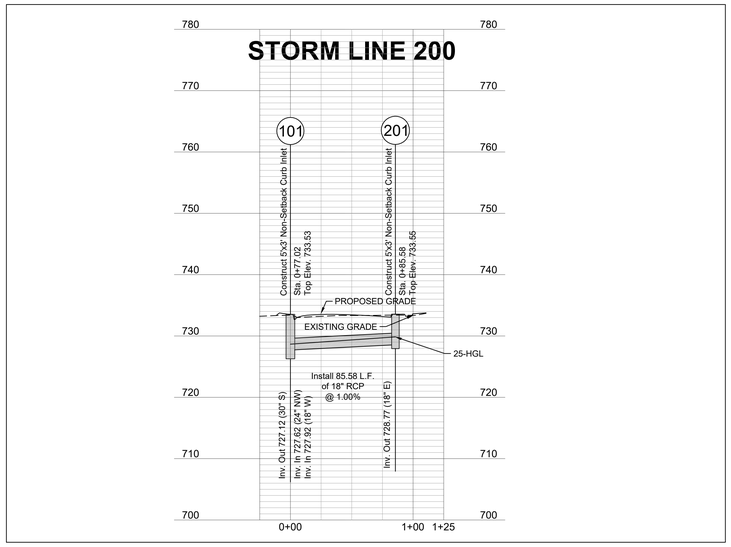

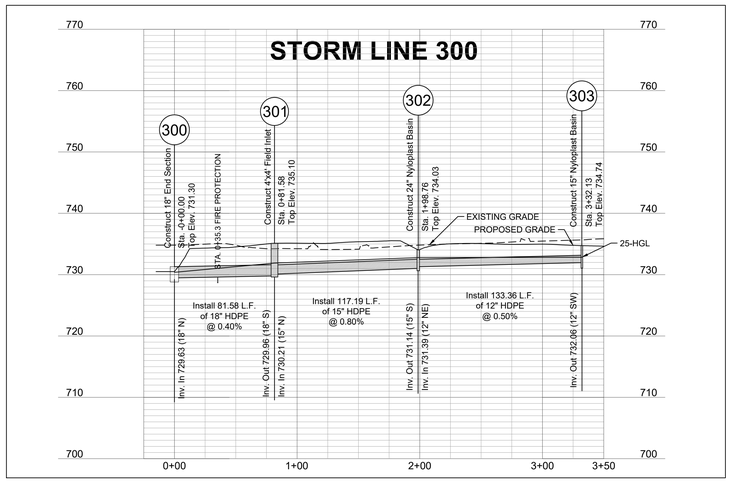

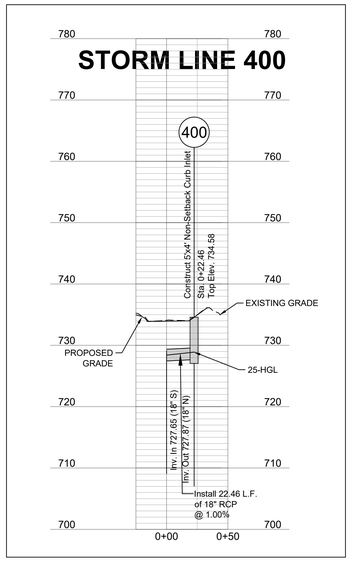

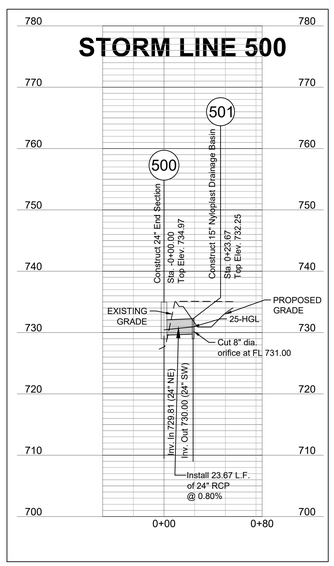

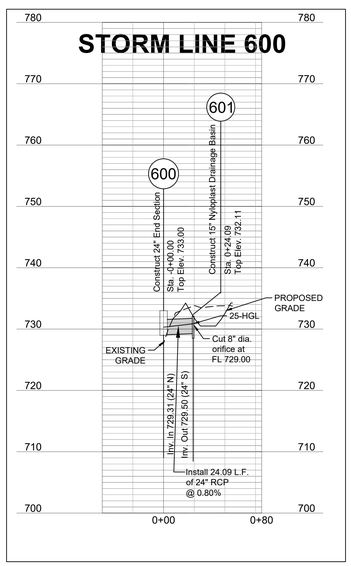

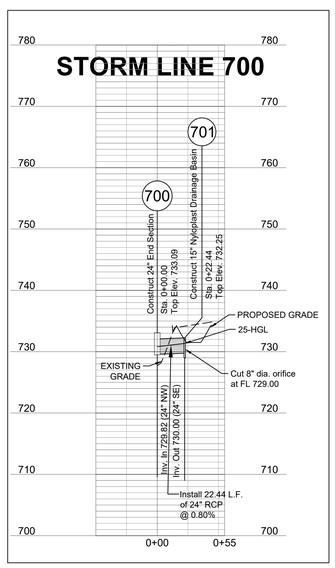

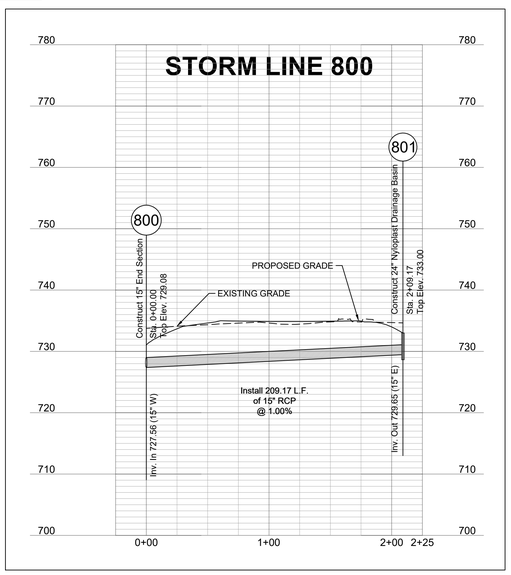

CAUTION!

Numerous Utilities on site. Contractor to verify location and elevation of all utilities prior to commencing construction.

811 Know what's below. Call before you dig.

Missouri One Call System
1-800-344-7483 (DIG-RITE) or 811

Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 10'
10'
5'
0'
0'
50'
100'

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120

Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
SCHWEIKERT
NUMBER
PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

STORMWATER PROFILE

C109

1

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STAGING CHART

	Project Stage	BMP Description	Remove after Stage:	Notes:
Phase I	A. Prior to Land Disturbance	Const. Entrance & Staging Area	B	There are two to be installed as shown on this plan.
		Concrete Washout	B	To be installed prior to pouring any concrete. (to be Coordinated)
		Exterior Silt Fence	B	To be installed prior to any mass grading.
Phase II	B. After Land Disturbance	Interior Silt Fence	C	To be installed after mass grading is complete, storm system installed, and prior to any paving.
		Gravel Filter Bags	C	To be installed after mass grading is complete, storm system installed, and prior to any paving.
Phase III	C. Permanent Stabilization	Seed/landscape all disturbed areas per City specifications to reestablish landscaping matching existing conditions.	N/A	All disturbed areas shall be stabilized matching existing conditions unless otherwise specified.

Notes:

1. Install exterior Silt Fence prior to Grading Operations. Silt Fence is to be maintained throughout construction.
2. Curb inlet gravel filters must be installed prior to grading operations.
3. All disturbed areas shall be seeded with KCMO Mix I.
4. Please refer to KCMO Erosion Control Requirements for Erosion Control Guidelines.
5. Contractor shall adjust erosion/sediment control measures as needed due to site constraints during construction.

Pre-Clearing Plan / Phase 1

Note: All trees noted on tree removal plan shall be removed after perimeter erosion control measures are in place.

Limits of Disturbance = 10.21 AC

CAUTION!
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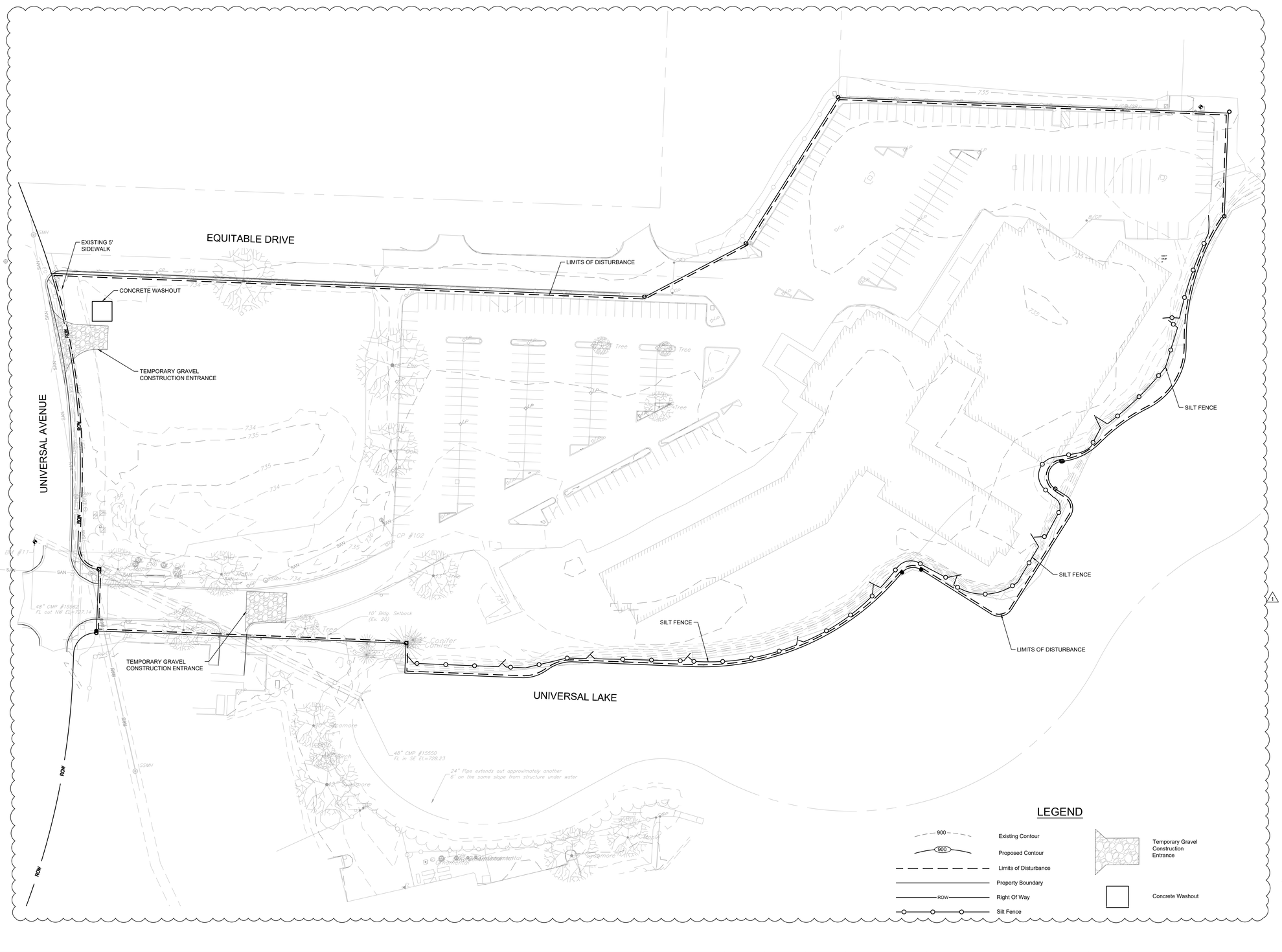

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
JOHN M. SCHWIEKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

EROSION CONTROL INITIAL PHASE

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STAGING CHART

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3. All disturbed areas shall be seeded with KCMO Mix I.
4. Please refer to KCMO Erosion Control Requirements for Erosion Control Guidelines.
5. Contractor shall adjust erosion/sediment control measures as needed due to site constraints during construction.

Phase 2

Note: Install internal Erosion Control Measures as grading and site utility work is completed.

Limits of Disturbance = 10.21 AC
Total Sediment Fence per Phase 1 & Phase 2 = 1500 LF

CAUTION!
Numerous Utilities on site. Contractor to verify location and elevation of all utilities prior to commencing construction.

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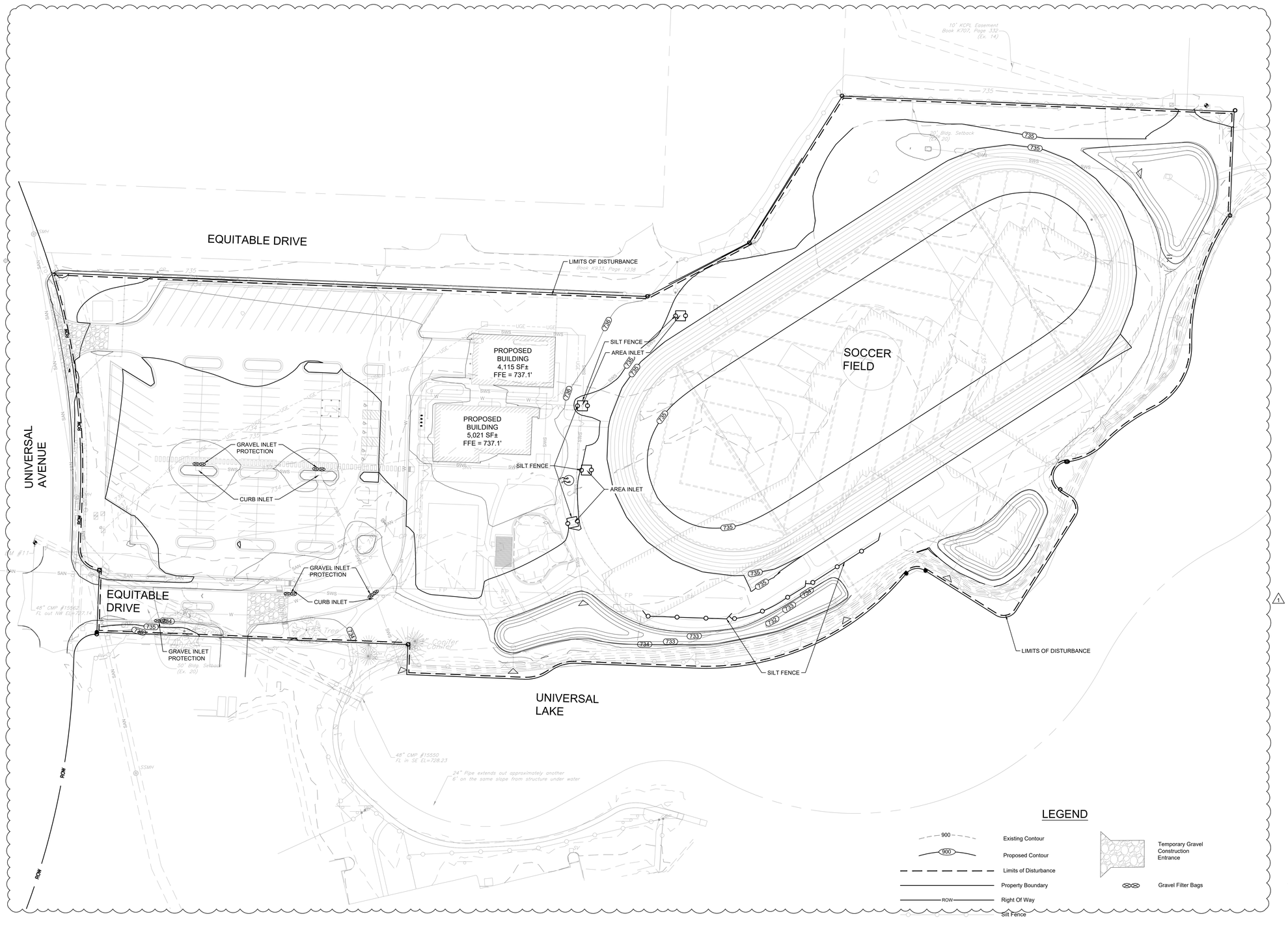

LEGEND

- 900 — Existing Contour
- 900 — Proposed Contour
- Limits of Disturbance
- Property Boundary
- ROW — Right Of Way
- Silt Fence
- Temporary Gravel Construction Entrance
- Gravel Filter Bags

40' 0' 40' 80'
SCALE : 1 INCH = 40 FEET

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Frontier School of Innovation - Athletics Master Plan

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Construction Documents

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STATE OF MISSOURI — Scott A. Schweikert — SCHWEIKERT NUMBER PE-2023029947 — 06/18/2026 — PROFESSIONAL ENGINEER

EROSION CONTROL INTERMEDIATE PHASE

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STAGING CHART

	Project Stage	BMP Description	Remove after Stage:	Notes:
Phase I	A. Prior to Land Disturbance	Const. Entrance & Staging Area	B	There are two to be installed as shown on this plan.
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5. Contractor shall adjust erosion/sediment control measures as needed due to site constraints during construction.

Phase 3

Note: Remove all remaining erosion control with the exception of the erosion control blanket, complete seeding, and final site stabilization.

All Disturbed areas shall be prepped for seeding/sodding per KCMO/APWA 2406, application of seed/sod shall be done in accordance with KCMO/APWA 2406.4. The Site Disturbance permit shall be maintained in an "OPEN" status until final acceptance per KCMO/APWA 2407."

CAUTION!

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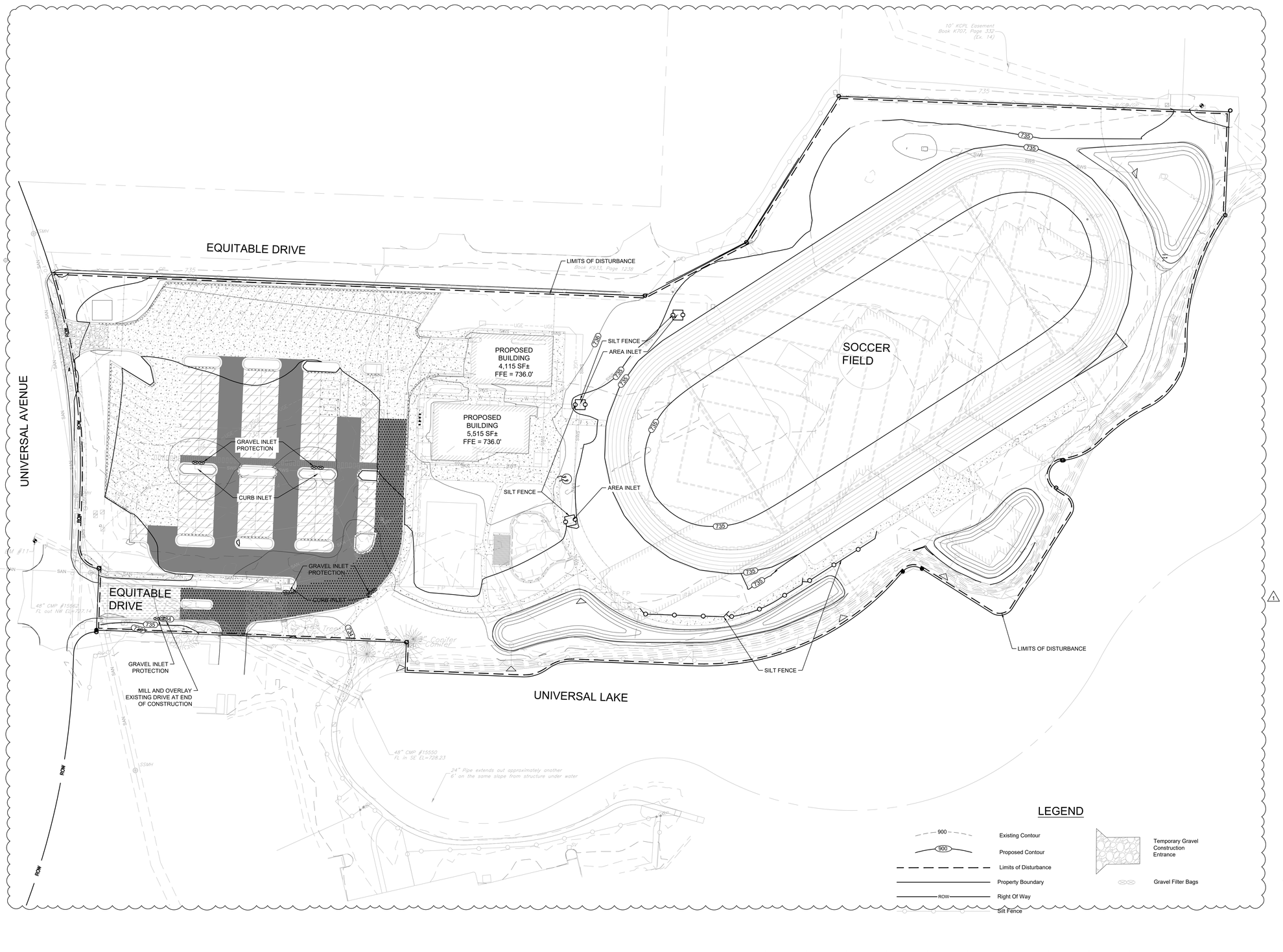

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STATE OF MISSOURI
SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

EROSION CONTROL FINAL PHASE

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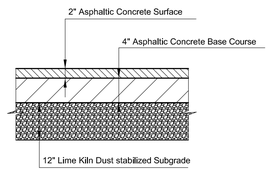
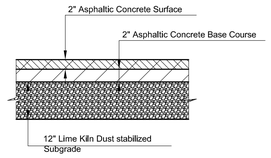


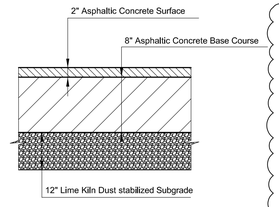
DRIVE LANE ASPHALT PAVEMENT

NOT TO SCALE
Pavement Section to be per geotechnical engineering report



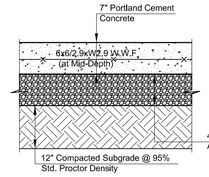
CAR PARKING ASPHALT PAVEMENT

NOT TO SCALE
Pavement Section to be per geotechnical engineering report



HEAVY DUTY ASPHALT PAVEMENT

NOT TO SCALE
Pavement Section estimated for heavy truck traffic

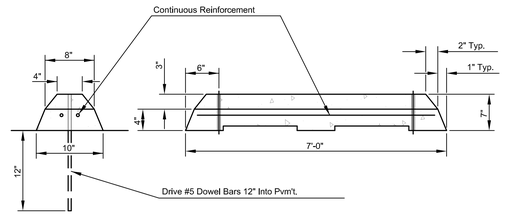


NOTES:
1. All Woven Wire Fabric (W.W.F.) Reinforcement shall be placed on supports.
2. All Concrete Pavement shall be KCMMB-4K. Contractor shall submit mix design to the Engineer prior to any concrete flatwork placement.
3. All pavement sections shall conform to the recommendations outlined in "Geotechnical Engineering Report, Frontier Schools Sports Complex" Dated December 31, 2025.

CONCRETE PAVEMENT

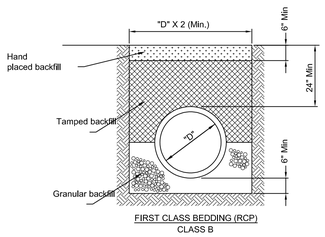
NOT TO SCALE
Pavement Section to be per geotechnical engineering report

1



PRECAST CONCRETE STOP BLOCK

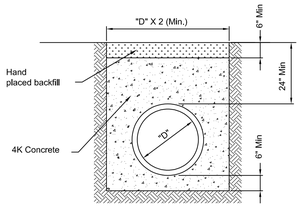
NOT TO SCALE



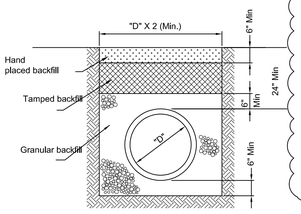
FIRST CLASS BEDDING (RCP)
CLASS B

Pipe Bedding Notes:

1. Granular fill shall be 1/2" clean rock, placed in 6" lifts and compacted by slicing with a shovel.
2. Tamped fill shall be finely divided, job excavated material free of debris, organic material, and stones, and compacted to 95% standard density.
3. Hand placed fill shall be finely divided material, free of debris and stones, and compacted to 95% standard density.
4. Utilities trenches north of the levee critical zone, as shown on this plan, shall be backfilled with utility trench spoils, cohesive soils, or flowable fill.



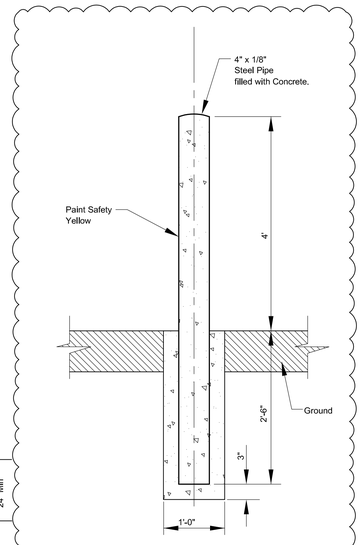
CONCRETE ENCASEMENT
CLASS A



HDPE/PVC PIPE BEDDING
CLASS C

PIPE BEDDING DETAILS

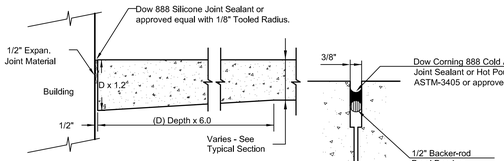
NOT TO SCALE



PIPE BOLLARD IN GROUND

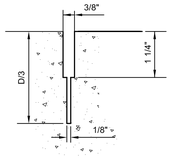
NOT TO SCALE

1



Thickened Edge Isolation Joint

At Building or Structure



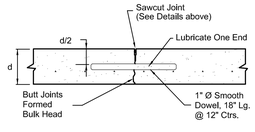
Typical Joint Sealant

Notes: Joints to be equally spaced where not dimensioned as shown hereon. Maximum Joint Spacing shall be 12' Maximum in Either Direction

General Notes:

1. The 1/8" Saw Cut (D/3 Depth) shall be done initially; the 3/8" saw cut shall be accomplished in a separate operation after the concrete has gained sufficient strength to avoid spalling.
2. D = Slab Thickness (Depth)

Typical Sawcut Joint



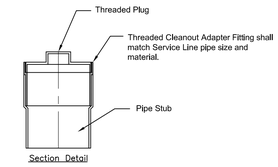
Transverse Contraction Joint

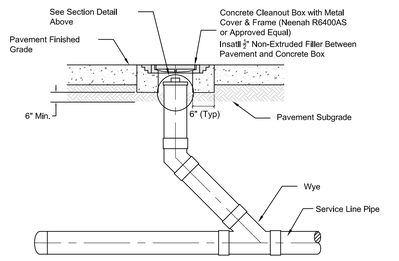
CONCRETE JOINTING DETAILS

NOT TO SCALE

General Notes:

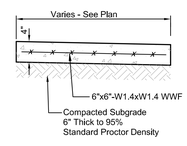
1. All joints and saw cuts shall be sealed using either a hot-pour sealant or a cold applied sealant per these plans.
2. Hot-Pour Sealants shall conform to ASTM D-3405. Material shall be applied in accordance with the manufacturer's recommendations.
3. Silicone joint sealing material shall be cold-applied. Silicone component shall conform to requirement of Federal Specification TT-S1543.
4. Installation of Silicone Sealant shall be per "Installation Guide-Dow Corning Brand Silicone Pavement Sealants" or per manufactures requirements of the approved equal silicone sealant to be used.
5. All Silicone Sealant materials shall be pressure machine applied in accordance with the appropriate sealing material manufacturer's recommendations.
6. d = Depth of Slab
7. Dowel bars called out for lubrication shall be lubricated every other bar on each side of the joint.
8. Reinforcement is not continuous through joints. Woven Wire Fabric shall not be placed within 3" of joint.
9. Cold-applied Sealant shall be 3/8" below surface and minimum 1/2" Thick.
10. Contractor shall submit a jointing plan for concrete loading dock and parking areas to the Engineer/Architect for approval prior to the placement of any site concrete pavements.



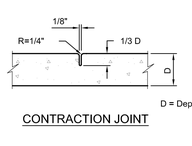


CLEANOUT IN PAVEMENT DETAIL

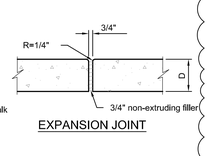
NOT TO SCALE



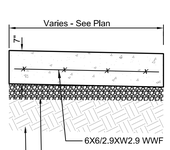
STANDARD SIDEWALK



CONTRACTION JOINT



EXPANSION JOINT



EMERGENCY VEHICLE PATH

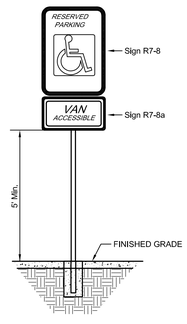
1

Notes:

1. All vertical form expansion and construction joints must fall in groove.
2. Joint spacing 4'-0" center to center or width of sidewalk.
3. Install 3/4" expansion joint where walk abuts junction of existing walk, concrete curb, driveways, and similar structures, and 250' centers maximum.
4. All crushed stone used as aggregate for concrete construction shall be obtained from quarries and beds designated by the Texas Department of Transportation.
5. All Concrete in exterior site work shall be KCMMB-4K.
6. Key all construction joints.

SIDEWALK DETAILS

NOT TO SCALE

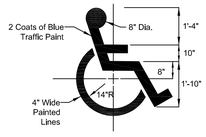


TYPICAL ACCESSIBLE SIGNAGE

NOT TO SCALE

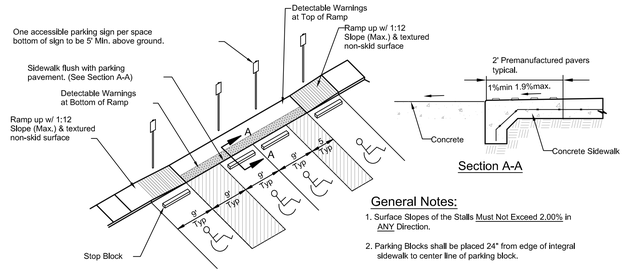
General Notes:

1. Accessible Sign (R7-8) Shall be mounted on a pole or other structure 5'-6" above the parking surface, at the head of the parking space, and shall be at least 12"x18" in area.
2. Supplemental Accessible Sign (R7- 8a) shall be used on all required Van Accessible Spaces.
3. Signs shall be blue with white lettering.



ACCESSIBLE PARKING SYMBOL DETAIL

NOT TO SCALE



Section A-A

General Notes:

1. Surface Slopes of the Stalls Must Not Exceed 2.00% in ANY Direction.
2. Parking Blocks shall be placed 24" from edge of integral sidewalk to center line of parking block.

HANDICAP PARKING RAMP DETAIL

NOT TO SCALE

bnim

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MO State Certificate of Authority #000377

GBA — Civil Engineer
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p.913.492.0400
Certificate of Authority

Bob D. Campbell & Co. — Structural Engineer
4338 Belleview Ave, Kansas City, MO 64111
p.816.531.4144
Certificate of Authority

PKMR Engineers — MEP Engineer
13300 West 98th St, Lenexa, KS 66215
p.913.492.2400
Certificate of Authority

Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave,
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
SCHWEIKERT
NUMBER PE-2023029947
06/18/2026
PROFESSIONAL ENGINEER

CONSTRUCTION DETAILS IV

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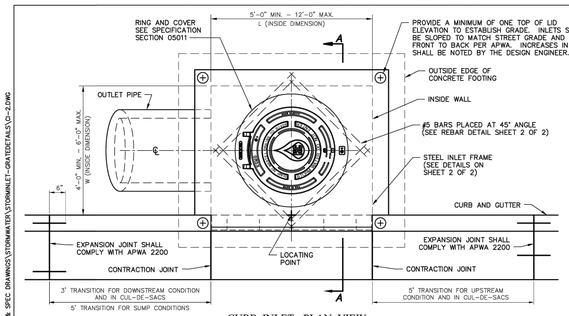
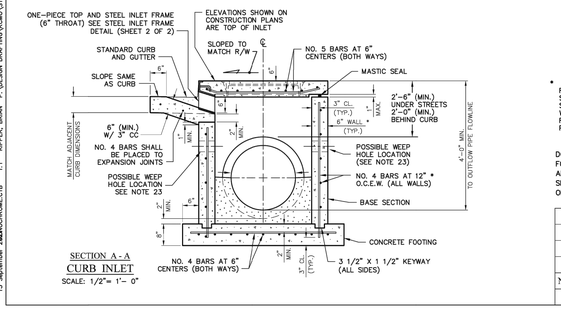


CURB INLET - PLAN VIEW

SCALE: 1/2"= 1'– 0"



SECTION A - A

CURB INLET

SCALE: 1/2"= 1'– 0"

NOTES:

1. ALL WORK SHALL MEET THE REQUIREMENTS OF APWA–KCMO 2600 AS MODIFIED HEREIN.
2. CURB INLET TYPE 2, CI–2, IS NOT ALLOWED WITHIN 30 FEET OF END OF CURB RETURN OR COMMERCIAL DRIVEWAYS. CI–3 SHALL BE USED IN PLACE OF CI–2 UNDER THESE CONDITIONS.
3. INLETS SHALL BE SET LEVEL. PROVIDE CORNER ELEVATIONS TO ESTABLISH GRADE AND SLOPE.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
5. LOCATE RING AND COVER CENTERED OVER OUTLET PIPE WHEN REQUIRED. LOCATE RING AND COVER AT EACH END WHEN INLET IS OVER 11 FEET IN LENGTH.
6. BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
7. STORM SEWER STRUCTURES MAY BE POURED IN PLACE AS APPROVED BY WATER SERVICES. MIX A511 – 3/4 – 2 SHALL BE USED.
8. BOXOUTS SHALL NOT PROJECT THROUGH THE STRUCTURE CORNERS. REINFORCING SHALL BE BENT AROUND PIPE OPENINGS WHEN POSSIBLE. WHEN REINFORCING IS CUT, # 4 DIAGONAL BARS SHALL BE USED TO TIE ALL CUT ENDS TOGETHER.
9. FLOOR OF INLET SHALL BE SHAPED WITH INVERT TO PROVIDE SMOOTH FLOW. MIX NON–SHRINK GROUT ASTM C1107, GRADES B AND C, 4,000 PSI IN 24 HOURS SHALL BE USED.
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD. WELDING OF REINFORCING STEEL WILL NOT BE PERMITTED.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/– 1/8" SHALL BE PERMITTED.
12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
13. ALL CURB INLET TOPS ARE TO INCLUDE STEEL INLET AND FRAME AND ARE TO BE CONSTRUCTED AFTER FINAL CURB LINE HAS BEEN APPROVED BY THE CITY AND PRIOR TO CURB CONSTRUCTION.
14. PIPE CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2 FEET OF THE STRUCTURE, UNLESS SEALED WITH APPROVED FLEXIBLE WATERPROOF GASKETS IN PRECAST OPENINGS. MINIMUM CLEARANCE BETWEEN PIPE BOXOUTS AND BARREL JOINTS IS 8 1/4" WITHOUT SPECIAL DESIGN.
15. BACKFILL AROUND STRUCTURES SHALL BE CLASS II GRANULAR BACKFILL MATERIAL CONFORMING TO ASTM D2321 AND 24" THICK AROUND STRUCTURE.
16. THE STRUCTURE ELEVATION SHOWN ON THE PLANS IS THE TOP SURFACE OVER THE LOCATING POINT.
17. ALL SURFACES CONTACTING SIDE AND BACK OF INLET SHALL MATCH AT TOP EDGE OF LID AT EACH CORNER.
18. FOR DEPTH GREATER THAN 7 FEET AND LESS THAN 10 FEET:
    A. WALLS SHALL BE 8" THICK WITH # 5 VERTICAL BARS AT 5" O.C. AND # 5 HORIZONTAL BARS AT 9" O.C.
    B. BASE SHALL BE 12" THICK WITH # 5 BARS EWTB AT 6" O.C.
19. MASTIC WILL PROVIDE WATER SEAL BETWEEN TOP AND WALL AND BETWEEN JOINTS.
20. ALL CONCRETE SHALL BE 4,000 PSI MINIMUM.
21. THE DESIGN PROFESSIONAL (DP)/ ENGINEER OF RECORD (EOR) FOR THE PROJECT SHALL EVALUATE STRUCTURE FOR WITHSTANDING PRESSURE AND BUOYANCY IN AREAS WITH POTENTIAL FOR HIGH GROUND WATER AND RECOMMEND CHANGES ACCORDINGLY. BASE EXTENSIONS SHALL BE PROVIDED WHEN SPECIFIED BY THE DP/ EOR FOR THE PROJECT.
22. A 1/2" JOINT FILLER SHALL BE PLACED BETWEEN ADJOINING CONCRETE SURFACES AND INLET.
23. INLETS IN SUMP CONDITION OR PER DP/ EOR RECOMMENDATION SHALL HAVE A MINIMUM OF ONE 4" DRAIN OPENING LOCATED A MINIMUM OF 6" BELOW THROAT. LOCATION OF DRAIN(S) TO BE DETERMINED BY DP/ EOR. 4" DRAIN OPENING(S) SHALL BE COVERED WITH AN APPROVED 1/4" GALVANIZED SCREEN AND FILTER FABRIC PRIOR TO PLACEMENT OF 3/8" CLEAN ROCK, A MINIMUM OF 15" IN ALL DIRECTIONS.

* IF THERE ARE PROJECTS THAT REQUIRE ADDED STRUCTURAL SUPPORT, THE DESIGNER OF RECORD SHALL BE REQUIRED TO DESIGN THE WALL THICKNESS AND STEEL REQUIREMENTS AS NECESSARY WITH PRIOR APPROVAL FROM KCMO.

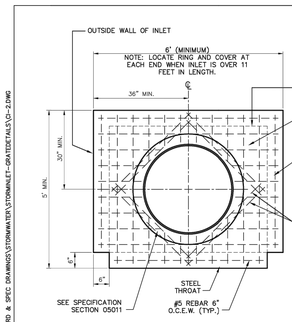
DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY PRIOR TO CONSTRUCTION.

NO.	DATE	BY	NATURE
			REVISIONS

CURB INLET
FLUSH - TYPE DETAILS

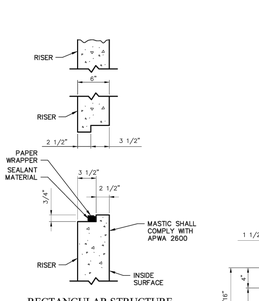
WATER SERVICES
CITY OF KANSAS CITY, MISSOURI
DRAWING NO. CI - 2
DEVELOPED BY: STORMWATER STANDARDS
APPROVED BY:
DATE: 9/13/2021

1 OF 2



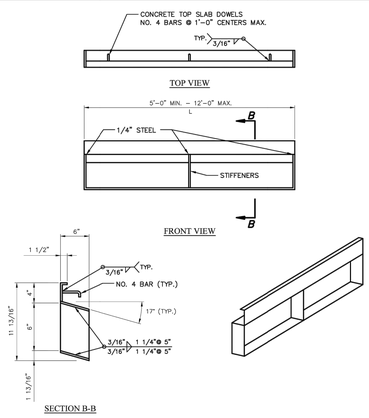
REBAR DETAIL OF TOP SLAB - PLAN VIEW

NOT TO SCALE



RECTANGULAR STRUCTURE
6" WALLS
OPEN JOINT DETAIL

NOT TO SCALE

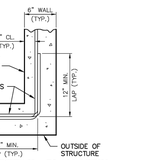


STEEL INLET FRAME DETAIL

NOT TO SCALE

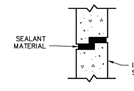
STEEL INLET FRAME NOTES:

1. ALL WELDS SHALL BE PREFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED SURFACE.
3. THE ENTIRE FRAME SHALL BE GALVANIZED PER ASTM A–123.
4. STEEL INLET FRAME STIFFENERS SHALL BE AT EQUAL INTERVALS NOT TO EXCEED 4'–0".



WALL CORNER DETAIL - PLAN VIEW

NOT TO SCALE



RECTANGULAR STRUCTURE
CLOSED JOINT DETAIL

NOT TO SCALE

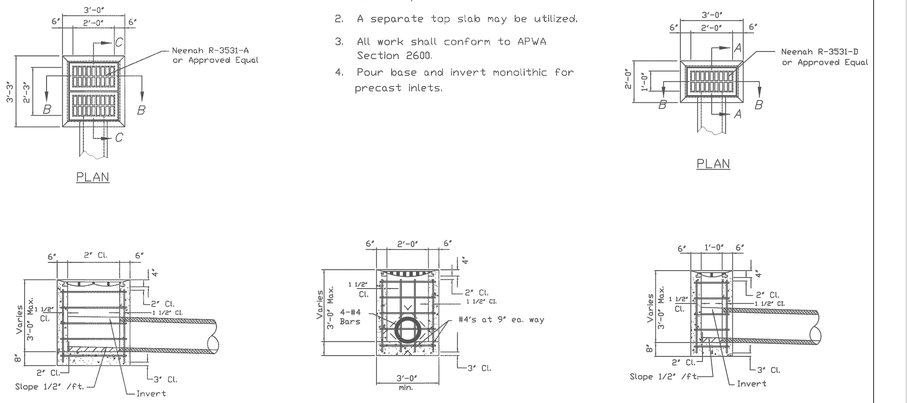
DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY PRIOR TO CONSTRUCTION.

NO.	DATE	BY	NATURE
			REVISIONS

CURB INLET
FLUSH - TYPE DETAILS

WATER SERVICES
CITY OF KANSAS CITY, MISSOURI
DRAWING NO. CI - 2
DEVELOPED BY: STORMWATER STANDARDS
APPROVED BY:
DATE: 9/13/2021

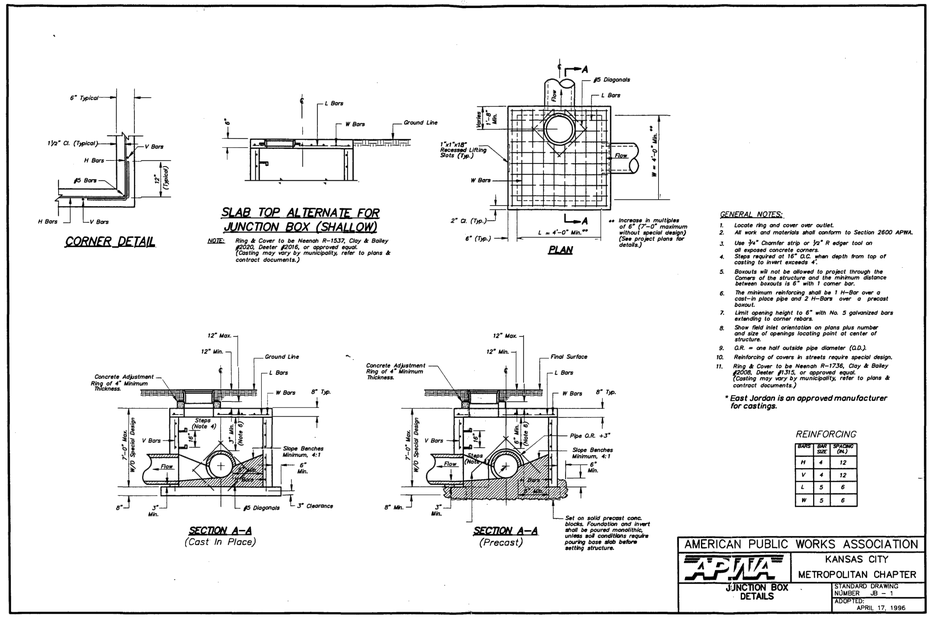
2 OF 2



DOUBLE GRATE INLET DETAILS

SINGLE GRATE INLET DETAILS

KANSAS CITY, MISSOURI PUBLIC WORKS DEPARTMENT	
GRATE INLET DETAILS	STANDARD DRAWING NUMBER GI-100 REVISED JULY 1, 2007



AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
JUNCTION BOX DETAILS	STANDARD DRAWING NUMBER JB – 1 ADOPTED: APRIL 17, 1996

bnim

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MO State Certificate of Authority #000377

GBA — Civil Engineer
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p.913.492.0400
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Bob D. Campbell & Co. — Structural Engineer
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Certificate of Authority

PKMR Engineers — MEP Engineer
13300 West 98th St, Lenexa, KS 66215
p.913.492.2400
Certificate of Authority

Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI
BRIAN SCHWEIKERT
NUMBER PE-2023029947
06/10/2026
PROFESSIONAL ENGINEER

STORM SEWER DETAILS

C117

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13 September 2021 — 1:1 — K:\PPEL, BRIAN P:\DESIGN DRAFTING\KCMO\STANDARDS & SPEC DRAWINGS\STORMWATER\STORMINLET-GRATEDETAILS\CI-2.DWG
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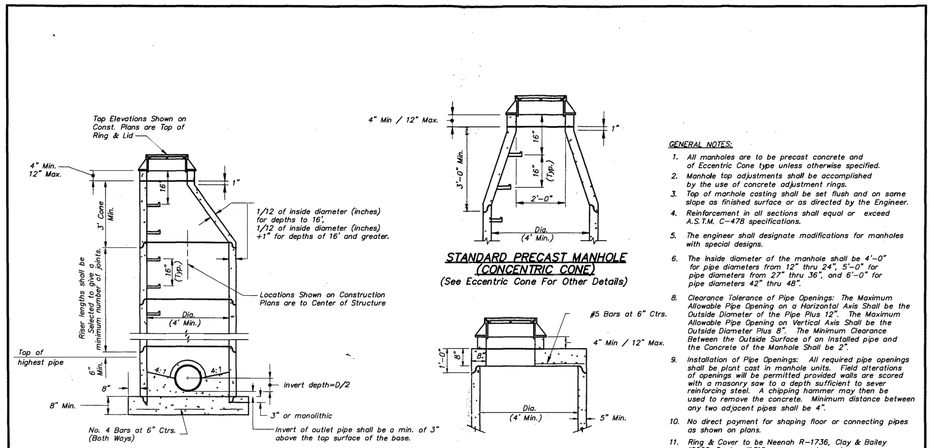


STANDARD PRECAST MANHOLE (ECCENTRIC CONE)

STANDARD PRECAST MANHOLE (CONCENTRIC CONE)
(See Eccentric Cone For Other Details)

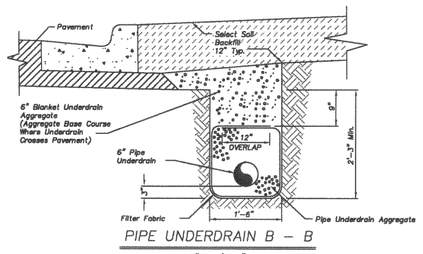
STANDARD PRECAST MANHOLE (SHALLOW TYPE)
(See Eccentric Cone For Other Details)

GENERAL NOTES:

1. All manholes are to be precast concrete and of Eccentric Cone type unless otherwise specified.
2. Manhole top adjustments shall be accomplished by the use of concrete adjustment rings.
3. Top of manhole casting shall be set flush and on same slope as finished surface or as directed by the Engineer.
4. Reinforcement in all sections shall equal or exceed A.S.T.M. C-478 specifications.
5. The engineer shall designate modifications for manholes with special designs.
6. The inside diameter of the manhole shall be 4'-0" for pipe diameters from 12" thru 24", 5'-0" for pipe diameters from 27" thru 36", and 6'-0" for pipe diameters 42" thru 48".
8. Clearance Tolerance of Pipe Openings: The Maximum Allowable Pipe Opening on a Horizontal Axis Shall be the Outside Diameter of the Pipe Plus 12". The Maximum Allowable Pipe Opening on Vertical Axis Shall be the Outside Diameter Plus 8". The Minimum Clearance Between the Outside Surface of an Installed pipe and the Concrete of the Manhole Shall be 2".
9. Installation of Pipe Openings: All required pipe openings shall be plant cast in manhole units. Field alterations of openings will be permitted provided walls are scored with a masonry saw to a depth sufficient to sever reinforcing steel. A chipping hammer may then be used to remove the concrete. Minimum distance between any two adjacent pipes shall be 4".
10. No direct payment for shaping floor or connecting pipes as shown on plans.
11. Ring & Cover to be Neenah R-1736, Clay & Bailey #2008, Deeter #1316, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)
12. Sanitary Sewers shall be coated and conform to Section 2600.

* East Jordan is an approved manufacturer for casting.

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
MANHOLE DETAILS	STANDARD DRAWING NUMBER MH — 1 ADOPTED: APRIL 17, 1996.

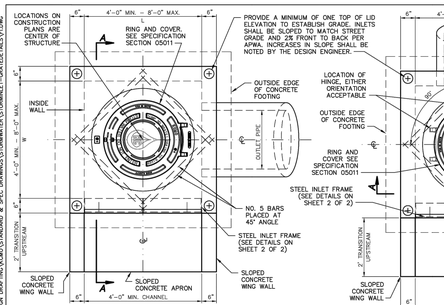


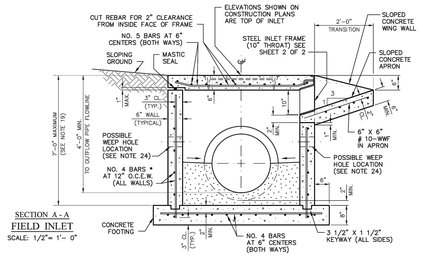
PIPE UNDERDRAIN B – B

SCALE: 1" = 1'– 0"

Underdrain Notes:

1. All roadway excavation in rock will be undercut no less than 15" for the full width of the roadway as shown.
2. In areas where underdrains are not required, undercut and overbreakage in limestone and shale shall be brought to within 6" of the subgrade line with properly compacted crushed stone, shot rock, and/or rock rubble. The remaining 6" shall conform to Standard Specifications Section 2202.
3. Layers of earth or shale shall not be permitted for backfill up to the bottom of the crushed stone.
4. A minimum of 12" of select soil (topsoil) shall be placed on exposed rock cut or fill slopes outside the limits of the roadway. All rock and shale slopes shall be benched @ maximum 2' vertical intervals prior to placement of select soil.
5. Proposed underdrain pipe layout, flowline elevations, inlet connection points, and details shall be approved prior to construction by the City Engineer.
6. Where pipe underdrains are used, all underdrain outlet pipes shall be solid wall with watertight joints. All outlet pipes shall be tied into the nearest storm sewer inlet as approved. Where edge underdrains are used, all underdrain outlet pipes shall be solid wall with manufacturer joints approved by the City Engineer. All connections between pipes and edge connectors or curb inlets shall be made with 2' minimum length of pipe.
7. All underdrain pipes shall be installed at a minimum slope of 1% Underdrain pipe shall be installed with the perforations placed down.
8. Blanket underdrains shall be placed on bedrock unless otherwise directed by the City Engineer. Undercut and overbreakage in limestone and shale shall be brought to within 12" of the subgrade line with properly compacted crushed stone, shot rock and/or rock rubble.
9. All filter fabric used for pipe underdrain construction shall conform to Standard Specifications Section 2203.6.
10. The Contractor may, at his option, use either pipe underdrain or edge underdrain, but shall not mix underdrain types within any underdrain system.
11. All edge underdrain shall be held in the center of the trench by mechanical methods while placing granular backfill. See detail this sheet. Alternate methods may be used with prior approval by the City Engineer.
12. Blanket underdrain aggregate, pipe underdrain aggregate, pipe underdrain, edge underdrain and outlet pipe shall conform to Standard Specifications Section 2203.6





* IF THERE ARE PROJECTS THAT REQUIRE ADDED STRUCTURAL SUPPORT, THE DESIGNER OF RECORD SHALL BE REQUIRED TO DESIGN THE WALL THICKNESS AND STEEL REQUIREMENTS AS NECESSARY WITH PRIOR APPROVAL FROM KCMO.

DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY PRIOR TO CONSTRUCTION.

NOTES:

1. ALL WORK SHALL MEET THE REQUIREMENTS OF APWA–KCMO 2600 AS MODIFIED HEREIN.
2. FIELD INLET, FI, FOR USE IN OFF–STREET APPLICATIONS IN INDUSTRIAL AREAS.
3. INLETS SHALL BE SET LEVEL. PROVIDE CORNER ELEVATIONS TO ESTABLISH GRADE AND SLOPE.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
5. LOCATE RING AND COVER CENTERED OVER OUTLET PIPE WHEN REQUIRED. LOCATE RING AND COVER AT EACH END WHEN INLET IS OVER 11 FEET IN LENGTH.
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9. FLOOR OF INLET SHALL BE SHAPED WITH INVERT TO PROVIDE SMOOTH FLOW. MIX NON–SHRINK GROUT ASTM C1107, GRADES B AND C, 4,000 PSI IN 24 HOURS SHALL BE USED.
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD. WELDING OF REINFORCING STEEL WILL NOT BE PERMITTED.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/– 1/8" SHALL BE PERMITTED.
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14. PIPE CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2 FEET OF THE STRUCTURE, UNLESS SEALED WITH APPROVED FLEXIBLE WATERPROOF GASKETS IN PRECAST OPENINGS. MINIMUM CLEARANCE BETWEEN PIPE BOXOUTS AND BARREL JOINTS IS 8 1/4" WITHOUT SPECIAL DESIGN.
15. BACKFILL AROUND STRUCTURES SHALL BE CLASS II GRANULAR BACKFILL MATERIAL CONFORMING TO ASTM D2321 AND 24" THICK AROUND STRUCTURE. THE STRUCTURE ELEVATION SHOWN ON THE PLANS IS THE TOP SURFACE OVER THE LOCATING POINT.
16. ALL SURFACES CONTACTING NON–OPEN SIDE AND/OR BACK OF INLET SHALL MATCH 4" BELOW EDGE OF LID AT EACH CORNER.
17. APRON SHALL HAVE TOE WALL WHEN VELOCITY OF FLOW MEETS OR EXCEEDS 7 FT./SEC.
18. FOR DEPTH GREATER THAN 7 FEET AND LESS THAN 10 FEET:
    A. WALLS SHALL BE 8" THICK WITH # 5 VERTICAL BARS AT 9" O.C. AND # 5 HORIZONTAL BARS AT 12" O.C.
    B. BASE SHALL BE 12" THICK WITH # 5 BARS EWTB AT 6" O.C.
19. MASTIC WILL PROVIDE WATER SEAL BETWEEN TOP AND WALL AND BETWEEN JOINTS.
20. ALL CONCRETE SHALL BE 4,000 PSI MINIMUM.
21. THE DESIGN PROFESSIONAL (DP)/ ENGINEER OF RECORD (EOR) FOR THE PROJECT SHALL EVALUATE STRUCTURE FOR WITHSTANDING PRESSURE AND BUOYANCY IN AREAS WITH POTENTIAL FOR HIGH GROUND WATER AND RECOMMEND CHANGES ACCORDINGLY. BASE EXTENSIONS SHALL BE PROVIDED WHEN SPECIFIED BY THE DP/ EOR FOR THE PROJECT.
22. A 1/2" JOINT FILLER SHALL BE PLACED BETWEEN ADJOINING CONCRETE SURFACES AND INLET.
23. INLETS IN SUMP CONDITION OR PER DP/ EOR RECOMMENDATION SHALL HAVE A MINIMUM OF ONE 4" DRAIN OPENING LOCATED A MINIMUM OF 6" BELOW THROAT. LOCATION OF DRAIN(S) TO BE DETERMINED BY DP/ EOR. 4" DRAIN OPENING(S) SHALL BE COVERED WITH AN APPROVED 1/4" GALVANIZED SCREEN AND FILTER FABRIC PRIOR TO PLACEMENT OF 3/8" CLEAN ROCK, A MINIMUM OF 15" IN ALL DIRECTIONS.
24. INLETS IN SUMP CONDITION OR PER DP/ EOR RECOMMENDATION SHALL HAVE A MINIMUM OF ONE 4" DRAIN OPENING LOCATED A MINIMUM OF 6" BELOW THROAT. LOCATION OF DRAIN(S) TO BE DETERMINED BY DP/ EOR. 4" DRAIN OPENING(S) SHALL BE COVERED WITH AN APPROVED 1/4" GALVANIZED SCREEN AND FILTER FABRIC PRIOR TO PLACEMENT OF 3/8" CLEAN ROCK, A MINIMUM OF 15" IN ALL DIRECTIONS.

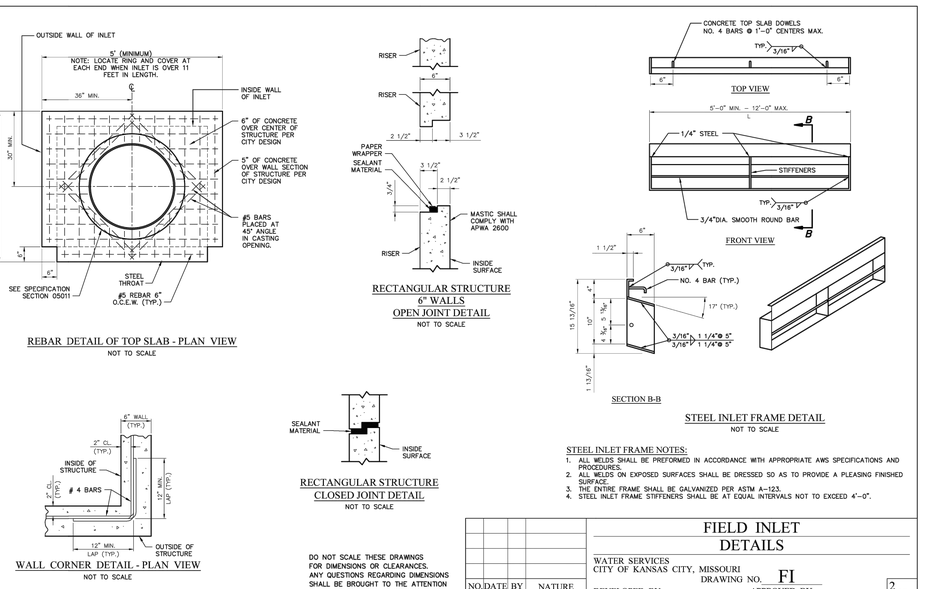
NO.	DATE	BY	NATURE
REVISIONS			

FIELD INLET DETAILS

WATER SERVICES
CITY OF KANSAS CITY, MISSOURI
DRAWING NO. FI

DEVELOPED BY: STORMWATER STANDARDS
APPROVED BY:
DATE: 1/18/2022

1 OF 2



STEEL INLET FRAME NOTES:

1. ALL WELDS SHALL BE PREFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED SURFACE.
3. THE ENTIRE FRAME SHALL BE GALVANIZED PER ASTM A–123.
4. STEEL INLET FRAME STIFFENERS SHALL BE AT EQUAL INTERVALS NOT TO EXCEED 4'–0".

DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CITY PRIOR TO CONSTRUCTION.

NO.	DATE	BY	NATURE
REVISIONS			

FIELD INLET DETAILS

WATER SERVICES
CITY OF KANSAS CITY, MISSOURI
DRAWING NO. FI

DEVELOPED BY: STORMWATER STANDARDS
APPROVED BY:
DATE: 1/18/2022

2 OF 2

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01. 2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI — Joseph Schweikert — SCHWEIKERT NUMBER PE-2023029947 — 06/18/2026 — PROFESSIONAL ENGINEER

STORM SEWER DETAILS

117A

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18 January 2023 NONCHROME.CTB 1:1 APPEL, BRIAN \\WES-TRTDN1\PLANNING\DESIGN DRAFTING\CKWD\STANDARD & SPEC DRAWINGS\STORMWATER\STORMLET-GRATE\ETAILS\FI.DWG
18 January 2023 NONCHROME.CTB 1:1 APPEL, BRIAN \\WES-TRTDN1\PLANNING\DESIGN DRAFTING\CKWD\STANDARD & SPEC DRAWINGS\STORMWATER\STORMLET-GRATE\ETAILS\FI.DWG

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GENERAL NOTES:

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF KANSAS CITY, MO, IN CURRENT USAGE AND ALL SUPPLEMENTS THERE TO UNLESS OTHERWISE NOTED.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY OWNER AND CITY.
3. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION, AND SHALL CLEAN WALKS AND STREETS OF MUD AND DEBRIS WITHIN 12 HOURS OF ANY OPERATION THAT CAUSES WALKS AND DRIVES TO BECOME DIRTY. EROSION CONTROL SHALL BE IN ACCORDANCE WITH CAMPUS STANDARDS, AND NPDES AND PPP REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SWPPP.
4. TRAFFIC CONTROL AND MAINTENANCE OF TRAFFIC DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED PER REQUIREMENTS OF MISSOURI STATE UNIVERSITY AND PUBLIC WORKS DEPARTMENT.
5. THE CONTRACTOR SHALL BEGIN WORK ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.
6. LIMIT OF WORK: THE L.O.W. LINE REPRESENTS THE APPROXIMATE LIMIT OF WORK. THE LIMIT OF WORK LINE SHALL BE AT THE LIMIT NECESSARY FOR IMPROVEMENTS AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOT DO ANY WORK BEYOND THE LIMIT OF WORK LINE AS DEFINED ON THE DRAWINGS AND AUTHORIZED BY THE RESPECTIVE AUTHORITY. IN SOME AREAS, THE LIMIT OF WORK LINE IS GRAPHICALLY LOCATED TO ALLOW FOR THE DRAWINGS TO CLEARLY AND LEGIBLY DESCRIBE WORK TO BE PERFORMED. THE CONTRACTOR SHALL UTILIZE ONLY THAT SPACE WHICH IS REQUIRED TO PERFORM THE WORK AS APPROVED BY THE CONSTRUCTION MANAGER. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR THE COST INCURRED DUE TO REPLACEMENT FOR WORK DONE BEYOND THE LIMIT OF WORK LINE AND REPLACEMENT FOR WORK DONE WITHOUT PERMISSION OF THE OWNER.
7. WHERE NEW PAVEMENT IS CALLED FOR, PROVIDE AN EXPANSION JOINT AROUND ALL EXISTING UTILITIES, MANHOLES, STRUCTURES, AND EXISTING PAVEMENT, ETC.
8. ALL MANHOLES, CATCH BASINS, UTILITY VALVES, METER PITS, CURB BOXES, AND OTHER SIMILAR ITEMS IN CONSTRUCTION AREA TO BE ADJUSTED OR REBUILT TO FINAL GRADE AS REQUIRED. PROVIDE NEW MANHOLE RINGS AS REQUIRED.
9. EXACT LOCATIONS OF SITE AMENITIES, FURNISHINGS AND SIGNAGE TO BE DETERMINED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. LOCATIONS SHOWN ARE GENERAL ONLY.
10. IF FIELD CONDITIONS DICTATE THAT JOINT PATTERNS VARY FROM JOINT LOCATIONS SHOWN ON PLANS, ENLARGED PLANS AND DETAILS, CONSULT LANDSCAPE ARCHITECT / ENGINEER BEFORE POURING CONCRETE IN THESE AREAS.
11. SIDEWALKS SHALL BE CONSTRUCTED FLUSH WITH ADJACENT DRIVEWAYS TO PROVIDE CONTINUOUS WHEELCHAIR ACCESS.
12. CONSTRUCT SIDEWALK PAVEMENTS FLUSH WITH TOP OF CURB.
13. TOP OF PAVEMENT ELEVATION OF ALL NEW FINISH PAVEMENT ADJACENT TO EXISTING PAVEMENTS SHALL PROVIDE A FLUSH TRANSITION.
14. DESIGN DOCUMENTS HAVE BEEN PREPARED DESCRIBING GENERAL REQUIREMENTS FOR WORK AT THE EXISTING SITE. IDENTIFICATION OF EXISTING CONDITIONS, SHOWN ON THE PLANS, IS BASED ON A GENERAL REVIEW OF EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
15. THE CONTRACTOR SHALL VERIFY ALL LAYOUT DIMENSIONS AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION.
16. CONTRACTOR SHALL COORDINATE THE WORK WITH THE INSTALLATION OF ALL EQUIPMENT/TRADES SHOWN ON THE PLANS.
17. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS.
18. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
19. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY AND PRIVATE COMPANY RECORDS AND ARE APPROXIMATE ONLY. THEY DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
20. SLOPES FOR ACCESSIBLE PATHS SHALL MEET THE FOLLOWING: MAXIMUM CROSS SLOPE: 1.5% (1:50) MAXIMUM SLOPE IN DIRECTION OF TRAVEL (EXCEPT CURB CUT RAMPS): 5% (1:20) MAXIMUM SLOPE AT CURB CUT RAMPS: 8% (1:12) MINIMUM SLOPE: 0.5% (1:20) MAXIMUM SLOPE FOR NON-ACCESSIBLE PATH.
21. PRIOR TO CONSTRUCTION THE CONTRACTOR MUST STAKE THE IMPROVEMENTS AND WALK THE PROPOSED SITE WITH THE OWNER, ENGINEER, AND LANDSCAPE ARCHITECT. THE LAYOUT MAY BE MODIFIED AT THE REQUEST OF THE OWNER/DESIGNER TO AVOID TREES AND OTHER SUBSTANTIAL FEATURES. DURING CONSTRUCTION THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE AT NO COST TO OWNER.
22. AN INSPECTION FOR ACCEPTANCE OF THE WORK SHALL BE HELD AT THE TURN-OVER DATE PER THE CONSTRUCTION PROJECT MANAGER OF THE OWNER. ANY WORK DEEMED UNACCEPTABLE SHALL BE CORRECTED IMMEDIATELY AND RE-INSPECTED AS SCHEDULED.
23. ALL LAYOUTS SHALL BE SUBJECT TO FIELD APPROVAL BY THE OWNER/OR DESIGNER.
24. ALL AREAS SHALL BE BROUGHT TO FINAL PLAN CONDITION (PAVED, SODDED, SEEDED, OR MULCHED) AS SOON AS POSSIBLE TO MAINTAIN FINISH GRADE CONDITIONS AND PREVENT EROSION SOIL LOSS. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR PLANTINGS SHALL BE SEEDED IN ACCORDANCE WITH THE SPECIFICATIONS.
25. THE CONTRACTOR SHALL VERIFY THAT THE SOIL CONDITIONS ARE SUITABLE FOR PLANTING AND WILL BE ACCEPTABLE FOR PROPER GROWTH OF THE PROPOSED PLANT MATERIALS PER SPECIFICATIONS. THIS SHALL BE INCLUDED IN THE BASE BID AND BE NO CAUSE FOR ADDITIONAL COST TO THE OWNER.
26. THE OWNER / LANDSCAPE ARCHITECT SHALL APPROVE GRADES AND CONDITIONS OF THE SITE PRIOR TO SEEDING OPERATIONS. NO SLOPE SHALL BE STEEPER THAT 3:1. SLOPES STEEPER THAT 4:1 SHALL RECEIVE STRAW MAT EROSION BLANKET.
27. CONSTRUCT ACCESSIBLE RAMP AS INDICATED ON THE PLAN PER CAMPUS REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS FOR SIDEWALK AND RAMP CONSTRUCTION. INCLUDING, BUT NOT LIMITED TO A MAXIMUM SIDEWALK CROSS SLOPE OF 1:50, A MAXIMUM RAMP SLOPE OF 1:12 AND INSTALLATION OF DETECTABLE WARNINGS.
28. THE CONTRACTOR IS ADVISED THAT ADDITIONAL NOTES WILL BE FOUND ON SUBSEQUENT SHEETS OF THE CONTRACT DOCUMENTS AND THAT SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWINGS ON WHICH THEY ARE PLACED, SUPPLEMENT THE GENERAL NOTES LISTED HEREIN. ALL NOTES SHALL BE APPLICABLE TO ALL DRAWINGS.
29. THE TERM "CONTRACTOR" WITHIN THESE NOTES SHALL MEAN THE SITE CONTRACTOR(S) PERFORMING THE SITE AND LANDSCAPE WORK.
30. ALL NOTES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. IN ALL CASES, REFER TO THE SPECIFICATIONS.

HARDSCAPE AND MATERIALS SCHEDULE

	ASPHALT PAVING						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
AP-01	ASPHALT PAVING - TYPE 1	RE: CIVIL	-	ASPHALT	-	NATURAL	CAMPUS STANDARD - VEHICULAR RATED 8" THICK - ON AGGREGATE SUB-BASE
	CONCRETE PAVING						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
CP-01	CONCRETE PAVING - TYPE 1	RE: CIVIL	-	CIP CONCRETE	BROOM	GREY	CAMPUS STANDARD - PEDESTRIAN RATED 4" THICK - KCMMB MIX TYP.
CP-02	CONTROL JOINT	RE: CIVIL	-	-	-	-	SAW CUT TYPICAL
CP-03	EXPANSION JOINT	RE: CIVIL	-	-	-	-	
CP-04	CONCRETE PAVING - TYPE 2	RE: CIVIL	-	CIP CONCRETE	-	-	CAMPUS STANDARD - VEHICULAR RATED 8" THICK - KCMMB MIX TYP. AGGREGATE SUB-BASE TO 95% SPM
	LANDSCAPE						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
LS-01	PLANTING AREA	L600-602	32 93 00				RE: L600-L603
LS-02	PLANTING AREA - RAIN GARDEN	L600-603 Rb13.01	32 93 00				RAIN GARDEN ZONE - 12" DEEP RAIN GARDEN SOIL WITH NATIVE PLANTS. 6" DIA. PERF. UNDER DRAIN TO STORM SEWER. OVERFLOW STORM RE: CIVIL. RIVER COBBLE AND FLAGSTONE BOTTOM AT LEVEL SPREADERS TYP.
	MISCELLANEOUS						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
MI-01	ROCK COBBLE TRENCH	SIM L021,L3.01	32 93 00	ROCK / ALUM.	MATTE	NATURAL	ROCK TRENCH - / 4-8" DIA. RIVER COBBLES. (WITH ALUM. EDGING (2"TH. X 6" TALL PERFORATED ALUM. PERMALOC TYP.) SIZE PER PLAN
MI-02	CIP CONCRETE MAINT. STRIP	RE:ARCH	-	CONCRETE	MATCH CIVIL SIDEWALKS	NATURAL COLOR	18" WIDE x 5" TH. CIP CONCRETE MAINTENANCE STRIP AT BUILDING EDGE.
MI-03	STEEL EDGING @ STORM INLETS	L01/L3.01	32 93 00	ROCK /ALUM.	MATTE	NATURAL	2" TH. x 6" TALL PERFORATED ALUM. EDGE RESTRAINT AT PLANTING AND STORM INLETS. PERMALOC TYP. 4-6" DIA. RIVER COBBLES ROCK MULCH TYP. - (18" MIN. WIDTH AT ALL STORM INLETS IN PLANTING MULCH BEDS TYP.)
	SITE FURNISHINGS						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
SF-01	BIKE RACK	L3.00	12 93 00	METAL	POWDER COAT	TBD	MANUFACTURER: DERO - MODEL: HOOP, POWDER COAT. COLOR TBD (QTY: PER PLAN)
SF-02	UTTER RECEPTACLE	-	12 93 00	METAL		TBD	OWNER PROVIDED. NIC
SF-03	TABLE	-	12 93 00	METAL , WOOD		TBD	OWNER PROVIDED. NIC.
SF-04	MONUMENT SIGNAGE	RE: A1/L3.10	-	BRICK / METAL	ARCHITECTURAL	TBD	20'L x8' SCHOOL MONUMENT SIGNAGE. PER PLANS (ALTERNATE)
SF-05	BOLLARD	L3.00	12 93 00				MANUFACTURER: RELIANCE FOUNDRY - MODEL:R-8465 (4" DIA. S.S. BOLLARD)
SF-06	FLAG POLE	-	12 93 00	ALUMINUM	MATTE	NATURAL	30' TALL FLAG POLE PER DISTRICT STANDARDS. PROVIDE TRUCK AND LED BEACON TOP AND ASSOCIATED FLAG ASSEMBLIES. PROVIDE 4'X6' FLAGS (1) USA, (1) MISSOURI FLAG TYP. PER DISTRICT STANDARDS. FOOTING DEPTH PER MANF.
SF-07	BLEACHER SYSTEM	RE: ARCH	-	ALUMINUM	MATTE	NATURAL	OWNER PROVIDED NIC.
	SPORT FIELD / COURTS						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
SP-01	SOCCER FIELD / MUTI-PURPOSE	M1/L3.10	-	SYNTHETIC TURF & PAD	-	TBD	WIDTH AND LENGTH PER PLAN. SOCCER SYNTHETIC TURF FIELD HIGH SCHOOL COMPETITION LEVEL. UNDERDRAINAGE SYSTEM PER MANF. RECOMMENDATIONS. BASIS OF DESIGN: SHAW "LEGION", SPORTSTURF "POWERHOUSE (IC-40OZ. OR APPROVED EQUAL.
SP-02	SPORT COURT / FUTSAL	U29/L3.01	-	CONCRETE / PAINTED	-	SCHOOL COLORS TBD	WIDTH AND LENGTH PER PLAN. POST-TENSIONED CONCRETE SLAB 6" MIN. THICKNESS. ON COMPACTED AGGREGATE SUB-BASE. IMPACT ATTENUATION LAYER (MEDIUM). SPORT COURT SURFACING TOP COAT LAYER. DELEGATED DESIGN FOR LOGO AND COLOR SCHEME. (ALTERNATE)
SP-03	TRACK	U/L3.10	-	-	-	SCHOOL COLORS TBD	WIDTH AND LENGTH PER PLAN. COMPETITION SYNTHETIC POLYMER TRACK SURFACE AND SUBBASE SYSTEM. BASIS OF DESIGN: HIGH SCHOOL RATED. MANF. STOCKMEIR / STOBITAN UNDERDRAINAGE SYSTEM AND SUBBASE PER MANF. RECOMMENDATIONS. 4"W. CONT. PERIMETER TRENCH DRAIN TYP. AT BASE OF INNER LANE.
SP-04	SOCCER GOAL	-	-	-	-	WHITE	PROVIDE MOVEABLE SOCCER GOALS - HIGH SCHOOL STANDARD (QTY 2)
	FENCING						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
FE-01	SITE PERIMETER FENCE	L3.02, L3.03	-	ALUMINUM	-	BLACK	BASIS OF DESIGN: MATCH CAMPUS FENCE SYSTEM. 6' TALL AMERISTAR PRODUCT, LENGTH PER PLANS. EGRESS PANIC HARDWARE AT ALL PEDESTRIAN GATES. PROVIDE AUTOMATIC SLIDING AND SWING GATES AT VEHICULAR ENTRANCES
FE-02	SPORT COURT - MODULAR FENCE SYSTEM	-	-	STEEL	-	NATURAL GALVANIZED	WIDTH AND LENGTH PER PLAN. BASIS OF DESIGN: MANF. MUSCO MINI PITCH SYSTEM MODULAR SPORT SOLUTIONS. INCLUDE: LED LIGHTS, FENCING, GOALS, BENCHES LOCKABLE STORAGE, AND ADA ACCESS. (ALTERNATE)
FE-03	INTERNAL CAMPUS FENCE	M9/L3.01	-	STEEL	-	BLACK	BASIS OF DESIGN: 4' TALL BLACK VINYL CHAIN LINK. LENGTH PER PLANS. EGRESS PANIC HARDWARE AT ALL PEDESTRIAN GATES
FE-04	ENTRY GATES - VEHICULAR	L3.02,L3.03	-	ALUMINUM	-	BLACK	BASIS OF DESIGN: MATCH CAMPUS FENCE SYSTEM. 6' TALL AMERISTAR PRODUCT, LENGTH PER PLANS. PROVIDE GATE OPENER SYSTEM AND ALL ASSOCITED ASSEMBLIES. SWING AND LONGITUDINAL GATE OPENINGS PER PLANS.
FE-05	PEDESTRIAN GATE TYPE 1	M21/L3.01	-	ALUMINUM	-	BLACK	BASIS OF DESIGN: MATCH CAMPUS FENCE SYSTEM. 6' TALL AMERISTAR PRODUCT, GATE OPENINGS PER PLANS. EGRESS PANIC BHARDWARE AND TAMPER SCREEN TYP AT ALL PEDESTRIAN GATES.
	LIGHTING						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
EL-01	SPORTS FIELD LIGHTING (FUTURE PHASE)	RE: MEP	-	STEEL	-	BLACK	(CONDUIT INFRASTRUCTURE ONLY) RE: MEP PLANS
EL-02	PARKING LOT LIGHTING	RE: MEP	-	ALUMINUM	-	GREY	BASIS OF DESIGN: LIGMAN, MODEL: STEAMER FIXTURE ON 24' POLE. +-60' O.C. SPACING. RE: ELECTRICAL
EL-03	BUS PARKING - BLOCK HEATER GFCI RECEPTACLES	RE: MEP	-	-	-	-	ASSUME ONE RECEPTACLE PER TWO BUSES. GFCI POST MOUNTED. RE: ELECTRICAL
	PLAYGROUND ELEMENTS						
SYMBOL	DESCRIPTION	DETAIL	SPEC	MATERIAL	FINISH	COLOR	DESCRIPTION
PL-01	PLAYGROUND 1	L3.00	-	MIX	-	PER MANF.	BASIS OF DESIGN: MANF. KOMPAN, "MODEL 5 BLOX" (ALTERNATE)
PL-02	PLAYGROUND 2	L3.00	-	MIX	-	PER MANF.	BASIS OF DESIGN: MANF. KOMPAN, MODEL "MEGA DECK UPPER DECK" (ALTERNATE)
PL-03	PLAYGROUND SURFACING	L3.00	-	MIX	-	PER MANF.	BASIS OF DESIGN: POURED IN PLACE SAFETY SURFACE. RUBBER ATTENUATION. EXTENTS OF FALL ZONES. WOOD MULCH SAFETY SURFACE ALTERNATE (ALTERNATE)
PL-04	SITE SHELTER	L3.00	-	MIX	-	PER MANF.	BASIS OF DESIGN: MANF.POLYGON, MSL 14X30 (ALTERNATE)
PL-05	PLAYGROUND SWINGS	L3.00	-	MIX	-	PER MANF.	BASIS OF DESIGN: MANF. KOMPAN, MODEL "KSW92011" SWING SET (ALTERNATE)

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI — ADAM R. WIECHMAN — NUMBER PLA-2019023580 — PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO # PLA 2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

HARDSCAPE SCHEDULE & GENERAL NOTES

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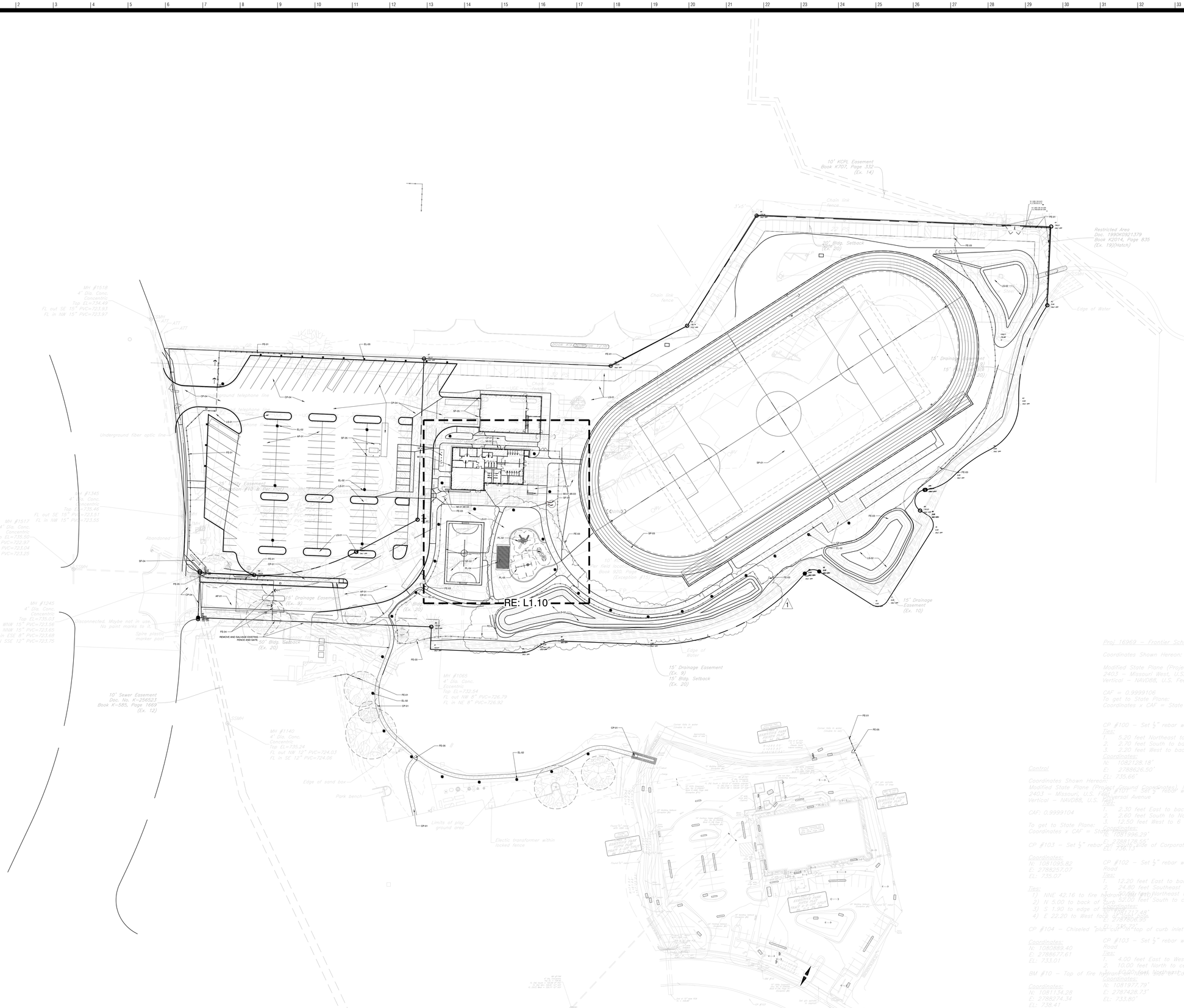

HARDSCAPE AND MATERIALS SCHEDULE			
	ASPHALT PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
AP-01	ASPHALT PAVING - TYPE 1	RE: CIVIL	-
	CONCRETE PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
CP-01	CONCRETE PAVING - TYPE 1	RE: CIVIL	-
CP-02	CONTROL JOINT	RE: CIVIL	-
CP-03	EXPANSION JOINT	RE: CIVIL	-
CP-04	CONCRETE PAVING -TYPE 2	RE: CIVIL	-
	LANDSCAPE		
SYMBOL	DESCRIPTION	DETAIL	SPEC
LS-01	PLANTING AREA	L600-602	32 93 00
LS-02	PLANTING AREA - RAIN GARDEN	L600-603 P9-L3.01	32 93 00
	MISCELLANEOUS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
MI-01	ROCK COBBLE TRENCH	SIM U21,L3.01	32 93 00
MI-02	CIP CONCRETE MAINT. STRIP	RE:ARCH	-
MI-03	STEEL EDGING @ STORM INLETS	U21,L3.01	32 93 00
	SITE FURNISHINGS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
SF-01	BIKE RACK	L3.00	12 93 00
SF-02	LITTER RECEPTACLE	-	12 93 00
SF-03	TABLE	-	12 93 00
SF-04	MONUMENT SIGNAGE	RE: A1,L3.10	-
SF-05	BOLLARD	L3.00	12 93 00
SF-06	FLAG POLE	-	12 93 00
SF-07	BLEACHER SYSTEM	RE: ARCH	-
	SPORT FIELD / COURTS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
SP-01	SOCCER FIELD / MUTI-PURPOSE	M1.L3,10	-
SP-02	SPORT COURT / FUTSAL	U09/L3.01	-
SP-03	TRACK	U1L3.10	-
SP-04	SOCCER GOAL	-	-
	FENCING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
FE-01	SITE PERIMETER FENCE	L3.02, L3.03	-
FE-02	SPORT COURT - MODULAR FENCE SYSTEM	-	-
FE-03	INTERNAL CAMPUS FENCE	M9/L3.01	-
FE-04	ENTRY GATES - VEHICULAR	L3.02,L3.03	-
FE-05	PEDESTRIAN GATE TYPE 1	M21/L3.01	-
	LIGHTING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
EL-01	SPORTS FIELD LIGHTING (FUTURE PHASE)	RE: MEP	-
EL-02	PARKING LOT LIGHTING	RE: MEP	-
EL-03	BUS PARKING - BLOCK HEATER GFCI RECEPTACLES	RE: MEP	-
	PLAYGROUND ELEMENTS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
PL-01	PLAYGROUND 1	L3.00	-
PL-02	PLAYGROUND 2	L3.00	-
PL-03	PLAYGROUND SURFACING	L3.00	-
PL-04	SITE SHELTER	L3.00	-
PL-05	PLAYGROUND SWINGS	L3.00	-

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI — ADAM R. WIECHMAN — NUMBER PLA-2019023580 — PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO.# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

SITE AND HARDSCAPE PLAN

L1.01

A1 HARDSCAPE AND MATERIALS PLAN
1"=50'-0" RE:

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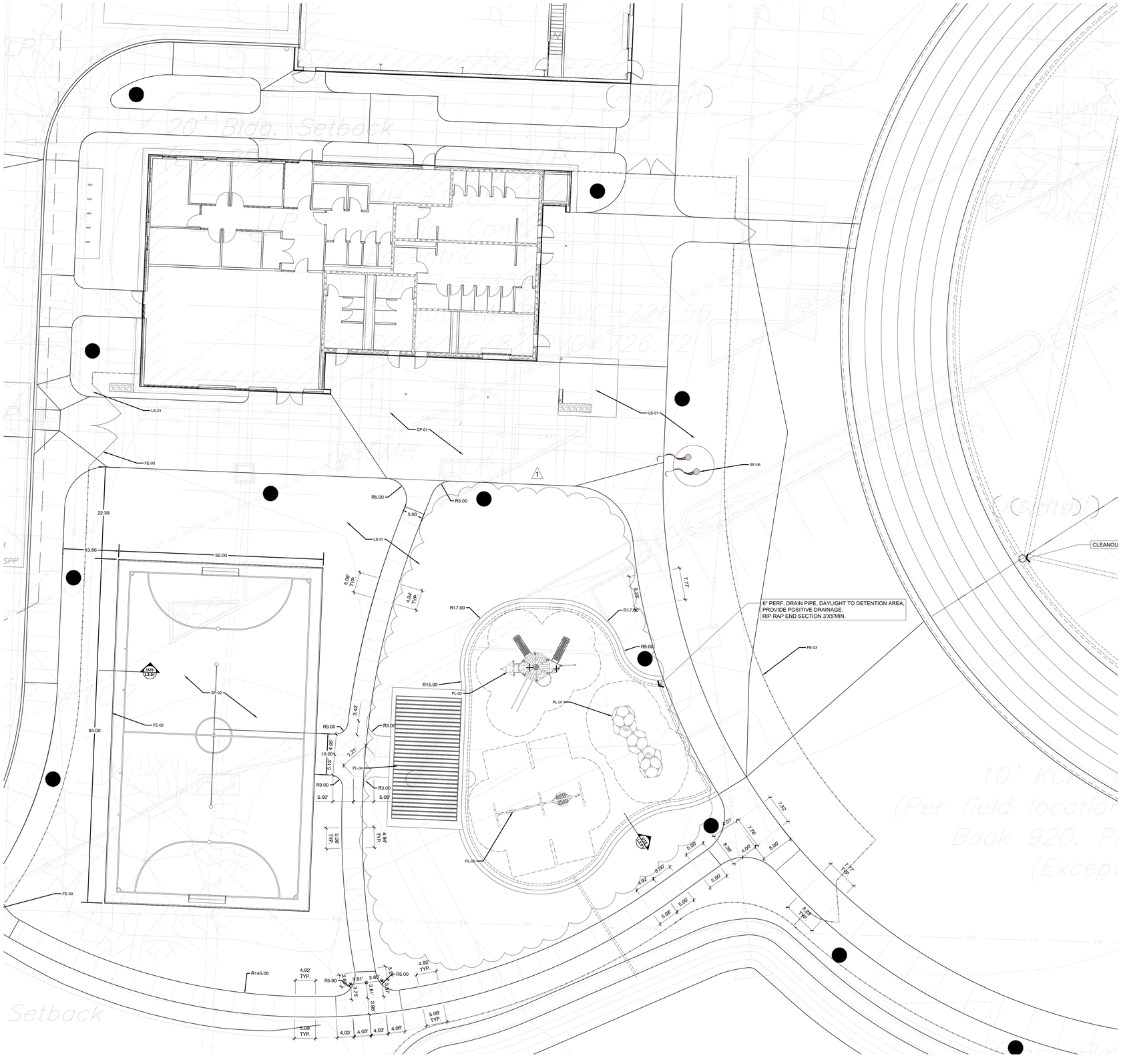

HARDSCAPE AND MATERIALS SCHEDULE

	ASPHALT PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
AP-01	ASPHALT PAVING - TYPE 1	RE: CIVIL	-
	CONCRETE PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
CP-01	CONCRETE PAVING - TYPE 1	RE: CIVIL	-
CP-02	CONTROL JOINT	RE: CIVIL	-
CP-03	EXPANSION JOINT	RE: CIVIL	-
CP-04	CONCRETE PAVING -TYPE 2	RE: CIVIL	-
	LANDSCAPE		
SYMBOL	DESCRIPTION	DETAIL	SPEC
LS-01	PLANTING AREA	L600-602	32 93 00
LS-02	PLANTING AREA - RAIN GARDEN	L600-603 P9-L3.01	32 93 00
	MISCELLANEOUS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
MI-01	ROCK COBBLE TRENCH	SIM U21,L3.01	32 93 00
MI-02	CIP CONCRETE MAINT. STRIP	RE:ARCH	-
MI-03	STEEL EDGING @ STORM INLETS	U21,L3.01	32 93 00
	SITE FURNISHINGS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
SF-01	BIKE RACK	L3.00	12 93 00
SF-02	LITTER RECEPTACLE	-	12 93 00
SF-03	TABLE	-	12 93 00
SF-04	MONUMENT SIGNAGE	RE: A1/L3.10	-
SF-05	BOLLARD	L3.00	12 93 00
SF-06	FLAG POLE	-	12 93 00
SF-07	BLEACHER SYSTEM	RE: ARCH	-
	SPORT FIELD / COURTS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
SP-01	SOCCER FIELD / MUTI-PURPOSE	M1/L3.10	-
SP-02	SPORT COURT / FUTSAL	U29/L3.01	-
SP-03	TRACK	U1/L3.10	-
SP-04	SOCCER GOAL	-	-
	FENCING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
FE-01	SITE PERIMETER FENCE	L3.02, L3.03	-
FE-02	SPORT COURT - MODULAR FENCE SYSTEM	-	-
FE-03	INTERNAL CAMPUS FENCE	M9/L3.01	-
FE-04	ENTRY GATES - VEHICULAR	L3.02,L3.03	-
FE-06	PEDESTRIAN GATE TYPE 1	M21/L3.01	-
	LIGHTING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
EL-01	SPORTS FIELD LIGHTING (FUTURE PHASE)	RE: MEP	-
EL-02	PARKING LOT LIGHTING	RE: MEP	-
EL-03	BUS PARKING - BLOCK HEATER GFCI RECEPTACLES	RE: MEP	-
	PLAYGROUND ELEMENTS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
PL-01	PLAYGROUND 1	L3.00	-
PL-02	PLAYGROUND 2	L3.00	-
PL-03	PLAYGROUND SURFACING	L3.00	-
PL-04	SITE SHELTER	L3.00	-
PL-05	PLAYGROUND SWINGS	L3.00	-

A1 ENLARGED PLAYGROUND AREA - ADD ALTERNATE

1"=10'-0" RE: /

0 10 20

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave,
Kansas City, MO 64120 Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI
ADAM R. WIECHMAN
NUMBER PLA-2019023580
PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

ENLARGED PLAYGROUND AREA PLAN

L1.10

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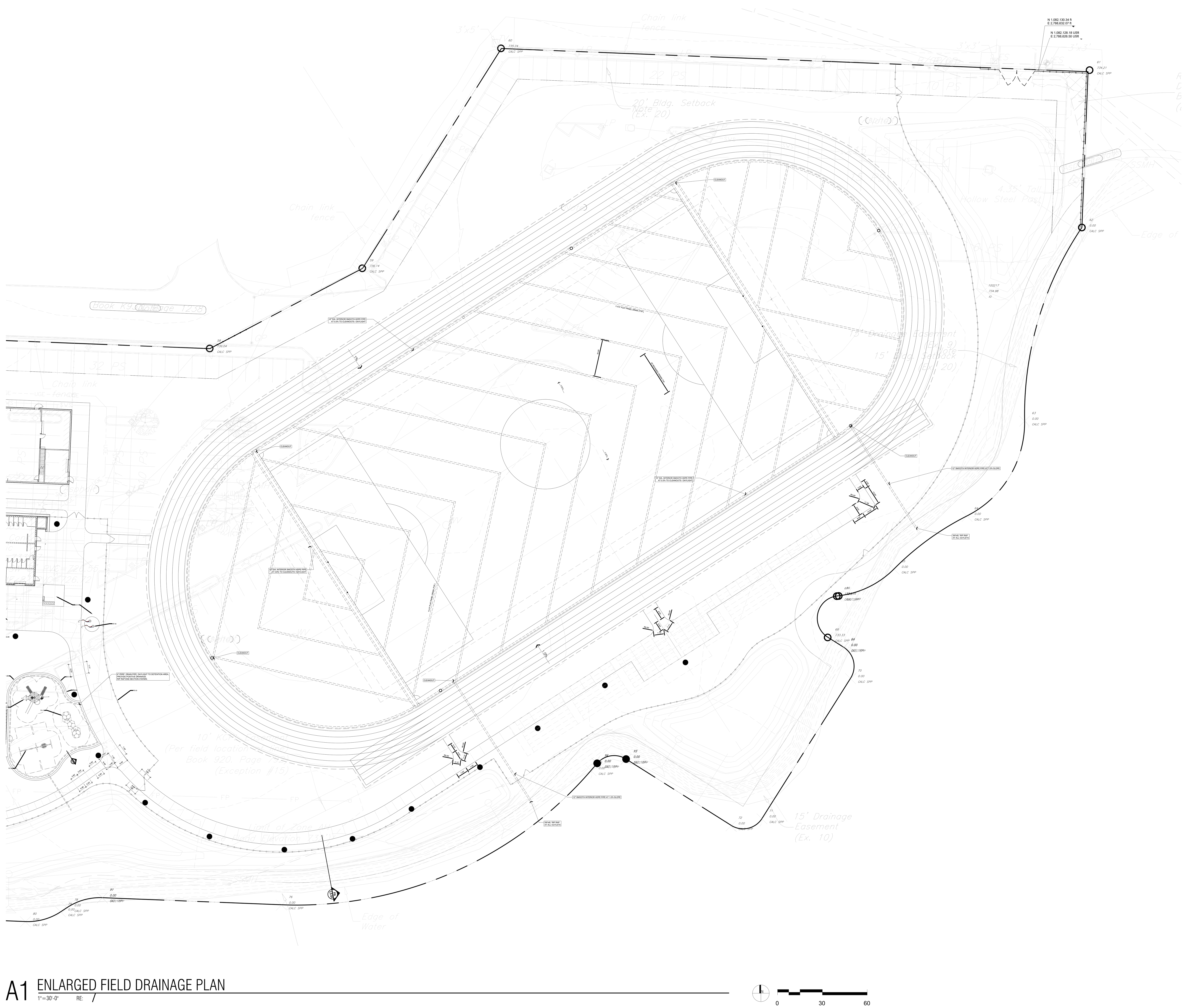

A1 ENLARGED FIELD DRAINAGE PLAN

1"=30'-0" RE: /

HARDSCAPE AND MATERIALS SCHEDULE

SYMBOL	DESCRIPTION	DETAIL	SPEC
	ASPHALT PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
AP-01	ASPHALT PAVING - TYPE 1	RE: CIVIL	-
	CONCRETE PAVING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
CP-01	CONCRETE PAVING - TYPE 1	RE: CIVIL	-
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MI-03	STEEL EDGING @ STORM INLETS	U21/L3.01	32 93 00
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SYMBOL	DESCRIPTION	DETAIL	SPEC
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SF-02	LITTER RECEPTACLE	-	12 93 00
SF-03	TABLE	-	12 93 00
SF-04	MONUMENT SIGNAGE	RE: A1/L3.10	-
SF-05	BOLLARD	L3.00	12 93 00
SF-06	FLAG POLE	-	12 93 00
SF-07	BLEACHER SYSTEM	RE: ARCH	-
	SPORT FIELD / COURTS		
SYMBOL	DESCRIPTION	DETAIL	SPEC
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SP-02	SPORT COURT / FUTSAL	U29/L3.01	-
SP-03	TRACK	U/L3.10	-
SP-04	SOCCER GOAL	-	-
	FENCING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
FE-01	SITE PERIMETER FENCE	L3.02, L3.03	-
FE-02	SPORT COURT - MODULAR FENCE SYSTEM	-	-
FE-03	INTERNAL CAMPUS FENCE	M9/L3.01	-
FE-04	ENTRY GATES - VEHICULAR	L3.02,L3.03	-
FE-05	PEDESTRIAN GATE TYPE 1	M21/L3.01	-
	LIGHTING		
SYMBOL	DESCRIPTION	DETAIL	SPEC
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SYMBOL	DESCRIPTION	DETAIL	SPEC
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PL-02	PLAYGROUND 2	L3.00	-
PL-03	PLAYGROUND SURFACING	L3.00	-
PL-04	SITE SHELTER	L3.00	-
PL-05	PLAYGROUND SWINGS	L3.00	-

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Project No: 14018.20

CONSTRUCTION DOCUMENTS

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Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI — ADAM R. WIECHMAN — NUMBER PLA-2019023580 — PROFESSIONAL LANDSCAPE ARCHITECT

6/01/2026

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

1

FIELD DRAINAGE PLAN

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MATERIALS LEGEND

SITE FURNISHINGS

BIKE RACKS
MANUFACTURER: DERO
MODEL: HOOP RACK, SURFACE MOUNTED
COLOR: POWDER COATED BLACK

SECURITY BOLLARD
MANUFACTURER: RELIANCE FOUNDRY
MODEL: R-8464
FINISH: STAINLESS STEEL

SPORT COURT / PLAYGROUND

FUTSAL COURT
MANUFACTURER: MUSCO MINI PITCH SYSTEM
PRE-TENSIONED CONCRETE SLAB
SPORT COURT SURFACE
(ALTERNATE #1)

PLAYGROUND #1 - 5-12Y
MANUFACTURER: KOMPAN
BLOQX 5 #BLX4105
(ALTERNATE #2)

PLAYGROUND #2 - 5-12Y
MANUFACTURER: KOMPAN
MEGA DECK UPPER DECK #PCM111832
(ALTERNATE #3)

SWINGS #3 - 5-12Y
MANUFACTURER: KOMPAN
2-BAY, 2 BELT SWINGS, 1 NEST SWING #KSW92011
(ALTERNATE #4)

PLAYGROUND GRASS SAFETY SURFACING
MANUFACTURER: FOREVER LAWN
(ALTERNATE #5)

POURED IN PLACE SAFETY SURFACING
MANUFACTURER: DURAPLAY
(ALTERNATE #6)

ENGINEERED WOOD FIBER SAFETY SURFACING
MANUFACTURER: KIDDIE KUSHION
(ALTERNATE - #7)

1

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CONSTRUCTION DOCUMENTS

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Rev. #	Description	Date Issued
1	ADDENDUM 1	06.16.2026

STATE OF MISSOURI
ADAM R. WIECHMAN
NUMBER PLA-2019023580
REGISTERED LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO.# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

CONSTRUCTION DETAILS

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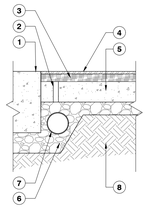
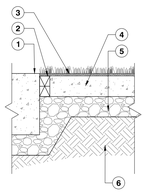


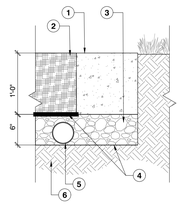
1. 12" x 12" x 12" CONCRETE EDGING
2. 1" DIA. WEEP HOLES EVERY 24" O.C.
3. BUFFINGS LAYER, DEPTH VARIES
4. ½" POURED-IN-PLACE SAFETY SURFACING
5. 4" CONCRETE W/ FIBER MESH (RE: CIVIL)
6. 2" MIN. DEPTH GRANULAR BASE
7. DRAINAGE (RE: CIVIL)
8. EXISTING SUBGRADE

U1 POURED IN PLACE SAFETY SURFACING
DETAIL-FILE — SCALE: 1 1/2" = 1'-0"



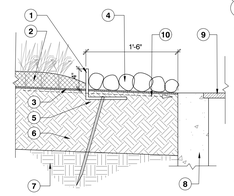
1. 12" x 12" x 12" CONCRETE EDGING
2. 2"x4" COMPOSITE NAILER BOARD, RECESSED ½" BELOW GRADE. FASTEN EVERY 24" O.C. WITH CONCRETE FASTENERS
3. SYNTHETIC TURF SAFETY SURFACING WITH SAND INFILL PER MANUFACTURERS RECOMMENDATIONS
4. 4" CONCRETE W/ FIBER MESH (RE: CIVIL)
5. 4" DEPTH GRANULAR BASE
6. EXISTING SUBGRADE

U8 SYNTHETIC TURF SAFETY SURFACING
DETAIL-FILE — SCALE: 1 1/2" = 1'-0"



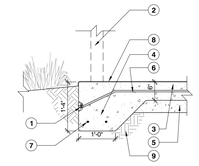
1. 12" x 12" x 12" CONCRETE EDGING
2. ENGINEERED WOOD FIBER SAFETY SURFACING
3. COMPACTED AGGREGATE BASE COURSE
4. NONWOVEN GEOTEXTILE FABRIC
5. 4" DIA. PERFORATED PLASTIC DRAIN PIPE WRAPPED IN NONWOVEN GEOTEXTILE FABRIC
6. COMPACTED SUBGRADE

U15 ENGINEERED WOOD FIBER SAFETY SURFACING
DETAIL-FILE — SCALE: 1 1/2" = 1'-0"



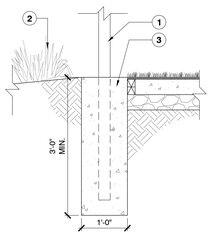
1. 1/4" THICK x 6" TALL PERFORATED ALUMINUM EDGING (PERMALOC), TOP OF EDGING TO BE MAXIMUM OF 4" ABOVE FINISHED GRADE. ROLLED TOP EDGE TYP. EDGING SPIKE SPACING PER MANF. RECOMMENDATIONS. 18" MIN. DEPTH TYP. BURY BOTTOM EDGE AS SHOWN. SQUARE SHAPE AROUND ALL EDGES OF INLETS, OR PER PLAN (RE: 329300)
2. PLANTING BED MULCH 2-3" DEPTH TYP. TAPER AT STEEL EDGE, (RE: 329300)
3. WEED BARRIER (RE: 329300) TURN SIDES UP AT 6" ALL EDGES
4. 4-6" DIA. - RIVER ROCK. (BLACK TO BUFF COLOR)TYP. (RE: 329300)
5. COMPACT PLANTING SOIL AT EDGING LOCATIONS ONLY TO PREVENT SETTLING
6. PLANTING SOIL MIN. 18" (RE: 329300)
7. IMPORTED SUB-GRADE RE: (SOIL SPECIFICATION.)
8. EDGE OF CONCRETE INLET BASIN, OR CONCRETE DRAINAGE PAN. (RE: CIVIL)
9. METAL CATCH BASIN GRATE OR LINEAR CONCRETE DRAINAGE PAN (RE: CIVIL)
10. FINISHED GRADES TO MATCH CIVIL, PROVIDE POSITIVE DRAINAGE TO ALL INLETS TYP. (RE: CIVIL)

U21 ROCK COBBLE TRENCH AND STORM INLET SECTION
DETAIL-FILE — SCALE: 1 1/2" = 1'-0"



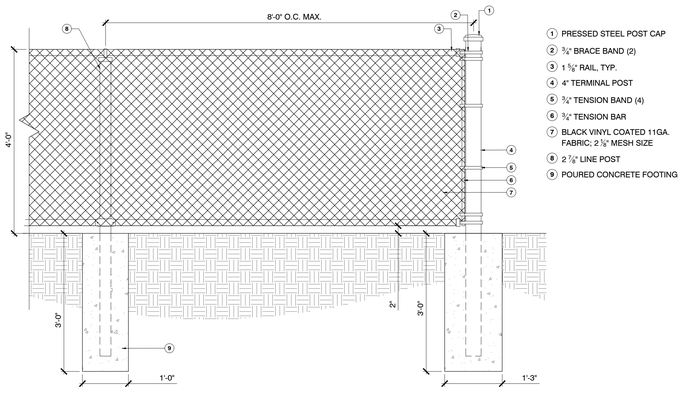
1. FLUSH CONCRETE MORTAR PATCH ALL CABLE ANCHORS AND POCKET FORMS AFTER FINAL TIGHTENING. #4 BAR CONTINUOUS , TIED IN AT ANCHORS TYP.
2. PRE-FAB, FUTSAL FENCING ATTACHMENT PER MANF. AVOID POST TENSIONED CABLES.
3. POST TENSIONED CONC. SLAB.
4. THICKENED EDGE.
5. COMPACTED STRUCTURAL FILL PER GEOTECHNICAL REPORT.
6. 2" DIA. CABLE. (SPACING @ 24" MIN. O.C.)
7. (2)#5 BARS CONT. HORIZ. (3" CLEAR)
8. SPORT COURT SURFACE PAINT AND RE-SURFACER BASE. LOGO TBD (DELEGATED DESIGN).
9. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.

U29 SPORT COURT SLAB SECTION
DETAIL-FILE — SCALE: 3/4" = 1'-0"



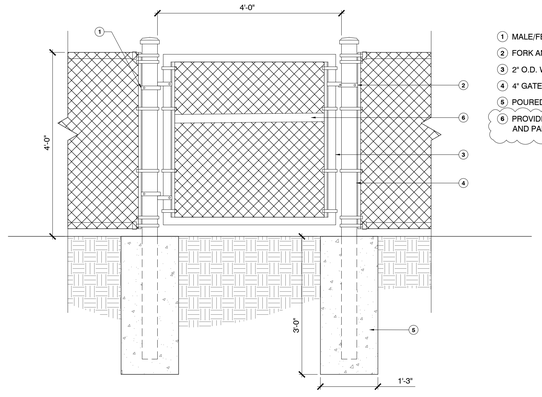
1. CHAINLINK FENCE 2 ⅞" LINE POST
2. PLANTING BED (RE: LANDSCAPE)
3. CONCRETE FOOTING, FLUSH WITH SURROUNDING LANDSCAPE AND SYNTHETIC TURF

M1 CHAIN LINK FENCE @ FLUSH CURB
DETAIL-FILE — SCALE: 3/4" = 1'-0"



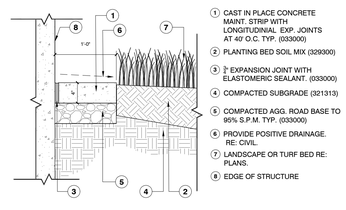
1. PRESSED STEEL POST CAP
2. ¾" BRACE BAND (2)
3. 1 ⅝" RAIL, TYP.
4. 4" TERMINAL POST
5. ¾" TENSION BAND (4)
6. ¾" TENSION BAR
7. BLACK VINYL COATED 11GA. FABRIC; 2 ¼" MESH SIZE
8. 2 ⅞" LINE POST
9. POURED CONCRETE FOOTING

M9 4' TALL CHAIN LINK FENCE
DETAIL-FILE — SCALE: 3/4" = 1'-0"



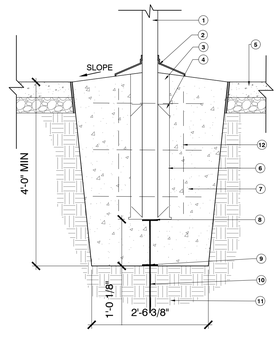
1. MALE/FEMALE STRAP HINGE, TYP.
2. FORK AND COLLAR GATE LATCH
3. 2" O.D. WELDED GATE FRAME
4. 4" GATE POST
5. POURED CONCRETE FOOTING
6. PROVIDE EGRESS HARDWARE AND PANIC BAR

M21 4' TALL CHAIN LINK GATE
DETAIL-FILE — SCALE: 3/4" = 1'-0"



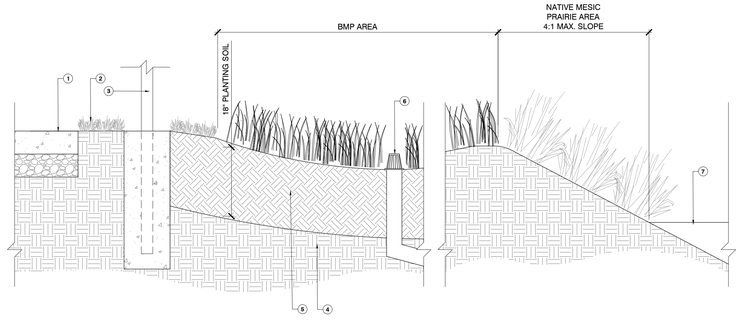
1. CAST IN PLACE CONCRETE MAINT. STRIP WITH LONGITUDINAL EXP. JOINTS AT 40' O.C. TYP. (033000)
2. PLANTING BED SOIL MIX (329300)
3. ½" EXPANSION JOINT WITH ELASTOMERIC SEALANT. (033000)
4. COMPACTED SUBGRADE (321313)
5. COMPACTED AGG. ROAD BASE TO 95% S.P.M. TYP. (033000)
6. PROVIDE POSITIVE DRAINAGE. RE: CIVIL.
7. LANDSCAPE OR TURF BED RE: PLANS.
8. EDGE OF STRUCTURE

G1 C.I.P. CONCRETE MAINTENANCE STRIP @ BUILDING EDGE
DETAIL-FILE — SCALE: 1 1/2" = 1'-0"



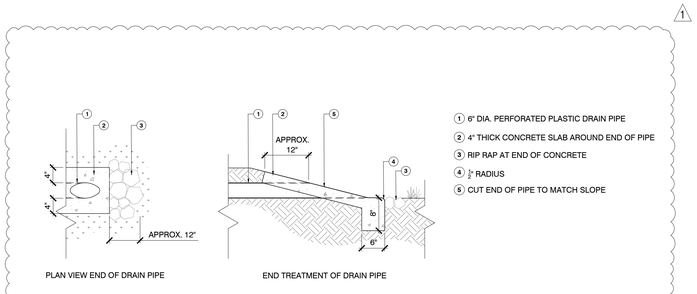
1. FLAG POLE
2. ALUM. FLASH COLLAR SET ON 2" SEAL COMPOUND
3. 3" WATERPROOF CEMENT
4. LOOSE WOOD DRIVEN INTO SLEEVE
5. CONCRETE SIDEWALK
6. PROVIDE 10" O.D. 12 GALV. STL. SLEEVE FILLE W/ DRY SCHREENED SAND, WELL TAMPED
7. 3,000 MIN. PSI CONCRETE AT 28 DAYS
8. 1/2" PLATE W. 4 STL. CENTERING WEDGES; WELD TO SLEEVE
9. 4" PLATE SUPPORT TO SPIKE
10. 24" LIGHTNING GROUNDING SPIKE; WELD TO PLATE
11. COMPACTED SUB-GRADE TYP.
12. REINFORCE W/ (5) #4 VERT & #3 TIES @12" O.C.

M9 FLAGPOLE SECTION
DETAIL-FILE — SCALE: 3/4" = 1'-0"



1. CONCRETE SIDEWALK (RE: CIVIL)
2. NATURAL TURF AREA
3. CHAINLINK FENCE
4. PREPARED SUBSOIL
5. BMP PLANTING SOIL MIX
6. OVERFLOW DRAIN (RE: CIVIL)
7. EXISTING POND

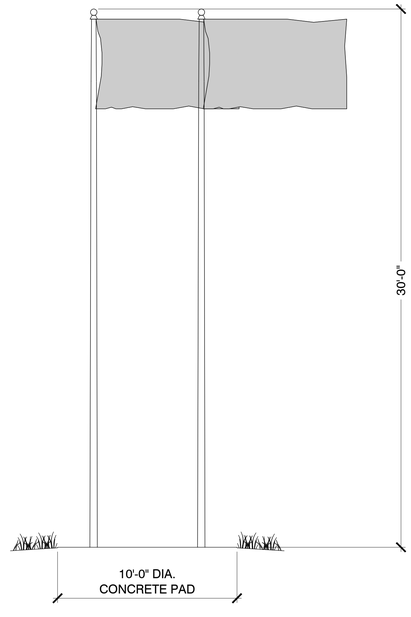
A1 BMP SECTION
DETAIL-FILE — SCALE: 3/4" = 1'-0"



PLAN VIEW END OF DRAIN PIPE — END TREATMENT OF DRAIN PIPE

1. 6" DIA. PERFORATED PLASTIC DRAIN PIPE
2. 4" THICK CONCRETE SLAB AROUND END OF PIPE
3. RIP RAP AT END OF CONCRETE
4. ½" RADIUS
5. CUT END OF PIPE TO MATCH SLOPE

A17 PLAYGROUND DRAINAGE PIPE
DETAIL-FILE — SCALE: 3/4" = 1'-0"



A28 FLAGPOLE ELEVATION
DETAIL-FILE — SCALE: NTS

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI — ADAM R. WIECHMAN — NUMBER PLA-2019023580 — PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

CONSTRUCTION DETAILS

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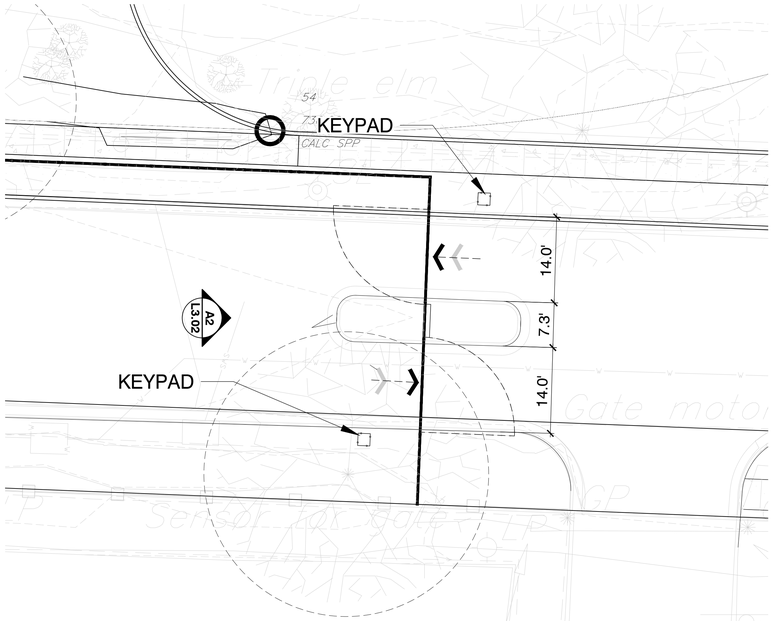
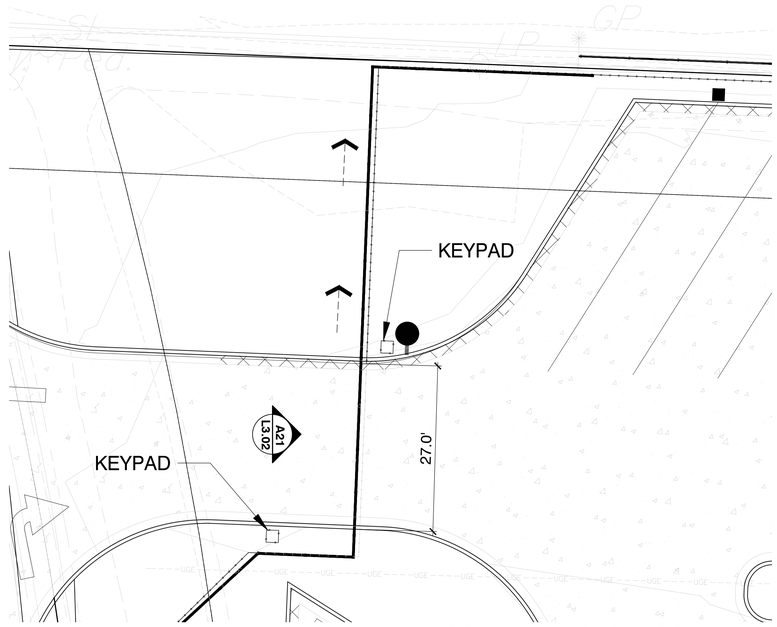


1. PROVIDE KCMO STANDARD FIRE YELP SENSOR AT ALL GATES.

N2 SOUTH ENTRY GATE - ENLARGED PLAN
DETAIL-FILE

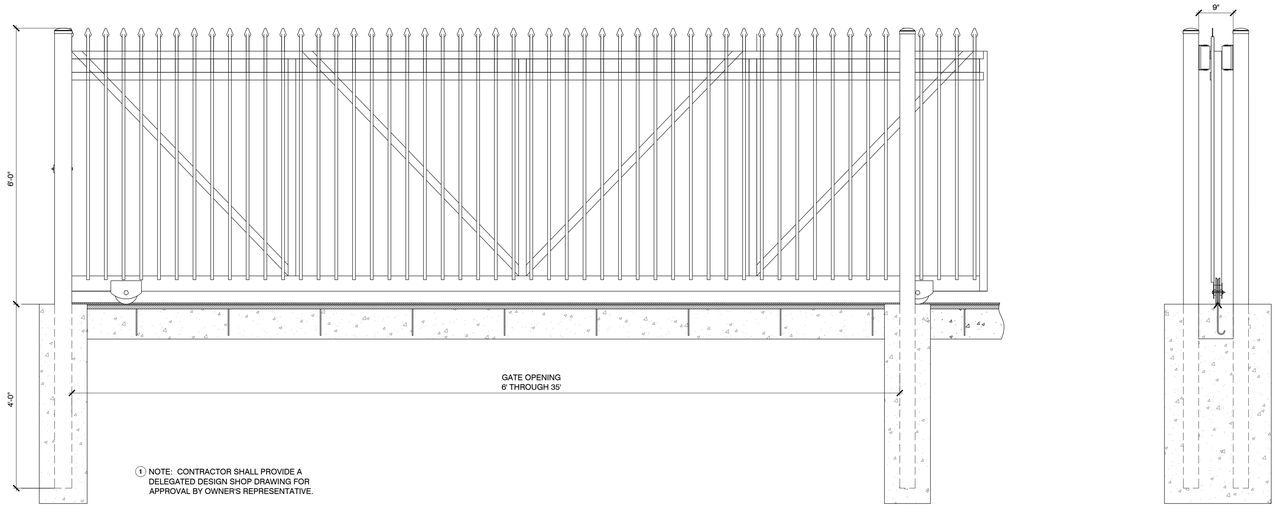
SCALE: 3/4" = 1'-0"



1. PROVIDE KCMO STANDARD FIRE YELP SENSOR AT ALL GATES.

N19 NORTH ENTRY GATE - ENLARGED PLAN
DETAIL-FILE

SCALE: 3/4" = 1'-0"



1 NOTE: CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN SHOP DRAWING FOR APPROVAL BY OWNER'S REPRESENTATIVE.

A2 NORTH ENTRY GATE - ELEVATION
DETAIL-FILE

SCALE: 3/4" = 1'-0"

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Kansas City, MO 64120 Project No: 14018.20

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ADAM R. WIECHMAN
NUMBER
PLA-2019023580
PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

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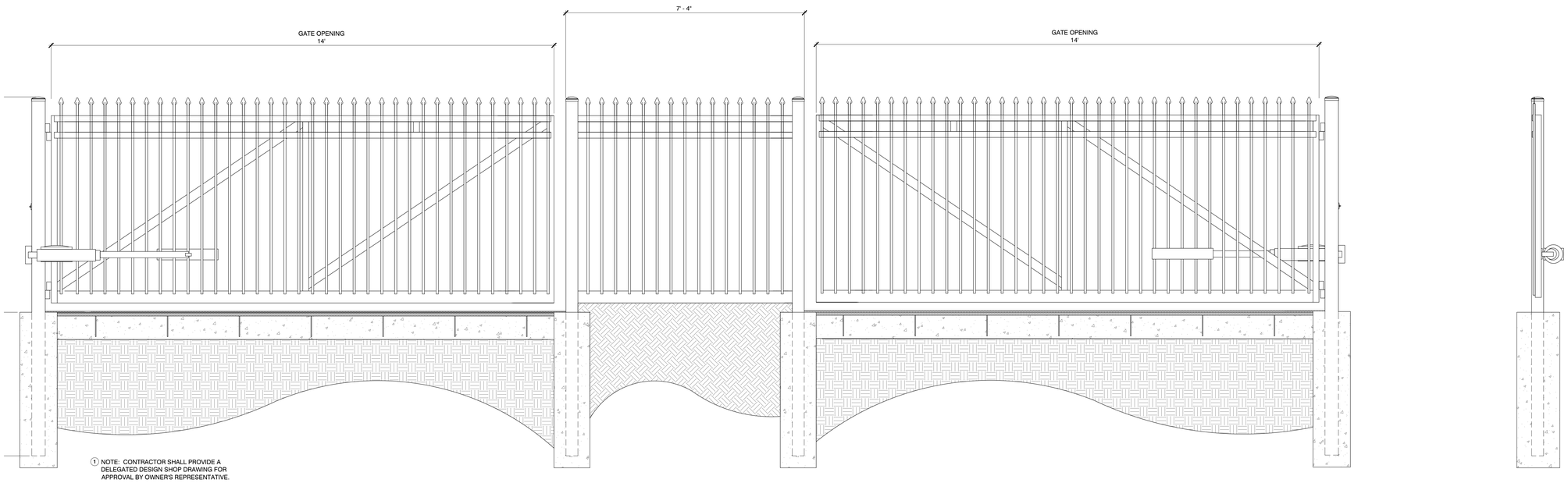
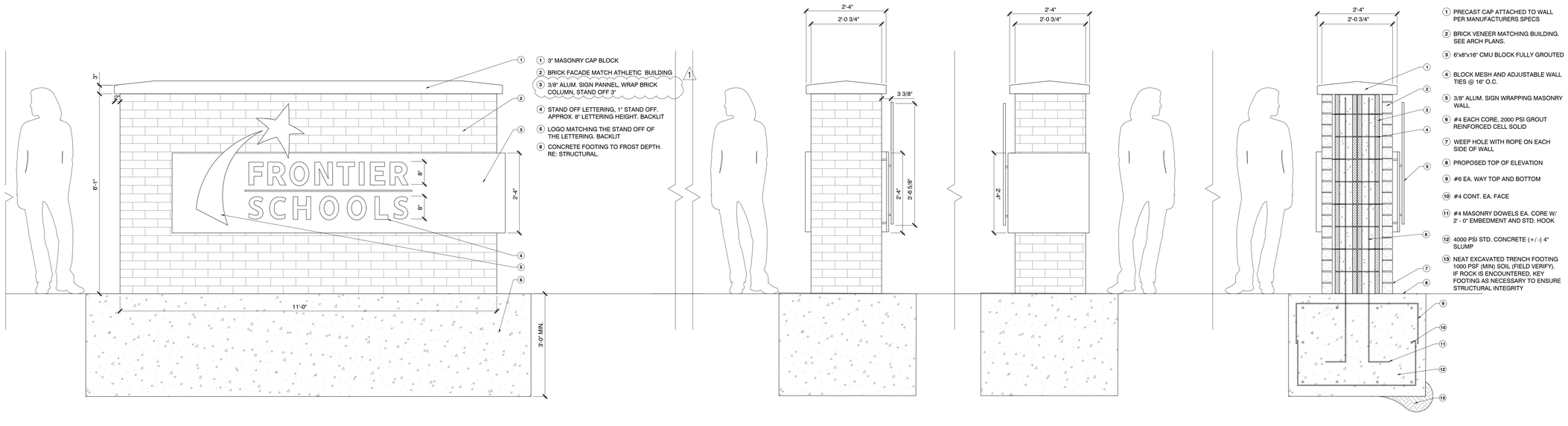


1 NOTE: CONTRACTOR SHALL PROVIDE A DELEGATED DESIGN SHOP DRAWING FOR APPROVAL BY OWNER'S REPRESENTATIVE.

P2 SOUTH ENTRY GATE - ELEVATION
DETAIL-FILE

SCALE: 3/4" = 1'-0"



1. 3" MASONRY CAP BLOCK
2. BRICK FACADE MATCH ATHLETIC BUILDING
3. 3/8" ALUM. SIGN PANNEL, WRAP BRICK COLUMN, STAND OFF 3"
4. STAND OFF LETTERING, 1" STAND OFF, APPROX. 8" LETTERING HEIGHT. BACKLIT
5. LOGO MATCHING THE STAND OFF OF THE LETTERING. BACKLIT
6. CONCRETE FOOTING TO FROST DEPTH. RE: STRUCTURAL.

1. PRECAST CAP ATTACHED TO WALL PER MANUFACTURERS SPECS
2. BRICK VENEER MATCHING BUILDING. SEE ARCH PLANS.
3. 6"x8"x16" CMU BLOCK FULLY GROUTED
4. BLOCK MESH AND ADJUSTABLE WALL TIES @ 16" O.C.
5. 3/8" ALUM. SIGN WRAPPING MASONRY WALL
6. #4 EACH CORE, 2000 PSI GROUT REINFORCED CELL SOLID
7. WEEP HOLE WITH ROPE ON EACH SIDE OF WALL
8. PROPOSED TOP OF ELEVATION
9. #6 EA. WAY TOP AND BOTTOM
10. #4 CONT. EA. FACE
11. #4 MASONRY DOWELS EA. CORE W/ 2' - 0" EMBEDMENT AND STD. HOOK
12. 4000 PSI STD. CONCRETE (+/-) 4" SLUMP
13. NEAT EXCAVATED TRENCH FOOTING 1000 PSF (MIN) SOIL (FIELD VERIFY), IF ROCK IS ENCOUNTERED, KEY FOOTING AS NECESSARY TO ENSURE STRUCTURAL INTEGRITY

A2 MONUMENT SIGN - ELEVATION (ALTERNATE)
DETAIL-FILE

SCALE: 3/4" = 1'-0"

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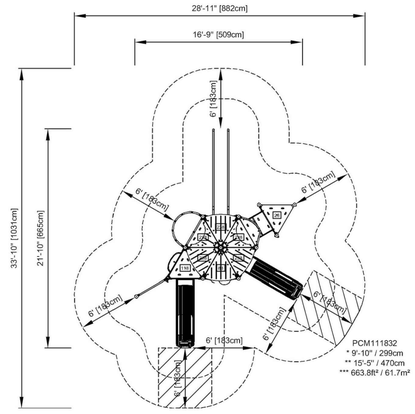
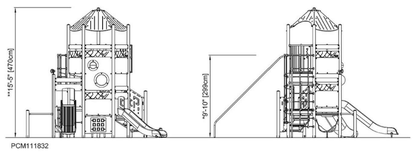
PCM111832

* Max fall height | ** Total height | *** Safety surfacing area	* Max fall height | ** Total height





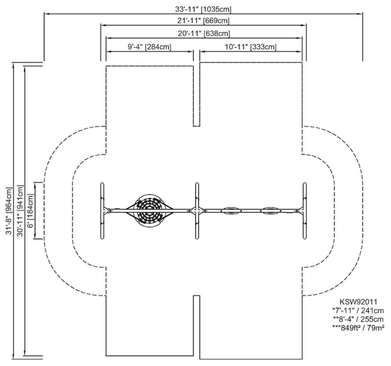
1. PROVIDE FOOTINGS PER MANUFACTURER'S RECOMMENDATIONS.

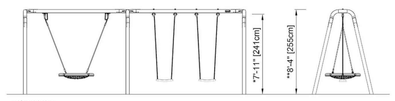
R1 PLAYGROUND 1 (ALTERNATE)
DETAIL-FILE

SCALE: NTS

KSW92011

* Max fall height | ** Total height | *** Safety surfacing area	* Max fall height | ** Total height





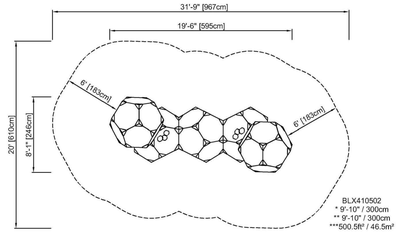
1. PROVIDE FOOTINGS PER MANUFACTURER'S RECOMMENDATIONS.

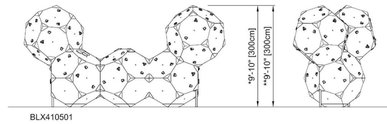
E1 PLAYGROUND SWINGS (ALTERNATE)
DETAIL-FILE

SCALE: NTS

BLX4105

* Max fall height | ** Total height | *** Safety surfacing area	* Max fall height | ** Total height





1. PROVIDE FOOTINGS PER MANUFACTURER'S RECOMMENDATIONS.

R19 PLAYGROUND 2 (ALTERNATE)
DETAIL-FILE

SCALE: NTS

poligon®

PROJECT:
LOCATION:
BUILDING TYPE: MSL 16X30
ROOF TYPE: MULTI-RIB
BUILDING NUMBER:
ORDER NUMBER:
QUOTE NUMBER:

DRAWING LIST:

SHEET NUMBER	DRAWING DESCRIPTION
CS	COVER SHEET
1	ARCHITECTURAL ELEVATIONS
2	STRUCTURAL FRAMING PLAN
3	COLUMN LAYOUT

poligon® www.poligon.com
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by PORTER CORP

PROJECT:	
DRAWN BY:	PP/PS/SS/MC
WORK DATE:	2/3/2023
CAD FILE:	MSL 16X30
SHEET:	CS

CERTIFICATES:
MIAMI-DADE COUNTY CERTIFICATE OF COMPETENCY NO. 21-0819.13
PCI (POWDER COATING INSTITUTE) 4000 CERTIFIED

FABRICATOR APPROVALS:
CITY OF PHOENIX, AZ APPROVED FABRICATOR #088-2008
CITY OF LOS ANGELES, CA APPROVED FABRICATOR RF 800256
CITY OF FONTANA, CA APPROVED FABRICATOR #SF 000442
CITY OF HOUSTON, TX APPROVED FABRICATOR #470
CLARK COUNTY, NV APPROVED FABRICATOR #264
STATE OF UTAH APPROVED FABRICATOR 61088-14
AISC APPROVED FABRICATOR C-0808725

MATERIALS:

DESCRIPTION	ASTM DESIGNATION
TUBE STEEL	A500 (GRADE B)
SCHEDULE PIPE	A53 (GRADE B)
XH1 PIPE	A229
LIGHT GAGE COLD FORMED	A1003 (GRADE 50)
STRUCTURAL STEEL PLATE	A36
ROOF PANELS (STEEL)	A653

STOP!!
NOT FOR CONSTRUCTION
USE FOR PRELIMINARY PLANNING AND ESTIMATING ONLY

GENERAL NOTES:
UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED TO ONLY SUPPORT WHAT IS SHOWN ON THESE DRAWINGS. THE MANUFACTURER MUST BE CONTACTED IF ANYTHING ELSE IS TO BE ATTACHED TO THIS STRUCTURE (CABLES, COLUMN WRAPS, RAILINGS, ETC) SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED ASSUMING A 0" SEPARATION BETWEEN ANY ADJACENT STRUCTURE WITH AN EAVE HEIGHT EQUAL TO OR GREATER THAN THE EAVE HEIGHT OF THIS STRUCTURE. IF THAT SEPARATION DOES NOT EXIST, THE MANUFACTURER MUST BE CONTACTED SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL.

ALL WELDING IS PERFORMED BY AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS AND CONFORMS TO THE LATEST EDITION OF AWS D1.1 OR D1.3 AS REQUIRED.

PARTS SHOWN MAY BE UPGRADED DUE TO STANDARDIZED FABRICATION. REFER TO THE SHIPPING BILL OF MATERIALS FOR POSSIBLE SUBSTITUTIONS.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT THE PRIMARY FRAME INSTALLER AND THE ROOF INSTALLER HAVE A MINIMUM FIVE (5) YEARS DOCUMENTED EXPERIENCE INSTALLING THIS TYPE OF PRODUCT.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT ELECTRIC WIRING, IF REQUIRED, BE RUN THROUGH THE STRUCTURAL MEMBERS BEFORE THE BUILDING IS ERECTED.

NOTES:
1. PROVIDE 6" THICK CONCRETE SHELTER PAD. EXTENTS PER PLAN.
2. POST FOOTINGS PER MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE (1) ONE WEATHERPROOF GFCI RECEPTACLE PER POST.

E1 SITE SHELTER (ALTERNATE)
DETAIL-FILE

SCALE: NTS

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Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

1

CONSTRUCTION DETAILS - PLAYGROUND

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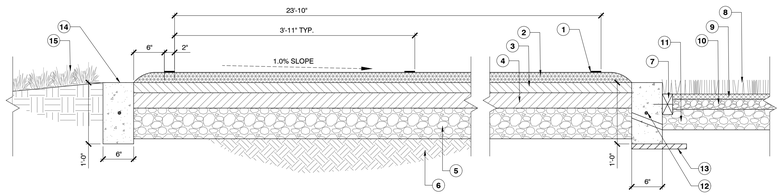
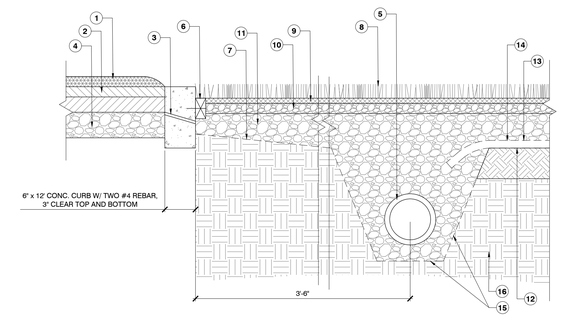


1. LANE STRIPING
2. RESILIENT SURFACING
3. 2" SURFACE ASPHALT
4. 3" BASE COURSE APHALT
5. 6" AB3 TO 95% SPM. 2" LIFTS MIN.
6. 12" STABILIZED SUBGRADE TO MIN. 95% SPM AND PER GEOTECHNICAL REQUIREMENTS
7. PRESSURE TREATED 2X4. ANCHOR TO CONCRETE CURB WITH ½" DIA. STAINLESS STEEL EXPANSION ANCHORS (HILTI KBII OR EQUAL) AT 24" O.C. WITH MIN. 3 ½" EMBEDMENT IN CONCRETE
8. +/- 1 ¾" SYNTHETIC TURF W/ 1" SPECIFIED INFILL
9. SHOCK PAD
10. 2" DEPTH ½" - ¾" CLEAN AGGREGATE
11. 4" DEPTH ¾" TURF AGGREGATE
12. CONCRETE CURB W/ (1) #4 BAR CONTINUOUS
13. FLAT PIPE UNDER CURB EXTENDED TO PERIMETER DRAIN, 12 LOCATIONS AROUND TRACK
14. TRACK CURB
15. GRASS, SLOPE AWAY FROM TRACK. RE: CIVIL

U1 TRACK SECTION
DETAIL-FILE

SCALE: 1" = 1'-0"



1. SYNTHETIC TURF (RE: SPECS)
2. 2" DEPTH ½" - ¾" CLEAN GRAVEL (RE: SPECS)
3. 4" DEPTH ¾" CLEAN GRAVEL (RE: SPECS)
4. 1" X 12" PANEL DRAIN (ADS)
5. EXCAVATE FOR PANEL DRAIN
6. FILTER FABRIC UNDER PANEL DRAINS AND ON ENTIRE SUBGRADE
7. 12" FLYASH STABILIZED SUBGRADE UNDER TURF. STABILIZE PER GEOTECHNICAL REQUIREMENTS.

U19 PANEL DRAIN SECTION
DETAIL-FILE

SCALE: 1" = 1'-0"

1. RESILIENT SURFACING
2. ASPHALT
3. PROVIDE ½" WEEPHOLES 50' O.C. ALONG INSIDE CURB OF TRACK AREA
4. STABILIZED SUBGRADE
5. PERIMETER DRAIN. SIZE AND SLOPE PER PLANS (RE: L1.11
6. PRESSURE TREATED 2X4. ANCHOR TO CONCRETE CURB WITH ½" DIA. STAINLESS STEEL EXPANSION ANCHORS (HILTI KBII OR EQUAL) AT 24" O.C. WITH MIN. 3 ½" EMBEDMENT IN CONCRETE
7. SUBGRADE SLOPE 4% MIN. FROM CURB TO PERIMETER DRAIN
8. +/- 1 ¾" SYNTHETIC TURF W/ 1" SPECIFIED INFILL
9. SHOCK PAD
10. 2" DEPTH ½" - ¾" CLEAN AGGREGATE (DOUBLE WASHED)
11. 4" DEPTH ¾" TURF CLEAN AGGREGATE (DOUBLE WASHED)
12. PANEL DRAIN. INTERVAL PER PLANS (RE: L1.11)
13. GEOTEXTILE FILTER FABRIC, COVER ENTIRE SUBGRADE
14. SLOPE SUBGRADE @ 0.8% TOWARDS COLLECTOR PIPE
15. INSTALL FILTER FABRIC BELOW AGGREGATE BASE COURSE AND AT BOTTOM AND SIDES OF TRENCH
16. COMPACTED SUBGRADE TO 95% SPM. STABILIZE PER GEOTECHNICAL REQUIREMENTS.

M1 PERIMITER DRAIN @ FIELD / TRACK
DETAIL-FILE

SCALE: 1" = 1'-0"

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Licensee Number: 000377

CONSTRUCTION DETAILS - TRACK & FIELD

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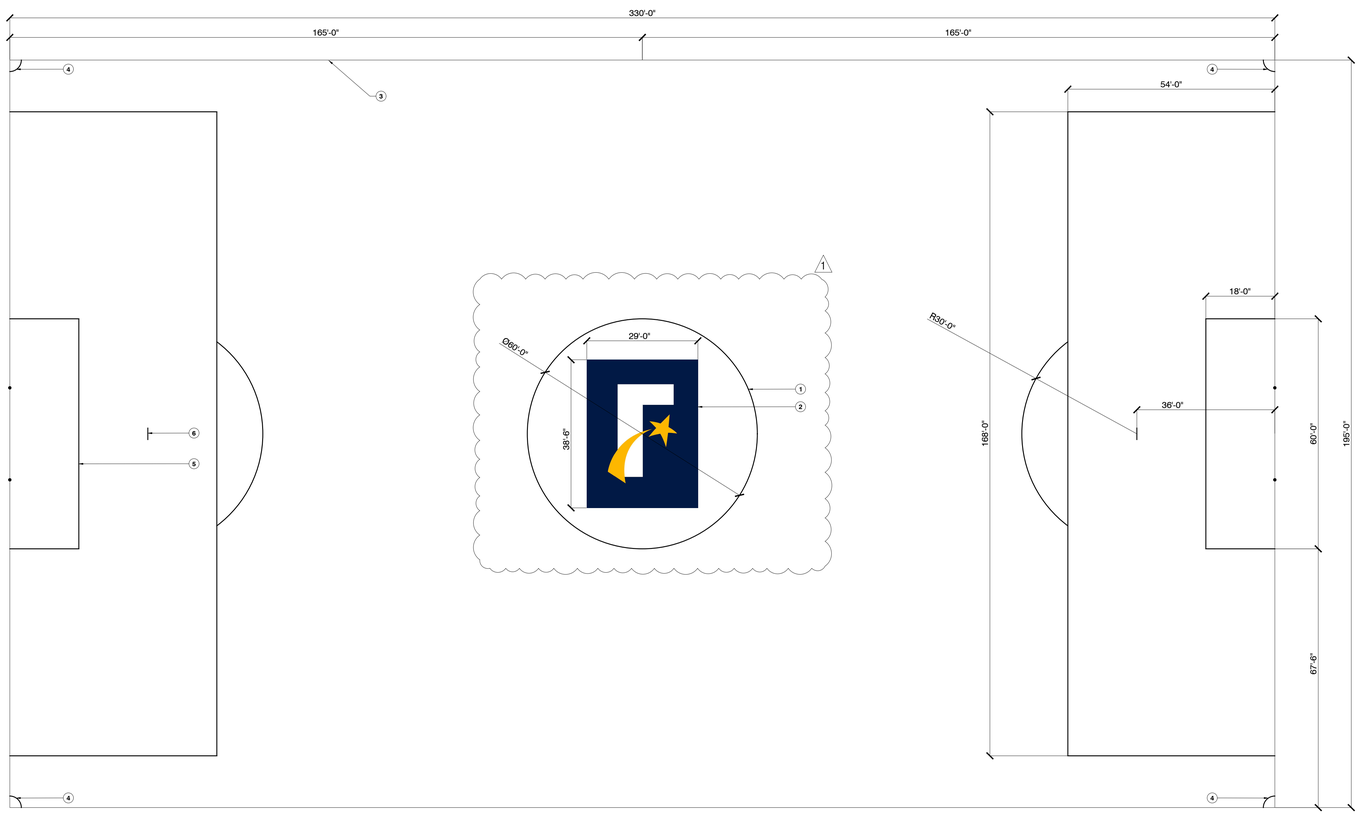

1. CENTER CIRCLE
2. LOGO (RE: SPECIFICATIONS)
3. 4" STRIPING, TYP.
4. CORNER KICK AREA, TYP.
5. GOAL AREA, TYP.
6. PENALTY MARK

NOTES:
1. TOUCHLINES AND GOAL LINES TO BE 4" TUFTED, ALL OTHER STRIPING TO BE INLAID.
2. SOCCER LINES ARE TO BE EITHER DARK BLUE OR GOLD.

M1 STRIPING PLAN
DETAIL-FILE

SCALE: 3/4" = 1'-0"

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Profession Name: Architectural Corp.
Licensee Number: 000377

CONSTRUCTION DETAILS - STRIPING PLAN

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GENERAL LANDSCAPE NOTES:

1. ALL WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING AND NEW UTILITY LOCATIONS PRIOR TO PLANTING, AND SHALL REPORT ANY UTILITY CONFLICTS TO THE CONSTRUCTION MANAGER. ANY DAMAGE TO UTILITIES OR OTHER SITE IMPROVEMENTS CAUSED BY THE CONTRACTOR WILL BE REPAIRED AT NO COST TO THE OWNER. REFER TO CIVIL AND MEP DRAWINGS FOR PROPOSED UTILITY LOCATIONS AND EXTERIOR LIGHTING LOCATIONS.
3. THE TRUNK FLARE (AT THE BASE OF THE TREE OR SHRUB) SHALL BE PROPERLY EXPOSED FOR ALL PLANTINGS.
4. THE CONTRACTOR SHALL KEEP ROOT BALLS INTACT PRIOR TO AND DURING PLANTING OPERATIONS. PLANTS WITH BROKEN OR DAMAGED ROOT BALLS SHALL BE REJECTED AND IMMEDIATELY REMOVED FROM THE SITE. KEEP ROOT BALLS DAMP AND PROTECTED FROM DAMAGE DO TO WIND AND SUN. DO NOT SHAVE ROOT BALL. ALL ROOTBALL CONTAINMENT DEVICES INCLUDING BUT NOT LIMITED TO: WIRE BASKETS AND BURLAP FABRIC, SHALL BE REMOVED FROM THE ENTIRE TOP AND 2/3 OF SIDES OF ROOT BALL PRIOR TO INSTALLATION.
5. THE OWNER RESERVES THE RIGHT TO SUBSTITUTE PLANT MATERIAL TYPE, SIZE, AND / OR QUANTITY.
6. THE OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT CONFORMING TO THE SPECIFICATIONS.
7. ALL PLANT MATERIAL MUST CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK (A.S.N.S.), LATEST EDITION PUBLISHED BY THE (ANLA) ANSI Z60.1. THIS IS A REPRESENTATIVE GUIDELINE SPECIFICATION ONLY AND WILL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR THE PLANT MATERIAL.
8. LARGER SIZED PLANT MATERIALS OF THE SPECIES LISTED MAY BE USED IF THE STOCK CONFORMS TO THE A.S.N.S. ALL SPECIES SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.
9. ANY MATERIAL WHICH DIES, OR DEFOLIATES (PRIOR TO ACCEPTANCE OF THE WORK) WILL BE PROMPTLY REMOVED AND REPLACED FREE OF CHARGE
10. ALL PLANT MATERIAL SHALL BE GUARANTEED TO BE IN LIVE AND HEALTHY CONDITION FOR ONE FULL GROWING SEASON (ONE YEAR) AFTER FINAL PROJECT ACCEPTANCE OR SHALL BE REPLACED FREE OF CHARGE WITH SAME GRADE AND SPECIES. THE TERMS AND CONDITIONS OF A WARRANTY PERIOD GUARANTEEING THE SURVIVAL OF THE PLANTS OF THIS PLAN SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR AND AGREED TO BY THE OWNER. THE OWNER SHALL PROVIDE FOR THE MAINTENANCE OF PLANTINGS PER THIS PLAN COMMENCING WITH THE END OF THE WARRANTY PERIOD.
11. THE LOCATION OF PLANT MATERIAL IS CRITICAL AND SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS. STAKE OR MARK LOCATION OF ALL PLANT MATERIAL AND BED LINE LOCATIONS. THE CONTRACTOR WILL OBTAIN APPROVAL OF LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF ALL MATERIAL.
12. SAVE AND PROVIDE TREE PROTECTION FOR ALL EXISTING TREES WITHIN THE LIMITS OF CONSTRUCTION.
13. THE LANDSCAPE CONTRACTOR SHALL REMOVE FROM THE SITE ALL ROCK AND DEBRIS IN THE AREAS OF PROPOSED NEW PLANTINGS.
14. THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS DETRIMENTAL TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH PLANTING MIX.
15. NOT LESS THAN 3 INCHES OR MORE THAN 4 INCHES OF SHREDDED HARDWOOD MULCH SHALL BE APPLIED TO THE SOIL SURFACE OF THE TREE AND SHRUB PLANTING AREAS AS A TOP DRESSING AND FINAL STEP IN PLANT MATERIAL INSTALLATION (SEE SPECIFICATION). APPLY PRE-EMERGENT TO ALL PLANTING BEDS PRIOR TO MULCHING.
16. REMOVE AND DISPOSE OF ALL PLANT MATERIAL ON PROJECT AREA INCLUDING BUT NOT LIMITED TO: TURF, SHRUBS, AND GROUND COVER, EXCEPT THOSE DESIGNATED FOR RELOCATION.
17. DAMAGED TURF AREAS ADJACENT TO PLANTING AREAS SHALL BE RESTORED AND SODDED TO MATCH EXISTING ADJACENT TOPOGRAPHY AND TURF TYPE. SEED AS SPECIFIED ALL LANDSCAPE AREAS DISTURBED BY CONSTRUCTION.
18. ALL SOIL SURFACES NOT DESIGNATED FOR PLANTING OF TREES, SHRUBS, AND/OR GROUNDCOVERS PER THIS PLAN ARE TO BE SODDED WITH TURFGRASS ADEQUATE TO PROVIDE TOTAL COVERAGE WITHIN THE FIRST GROWING SEASON. SOD SHALL BE USED FOR TURF AREAS IN EXCESS OF 1:6 SLOPE TO PROVIDE IMMEDIATE COVERAGE FOR SOIL STABILIZATION. TURF TYPE SHALL BE TO MATCH EXISTING TURF AREAS ADJACENT TO THE PROJECT LIMITS.
19. THE LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIAL UNTIL THE PERMANENT (OR TEMPORARY) IRRIGATION SYSTEM IS FULLY FUNCTIONAL. THE CONTRACTOR SHALL VERIFY THAT THE PLANT MATERIAL IS PROPERLY WATERED BY THE IRRIGATION SYSTEM DURING THE ENTIRE WARRANTY PERIOD. IF THE SITE DEVELOPMENT DOES NOT INCLUDE AN IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS UNTIL THE WARRANTY PERIOD ENDS.
20. FINAL GRADE OF PLANTER SOIL SURFACES ARE TO BE 2 INCHES BELOW ADJACENT CURBING, WALKS, PAVEMENTS AND TURF AREAS TO ACCOMMODATE A TOP DRESSING OF MULCH. PROVIDE POSITIVE DRAINAGE TO STORM INLETS. SEE CIVIL PLANS.
21. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF SPRINKLER HEADS, VALVES AND CONTROLS OF ANY EXISTING IRRIGATION SYSTEM. COMPONENTS SHALL BE DESIGNATED TO REMAIN, TO BE RELOCATED, OR TO BE REMOVED.
22. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPLANTING AND MULCHING ANY AREAS OF GROWTH THAT HAS NOT BECOME ESTABLISHED DURING THE NEXT PERMANENT PLANTING SEASON.
23. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO PROVIDE THE OWNER WITH HORTICULTURAL INFORMATION AS A GUIDE TO THE MAINTENANCE OF ALL PLANTS IN THIS PLAN FOR OPTIMUM GROWTH AND VIGOR.
24. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COMPLETELY MAINTAINING THEIR SCOPE OF WORK UNTIL FINAL ACCEPTANCE OF THE WORK BY THE LANDSCAPE ARCHITECT AND OWNER. THIS WORK SHALL INCLUDE, BUT IS NOT LIMITED TO, WATERING, MULCHING, SPRAYING, WEEDING, AND FERTILIZING PLANTING AND TURF AREAS.
25. THE LANDSCAPE CONTRACTOR SHALL TEST PROPOSED PLANTING AREAS FOR SOIL NUTRIENT DEFICIENCIES AND UNDESIRABLE SOIL TEXTURE AND STRUCTURE. BASED ON THE RESULTS OF THIS TESTING, THE LANDSCAPE CONTRACTOR SHALL PROVIDE AND INCORPORATE SOIL CONDITIONING MATERIALS (IE: FERTILIZER, SAND, PEAT, COMPOST, ETC.) AS NECESSARY TO DEVELOP A PLANT GROWTH MEDIUM OF ADEQUATE FERTILITY, STRUCTURE, AND TEXTURE FOR THE ESTABLISHMENT OF LANDSCAPE MATERIALS.

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT	SPACING	QTY
TREES							
	Ace jpr	Acer saccharum 'John Pair' / John Pair Sugar Maple	B & B	2"Cal	10' MIN HT.	As Shown	7
	AG	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	B & B	2"Cal	7`H		6
	CA	Carpinus caroliniana 'JFS-KW6' / Native Flame American Hornbeam	B & B	2"Cal	8` MIN HT.		7
	CER EAS	Cercis canadensis 'Merlot' / Merlot Eastern Redbud	B & B	2"Cal	8`H		4
	Gin psg	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	2"Cal	10' MIN HT.		2
	Gym dio	Gymnocladus dioicus 'Espresso' / Kentucky Coffeetree	B & B	2"Cal	10' MIN HT.		12
	MAL R59	Malus x 'Royal Raindrops' / Royal Raindrops Crabapple	B & B	2"Cal	8`H		9
	QUE BIC	Quercus bicolor / Swamp White Oak	B & B	2"Cal	8`H		7
	QUE LNG	Quercus robur x bicolor 'Long' / Regal Prince® Oak	B & B	2"Cal	10`H		3
	Tax dis	Taxodium distichum / Bald Cypress	B & B	2"Cal	10' MIN HT.		7
	ULM CAR	Ulmus x 'Frontier' / Frontier Elm	B & B	2"Cal	10' MIN HT.		25
EVERGREEN TREES							
	Pic abi	Picea abies / Norway Spruce	B & B		12` MIN. HT.		4

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	QTY
SHRUBS						
	Hq	Hydrangea quercifolia `Sike`s Dwarf` / Dwarf Oakleaf Hydrangea	3 gal			14
	Jun fo2	Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal			42
	Jun hug	Juniperus horizontalis 'Hughes' / Hughes Creeping Juniper	3 gal			34
	Te	Taxus x media 'Everlow' / Everlow Anglo-Japanese Yew	3 gal	18" HT.	4 - 5 FT	10

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	SPACING	QTY
GROUND COVERS							
	As	Achillea millefolium `Saucy Seduction` / Saucy Seduction Yarrow	1 GAL			24" o.c.	95
	AH	Amsonia hubrichtii / Arkansas Bluestar	1 GAL			36" o.c.	47
	COR VER	Coreopsis verticillata 'Moonbeam' / Moonbeam Tickseed	1 GAL	12-18"	24-30"	24" o.c.	145
	Ep	Echinacea pallida / Pale Purple Coneflower	1 GAL			18" o.c.	83
	Hem hap	Hemerocallis x 'Happy Returns' / Happy Returns Daylily	1 GAL			24" o.c.	81
	NEP XXC	Nepeta x faassenii 'Cat's Meow' / Cat's Meow Catmint	1 GAL			30" o.c.	105
	Rf	Rudbeckia fulgida `Goldstrum` / Coneflower	1 GAL	12" MIN. HT.		18" o.c.	230
LOW GROUND COVERS							
	Rg	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal	24"		60" o.c.	130
MEDIUM GROUND COVERS							
	BB2	Bouteloua gracilis `Blonde Ambition` / Blue Grama	1 GAL	12" MIN. HT.		30" o.c.	190
	SCH RLS	Schizachyrium scoparium 'Blue Paradise' / Prairie Winds® Little Bluestem	1 GAL			30" o.c.	164
SOD/SEED							
	Dbm pmn	Detention Basin Seed Mix / Prairie Moon Nursery	seed				26,119 sf 16.5 lbs
	Mdm pmn	Mixed-Height Mesic Prairie Seed Mix / Prairie Moon Nursery	seed				25,903 sf 16.0 lbs
	PP	Turf Type Tall Fescue	sod				111,105 sf

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.2

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI
ADAM R. WIECHMAN
NUMBER PLA-2019023580
PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

PLANTING SCHEDULE AND GENERAL NOTES

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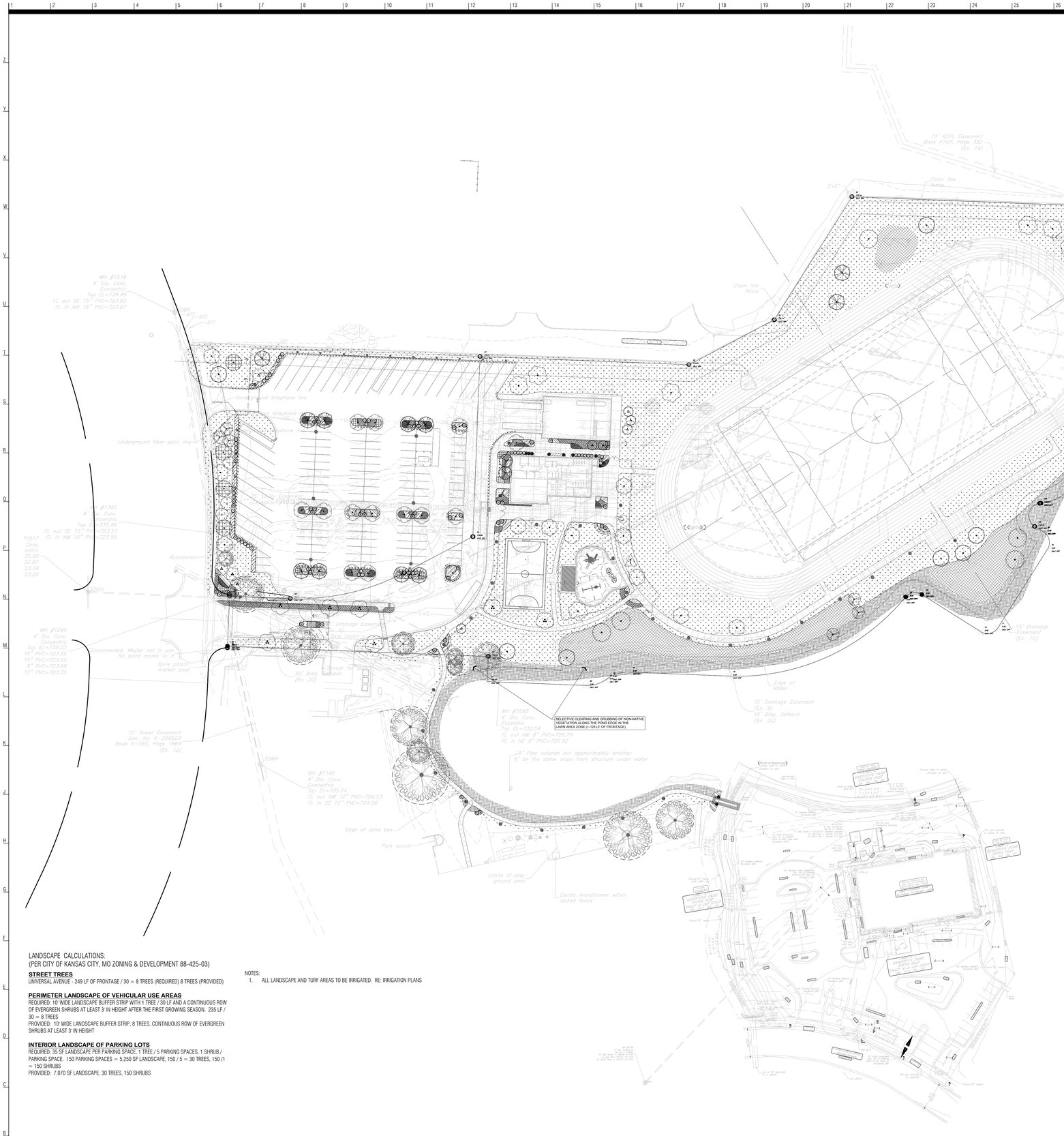

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT	SPACING
TREES						
	Ace jpr	Acer saccharum 'John Pair' / John Pair Sugar Maple	B & B	2"Cal	10' MIN HT.	As Shown
	AG	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	B & B	2"Cal	7' H	
	CA	Carpinus caroliniana 'JFS-KW8' / Native Flame American Hornbeam	B & B	2"Cal	8` MIN HT.	
	CER EAS	Cercis canadensis 'Merlot' / Merlot Eastern Redbud	B & B	2"Cal	8' H	
	Gin psg	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	2"Cal	10' MIN HT.	
	Gym dio	Gymnocladus dioicus 'Espresso' / Kentucky Coffeetree	B & B	2"Cal	10' MIN HT.	
	MAL RS9	Malus x 'Royal Raindrops' / Royal Raindrops Crabapple	B & B	2"Cal	8` H	
	QUE BIC	Quercus bicolor / Swamp White Oak	B & B	2"Cal	8` H	
	QUE LNG	Quercus robur x bicolor 'Long' / Regal Prince® Oak	B & B	2"Cal	10 `H	
	Tax dis	Taxodium distichum / Bald Cypress	B & B	2"Cal	10' MIN HT.	
	ULM CAR	Ulmus x 'Frontier' / Frontier Elm	B & B	2"Cal	10' MIN HT.	
EVERGREEN TREES						
	Pic abi	Picea abies / Norway Spruce	B & B		12` MIN. HT.	

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD
SHRUBS					
	Hq	Hydrangea quercifolia ` Sike`s Dwarf` / Dwarf Oakleaf Hydrangea	3 gal		
	Jun fc2	Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal		
	Jun hug	Juniperus horizontalis 'Hughes' / Hughes Creeping Juniper	3 gal		
	Te	Taxus x media 'Everlow' / Everlow Anglo-Japanese Yew	3 gal	18" HT.	4 - 5 FT

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	SPACING
GROUND COVERS						
	As	Achillea millefolium ` Saucy Seduction` / Saucy Seduction Yarrow	1 GAL			24" o.c.
	AH	Amsonia hubrichtii / Arkansas Bluestar	1 GAL			36" o.c.
	COR VER	Coreopsis verticillata 'Moonbeam' / Moonbeam Tickseed	1 GAL	12-18"	24-30"	24" o.c.
	Ep	Echinacea pallida / Pale Purple Coneflower	1 GAL			18" o.c.
	Hem hap	Hemerocallis x 'Happy Returns' / Happy Returns Daylily	1 GAL			24" o.c.
	NEP XXC	Nepeta x faassenii 'Cat's Meow' / Cat's Meow Catmint	1 GAL			30" o.c.
	Rf	Rudbeckia fulgida `Goldstrum` / Coneflower	1 GAL	12" MIN. HT.		18" o.c.
LOW GROUND COVERS						
	Rg	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal	24"		60" o.c.
MEDIUM GROUND COVERS						
	BBD	Bouteloua gracilis ` Blonde Ambition` / Blue Grama	1 GAL	12" MIN. HT.		30" o.c.
	SCH RLS	Schizachyrium scoparium 'Blue Paradise' / Prairie Winds® Little Bluestem	1 GAL			30" o.c.
SOD/SEED						
	Dbm pmn	Detention Basin Seed Mix / Prairie Moon Nursery	seed			
	Mdm pmn	Mixed-Height Mesic Prairie Seed Mix / Prairie Moon Nursery	seed			
	PP	Turf Type Tall Fescue	sod			

LANDSCAPE CALCULATIONS:
(PER CITY OF KANSAS CITY, MO ZONING & DEVELOPMENT 88-425-03)

STREET TREES
UNIVERSAL AVENUE - 249 LF OF FRONTAGE / 30 = 8 TREES (REQUIRED) 8 TREES (PROVIDED)

PERIMETER LANDSCAPE OF VEHICULAR USE AREAS
REQUIRED: 10' WIDE LANDSCAPE BUFFER STRIP WITH 1 TREE / 30 LF AND A CONTINUOUS ROW OF EVERGREEN SHRUBS AT LEAST 3' IN HEIGHT AFTER THE FIRST GROWING SEASON. 235 LF / 30 = 8 TREES
PROVIDED: 10' WIDE LANDSCAPE BUFFER STRIP, 8 TREES, CONTINUOUS ROW OF EVERGREEN SHRUBS AT LEAST 3' IN HEIGHT

INTERIOR LANDSCAPE OF PARKING LOTS
REQUIRED: 35 SF LANDSCAPE PER PARKING SPACE, 1 TREE / 5 PARKING SPACES, 1 SHRUB / PARKING SPACE. 150 PARKING SPACES = 5,250 SF LANDSCAPE, 150 / 5 = 30 TREES, 150 /1 = 150 SHRUBS
PROVIDED: 7,070 SF LANDSCAPE, 30 TREES, 150 SHRUBS

NOTES:
1. ALL LANDSCAPE AND TURF AREAS TO BE IRRIGATED. RE: IRRIGATION PLANS

A1 OVERALL PLANTING PLAN
1"=50'-0" RE: J1/G001

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CONSTRUCTION DOCUMENTS

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Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI
ADAM R. WIECHMAN
NUMBER PLA-2019023580
PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO.# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

OVERALL PLANTING PLAN

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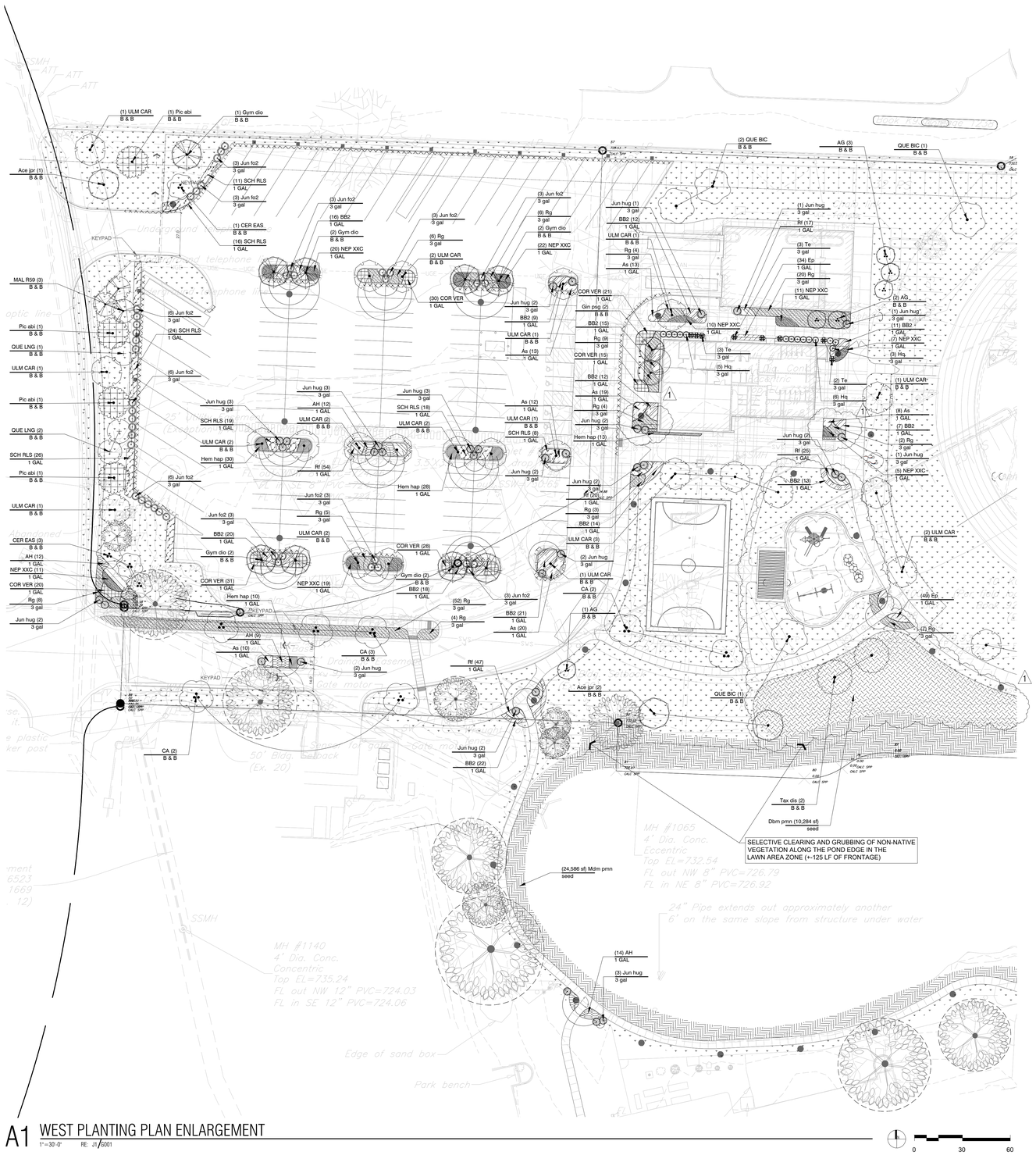

A1 WEST PLANTING PLAN ENLARGEMENT

1" = 30'-0" RE: J1/G001

0 30 60

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	CAL	HEIGHT	SPACING	QTY
TREES							
	Ace jpr	Acer saccharum 'John Pair' / John Pair Sugar Maple	B & B	2"Cal	10' MIN HT.	As Shown	7
	AG	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	B & B	2"Cal	7`H		6
	CA	Carpinus caroliniana 'JFS-KW6' / Native Flame American Hornbeam	B & B	2"Cal	8` MIN HT.		7
	CER EAS	Cercis canadensis 'Merlot' / Merlot Eastern Redbud	B & B	2"Cal	8`H		4
	Gin psg	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	2"Cal	10' MIN HT.		2
	Gym dio	Gymnocladus dioicus 'Espresso' / Kentucky Coffeetree	B & B	2"Cal	10' MIN HT.		12
	MAL R59	Malus x 'Royal Raindrops' / Royal Raindrops Crabapple	B & B	2"Cal	8`H		9
	QUE BIC	Quercus bicolor / Swamp White Oak	B & B	2"Cal	8`H		7
	QUE LNG	Quercus robur x bicolor 'Long' / Regal Prince® Oak	B & B	2"Cal	10`H		3
	Tax dis	Taxodium distichum / Bald Cypress	B & B	2"Cal	10' MIN HT.		7
	ULM CAR	Ulmus x 'Frontier' / Frontier Elm	B & B	2"Cal	10' MIN HT.		25
EVERGREEN TREES							
	Pic abi	Picea abies / Norway Spruce	B & B		12` MIN. HT.		4

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	QTY
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	Hq	Hydrangea quercifolia `Sike`s Dwarf` / Dwarf Oakleaf Hydrangea	3 gal			14
	Jun fo2	Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal			42
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	NEP XXC	Nepeta x faassenii 'Cat's Meow' / Cat's Meow Catmint	1 GAL			30" o.c.	105
	Rf	Rudbeckia fulgida `Goldstrum` / Coneflower	1 GAL	12" MIN. HT.		18" o.c.	230
LOW GROUND COVERS							
	Rg	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal	24"		60" o.c.	130
MEDIUM GROUND COVERS							
	BB2	Bouteloua gracilis `Blonde Ambition` / Blue Grama	1 GAL	12" MIN. HT.		30" o.c.	190
	SCH RLS	Schizachyrium scoparium 'Blue Paradise' / Prairie Winds® Little Bluestem	1 GAL			30" o.c.	164
SOD/SEED							
	Dbm pmn	Detention Basin Seed Mix / Prairie Moon Nursery	seed				26,119 sf
	Mdm pmn	Mixed-Height Mesic Prairie Seed Mix / Prairie Moon Nursery	seed				16.5 lbs
	PP	Turf Type Tall Fescue	sod				25,903 sf 16.0 lbs 111,105 sf

1

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STATE OF MISSOURI — ADAM R. WIECHMAN — NUMBER PLA-2019023580 — PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

WEST PLANTING PLAN ENLARGEMENT

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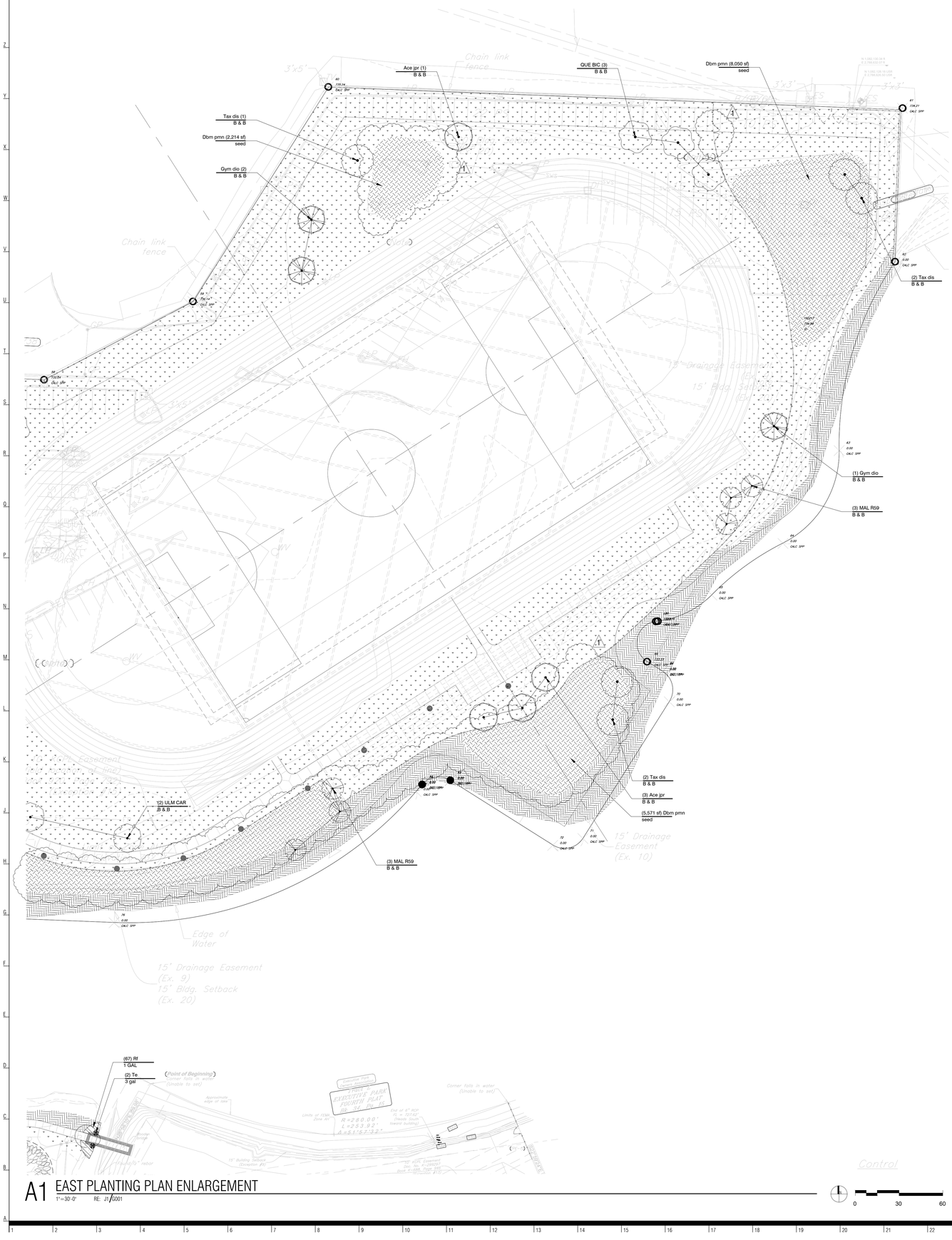

A1 EAST PLANTING PLAN ENLARGEMENT

1" = 30'-0" RE: J1/G001

0 30 60

PLANT SCHEDULE

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TREES							
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	CA	Carpinus caroliniana 'JFS-KW6' / Native Flame American Hornbeam	B & B	2"Cal	8` MIN HT.		7
	CER EAS	Cercis canadensis 'Merlot' / Merlot Eastern Redbud	B & B	2"Cal	8`H		4
	Gin psg	Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	2"Cal	10' MIN HT.		2
	Gym dio	Gymnocladus dioicus 'Espresso' / Kentucky Coffeetree	B & B	2"Cal	10' MIN HT.		12
	MAL R59	Malus x 'Royal Raindrops' / Royal Raindrops Crabapple	B & B	2"Cal	8`H		9
	QUE BIC	Quercus bicolor / Swamp White Oak	B & B	2"Cal	8`H		7
	QUE LNG	Quercus robur x bicolor 'Long' / Regal Prince® Oak	B & B	2"Cal	10`H		3
	Tax dis	Taxodium distichum / Bald Cypress	B & B	2"Cal	10' MIN HT.		7
	ULM CAR	Ulmus x 'Frontier' / Frontier Elm	B & B	2"Cal	10' MIN HT.		25
EVERGREEN TREES							
	Pic abi	Picea abies / Norway Spruce	B & B		12` MIN. HT.		4

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	QTY
SHRUBS						
	Hq	Hydrangea quercifolia `Sike`s Dwarf` / Dwarf Oakleaf Hydrangea	3 gal			14
	Jun fo2	Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal			42
	Jun hug	Juniperus horizontalis 'Hughes' / Hughes Creeping Juniper	3 gal			34
	Te	Taxus x media 'Everlow' / Everlow Anglo-Japanese Yew	3 gal	18" HT.	4 - 5 FT	10

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD	SPACING	QTY
GROUND COVERS							
	As	Achillea millefolium `Saucy Seduction` / Saucy Seduction Yarrow	1 GAL			24" o.c.	95
	AH	Amsonia hubrichtii / Arkansas Bluestar	1 GAL			36" o.c.	47
	COR VER	Coreopsis verticillata 'Moonbeam' / Moonbeam Tickseed	1 GAL	12-18"	24-30"	24" o.c.	145
	Ep	Echinacea pallida / Pale Purple Coneflower	1 GAL			18" o.c.	83
	Hem hap	Hemerocallis x 'Happy Returns' / Happy Returns Daylily	1 GAL			24" o.c.	81
	NEP XXC	Nepeta x faassenii 'Cat's Meow' / Cat's Meow Catmint	1 GAL			30" o.c.	105
	Rf	Rudbeckia fulgida `Goldstrum` / Coneflower	1 GAL	12" MIN. HT.		18" o.c.	230
LOW GROUND COVERS							
	Rg	Rhus aromatica `Gro-Low` / Gro-Low Fragrant Sumac	3 gal	24"		60" o.c.	130
MEDIUM GROUND COVERS							
	BB2	Bouteloua gracilis `Blonde Ambition` / Blue Grama	1 GAL	12" MIN. HT.		30" o.c.	190
	SCH RLS	Schizachyrium scoparium 'Blue Paradise' / Prairie Winds® Little Bluestem	1 GAL			30" o.c.	164
SOD/SEED							
	Dbm pmn	Detention Basin Seed Mix / Prairie Moon Nursery	seed				26,119 sf
	Mdm pmn	Mixed-Height Mesic Prairie Seed Mix / Prairie Moon Nursery	seed				16.5 lbs
	PP	Turf Type Tall Fescue	sod				25,903 sf
							16.0 lbs
							111,105 sf

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.2

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	ADDENDUM 1	06.18.2026

STATE OF MISSOURI
ADAM R. WIECHMAN
NUMBER PLA-2019023580
PROFESSIONAL LANDSCAPE ARCHITECT

Adam R. Wiechman - Landscape Architect
MO# PLA-2019023580

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

EAST PLANTING PLAN ENLARGEMENT

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VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE 3/4"	PIPE 1"	PIPE 1 1/2"	PIPE 2"	DESIGN PSI	VELOCITY	FRICTION LOSS	VALVE LOSS	PSI	PSI LESS VALVE LOSS	PSI @ POC	RESIDUAL PSI	PRECIP
1	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	13.35	14	71.8	49.4			30	5 Ft.sec.	1.54	5.93	37.5	31.5	51.2	28.8	5.6 in/h
2	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTARY	30.98	25	404.7	11.6	4.5		45	5 Ft.sec.	1.05	2.03	48.1	46.0	61.8	18.3	0.67 in/h
3	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	1.4	210.2 LF	81.5				40	5 Ft.sec.	0.03	7	47.0	40.0	60.6	19.4	0.43 in/h
4	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	30.75	25	209.2	40.0	3.2		30	5 Ft.sec.	1.89	2	33.9	31.9	47.3	32.7	2.39 in/h
5	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	27.21	19	100.8	30.3	3.2		30	5 Ft.sec.	1.64	6.29	37.9	31.6	50.5	29.5	2.67 in/h
6	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	39.9	12	222.8	164.9	44.2	23.8	45	5 Ft.sec.	5.33	3.19	53.5	50.3	63.8	16.2	0.44 in/h
7	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	14.65	2,197 LF	800.9	86.0			40	5 Ft.sec.	5.49	18.7	64.1	45.5	73.6	6.37	0.43 in/h
8	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	48.01	30	247.9	51.5	57.7	30.2	30	5 Ft.sec.	2.64	4.48	37.1	32.6	47.6	32.4	1.68 in/h
9	RAIN BIRD IVM-PGA GLOBE	2"	TURF ROTOR	49.95	18	330.3	126.6	135.9	3.9	45	5 Ft.sec.	5.54	1.5	52.0	50.5	62.1	17.9	0.56 in/h
10	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	48.52	14	283.2	130.1	95.7	48.4	45	5 Ft.sec.	5.28	4.56	54.8	50.3	68.3	11.7	0.48 in/h
11	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	30.9	10	210.3	104.0	11.5		45	5 Ft.sec.	4.43	2.02	51.5	49.4	64.9	15.1	0.5 in/h
12	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTOR	21.63	7	189.9	16.3	9.2		45	5 Ft.sec.	3	6.07	54.1	48.0	68.4	11.6	0.47 in/h
13	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	36.56	10	258.7	9.0	37.5	30.7	45	5 Ft.sec.	2.24	2.75	50.0	47.2	64.4	15.6	0.51 in/h
14	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	48.42	16	404.3	77.4	189.7	5.3	45	5 Ft.sec.	4.43	4.55	54.0	49.4	67.6	12.4	0.54 in/h
15	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTOR	25.68	9	205.8	46.6	10.8		45	5 Ft.sec.	2.93	6.23	54.2	47.9	67.5	12.5	0.58 in/h
16	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	40.63	24	156.0	95.8	68.2	38.6	30	5 Ft.sec.	3.7	3.3	37.0	33.7	50.5	29.5	1.51 in/h
17	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	46.35	15	347.8	73.2	50.6	5.0	45	5 Ft.sec.	4.06	4.22	53.3	49.1	66.9	13.1	0.58 in/h
18	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	40.58	24	198.4	95.9	22.2	21.4	30	5 Ft.sec.	3.39	3.29	36.7	33.4	49.9	30.1	1.53 in/h
19	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	21.18	10	128.7		15.0		30	5 Ft.sec.	1.25	6.05	37.3	31.3	49.9	30.1	1.38 in/h
20	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	48.12	26	156.8	100.0	124.5	60.7	30	5 Ft.sec.	5.19	4.5	39.7	35.2	51.3	28.8	0.83 in/h
21	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	38.57	14	245.2	136.5	21.7	11.0	45	5 Ft.sec.	3.78	3.01	51.8	48.8	63.3	16.7	0.6 in/h
22	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTOR	24.71	9	177.8	69.5	8.2		45	5 Ft.sec.	2.68	6.19	53.9	47.7	65.0	15.0	0.6 in/h
23	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTOR	21.63	7	192.1	13.1	10.3		45	5 Ft.sec.	2.95	6.07	54.0	47.9	65.8	14.3	0.47 in/h
24	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTOR	36.56	10	260.2	8.9	36.7	29.9	45	5 Ft.sec.	2.21	2.75	50.0	47.2	61.8	18.3	0.5 in/h
25	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTARY	44.17	53	490.1	47.3	116.9	5.4	45	5 Ft.sec.	4.34	7	56.3	49.3	68.1	11.9	0.73 in/h
26	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	35.32	28	163.8	5.8	46.1		30	5 Ft.sec.	0.86	2.59	33.4	30.9	45.8	34.3	3.26 in/h
27	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	24.66	32	193.7	31.5	84.2		30	5 Ft.sec.	2.64	6.19	38.8	32.6	51.6	28.4	3.12 in/h
28	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTARY	22.36	23	317.2	17.0	7.0		45	5 Ft.sec.	1.56	6.09	52.7	46.6	65.5	14.5	0.62 in/h
29	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTOR	27.58	9	187.0	46.7	51.1		45	5 Ft.sec.	3.55	6.3	54.9	48.6	68.2	11.8	0.52 in/h
30	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	32.25	22	174.4	64.7	21.0		30	5 Ft.sec.	2.08	2.19	34.3	32.1	47.9	32.1	1.86 in/h
31	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	1.25	187.2 LF	87.5				40	5 Ft.sec.	0.02	7	47.0	40.0	61.1	18.9	0.43 in/h
32	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	38.2	22	151.4	139.4	31.4	3.5	30	5 Ft.sec.	3.49	2.97	36.5	33.5	51.3	28.7	0.84 in/h
33	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	27.44	15	143.7	60.4	12.0		30	5 Ft.sec.	3.66	6.3	40.0	33.7	56.3	23.7	0.8 in/h
34	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	1.12	168.9 LF	391.3				40	5 Ft.sec.	0.07	7	47.1	40.1	66.2	13.8	0.43 in/h
35	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	39.84	23	183.1	85.6	60.5	11.4	30	5 Ft.sec.	3.63	3.18	36.8	33.6	56.4	23.6	0.83 in/h
36	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	37.82	21	152.6	114.0	29.1	3.9	30	5 Ft.sec.	3.16	2.92	36.1	33.2	55.9	24.1	0.83 in/h
37	RAIN BIRD IVM-PGA GLOBE	1"	TURF SPRAY	28.78	23	193.7	30.1	27.1		30	5 Ft.sec.	2.39	6.35	38.7	32.4	52.4	27.6	1.2 in/h
38	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	17.91	2,684 LF	1,052	5.3	3.5		40	5 Ft.sec.	3.48	22.8	66.3	43.5	79.8	0.23	0.43 in/h
39	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF ROTARY	48.93	48	576.4	86.9	48.2	10.6	45	5 Ft.sec.	4.03	4.63	53.7	49.0	67.2	12.9	0.74 in/h
40	RAIN BIRD IVM-PGA GLOBE	1-1/2"	TURF SPRAY	32.68	28	177.3	81.9	17.0		30	5 Ft.sec.	2.57	2.25	34.8	32.6	48.3	31.7	2.78 in/h
41	RAIN BIRD IVM-PGA GLOBE	1"	TURF ROTARY	10.15	20	264.9				45	5 Ft.sec.	1.51	5.9	52.4	46.5	66.1	13.9	0.71 in/h
42	RAIN BIRD XCZ-100-IVMQ	1"	AREA FOR DRIPLINE	8.54	1,281 LF	552.0				40	5 Ft.sec.	2.36	10.5	52.9	42.4	66.6	13.4	0.43 in/h

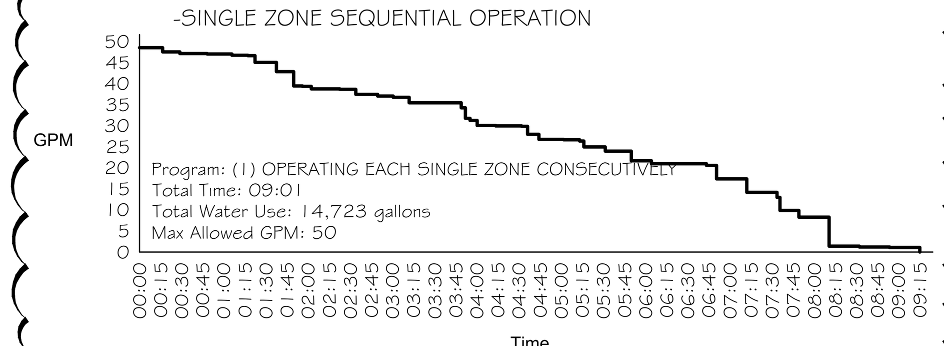
SAMPLE WEEKLY WATERING SCHEDULE - WORSE CASE JULY/ AUGUST - APPLYING 1" WATER DEPTH PER WEEK

NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	mm/WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	5.6 in/h	2 min	2 min	2 min	2 min	2 min	2 min	2 min	1	11	147	21.0
2	RAIN BIRD IVM-PGA GLOBE	TURF ROTARY	0.67 in/h	13 min	13 min	13 min	13 min	13 min	13 min	13 min	1	90	2,789	398
3	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	197	28.2
4	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	2.39 in/h	4 min	4 min	4 min	4 min	4 min	4 min	4 min	1	26	800	114
5	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	2.67 in/h	4 min	4 min	4 min	4 min	4 min	4 min	4 min	1	23	626	89.4
6	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.44 in/h	20 min	20 min	20 min	20 min	20 min	20 min	20 min	1	137	5,466	781
7	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	2,066	295
8	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.68 in/h	6 min	6 min	6 min	6 min	6 min	6 min	6 min	1	36	1,728	247
9	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.56 in/h	16 min	16 min	16 min	16 min	16 min	16 min	16 min	1	108	5,395	771
10	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.48 in/h	18 min	18 min	18 min	18 min	18 min	18 min	18 min	1	125	6,065	866
11	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.5 in/h	18 min	18 min	18 min	18 min	18 min	18 min	18 min	1	120	3,708	530
12	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.47 in/h	19 min	19 min	19 min	19 min	19 min	19 min	19 min	1	127	2,747	392
13	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.51 in/h	17 min	17 min	17 min	17 min	17 min	17 min	17 min	1	119	4,351	622
14	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.54 in/h	16 min	16 min	16 min	16 min	16 min	16 min	16 min	1	112	5,423	775
15	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.58 in/h	15 min	15 min	15 min	15 min	15 min	15 min	15 min	1	104	2,671	382
16	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.51 in/h	6 min	6 min	6 min	6 min	6 min	6 min	6 min	1	40	1,625	232
17	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.58 in/h	15 min	15 min	15 min	15 min	15 min	15 min	15 min	1	104	4,820	689
18	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.53 in/h	6 min	6 min	6 min	6 min	6 min	6 min	6 min	1	40	1,623	232
19	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.38 in/h	7 min	7 min	7 min	7 min	7 min	7 min	7 min	1	44	932	133
20	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	0.83 in/h	11 min	11 min	11 min	11 min	11 min	11 min	11 min	1	73	3,513	502
21	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.6 in/h	15 min	15 min	15 min	15 min	15 min	15 min	15 min	1	101	3,896	557
22	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.6 in/h	15 min	15 min	15 min	15 min	15 min	15 min	15 min	1	100	2,471	353
23	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.47 in/h	19 min	19 min	19 min	19 min	19 min	19 min	19 min	1	128	2,769	396
24	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.5 in/h	18 min	18 min	18 min	18 min	18 min	18 min	18 min	1	122	4,460	637
25	RAIN BIRD IVM-PGA GLOBE	TURF ROTARY	0.73 in/h	12 min	12 min	12 min	12 min	12 min	12 min	12 min	1	83	3,666	524
26	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	3.26 in/h	3 min	3 min	3 min	3 min	3 min	3 min	3 min	1	19	671	95.9
27	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	3.12 in/h	3 min	3 min	3 min	3 min	3 min	3 min	3 min	1	20	493	70.4
28	RAIN BIRD IVM-PGA GLOBE	TURF ROTARY	0.62 in/h	14 min	14 min	14 min	14 min	14 min	14 min	14 min	1	97	2,169	310
29	RAIN BIRD IVM-PGA GLOBE	TURF ROTOR	0.52 in/h	17 min	17 min	17 min	17 min	17 min	17 min	17 min	1	116	3,199	457
30	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.86 in/h	5 min	5 min	5 min	5 min	5 min	5 min	5 min	1	33	1,064	152
31	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	176	25.2
32	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	0.84 in/h	11 min	11 min	11 min	11 min	11 min	11 min	11 min	1	72	2,750	393
33	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	0.8 in/h	11 min	11 min	11 min	11 min	11 min	11 min	11 min	1	75	2,058	294
34	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	158	22.6
35	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	0.83 in/h	11 min	11 min	11 min	11 min	11 min	11 min	11 min	1	72	2,869	410
36	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	0.83 in/h	11 min	11 min	11 min	11 min	11 min	11 min	11 min	1	73	2,761	394
37	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	1.2 in/h	8 min	8 min	8 min	8 min	8 min	8 min	8 min	1	51	1,468	210
38	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	2,525	361
39	RAIN BIRD IVM-PGA GLOBE	TURF ROTARY	0.74 in/h	12 min	12 min	12 min	12 min	12 min	12 min	12 min	1	81	3,963	566
40	RAIN BIRD IVM-PGA GLOBE	TURF SPRAY	2.78 in/h	4 min	4 min	4 min	4 min	4 min	4 min	4 min	1	22	719	103
41	RAIN BIRD IVM-PGA GLOBE	TURF ROTARY	0.71 in/h	13 min	13 min	13 min	13 min	13 min	13 min	13 min	1	85	862	123
42	RAIN BIRD XCZ-100-IVMQ	AREA FOR DRIPLINE	0.43 in/h	21 min	21 min	21 min	21 min	21 min	21 min	21 min	1	141	1,204	172
		TOTALS:		541	541	541	541	541	541	541		3,635	103,064	14,723

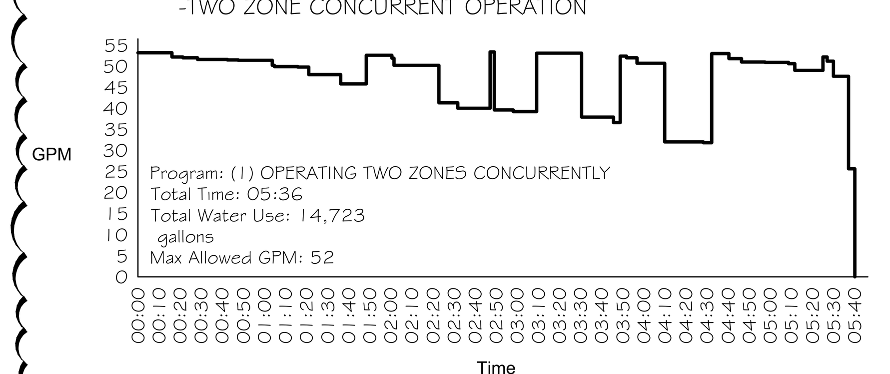
SAMPLE WATER SCHEDULING NOTES:

- SAMPLE WATER SCHEDULE CALCULATIONS ARE BASED ON A FLAT 1" PER WEEK MAXIMUM WATER REQUIREMENT. 1" OF IRRIGATION WATER PER WEEK WILL ALLOW ALL IRRIGATED TURF AREAS TO BE MAINTAINED AT OPTIMUM HEALTH AND APPEARANCE LEVELS DURING THE DRIEST SUMMER MONTHS (TYPICALLY JULY / AUGUST).
- TURF GRASS REQUIRES SPECIFIC AMOUNTS OF WATER TO REMAIN LUSH AND "GOLF COURSE" GREEN DURING DROUGHT CONDITIONS (TYPICALLY JULY / AUGUST). IF THE TURF DOES NOT RECEIVE THE AMOUNT OF WATER IT NEEDS IT WILL BEGIN TO GO DORMANT. DORMANCY BEGINS WITH A VISIBLE LIGHT GREEN, GRAYISH GRASS COLOR. DORMANCY WILL THEN PROCEED TO COLOR SHADES OF BROWN AS THE GRASS MOVES TOWARDS FULL DORMANCY. AT FULL DORMANCY THE GRASS WILL HAVE A VISIBLE "DEAD" APPEARANCE THAT WILL PERSIST UNTIL EITHER NORMAL RAINFALL OR SUPPLEMENTAL IRRIGATION WATER IS RECEIVED. AT THIS POINT THE GRASS IS NOT ACTUALLY DEAD, BUT JUST TEMPORARILY DORMANT. ONCE A CERTAIN LEVEL OF WATER HAS BEEN RECEIVED, THE DORMANT GRASS WILL BEGIN TO "GREEN UP" AND, IF SUFFICIENT WATER IS APPLIED, WILL EVENTUALLY RETURN TO A "GOLF COURSE" GREEN APPEARANCE.
- IF LESS TOTAL WATER USE IS DESIRED, SET LESS TIME ON THE LESS VISIBLE TURF ZONE AREAS AND ALLOW THEM TO GO SEMI-DORMANT TO ENTIRELY DORMANT DURING THE DRIEST MONTHS).
- THE SAMPLE WEEKLY WATERING SCHEDULE IS PROJECTED FOR A 7 DAY PER WEEK X 1 OCCURRENCE PER DAY WATERING SCHEDULE DURING A WORST CASE DROUGHT SCENARIO (TYPICAL JULY / AUGUST) AND WILL VARY DURING THE LANDSCAPE ESTABLISHMENT PERIOD. ALL USAGE FIGURES ARE ESTIMATES ONLY.
- ACTUAL WATER USAGE REQUIREMENTS WILL VARY FROM TIME TO TIME DEPENDING ON ACTUAL SITE AND WEATHER CONDITIONS.
- ACTUAL WATERING REQUIREMENTS WILL VARY DUE TO SOIL COMPOSITION AND DAILY EVAPOTRANSPIRATION CONDITIONS AND SHOULD BE CLOSELY MONITORED AND ADJUSTED AS REQUIRED TO PROMOTE THE ESTABLISHMENT AND SURVIVAL OF THE PLANT MATERIALS COVERED.
- WEEKLY (AND DAILY WHEN REQUIRED DURING DROUGHT CONDITIONS) MONITORING AND ASSOCIATED WATERING SCHEDULE ADJUSTMENTS WILL BE REQUIRED DURING THE FIRST FULL GROWING SEASON UNTIL THE LANDSCAPE IS ESTABLISHED. AFTER THE FIRST YEAR ESTABLISHMENT PERIOD, ACTUAL WATER USAGE, MONITORING AND WATER SCHEDULE ADJUSTMENT REQUIREMENTS CAN BE EXPECTED TO BE SUBSTANTIALLY LESS THAN AS REQUIRED FOR THE FIRST YEAR.
- INCREASE STATION RUNTIMES AND SET MULTIPLE START TIMES AND/OR OPERATE ADDITIONAL ZONES CONCURRENTLY (NOT TO EXCEED MAXIMUM SYSTEM FLOW OF 51.7 GPM) PER DESIRED WATERING DAYS IF AN OFF DAY WATERING SCHEDULE IS DESIRED.
- ESTIMATED MAXIMUM PROJECTED RUNTIME = +/-9 HOURS PER DAY IF OPERATING 1 ZONE AT A TIME IN SEQUENCE.
  = OPERATE TWO ZONES CONCURRENTLY TO REDUCE DAILY RUNTIME TO +/-5.5 HOURS PER DAY
  = NOTE: THE CONTROLLER CAN OPERATE UP TO 16 ZONES CONCURRENTLY, BUT OPERATING GREATER THAN TWO ZONES CONCURRENTLY PRODUCES NO APPRECIABLE SCHEDULING TIME GAIN AND MAY CAUSE UNDESIRABLE FLOW AND PRESSURE ISSUES. A LARGER WATER SUPPLY WOULD BE REQUIRED TO FURTHER SHORTEN RUNTIMES.

SAMPLE DAILY RUNTIME SUMMARY
-SINGLE ZONE SEQUENTIAL OPERATION



SAMPLE DAILY RUNTIME SUMMARY
-TWO ZONE CONCURRENT OPERATION



GENERAL IRRIGATION SYSTEM NOTES:

1. COORDINATE ALL WORK WITH OTHER PROJECT TRADES AS NECESSARY. MAKE ANY NECESSARY MINOR HEAD AND NOZZLE CHANGES THAT MAY NEED TO OCCUR DUE TO FINAL FIELD LAYOUT AND RECORD SUCH CHANGES ON THE AS BUILT DRAWINGS.
2. THE IRRIGATION CONTRACTOR IS REASONABLE FOR ARRANGING AND MAINTAINING ALL UTILITY LOCATES WITHIN THE IRRIGATION SYSTEM WORK SCOPE AREA.
3. THE IRRIGATION SYSTEM DESIGN LAYOUT IS DIAGRAMMATIC. PIPE AND EQUIPMENT IS SHOWN UNDER HARD SURFACES FOR PLAN CLARITY ONLY. INSTALL ALL SYSTEM COMPONENTS IN GREEN SPACE AREAS WHENEVER POSSIBLE.
4. 51.7 GPM @ 76.93 PSI MINIMUM STATIC PRESSURE IS REQUIRED AT THE GREEN SPACE AREA POINT OF CONNECTION (POC) FOR THE SYSTEM TO PROPERLY FUNCTION.
   - IT IS ANTICIPATED THAT THE ACTUAL AVAILABLE PSI AT THE POC WILL BE LESS THAN THE MINIMUM REQUIRED.
   - A SMALL BOOSTER PUMP STATION, FURNISHED AND INSTALLED BY THE IRRIGATION CONTRACTOR, HAS BEEN SPECIFIED TO OVERCOME INSUFFICIENT POC STATIC PRESSURE.
   - THE IRRIGATION CONTRACTOR SHALL COORDINATE 208/230VAC SINGLE PHASE POWER SUPPLY TO THE BOOSTER PUMP LOCATION WITH THE GENERAL AND MEP CONTRACTORS.
   - THE IRRIGATION CONTRACTOR SHALL FIELD TEST AND DOCUMENT THE POC FLOW AND PRESSURE PRIOR TO ORDERING THE BOOSTER PUMP STATION AND BEGINNING THE SYSTEM INSTALLATION. THE FINAL BOOSTER PUMP SPECIFICATIONS (FINAL PUMP MOTOR SIZE AND REQUIRED PSI BOOST CAN BE MODIFIED AT THIS TIME IF NEEDED). THE IRRIGATION CONTRACTOR SHALL SUBMIT THE POC FLOW AND PRESSURE TEST DOCUMENTATION TO THE GENERAL CONTRACTOR, LANDSCAPE ARCHITECT AND THE IRRIGATION DESIGNER.
   - IF THE POC PRESSURE FIELD TEST RESULT IS GREATER THAN 76.93 PSI, THEN A BOOSTER PUMP STATION WILL NOT BE REQUIRED AND THE IRRIGATION CONTRACTOR SHALL PROVIDE A CREDIT FOR THE COST OF THE BOOSTER PUMP STATION.
5. INCLUDES A BUILDING EXTERIOR, PLASTIC CABINET CONTROLLER INSTALLED WITHIN A WALL MOUNTED POWDER COATED METAL ENCLOSURE. MOUNT THE CONTROLLER AT EYE LEVEL ON THE EXTERIOR BUILDING WALL. THE CONTROLLER LOCATION IS DIAGRAMMATICALLY SHOWN. THE IRRIGATION CONTRACTOR SHALL COORDINATE FINAL LOCATION WITH THE GENERAL CONTRACTOR PRIOR TO BEGINNING SYSTEM INSTALLATION.
   - THE IRRIGATION CONTRACTOR SHALL COORDINATE 120VAC CONTINUOUS POWER SUPPLY TO THE CONTROLLER LOCATION WITH THE GENERAL AND MEP CONTRACTORS.
6. ALL HEADS SHALL BE ATTACHED TO THE LATERAL PIPE WITH FLEX PIPE OR SWING JOINTS OF THE SAME SIZE AS THE HEAD INLET.
7. ADJUST ALL SPRINKLERS TO MINIMIZE OVER-SPRAY ON TO IMPERVIOUS SURFACES.
8. ALL WIRE SHALL BE UL LISTED FOR UNDERGROUND DIRECT BURIAL AND SIZED AS PER THE MANUFACTURER RECOMMENDATION FOR TWO WIRE SYSTEMS.
9. ALL WIRE SPLICES SHALL BE WATERPROOF IN CONSTRUCTION.
10. ALL WIRE AND PIPE SHALL BE INSTALLED AS PER MANUFACTURER SPECIFICATIONS OR BURIED WITH A MINIMUM OF 6" SELECT BACKFILL.
11. ALL IRRIGATION SYSTEM PIPE HAS BEEN SIZED SUCH THAT FLOWS WILL NOT EXCEED A VELOCITY OF 5 FEET PER SECOND DOWN-STREAM OF THE IRRIGATION WATER POINT OF CONNECTION. PIPE AND IRRIGATION COMPONENT DEVICES HAVE BEEN SIZED FOR MANUFACTURER RECOMMENDED OPTIMUM FLOW AND PRESSURE LOSS AND NOT NECESSARILY FOR CONTINUITY OF PIPE AND DEVICE SIZE. USE REDUCER TYPE FITTINGS TO TRANSITION FROM VARYING PIPE AND DEVICE SIZES AS MAY BE REQUIRED TO MAINTAIN THE NOTED MAIN LINE PIPE SIZE.
12. PVC PIPE JOINTS SHALL BE PRIMED WITH COLORED PRIMER PRIOR TO APPLYING PVC CEMENT.
13. ALL TRENCHES AND HOLES SHALL BE BACKFILLED AND COMPACTED TO ORIGINAL GRADE.
14. INSTALL 3/4" MINIMUM SIZE CLS200PVC FOR ALL LATERAL PIPE.
15. THE SYSTEM SHALL BE WINTERIZED BY COMPRESSED AIR BLOW-OUT THROUGH THE THE PROVIDED QUICK COUPLER VALVE TO INSURE A COMPLETE DRAIN DOWN.
16. THE IRRIGATION CONTRACTOR SHALL PROVIDE THOROUGH OWNER/ OPERATOR TRAINING FOR THE OPERATION AND MAINTENANCE OF ALL ASPECTS OF THE IRRIGATION SYSTEM TO INCLUDE COMPONENT INTRODUCTION, PHYSICAL CONTROLLER FEATURES AND OPERATION, CENTRAL CONTROL (IF SPECIFIED), COMPLETE SYSTEM WINTERIZATION BY COMPRESSED AIR BLOW-OUT METHODS, SPRING START-UP PROCEDURES, HEAD AND NOZZLE ADJUSTMENT, AND OVERALL SYSTEM OPERATION AND TROUBLESHOOTING.

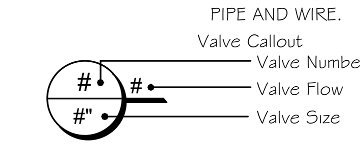
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	PSI	GPM	RADIUS
	RAIN BIRD 1804-SAM-PRS 15EST TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	3	EST	30	0.61	4'x15'
	RAIN BIRD 1804-SAM-PRS 15LCS TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	7	LCS	30	0.49	4'x15'
	RAIN BIRD 1804-SAM-PRS 15RCS TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	4	RCS	30	0.49	4'x15'
	RAIN BIRD 1804-SAM-PRS 15SST TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	54	SST	30	1.21	4'x30'
4	RAIN BIRD 1804-SAM-PRS 04V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	9	ADJ	30	≤ 1.15	4'
6	RAIN BIRD 1804-SAM-PRS 06V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	13	ADJ	30	≤ 1.48	6'
8	RAIN BIRD 1804-SAM-PRS 08V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	64	ADJ	30	≤ 2.88	8'
10	RAIN BIRD 1804-SAM-PRS 10V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	11	ADJ	30	≤ 2.99	10'
12	RAIN BIRD 1804-SAM-PRS 12V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	12	ADJ	30	≤ 2.38	12'
15	RAIN BIRD 1804-SAM-PRS 15V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	197	ADJ	30	≤ 3.67	15'
18	RAIN BIRD 1804-SAM-PRS 18V TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	12	ADJ	30	≤ 5.33	18'
L	RAIN BIRD R-VAN-STRIP 1804-SAM-P45 LCS TURF ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ 1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	2	LCS	45	0.24	5'x15'
R	RAIN BIRD R-VAN-STRIP 1804-SAM-P45 RCS TURF ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ 1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	1	RCS	45	0.24	5'x15'
S	RAIN BIRD R-VAN-STRIP 1804-SAM-P45 SST TURF ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ 1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	11	SST	45	0.48	5'x30'
	RAIN BIRD R-VAN14 1804-SAM-P45 RV-14 TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	71	ADJ	45		14'
	RAIN BIRD R-VAN14 1804-SAM-P45 RV-14F TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	2	360	45	1.27	14'
18	RAIN BIRD R-VAN18 1804-SAM-P45 RV-18 TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	29	ADJ	45		17'
18	RAIN BIRD R-VAN18 1804-SAM-P45 RV-18F TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	4	360	45	1.85	17'
24	RAIN BIRD R-VAN24 1804-SAM-P45 RV-24 TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	47	ADJ	45		23'
24	RAIN BIRD R-VAN24 1804-SAM-P45 RV-24F TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET.	2	360	45	3.48	23'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
1.5	RAIN BIRD 5004-PL-PC-SAM-R 1.5 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	14	45	1.54	35'
2.0	RAIN BIRD 5004-PL-PC-SAM-R 2.0 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	4	45	2.07	37'
2.5	RAIN BIRD 5004-PL-PC-SAM-R 2.5 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	3	45	2.51	37'
3.0	RAIN BIRD 5004-PL-PC-SAM-R 3.0 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	126	45	3.09	39'
4.0	RAIN BIRD 5004-PL-PC-SAM-R 4.0 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	1	45	4.01	42'
6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0 TURF ROTOR, 4IN. POP-UP WITH PLASTIC RISER. ADJUSTABLE TO FULL CIRCLE. STANDARD ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, AND FLOW SHUT-OFF DEVICE. WITH SEAL-A-MATIC CHECK VALVE.	10	45	6.01	44'
3.0	RAIN BIRD 5004-PL-PC-SAM-R-LA 3.0 TURF ROTOR, 4IN. POP-UP. PLASTIC RISER, ADJUSTABLE TO FULL CIRCLE. WITH LOW ANGLE NOZZLE, IN-STEM PRESSURE REGULATOR, FLOW SHUT-OFF DEVICE, AND SEAL-A-MATIC CHECK VALVE.	2	45	3.07	35'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD XCZ-100-IVMQ 1" WIDE FLOW IVM DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESBIVM SMART VALVE W/ FACTORY INSTALLED IVM-SOL 0.3-20 GPM AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER 0.3-20 GPM	6	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFDE-06-18 XFDE ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV & KINK RESISTANT. USE XF INSERT FITTINGS.	6,729 LF	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD IVM-PGA GLOBE 1" ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.	14
	RAIN BIRD IVM-PGA GLOBE 1-1/2" ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.	21
	RAIN BIRD IVM-PGA GLOBE 2" ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.	1
	RAIN BIRD 44-RC 1" 1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	1
	MATCO-NORCA 514TX BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. CROSS HANDLE. SAME SIZE AS MAINLINE PIPE.	1
MV	RAIN BIRD IVM-EFB-CP 2" BRASS REMOTE CONTROL SMART VALVE W/ FACTORY INSTALLED IVM-SOL CONTAMINATION PROOF, SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, REDUCED PRESSURE LOSS.	1
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTER SUITABLE IN KCMO FOR LANDSCAPE IRRIGATION SYSTEMS WITH NO CHEMICAL INJECTION.	1
C	RAIN BIRD ESPLXIVM-LXMM 60 STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. ESPLXIVM 60-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE. INSTALLED IN A RAIN BIRD LXMM POWDER COATED, METAL WALL-MOUNTED CABINET. GROUND SYSTEM W/ RAIN BIRD LXIVMSD SURGE DEVICES INSTALLED IN THE CONTROL VALVE BOXES WHERE SHOWN. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.	1
G	RAIN BIRD LXIVMSD SURGE DEVICE PROVIDES NECESSARY PROTECTION FOR THE ESPLXIVM(P) CONTROLLER AND 2 WIRE PATH. INSTALL (1) LXIVMSD EVERY 500FT OR 15 FIELD DEVICES (WHICHEVER IS SMALLER).	14
SD	RAIN BIRD LXIVMSEN SENSOR DEVICE INTERFACES W/ FLOW SENSOR AND ESP-LX-IVM(P) CONTROLLER.	1
RS	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR RECEVIER. MOUNT SENSOR TRANSMITTER AT AN ADVANTAGEOUS LOCATION AND NOTE ON THE AS BUILT DRAWINGS.	1
FS	RAIN BIRD UFS-200 2IN. ULTRASONIC FLOW SENSOR, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM.	1
BP	MUNRO CP150B COMPLETE PUMP PACKAGE: • 1-1/2HP, SINGLE-PHASE TURF IRRIG PUMP, 2IN. INTAKE, 1-1/2IN. DISCHARGE • PRESSURE ON DEMAND PUMP START + PUMP PROTECTION – SS 220V SMARTBOX WORKS W/ LOW-AMP (<.35) CONTROLLERS OR 2-WIRE SYSTEMS • PRESSURE GAUGE • PRESSURE & TEMP SENSORS • INTAKE & DISCHARGE FITTINGS • ENCLOSURE –LOCKABLE, POWDERCOATED, SS, VENTED.	1
POC	POINT OF CONNECTION 2" 2" POTABLE IRRIGATION WATER POINT OF CONNECTION IN THE GREEN SPACE AREA BY OTHERS. REF: SITE UTILITY PLANS	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 3/4"	11,338 LF
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1"	2,353 LF
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1 1/2"	1,516 LF
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 2"	343.6 LF
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21 2"	3,762 LF
	PIPE SLEEVE: PVC SCHEDULE 40 2" TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.	604.5 LF
	PIPE SLEEVE: PVC SCHEDULE 40 4" TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.	318.3 LF



14-2 IRRIGATION WIRE SCHEDULE

SYMBOL	DESCRIPTION	QTY
2 WIRE PATH A	TWO WIRE PATH "A"	1,609 LF
2 WIRE PATH B	TWO WIRE PATH "B"	2,065 LF

CRITICAL ANALYSIS

Generated:	2026-06-17 17:34
P.O.C. NUMBER: 01	
Water Source Information:	2" Potable Irrigation Water Point of Connection in the green space area by others. Ref: Site Utility Plans
FLOW AVAILABLE	
Point of Connection Size:	2"
Flow Available	51.73 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	45 PSI
Booster Pump pressure provided:	35 PSI
Pressure Available:	80 PSI
DESIGN ANALYSIS	
Maximum Multi-valve Flow:	51.7 GPM
Flow Available at POC:	51.73 GPM
Residual Flow Available:	0.03 GPM
Critical Station:	38
Design Pressure:	40 PSI
Friction Loss:	3.17 PSI
Fittings Loss:	0.31 PSI
Elevation Loss:	0 PSI (negligible)
Loss through Valve:	22.8 PSI
Pressure Req. at Critical Station:	66.3 PSI
Loss for Fittings:	0.56 PSI
Loss for Main Line:	5.61 PSI
Loss for POC to Valve Elevation:	0 PSI (negligible)
Loss for Backflow:	6.09 PSI
Loss for Master Valve:	1.22 PSI
Critical Station Pressure at POC:	79.8 PSI
Pressure Available:	80 PSI
Residual Pressure Available:	0.23 PSI

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Frontier School of Innovation - Athletics Master Plan

1575 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

BRIAN R. GATES — CERTIFIED IRRIGATION DESIGNER — COMMERCIAL — 004400

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
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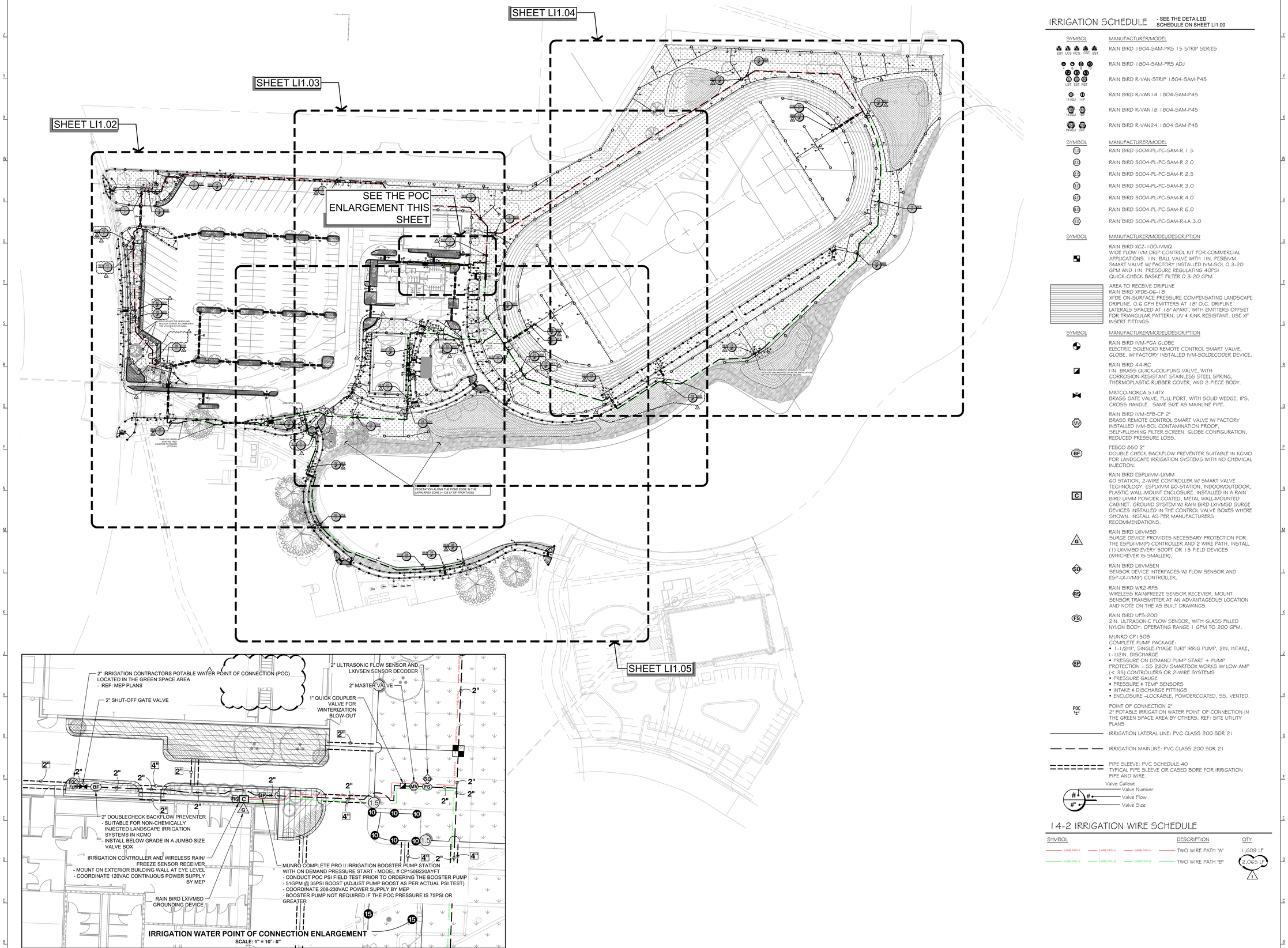
IRRIGATION SCHEDULE AND GENERAL NOTES

LI1.00



IRRIGATION WATER POINT OF CONNECTION ENLARGEMENT
SCALE: 1" = 10' - 0"

IRRIGATION SCHEDULE

- SEE THE DETAILED SCHEDULE ON SHEET LI1.00

SYMBOL	MANUFACTURER/MODEL
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES
LST SST RST	RAIN BIRD 1804-SAM-PRS ADJ
14 ADJ 14 F	RAIN BIRD R-VAN-STRIP 1804-SAM-P45
18 ADJ 18 F	RAIN BIRD R-VAN14 1804-SAM-P45
24 ADJ 24 F	RAIN BIRD R-VAN18 1804-SAM-P45
	RAIN BIRD R-VAN24 1804-SAM-P45

SYMBOL	MANUFACTURER/MODEL
1.5	RAIN BIRD 5004-PL-PC-SAM-R 1.5
2.0	RAIN BIRD 5004-PL-PC-SAM-R 2.0
2.5	RAIN BIRD 5004-PL-PC-SAM-R 2.5
3.0	RAIN BIRD 5004-PL-PC-SAM-R 3.0
4.0	RAIN BIRD 5004-PL-PC-SAM-R 4.0
6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0
ADJ	RAIN BIRD 5004-PL-PC-SAM-R-LA 3.0

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-IVMQ WIDE FLOW IVM DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESBIVM SMART VALVE W/ FACTORY INSTALLED IVM-SOL 0.3-20 GPM AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER 0.3-20 GPM
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFDE-06-18 XFDE ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV & KINK RESISTANT. USE XF INSERT FITTINGS.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD IVM-PGA GLOBE ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.
	RAIN BIRD 44-RC 1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.
	MATCO-NORCA 514TX BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. CROSS HANDLE. SAME SIZE AS MAINLINE PIPE.
MV	RAIN BIRD IVM-EFB-CP 2" BRASS REMOTE CONTROL SMART VALVE W/ FACTORY INSTALLED IVM-SOL CONTAMINATION PROOF, SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, REDUCED PRESSURE LOSS.
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTER SUITABLE IN KCMO FOR LANDSCAPE IRRIGATION SYSTEMS WITH NO CHEMICAL INJECTION.
C	RAIN BIRD ESPLXIVM-LXMM GO STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. ESPLXIVM GO-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE. INSTALLED IN A RAIN BIRD LXMM POWDER COATED, METAL WALL-MOUNTED CABINET. GROUND SYSTEM W/ RAIN BIRD LXIVMSD SURGE DEVICES INSTALLED IN THE CONTROL VALVE BOXES WHERE SHOWN. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.
G	RAIN BIRD LXIVMSD SURGE DEVICE PROVIDES NECESSARY PROTECTION FOR THE ESPLXIVM(P) CONTROLLER AND 2 WIRE PATH. INSTALL (1) LXIVMSD EVERY 500FT OR 15 FIELD DEVICES (WHICHEVER IS SMALLER).
SD	RAIN BIRD LXIVMSEN SENSOR DEVICE INTERFACES W/ FLOW SENSOR AND ESP-LX-IVM(P) CONTROLLER.
RS	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR RECEVIER. MOUNT SENSOR TRANSMITTER AT AN ADVANTAGEOUS LOCATION AND NOTE ON THE AS BUILT DRAWINGS.
FS	RAIN BIRD UFS-200 2IN. ULTRASONIC FLOW SENSOR, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM.
BP	MUNRO CP150B COMPLETE PUMP PACKAGE: • 1-1/2HP, SINGLE-PHASE TURF IRRIG PUMP, 2IN. INTAKE, 1-1/2IN. DISCHARGE • PRESSURE ON DEMAND PUMP START + PUMP PROTECTION – 55 220V SMARTBOX WORKS W/ LOW-AMP (<.35) CONTROLLERS OR 2-WIRE SYSTEMS • PRESSURE GAUGE • PRESSURE & TEMP SENSORS • INTAKE & DISCHARGE FITTINGS • ENCLOSURE –LOCKABLE, POWDERCOATED, 5S, VENTED.
POC	POINT OF CONNECTION 2" 2" POTABLE IRRIGATION WATER POINT OF CONNECTION IN THE GREEN SPACE AREA BY OTHERS. REF: SITE UTILITY PLANS
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

14-2 IRRIGATION WIRE SCHEDULE

SYMBOL	DESCRIPTION	QTY
2 WIRE PATH A / 2 WIRE PATH A / 2 WIRE PATH A	TWO WIRE PATH "A"	1,609 LF
2 WIRE PATH B / 2 WIRE PATH B / 2 WIRE PATH B	TWO WIRE PATH "B"	2,065 LF

A1 IRRIGATION PLAN
1"=50'-0" RE: J1/G001

0 50 100

bnim

BNIM Architects — Architect
2460 Pershing Road, Suite 100, Jackson County, Kansas City MO 64108
p.816.783.1500 f.816.783.1501
MO State Certificate of Authority #000377

GBA — Civil Engineer
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p.913.492.0400
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Bob D. Campbell & Co. — Structural Engineer
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Certificate of Authority

PKMR Engineers — MEP Engineer
13300 West 98th St, Lenexa, KS 66215
p.913.492.2400
Certificate of Authority

Frontier School of Innovation - Athletics Master Plan

1575 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

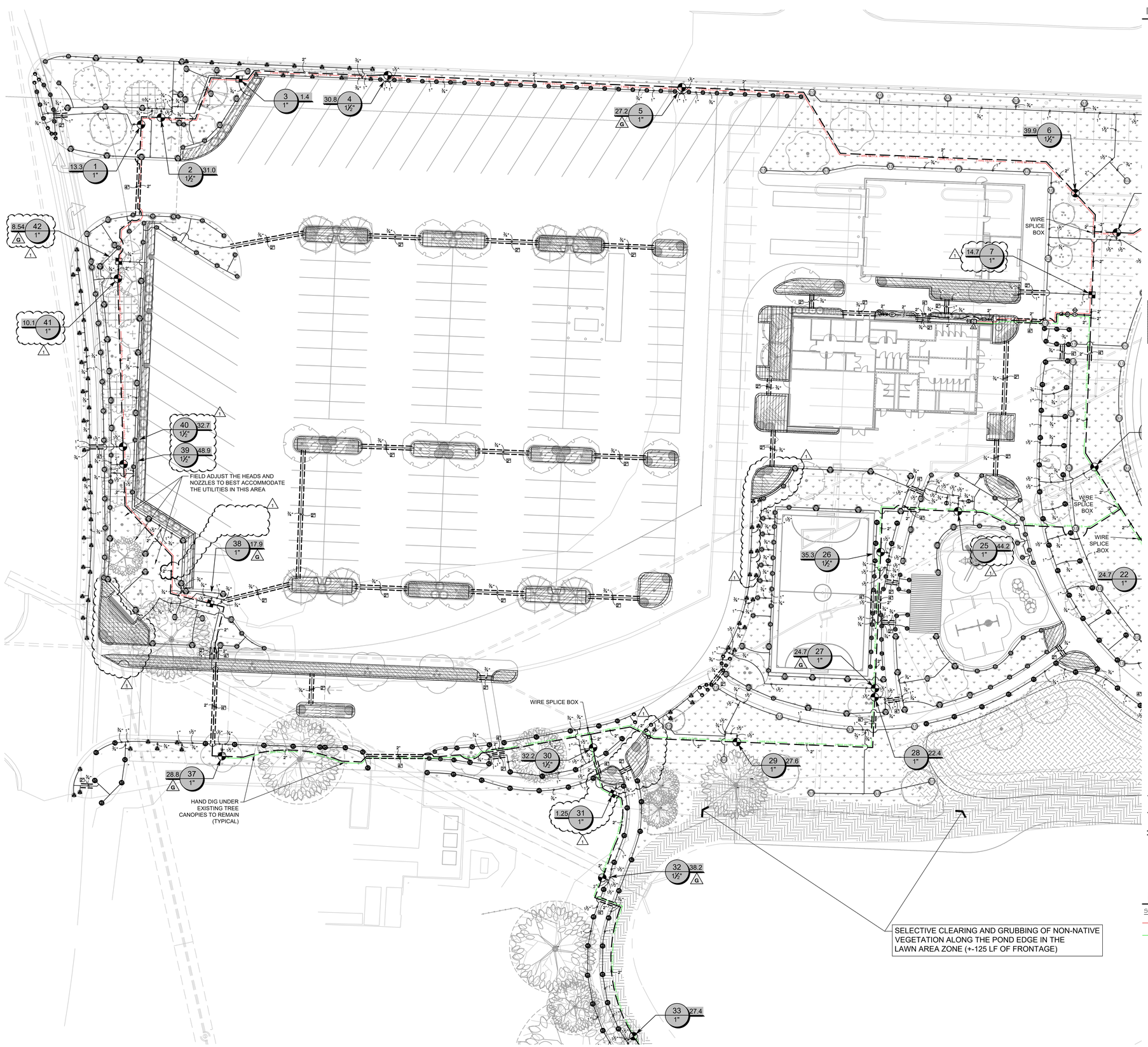
Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

BRIAN R. GATES — 004400 — REGISTERED LANDSCAPE ARCHITECT — CONSERVATION COMMERCIAL

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

IRRIGATION PLAN - OVERALL SITE

LI1.01



IRRIGATION SCHEDULE

- SEE THE DETAILED SCHEDULE ON SHEET LI1.00

SYMBOL	MANUFACTURER/MODEL
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES
	RAIN BIRD 1804-SAM-PRS ADJ
LST SST HST	RAIN BIRD R-VAN-STRIP 1804-SAM-P45
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18 F 18 ADJ	RAIN BIRD R-VAN18 1804-SAM-P45
24 ADJ 24 F	RAIN BIRD R-VAN24 1804-SAM-P45

SYMBOL	MANUFACTURER/MODEL
1.5	RAIN BIRD 5004-PL-PC-SAM-R 1.5
2.0	RAIN BIRD 5004-PL-PC-SAM-R 2.0
2.5	RAIN BIRD 5004-PL-PC-SAM-R 2.5
3.0	RAIN BIRD 5004-PL-PC-SAM-R 3.0
4.0	RAIN BIRD 5004-PL-PC-SAM-R 4.0
6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0
LA3.0	RAIN BIRD 5004-PL-PC-SAM-R-LA 3.0

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-IVMQ WIDE FLOW IVM DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESBIVM SMART VALVE W/ FACTORY INSTALLED IVM-SOL 0.3-20 GPM AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER 0.3-20 GPM
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFDE-06-18 XFDE ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV & KINK RESISTANT. USE XF INSERT FITTINGS.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD IVM-PGA GLOBE ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.
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	MATCO-NORCA 514TX BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. CROSS HANDLE. SAME SIZE AS MAINLINE PIPE.
MV	RAIN BIRD IVM-EFB-CP 2" BRASS REMOTE CONTROL SMART VALVE W/ FACTORY INSTALLED IVM-SOL CONTAMINATION PROOF, SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, REDUCED PRESSURE LOSS.
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTER SUITABLE IN KCMO FOR LANDSCAPE IRRIGATION SYSTEMS WITH NO CHEMICAL INJECTION.
C	RAIN BIRD ESPLXIVM-LXMM GO STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. ESPLXIVM GO-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE. INSTALLED IN A RAIN BIRD LXMM POWDER COATED, METAL WALL-MOUNTED CABINET. GROUND SYSTEM W/ RAIN BIRD LXIVMSD SURGE DEVICES INSTALLED IN THE CONTROL VALVE BOXES WHERE SHOWN. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
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SD	RAIN BIRD LXIVMSEN SENSOR DEVICE INTERFACES W/ FLOW SENSOR AND ESP-LX-IVM(P) CONTROLLER.
RS	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR RECEVIER. MOUNT SENSOR TRANSMITTER AT AN ADVANTAGEOUS LOCATION AND NOTE ON THE AS BUILT DRAWINGS.
FS	RAIN BIRD UFS-200 2IN. ULTRASONIC FLOW SENSOR, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM.
BP	MUNRO CP150B COMPLETE PUMP PACKAGE: • 1-1/2HP, SINGLE-PHASE TURF IRRIG PUMP, 2IN. INTAKE, 1-1/2IN. DISCHARGE • PRESSURE ON DEMAND PUMP START + PUMP PROTECTION – 55 220V SMARTBOX WORKS W/ LOW-AMP (<.35) CONTROLLERS OR 2-WIRE SYSTEMS • PRESSURE GAUGE • PRESSURE & TEMP SENSORS • INTAKE & DISCHARGE FITTINGS • ENCLOSURE –LOCKABLE, POWDERCOATED, SS, VENTED.
POC 2"	POINT OF CONNECTION 2" 2" POTABLE IRRIGATION WATER POINT OF CONNECTION IN THE GREEN SPACE AREA BY OTHERS. REF: SITE UTILITY PLANS
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.

Valve Callout
- # — Valve Number
- # — Valve Flow
- #" — Valve Size

14-2 IRRIGATION WIRE SCHEDULE

SYMBOL	DESCRIPTION	QTY
2 WIRE PATH A	TWO WIRE PATH "A"	1,609 LF
2 WIRE PATH B	TWO WIRE PATH "B"	2,065 LF

A1 IRRIGATION PLAN
1"=20'-0" RE: J1/G001

bnim

BNIM Architects — Architect
2460 Pershing Road, Suite 100, Jackson County, Kansas City MO 64108
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MO State Certificate of Authority #000377

GBA — Civil Engineer
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Certificate of Authority

Frontier School of Innovation - Athletics Master Plan

1575 N Universal Ave.
Kansas City, MO 64120

Project No: 14018.20

CONSTRUCTION DOCUMENTS

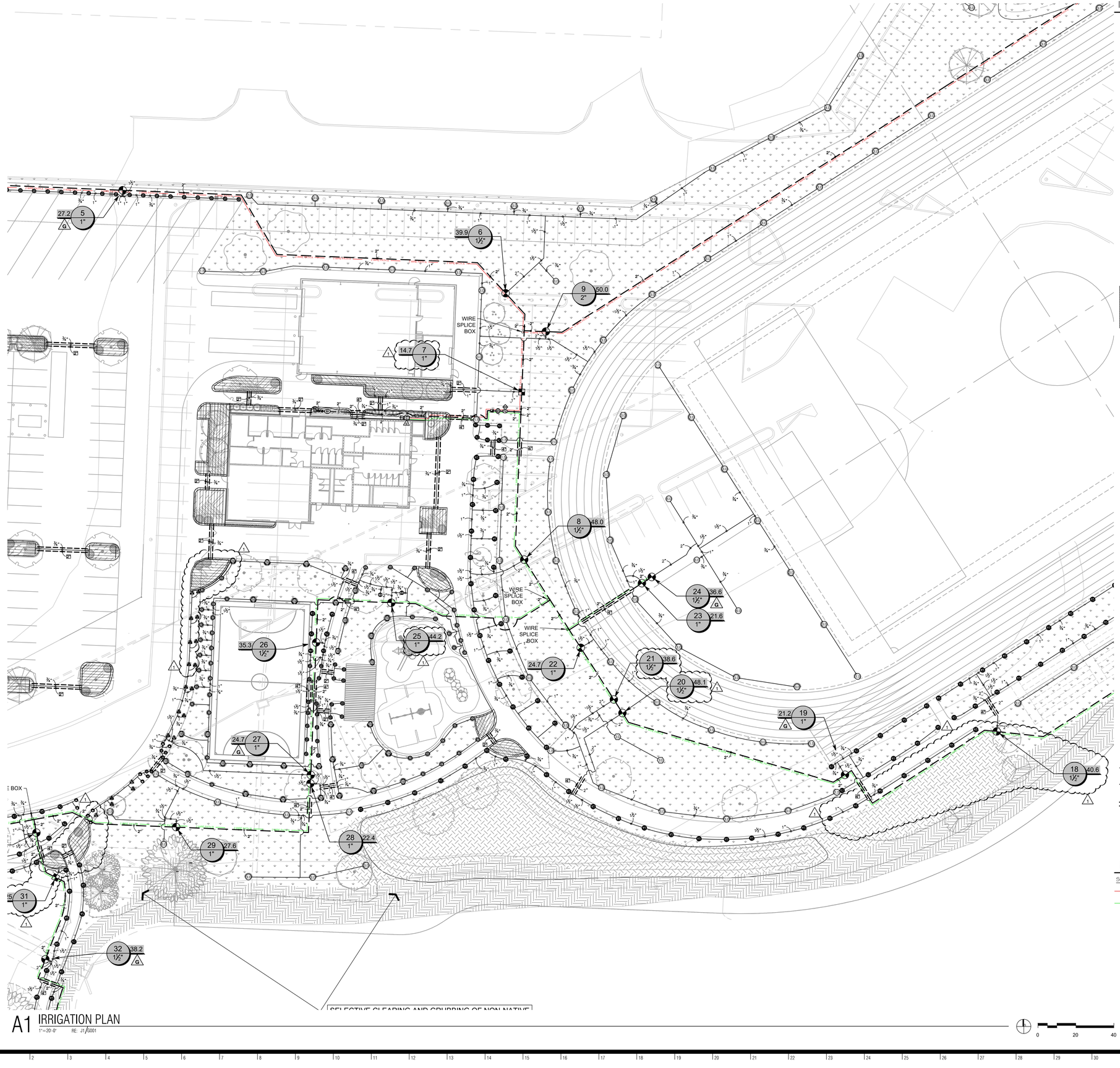
Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

IRRIGATION PLAN

LI1.02



A1 IRRIGATION PLAN
1"=20'-0" RE: J1/G001

0 20 40

IRRIGATION SCHEDULE

- SEE THE DETAILED SCHEDULE ON SHEET LI1.00

SYMBOL	MANUFACTURER/MODEL
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES
	RAIN BIRD 1804-SAM-PRS ADJ
LST SST HST	RAIN BIRD R-VAN-STRIP 1804-SAM-P45
14-ADJ 14-T	RAIN BIRD R-VAN14 1804-SAM-P45
18-ADJ 18-T	RAIN BIRD R-VAN18 1804-SAM-P45
24-ADJ 24-T	RAIN BIRD R-VAN24 1804-SAM-P45

SYMBOL	MANUFACTURER/MODEL
1.5	RAIN BIRD 5004-PL-PC-SAM-R 1.5
2.0	RAIN BIRD 5004-PL-PC-SAM-R 2.0
2.5	RAIN BIRD 5004-PL-PC-SAM-R 2.5
3.0	RAIN BIRD 5004-PL-PC-SAM-R 3.0
4.0	RAIN BIRD 5004-PL-PC-SAM-R 4.0
6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0
LA3.0	RAIN BIRD 5004-PL-PC-SAM-R-LA 3.0

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-IVMQ WIDE FLOW IVM DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1IN. BALL VALVE WITH 1IN. PESBIVM SMART VALVE W/ FACTORY INSTALLED IVM-SOL 0.3-20 GPM AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER 0.3-20 GPM
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFDE-06-18 XFDE ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV & KINK RESISTANT. USE XF INSERT FITTINGS.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD IVM-PGA GLOBE ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.
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	MATCO-NORCA 514TX BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. CROSS HANDLE. SAME SIZE AS MAINLINE PIPE.
MV	RAIN BIRD IVM-EFB-CP 2" BRASS REMOTE CONTROL SMART VALVE W/ FACTORY INSTALLED IVM-SOL CONTAMINATION PROOF, SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, REDUCED PRESSURE LOSS.
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTER SUITABLE IN KCMO FOR LANDSCAPE IRRIGATION SYSTEMS WITH NO CHEMICAL INJECTION.
C	RAIN BIRD ESPLXIVM-LXMM GO STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. ESPLXIVM GO-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE. INSTALLED IN A RAIN BIRD LXMM POWDER COATED, METAL WALL-MOUNTED CABINET. GROUND SYSTEM W/ RAIN BIRD LXIVM5D SURGE DEVICES INSTALLED IN THE CONTROL VALVE BOXES WHERE SHOWN. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.
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SD	RAIN BIRD LXIVM5EN SENSOR DEVICE INTERFACES W/ FLOW SENSOR AND ESP-LX-IVM(P) CONTROLLER.
RS	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR RECEVIER. MOUNT SENSOR TRANSMITTER AT AN ADVANTAGEOUS LOCATION AND NOTE ON THE AS BUILT DRAWINGS.
FS	RAIN BIRD UFS-200 2IN. ULTRASONIC FLOW SENSOR, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM.
BP	MUNRO CP1 50B COMPLETE PUMP PACKAGE: • 1-1/2HP, SINGLE-PHASE TURF IRRIG PUMP, 2IN. INTAKE, 1-1/2IN. DISCHARGE • PRESSURE ON DEMAND PUMP START + PUMP PROTECTION – 5S 220V SMARTBOX WORKS W/ LOW-AMP (<.35) CONTROLLERS OR 2-WIRE SYSTEMS • PRESSURE GAUGE • PRESSURE & TEMP SENSORS • INTAKE & DISCHARGE FITTINGS • ENCLOSURE –LOCKABLE, POWDERCOATED, SS, VENTED.
POC	POINT OF CONNECTION 2" 2" POTABLE IRRIGATION WATER POINT OF CONNECTION IN THE GREEN SPACE AREA BY OTHERS. REF: SITE UTILITY PLANS
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

14-2 IRRIGATION WIRE SCHEDULE

SYMBOL	DESCRIPTION	QTY
2 WIRE PATH A	TWO WIRE PATH "A"	1,609 LF
2 WIRE PATH B	TWO WIRE PATH "B"	2,065 LF

bnim

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Frontier School of Innovation - Athletics Master Plan

1575 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

GRANT R. OAKS 004420 REGISTERED LANDSCAPE ARCHITECT COMMERCIAL

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 0003/7

IRRIGATION PLAN

LI1.03

IRRIGATION SCHEDULE

- SEE THE DETAILED SCHEDULE ON SHEET LI1.00

SYMBOL	MANUFACTURER/MODEL
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES
LST SST HST	RAIN BIRD 1804-SAM-PRS ADJ
	RAIN BIRD R-VAN-STRIP 1804-SAM-P45
14 ADJ 14 F	RAIN BIRD R-VAN14 1804-SAM-P45
18 ADJ 18 F	RAIN BIRD R-VAN18 1804-SAM-P45
24 ADJ 24 F	RAIN BIRD R-VAN24 1804-SAM-P45

SYMBOL	MANUFACTURER/MODEL
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6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0
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IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21

IRRIGATION MAINLINE: PVC CLASS 200 SDR 21

PIPE SLEEVE: PVC SCHEDULE 40
TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.

Valve Callout
- Valve Number
- Valve Flow
- Valve Size

14-2 IRRIGATION WIRE SCHEDULE

SYMBOL	DESCRIPTION	QTY
2 WIRE PATH A / 2 WIRE PATH A / 2 WIRE PATH A	TWO WIRE PATH "A"	1,609 LF
2 WIRE PATH B / 2 WIRE PATH B / 2 WIRE PATH B	TWO WIRE PATH "B"	2,065 LF

A1 IRRIGATION PLAN
1"=20'-0" RE: J1/0001

bnim

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Frontier School of Innovation - Athletics Master Plan

1575 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

CONSTRUCTION DOCUMENTS

Issued: 06.01.2026

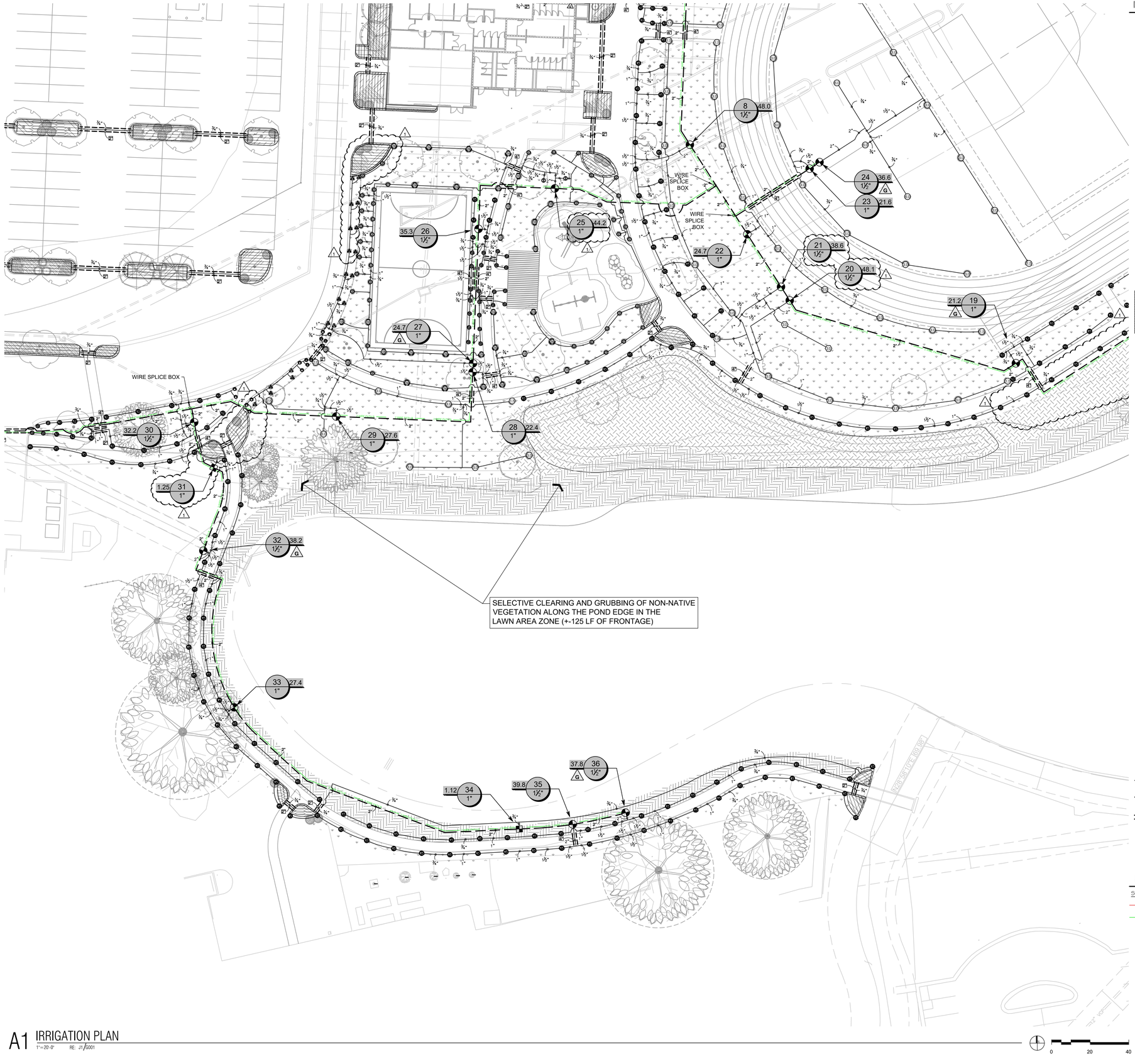
Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

BRIAN R. GAY — 2004001967 — NOTARY PUBLIC — JACKSON COUNTY, MISSOURI — COMMISSION EXPIRES 4/15/2028

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

IRRIGATION PLAN

LI1.04



IRRIGATION SCHEDULE

- SEE THE DETAILED SCHEDULE ON SHEET LI1.00

SYMBOL	MANUFACTURER/MODEL
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES
	RAIN BIRD 1804-SAM-PRS ADJ
LST SST HST	RAIN BIRD R-VAN-STRIP 1804-SAM-P45
14-ADJ 14-F	RAIN BIRD R-VAN14 1804-SAM-P45
18-ADJ 18-F	RAIN BIRD R-VAN18 1804-SAM-P45
24-ADJ 24-F	RAIN BIRD R-VAN24 1804-SAM-P45

SYMBOL	MANUFACTURER/MODEL
1.5	RAIN BIRD 5004-PL-PC-SAM-R 1.5
2.0	RAIN BIRD 5004-PL-PC-SAM-R 2.0
2.5	RAIN BIRD 5004-PL-PC-SAM-R 2.5
3.0	RAIN BIRD 5004-PL-PC-SAM-R 3.0
4.0	RAIN BIRD 5004-PL-PC-SAM-R 4.0
6.0	RAIN BIRD 5004-PL-PC-SAM-R 6.0
LA3.0	RAIN BIRD 5004-PL-PC-SAM-R-LA 3.0

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-IVMQ WIDE FLOW IVM DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS, 1IN. BALL VALVE WITH 1IN. PESBIVM SMART VALVE W/ FACTORY INSTALLED IVM-SOL 0.3-20 GPM AND 1IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER 0.3-20 GPM
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFDE-06-18 XFDE ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE, 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV & KINK RESISTANT. USE XF INSERT FITTINGS.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD IVM-PGA GLOBE ELECTRIC SOLENOID REMOTE CONTROL SMART VALVE, GLOBE. W/ FACTORY INSTALLED IVM-SOLDECODER DEVICE.
	RAIN BIRD 44-RC 1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.
	MATCO-NORCA 514TX BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE, IPS, CROSS HANDLE. SAME SIZE AS MAINLINE PIPE.
MV	RAIN BIRD IVM-EFB-CP 2" BRASS REMOTE CONTROL SMART VALVE W/ FACTORY INSTALLED IVM-SOL CONTAMINATION PROOF, SELF-FLUSHING FILTER SCREEN. GLOBE CONFIGURATION, REDUCED PRESSURE LOSS.
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTER SUITABLE IN KCMO FOR LANDSCAPE IRRIGATION SYSTEMS WITH NO CHEMICAL INJECTION.
C	RAIN BIRD ESPLXIVM-LXMM GO STATION, 2-WIRE CONTROLLER W/ SMART VALVE TECHNOLOGY. ESPLXIVM GO-STATION, INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE. INSTALLED IN A RAIN BIRD LXMM POWDER COATED, METAL WALL-MOUNTED CABINET. GROUND SYSTEM W/ RAIN BIRD LXIVM5D SURGE DEVICES INSTALLED IN THE CONTROL VALVE BOXES WHERE SHOWN. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS.
G	RAIN BIRD LXIVM5D SURGE DEVICE PROVIDES NECESSARY PROTECTION FOR THE ESPLXIVM(P) CONTROLLER AND 2 WIRE PATH. INSTALL (1) LXIVM5D EVERY 500FT OR 15 FIELD DEVICES (WHICHEVER IS SMALLER).
SD	RAIN BIRD LXIVMSEN SENSOR DEVICE INTERFACES W/ FLOW SENSOR AND ESP-LX-IVM(P) CONTROLLER.
RS	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR RECEVIER. MOUNT SENSOR TRANSMITTER AT AN ADVANTAGEOUS LOCATION AND NOTE ON THE AS BUILT DRAWINGS.
FS	RAIN BIRD UFS-200 2IN. ULTRASONIC FLOW SENSOR, WITH GLASS FILLED NYLON BODY. OPERATING RANGE 1 GPM TO 200 GPM.
BP	MUNRO CP150B COMPLETE PUMP PACKAGE: • 1-1/2HP, SINGLE-PHASE TURF IRRIG PUMP, 2IN. INTAKE, 1-1/2IN. DISCHARGE • PRESSURE ON DEMAND PUMP START + PUMP PROTECTION – 55 220V SMARTBOX WORKS W/ LOW-AMP (<.35) CONTROLLERS OR 2-WIRE SYSTEMS • PRESSURE GAUGE • PRESSURE & TEMP SENSORS • INTAKE & DISCHARGE FITTINGS • ENCLOSURE –LOCKABLE, POWDERCOATED, SS, VENTED.
POC 2"	POINT OF CONNECTION 2" 2" POTABLE IRRIGATION WATER POINT OF CONNECTION IN THE GREEN SPACE AREA BY OTHERS. REF: SITE UTILITY PLANS

IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21

IRRIGATION MAINLINE: PVC CLASS 200 SDR 21

PIPE SLEEVE: PVC SCHEDULE 40
TYPICAL PIPE SLEEVE OR CASED BORE FOR IRRIGATION PIPE AND WIRE.

Valve Callout
– Valve Number
– Valve Flow
#" – Valve Size

14-2 IRRIGATION WIRE SCHEDULE

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Profession Name: Architectural Corp.
Licensee Number: 000377

IRRIGATION PLAN

LI1.05

FINISH AND MATERIAL INDEX

CODE	SECTION	FUNCTION	MATERIAL	BASIS OF DESIGN	MATERIAL/ COLOR	FINISH/ INSTALL	REMARKS	LOCATION, UON	NOTES / MFR DATA
DIVISION 03: CONCRETE									
EP01	03 30 00	CONCRETE FLOOR, SEALED	SEALED CONCRETE	CURECRETE - ASHFORD FORMULA	CLEAR			TYPICAL FLOOR FINISH U.N.O.	
VB01	03 30 00	UNDERSLAB VAPOR BARRIER		STEGOWRAP 15 MIL				TYPICAL SoG	
DIVISION 04: MASONRY									
MA01	04 20 00	CMU BLOCK			TBD			TYPICAL MASONRY, RE:STRUCT	PAINTED W BLOCK FILLER
MA02	04 20 00	BRICK	WIRECUT	GLEN-GERY, EMPORIUM+ SERIES	50% BELGIAN GREY, 70% SILVER CITY	RUNNING BOND		TYPICAL FACING BRICK	PENDING SAMPLE APPROVAL
MA03	04 20 00	BRICK	WIRECUT	GLEN-GERY, EMPORIUM+ SERIES	30% BELGIAN GREY, 70% SILVER CITY	STACK BOND		ABOVE 10' DATUM	PENDING SAMPLE APPROVAL
MA04	04 20 00	BRICK	SMOOTH	GLEN-GERY, TRUE GRAY SERIES	POPULAR GRAY	STACK BOND		FIRST COURSE AT 10' DATUM, BELOW WINDOW SILLS	RECESSED 1/4", PENDING SAMPLE APPROVAL
MA05	04 20 00	BRICK	SMOOTH	GLEN-GERY, SIOUX CITY BLUES SERIES	BLUE IRONSPOT	RUNNING BOND		WALLS INSET AT CANOPY	PENDING SAMPLE APPROVAL
DIVISION 05: METALS									
GR01	05 73 00	PIPE RAILINGS	STEEL PIPE		PA03			MAINTENANCE GARAGE STAIRS TO MEZZANINE	
DIVISION 06: WOODS, PLASTICS AND COMPOSITES									
CP01	06 40 23	CASEWORK PULL	STAINLESS STEEL						
PL01	06 40 23	P-LAM CABINETS	PLASTIC LAMINATE	Arborite W449-EV Rift Natural Oak				TYPICAL CASEWORK	
SS01	06 40 23	SOLID SURFACE COUNTERTOP	Solid Surface Quartz Agglomerate	CORIAN - SNOW FLURRY				TYPICAL COUNTERTOP AT OFFICE & RR	UNDERMOUNT SS SINK - SEE MECH
-	06 64 00	NAIL BASE INSULATION SHEATHING	PLYWOOD / POLYISO	HUNTER XCI PLY OR EQUAL	5/8" CDX FACER WITH POLYISO		SEE ASSEMBLIES	ROOF & WALL	
DIVISION 07: ROOFING, WATERPROOFING & INSULATION									
IN01	07 21 00	POLYISOCYANURATE INSULATION						TYPICAL EXTERIOR INSULATION	
IN02	07 21 00	SPRAY FOAM INSULATION						MISC FILL	
DF01	07 24 30	AIR BARRIER						TYPICAL AT EXT WALLS	
MP01	07 40 13	METAL PANEL	GALVANIZED - COATED	Varco Pruden - Tech Four Plus	24 Gauge - 2" deep	PPG Gray Velvet Mica		TYPICAL EXTERIOR CLADDING	INCLUDING PEMB
MP02	07 40 13	FLAT LOCK METAL PANEL		ATLAS INTERNATIONAL, INC - VERSA-LOK		CUSTOM SIZE		SE CORNER COLUMN WRAP	
	07 50 00	METAL PANEL UNDERLAYEMENT	HIGH TEMP		UNDERLAYMENT PLUS VENTILATION MAT			AT ROOF & WALL METAL	
RF01	07 50 00	METAL ROOFING	GALVANIZED - COATED	Varco Pruden - SSR	22 GAUGE STANDING SEAM	Galvalume		TYPICAL ROOF	INCLUDING PEMB
VB02	07 50 00	ROOF VAPOR BARRIER							
DIVISION 08: WINDOWS AND DOORS									
HM01	08 11 13	HOLLOW METAL DOORS AND FRAMES	HOLLOW METAL	CECO - QMAX THERMAL	PAINTED, PA03			TYPICAL INTERIOR GLAZING PARTITION, FRAMES, EXTERIOR DOORS	
OV01	08 33 00	OVERHEAD COILING COUNTER DOOR	ALUMINUM	C.H.I. (NUCOR) - 6544	CLEAR ANOD	INSIDE WALL MOUNT	INSULATED	CONCESSIONS	RE: DOOR SCHED
OV02	08 33 00	OVERHEAD COILING SERVICE DOOR	22ga STEEL - POWDER COAT	C.H.I. (NUCOR) - 6202	SW7074 SOFTWARE	INSIDE WALL MOUNT	INSULATED	MAINTENANCE GARAGE	RE: DOOR SCHED
AG01	08 44 00	ALUMINUM ENTRANCE DOOR	ALUMINUM - COATED	TUBELITE - THERMAL	BLACK ANOD	WIDE STILE - 10" BASE	ALUM ENTRANCE DOOR		U-0.54, SHGC SEE GLASS TYPE
SF01	08 44 00	STOREFRONT	ALUMINUM - COATED	TUBELITE - 960 WALL STOREFRONT	BLACK ANOD	6" deep front set		TYPICAL EXTERIOR GLAZING	U-0.36 ASSEMBLED, SHGC SEE GLASS TYPE
SF02	08 44 00	STOREFRONT	ALUMINUM - COATED	TUBELITE - INT14	BLACK ANOD	4" deep center set		INTERIOR VESTIBULE & MULTIPURPOSE	
SF10	08 44 00	SLIDING TRANSACTION WINDOW	ALUMINUM - COATED	CRL -DW4848XGA	MATCH SF01	1/4" TEMPERED GLASS		OFFICE VESTIBULE	SLIDE LOCK -OFFICE SIDE
GI01	08 80 00	INSULATED GLAZING UNIT		VITRO ACUITY W SOLARBAN 72	1" - ARGON GAS			TYPICAL EXTERIOR GLASS	COG U-0.28, SHGC 0.28
GL01	08 80 00	LAMINATED GLAZING			3/8"	CLEAR		TYPICAL INTERIOR GLASS	
LV01	08 91 00	LOUVER	ALUMINUM - COATED	CS GROUP - 4097	MATCH BRICK			RE: MEP	
DIVISION 09: FINISHES									
CL1	09 21 16	GYPSUM BOARD SOFFIT	TYPICAL EXTERIOR			EXTERIOR HPC PAINT			PROVIDE VENT SLOTS
TL01	09 30 00	WALL TILE	PORCELAIN	DALTILE - PORTFOLIO, 6X24	DOVE GREY	STACKED HORIZONTAL			
TL02	09 30 00	FLOOR TILE	PORCELAIN	DALTILE - PORTFOLIO, 6x24	DOVE GREY	STACKED HORIZONTAL			
TL03	09 30 00	SHOWER FLOOR TILE	PORCELAIN	DALTILE - PORTFOLIO, 2x2	DOVE GREY	STACKED		SHOWER - PROVIDE WATERPROOFING SYSTEM	
AC01	09 51 13	ACOUSTIC CEILING TILE - OFFICES		Armstrong	Ultima Ceiling Tile - HIGH NRC			TYPICAL AT OFFICES - Acoustic seperating	
AC02	09 51 13	ACOUSTIC CEILING TILE - WET AREAS		Armstrong	CERAMAGUARD			TYPICAL AT RESTROOMS, LOCKERS, & CONCESSIONS	
AR01	09 65 13	RESILIENT ACCESSORIES	RUBBER	Johnsonite Angle Fit Rubber Stair Tread			INTEGRAL RISER	MAINTENANCE GARAGE STAIRS TO MEZZANINE	
BR01	09 65 13	RESILIENT BASE		Johnsonite Premoweld Vinyl TBB	4"			TYPICAL AT GYP BD WALLS	
FL01	09 65 43	LINOLEUM FLOOR		Marmoleum MCT	Color: 3207 Grey Dusk	RUNNING BOND, 13" x 13"		MULTIPURPOSE ROOM & GARAGE MEZZANINE	
FC01	09 68 00	FLOOR CARPET TILE		Interface Entropic Ease Backing	Tile: Urban Canvas	QUARTER TURN		TYPICAL AT OFFICES	MATCH SCHOOL STANDARD CARPET TILE
FC10	09 68 00	WALK OFF CARPET TILE		Interface Step Repeat - SR799	ONYX	QUARTER TURN		OFFICE VESTIBULE	
PA01	09 91 00	PAINT 1	LATEX		SW7074 SOFTWARE, UNO			TYPICAL OFFICE AREA	SEE SPECS FOR SPECIFIC PAINT TYPES
PA02	09 91 00	PAINT 2	EPOXY SYSTEM	EPOXY - HPC	SW7075 WEB GRAY @ CMU, SW7074 SOFTWARE @ GYP			TYPICAL CMU / WET AREAS	SEE SPECS FOR SPECIFIC PAINT TYPES
PA03	09 91 00	PAINT 3	ZINC RICH	EPOXY - HPC	SW7075 WEB GRAY, UNO			TYPICAL FOR PAINTED METALS	SEE SPECS FOR SPECIFIC PAINT TYPES
DIVISION 10: SPECALTIES									
VU01	10 11 00	VISUAL DISPLAY UNITS		MARKERBOARD					NOT USED
SN01	10 14 00	PLAQUE SIGNS WITH BRAILLE		ACRYLIC				ONE AT EACH ROOM	
TC01	10 21 13	TOILET AND CHANGING COMPARTMENTS	Powder Coated Steel	ASI Global Partitions				TOILETS AND CHANGING AREAS	
WP01	10 22 13	WIRE MESH PARTITION	STEEL WIRE	WIRECRAFTERS STYLE 840 WELDED WIRE PARTITION	BLACK			MAINTENANCE GARAGE	PROVIDE PAXLOCK PRO HARDWARE
TA01	10 28 00	GRAB BARS	STAINLESS STEEL	ASI 3700 - 1 1/4" HEAVY DUTY		SEE DRAWINGS		RESTROOM STALLS AND SHOWER AS SHOWN	
TA02	10 28 00	TOILET PAPER DISPENSER	STAINLESS STEEL	ASI 0030 - TWIN HIDE-A-ROLL, LOCKABLE		SURFACE MOUNTED			
TA03	10 28 00	SANITARY NAPKIN DISPOSAL	STAINLESS STEEL	ASI - 0473-A		SURFACE MOUNTED			
TA04	10 28 00	SANITARY NAPKIN DISPENSER	STAINLESS STEEL	ASI - 04684		RECESSED			25 CENTS
TA05	10 28 00	SEAT COVER DISPENSER	STAINLESS STEEL	ASI-0477-SM		SURFACE MOUNTED			NOT USED
TA06	10 28 00	SHOWER SEAT	PHENOLIC	ASI - 8203-28		SURFACE MOUNTED		AT SHOWER STALL	
TA10	10 28 00	SOAP DISPENSER	STAINLESS STEEL	ASI - 0345		SURFACE MOUNTED			
TA11	10 28 00	MIRROR	STAINLESS STEEL	ASI - 0600	FRAMED	INTER-LOCK			
TA13	10 28 00	PAPER TOWEL / WASTE RECEPTACLE	STAINLESS STEEL	ASI - 0469-2		SEMI RECESSED			
TA14	10 28 00	COAT HOOK	STAINLESS STEEL	ASI - 7345				DOUBLE ROBE HOOK	
TA20	10 28 00	BABY CHANGING STATION		KOALA CARE	STAINLESS STEEL				
TA21	10 28 00	ADULT CHANGING STATION		KOALA CARE	STAINLESS STEEL				HEIGHT ADJUSTABLE
TA30	10 28 00	MOP & BROOM HOLDER		BOBRICK B-223					
FE01	10 44 00	FIRE EXTINGUISHER AND CABINET		LARSENS FS SS O-2409	STAINLESS STEEL	DRY CHEMICAL: UL RATED 3-A:40-B-C		RECESSED CABINET	
LK01	10 51 00	LOCKERS	Powder Coated Steel	ASI - TRADITIONAL COLLECTION	CUSTOM COLOR	POWDER COATED		TYPICAL AT LOCKER ROOMS	PROVIDE HARDWOOD FIXED BENCHES WHERE SHOWN BY SAME MANUFACTURER
DIVISION 11: EQUIPMENT									
		MOBILE COLUMN LIFT		Stertil Koni - ST 1085			SET OF (4)	MAINTENANCE GARAGE	CONTRACTOR FURNISHED
		AIR COMPRESSOR		Atlas Copco GX7 FF		FLOOR MOUNT	PROVIDE SET OF HOSES	MAINTENANCE GARAGE	CONTRACTOR FURNISHED
		OVERHEAD MOTORIZED WINCH		Therm - Atlas 4WP2		MOUNT TO ROOF FRAMING		MAINTENANCE GARAGE	CONTRACTOR FURNISHED, COORDINATE WITH PEMB MFR
		MOBILE PRESSURE WASHER		Easy Kleen EZ027G3G				MAINTENANCE GARAGE	OWNER FURNISHED
		VEHICLE WASH DETERGENT RACK				WALL MOUNT		MAINTENANCE GARAGE	OWNER FURNISHED
		WASHER					RESIDENTIAL GRADE	MAINTENANCE GARAGE	OWNER FURNISHED
		DRYER					RESIDENTIAL GRADE	MAINTENANCE GARAGE	OWNER FURNISHED
		DISHWASHER					RESIDENTIAL GRADE	MULTIPURPOSE	OWNER FURNISHED
		REFRIGERATOR					COMMERCIAL GRADE	MULTIPURPOSE	OWNER FURNISHED
		MICROWAVE					RESIDENTIAL GRADE	2x MULTIPURPOSE, 1x CONCESSIONS	OWNER FURNISHED
		MERCHANDISER REFRIGERATOR						CONCESSIONS	OWNER FURNISHED
		MERCHANDISER FREEZER						CONCESSIONS	OWNER FURNISHED
		PIZZA MERCHANDISER					COUNTERTOP	CONCESSIONS	OWNER FURNISHED
		HOT DOG ROLLER					COUNTERTOP	CONCESSIONS	OWNER FURNISHED
		POPCORN MACHINE					COUNTERTOP	CONCESSIONS	OWNER FURNISHED
		NACHO MACHINE					COUNTERTOP	CONCESSIONS	OWNER FURNISHED
		PRETZEL MACHINE					COUNTERTOP	CONCESSIONS	OWNER FURNISHED
WC01		INDUSTRIAL WASH CURTAIN	20 MIL PVC & 18 OZ VINYL	AKON - INDUSTRIAL WASH BAY CURTAINS	ROYAL BLUE FIRST 18", CLEAR ABOVE	SUSPENDED TRACK @ 12' AFF		MAINTENANCE GARAGE	CONTRACTOR FURNISHED
DIVISION 12: FURNISHINGS									
SL01	12 21 10	LOUVER SHADES	ALUMINUM					OFFICES	MANUAL OPERATION
SR01	12 24 13	ROLLER SHADES		Mecho	EcoVeil Sheer (6750 Series / 6850 Series) Color: Glass			MULTIPURPOSE	MANUAL OPERATION
SC01	12 36 16	STAINLESS STEEL COUNTERS & SHELVES	STAINLESS STEEL		BRUSHED SS			TYPICAL AT CONCESSIONS	
DIVISION 13: SPECIAL CONSTRUCTION									
MP03	13 34 19	METAL LINER PANEL	STEEL	MFR's STANDARD LINER PANEL	WHITE			INTERIOR FACE OF WALLS AT MAINTENANCE GARAGE	

Room Finish Schedule

Number	Name	Floor Finish	Base Material	Wall Finish	Ceiling Finish	Comments
100	VESTIBULE	FC10	BR01	PA01	AC01	SL01 AT WINDOWS
101	CORRIDOR	FL01	BR01	PA01	AC01	SL01 AT WINDOWS
102	OFFICE	FC01	BR01	PA01	AC01	SL01 AT WINDOWS
103	OFFICE	FC01	BR01	PA01	AC01	SL01 AT WINDOWS
104	OFFICE	FC01	BR01	PA01	AC01	SL01 AT WINDOWS
105	OFFICE	FC01	BR01	PA01	AC01	SL01 AT WINDOWS
106	OFFICE	FC01	BR01	PA01	AC01	SL01 AT WINDOWS
107	STORAGE	FP01	BR01	PA02	AC02	
110	RESTROOM	TL02	TL01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT, TILE ALL WALLS OF TOILET COMPARTMENTS UP TO 7 FT
111	SHOWER	TL03	TL01	TL01	AC02	TILE ALL WALLS UP TO 7FT
112	JANITOR	FP01	BR01	PA02		
120	MULTIPURPOSE ROOM	FL01	BR01	PA02	AC02	SR01 AT WINDOWS
130	WOMEN'S RESTROOM	FP01	BR01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT
131	MEN'S RESTROOM	FP01	BR01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT
132	RESTROOM	FP01	BR01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT
133	CONCESSIONS	FP01	BR01	PA02	AC02	STAINLESS STEEL COUNTERTOPS & SHELVES
134	LOCKER ROOM	FP01	BR01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT
135	JANITOR	FP01	BR01	PA02		
136	LOCKER ROOM	FP01	BR01	TL01/PA02	AC02	TILE AT WET WALLS UP TO 7FT
140	MEP	FP01	BR01	PA01		
G.100a	MAINTENANCE BAY	FP01	MFR's TRIM + SEAL	PA02	MP03	
G.100b	WASH BAY	FP01	MFR's TRIM + SEAL	PA02	MP03	
G.101	GARAGE STORAGE	FP01	BR01	PA01	GWB, PA01	
G.110	ATHLETIC / FACILITY STORAGE	FP01	BR01	PA01	MP03	
G.200	MEZZANINE STORAGE	FL01	BR01	PA01	MP03	

FINISH AND MATERIAL NOTES

1 SEE <A500> - <A500 SERIES> SHEETS INTERIOR ELEVATIONS AND <A030> FINISH AND MATERIAL INDEX.
2 EXTERIOR METAL FLASHING AND TRIM SHALL MATCH ADJACENT MATERIAL COLOR, UNO
3 EXPOSED OVERHEAD SHEET METAL DUCTWORK, STRUCTURAL & MISCELLANEOUS STEEL, CONDUITS AND OTHER MISCELLANEOUS METALS TO BE [PA03]
4 HOLLOW METAL DOORS AND FRAMES (08 11 13) TO BE [PA03] UNLESS OTHERWISE NOTED.
5 HVAC DIFFUSER FINISHES: WHITE UNLESS OTHERWISE INDICATED.
6 DEVICE COVER PLATES SHALL BE [WHITE], UNLESS NOTED OTHERWISE.
7 FLOOR MATERIAL TRANSITIONS AT INTERIOR DOOR OPENINGS TO OCCUR AT CENTER OF DOOR LEAF.
8 COATINGS INDICATED ARE FOR COLOR ONLY. SEE SPECIFICATIONS FOR TYPE BASED ON SUBSTRATES AND LOCATIONS.
9 DO NOT PAINT EXISTING CONCRETE SURFACES UNLESS ALREADY PAINTED.
10 ALL GYPSUM BOARD WALL SURFACES ARE TO BE PAINTED [PA01] (099000) UNO.
11 ALL GYPSUM BOARD CEILING SURFACES ARE TO BE PAINTED [PA01] (099000) UNO.

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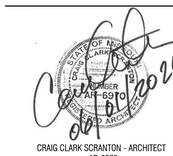
1	Addendum #1	06.18.2026



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FINISH AND MATERIAL INDEX

A030

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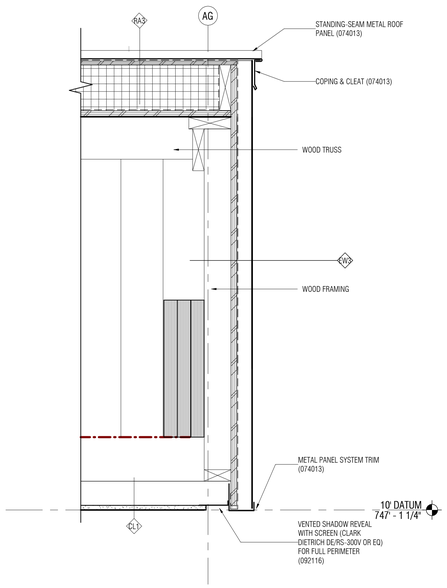
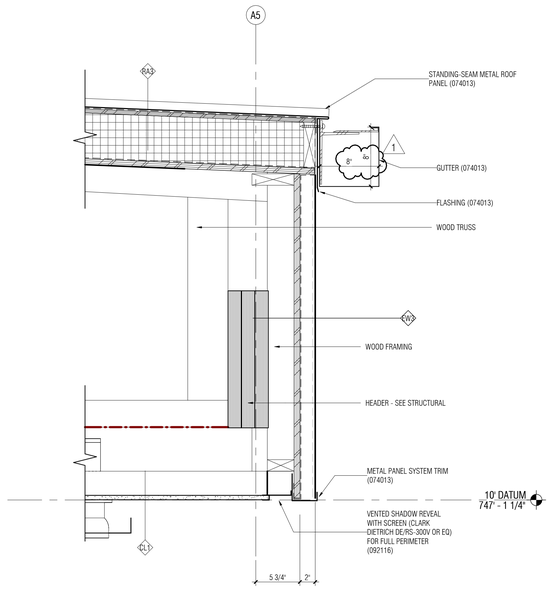


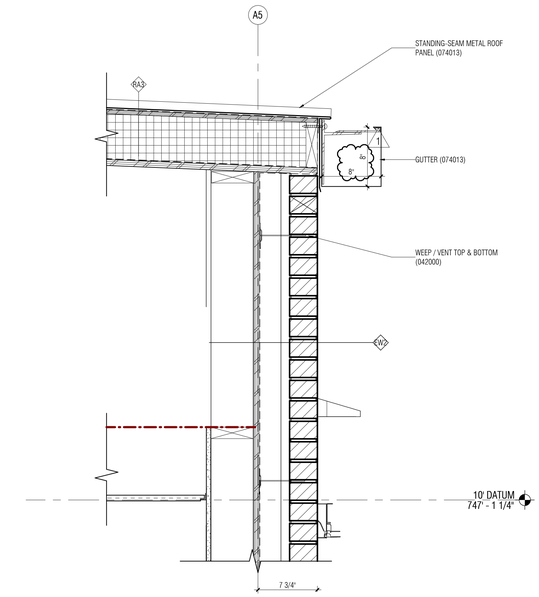
R1 SD - RAKE @ METAL PANEL OVERHANG

1 1/2" = 1'-0" RE: A1/A101



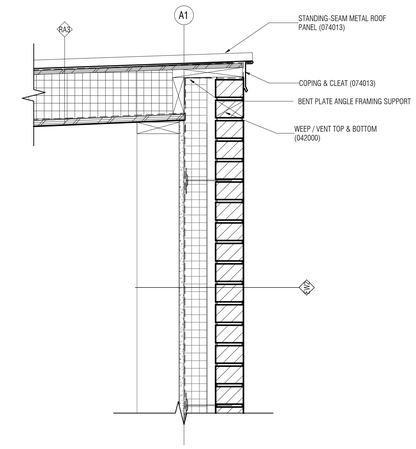
R10 SD - SOUTH WALL GUTTER DETAIL @ METAL PANEL OVERHANG

1 1/2" = 1'-0" RE: A1/A102



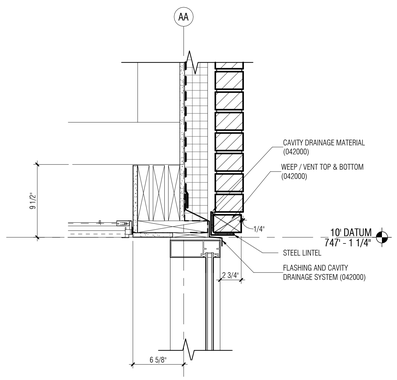
R20 SD - SOUTH WALL GUTTER DETAIL @ BRICK

1 1/2" = 1'-0" RE: A1/A102



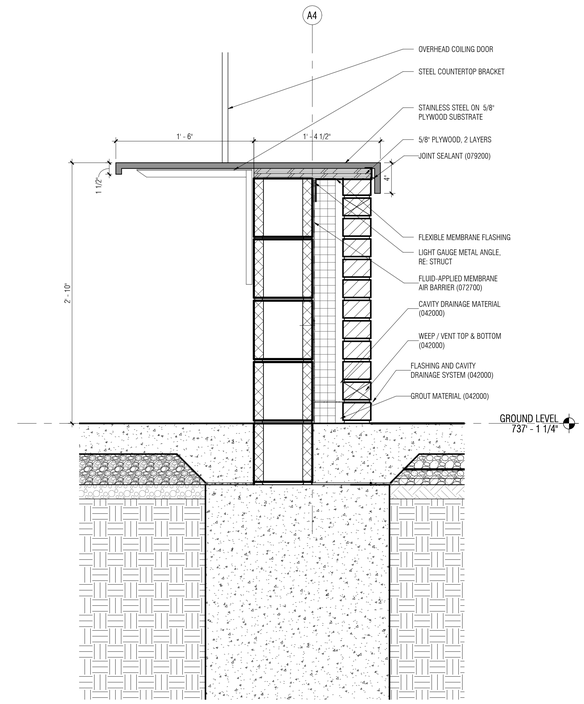
T30 SD - HIGH EAVE @ BRICK WALL

1 1/2" = 1'-0" RE: A1/A101



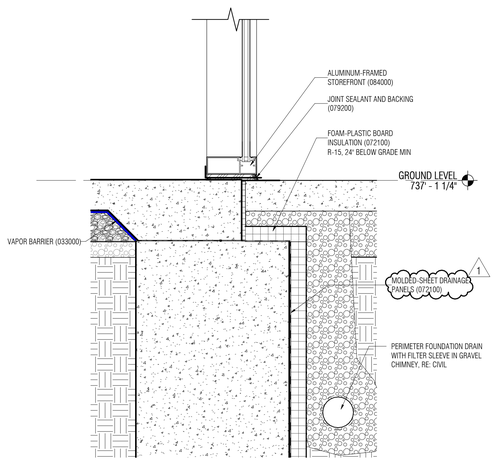
M28 SD - STOREFRONT HEAD

1 1/2" = 1'-0" RE: A1/A101



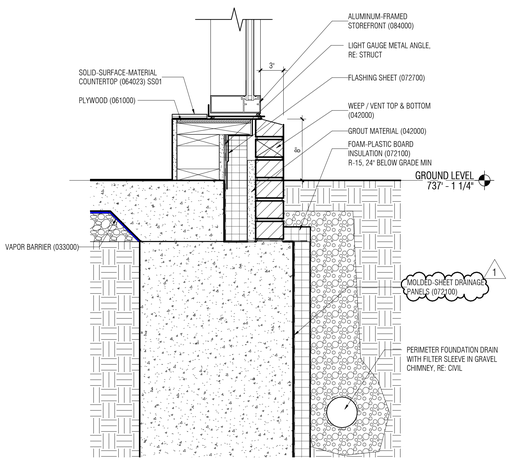
A1 SD - CONCESSIONS COUNTER

1 1/2" = 1'-0" RE: 1/04



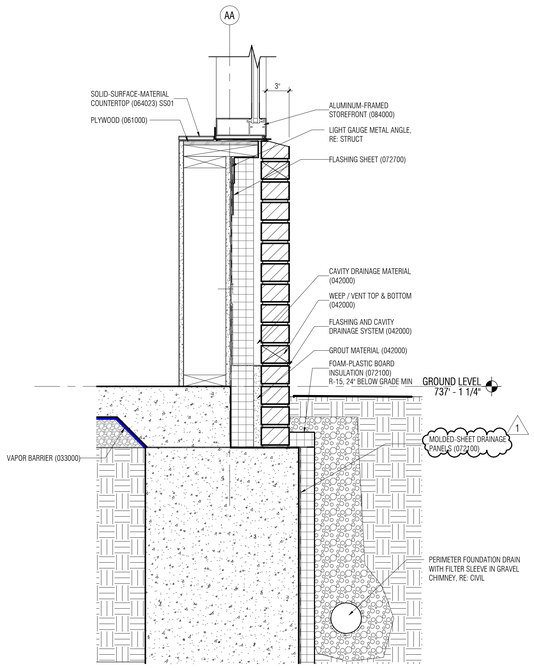
A12 SD - STOREFRONT @ GRADE

1 1/2" = 1'-0" RE: A1/A200



A20 SD - STOREFRONT SILL W/ CURB

1 1/2" = 1'-0" RE: P1/A200



A28 SD - STOREFRONT SILL

1 1/2" = 1'-0" RE: 1/04

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Frontier School of Innovation - Athletics Master Plan

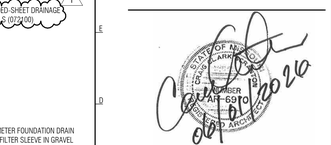
1601 N Universal Ave,
Kansas City, MO 64120

Project No: 14018.20

Construction Documents

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026



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EXTERIOR SECTION DETAILS

A320

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A1 PD - STOREFRONT JAMB

1 1/2" = 1'-0" RE: A1/A100

A10 PD - METAL PANEL TO BRICK

1 1/2" = 1'-0" RE: H1/A200

A18 PD - DRINKING FOUNTAIN ALCOVE

1 1/2" = 1'-0" RE: A1/A100

A29 PD - SE CORNER COLUMN

1 1/2" = 1'-0" RE: A1/A100

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EXTERIOR PLAN DETAILS

A321

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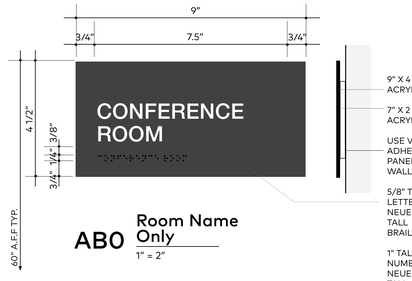
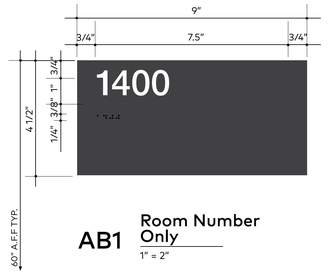
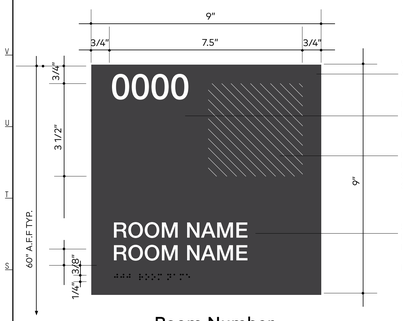


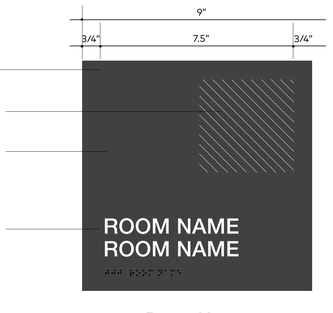
AB0 Room Name Only
1" = 2"



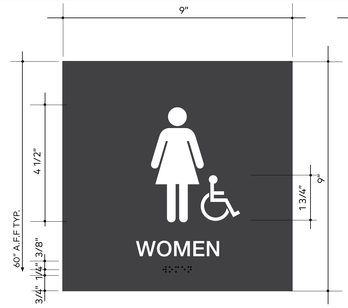
AB1 Room Number Only
1" = 2"



AB2 Room Number Fixed Name
1" = 2"

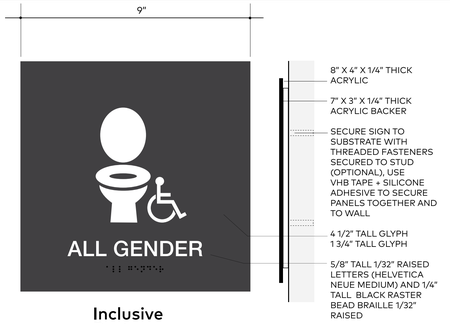


AB3 Room Name Only
1" = 2"

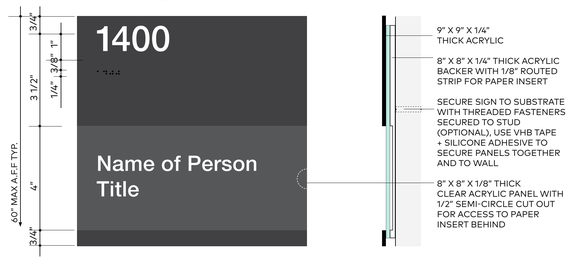


AB10 Women
1" = 3"

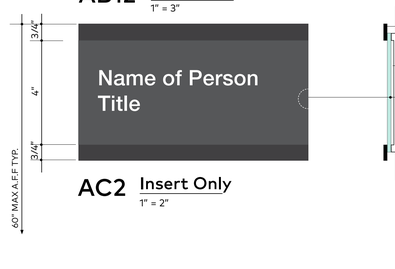
AB11 Men
1" = 3"



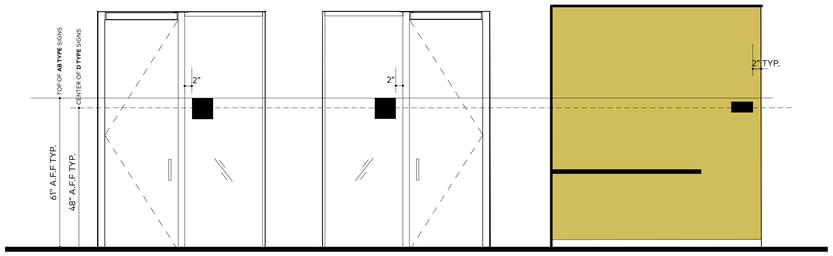
AB12 Inclusive Restroom
1" = 3"



AC1 Room Number with Insert
1" = 2"



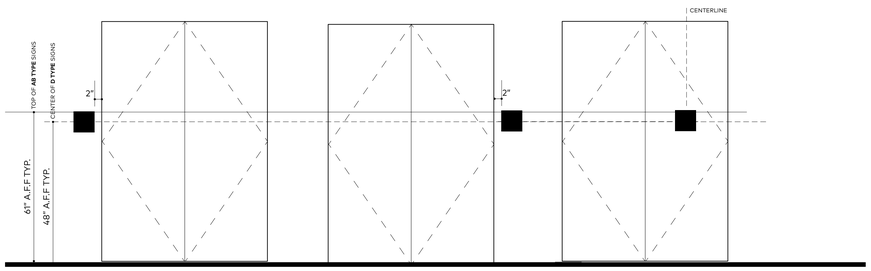
AC2 Insert Only
1" = 2"



A1 Glass Door and Sidelight (Strike-R)

A2 Glass Door and Sidelight (Strike-L)

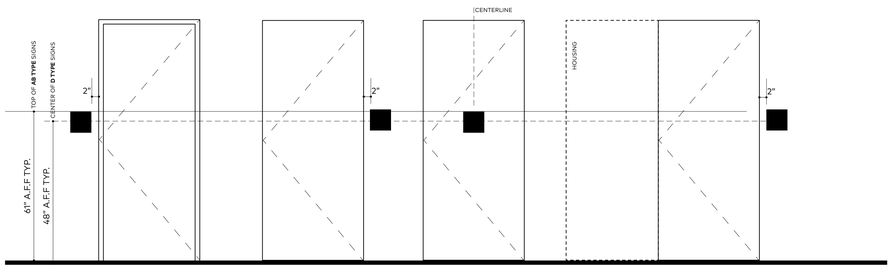
A3 Study Booth



B1 Double Door - Left Hinge

B2 Double Door - Right Hinge

B3 Double Door - Door

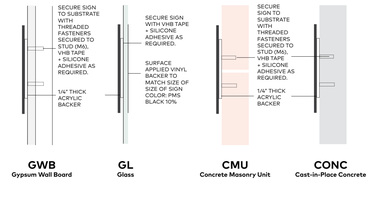


C1 Single Door - Hinge

C2 Single Door - Strike

C3 Single Door - Door

C4 Pocket Door - Strike

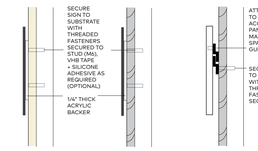


GWB Gypsum Wall Board

GL Glass

CMU Concrete Masonry Unit

CONC Cast-in-Place Concrete



STU Stucco on Solid or Metal Base

WP1, WP2, WD1 Smooth Wood Finish, Wood Veneer with MDF Core, Plywood

ACP Acoustic Panel Drywall

LEGEND

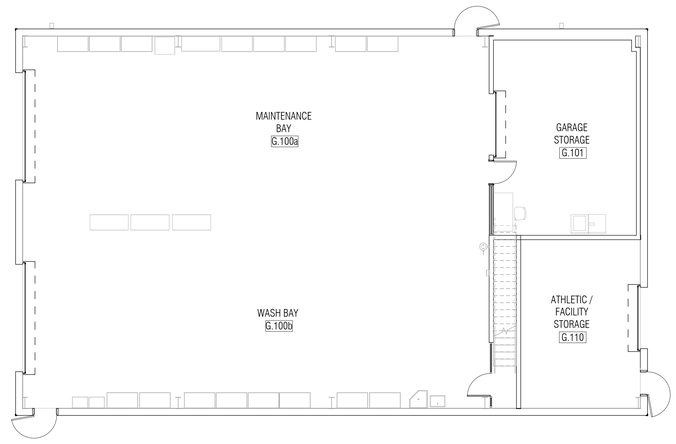
CMU	CONCRETE MASONRY UNIT
GWB	GYPSUM WALL BOARD
EXP	EXPOSED CAST-IN-PLACE CONCRETE
BP	BOARD FORMED CAST-IN-PLACE CONCRETE
MP1	FOAMED ALUMINUM METAL PANELS
MP2	BRUSHED ALUMINUM PLATE
MP3	BLACKENED STEEL PLATE
MP4	BLACKENED STEEL PERFORATE PLATE
STU	STUCCO
WD1	PLYWOOD
WP1	PERFORATED BAMBOO, MDF CORE
WP2	BAMBOO, MDF CORE
GL	GLASS
DOOR	HM OR WOOD DOOR

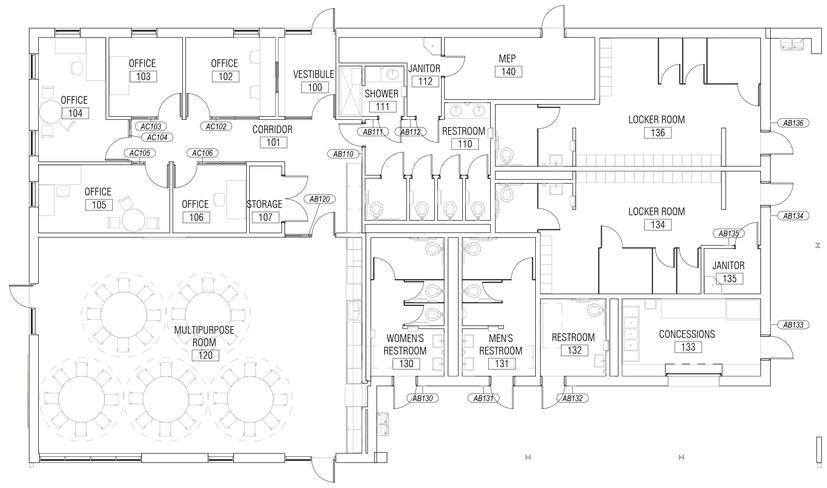
LEGEND OF LOCATIONS

S = STRIKE
H = HINGE
RH = RIGHT HINGE
LH = LEFT HINGE
D = DOOR

(SEE TYPICAL ELEVATIONS FOR DIMENSIONS)

Sign No.	Room No.	Room Name	Type
AB			
AB111	111	SHOWER	AB0
AB112	112	CUSTODIAL	AB0
AB120	120	MULTIPURPOSE ROOM	AB0
AB133	133	CONCESSIONS	AB0
AB134	134	LOCKER ROOM	AB0
AB135	135	CUSTODIAL	AB0
AB136	136	LOCKER ROOM	AB0
AB130	130	WOMEN	AB10
AB131	131	MEN	AB11
AB110	110	RESTROOMS	AB12
AB132	132	RESTROOM	AB12
AC			
AC102	102	OFFICE	AC1
AC103	103	OFFICE	AC1
AC104	104	OFFICE	AC1
AC105	105	OFFICE	AC1
AC106	106	OFFICE	AC1
Total: 16			





Mounting Locations

TYPICAL SIGN
1/4" THICK 90% BLACK WITH 1/4" ACRYLIC BACKER INSET 1/2" ON ALL FOUR SIDES
FONTS - WHITE HELVETICA NEUE MEDIUM ALL CAPS, NO LESS KERNED THAN 10PT
1/32" RAISED WITH 1/4" TALL GRADE 2 CLEAR BEAD BRAILLE 1/32" RAISED ALWAYS 3/8" BELOW RAISED LETTERS

REPLACE WITH ACTIVE ICON IF PERMISSIBLE BY CODE
https://accessibleicon.org/

A21 SIGNAGE FLOOR PLAN

1/8" = 1'-0" RE: /

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AR-6970

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SIGNAGE PLAN & DETAILS
A800

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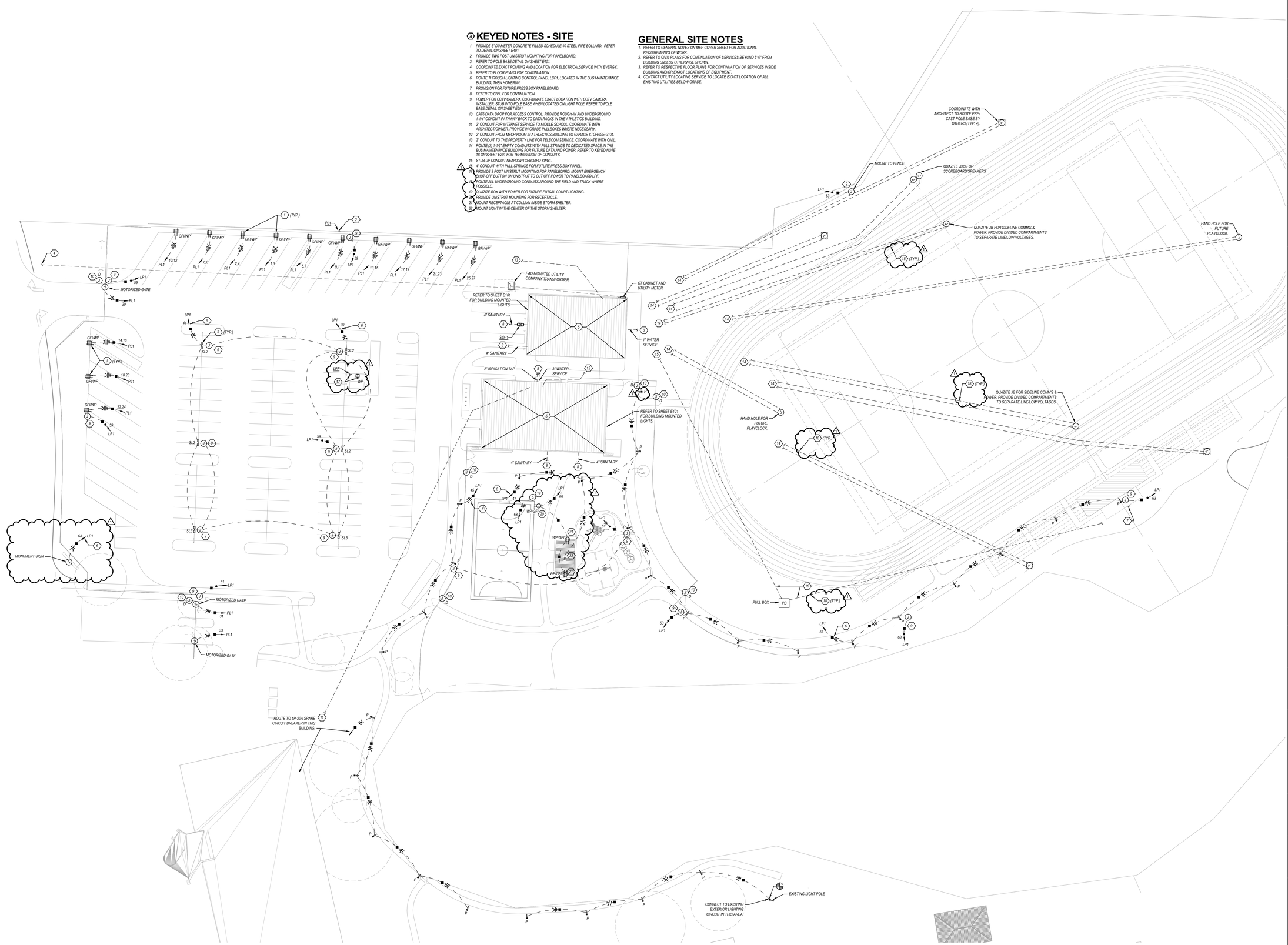
KEYED NOTES - SITE

1. PROVIDE 6" DIAMETER CONCRETE FILLED SCHEDULE 40 STEEL PIPE BOLLARD. REFER TO DETAIL ON SHEET E401.
2. PROVIDE TWO POST UNISTRUT MOUNTING FOR PANELBOARD.
3. REFER TO POLE BASE DETAIL ON SHEET E401.
4. COORDINATE EXACT ROUTING AND LOCATION FOR ELECTRICALSERVICE WITH EVERGY.
5. REFER TO FLOOR PLANS FOR CONTINUATION.
6. ROUTE THROUGH LIGHTING CONTROL PANEL LCP1, LOCATED IN THE BUS MAINTENANCE BUILDING, THEN HOMERUN.
7. PROVISION FOR FUTURE PRESS BOX PANELBOARD.
8. REFER TO CIVIL FOR CONTINUATION.
9. POWER FOR CCTV CAMERA. COORDINATE EXACT LOCATION WITH CCTV CAMERA INSTALLER. STUB INTO POLE BASE WHEN LOCATED ON LIGHT POLE. REFER TO POLE BASE DETAIL ON SHEET E501.
10. CATS DATA DROP FOR ACCESS CONTROL. PROVIDE ROUGH-IN AND UNDERGROUND 1-1/4" CONDUIT PATHWAY BACK TO DATA RACKS IN THE ATHLETICS BUILDING.
11. 2" CONDUIT FOR INTERNET SERVICE TO MIDDLE SCHOOL. COORDINATE WITH ARCHITECTOWNER. PROVIDE IN-GRADE PULLBOXES WHERE NECESSARY.
12. 2" CONDUIT FROM MECH ROOM IN ATHLECTICS BUILDING TO GARAGE STORAGE G101.
13. 2" CONDUIT TO THE PROPERTY LINE FOR TELECOM SERVICE. COORDINATE WITH CIVIL.
14. ROUTE (2) 1-1/2" EMPTY CONDUITS WITH PULL STRINGS TO DEDICATED SPACE IN THE BUS MAINTENANCE BUILDING FOR FUTURE DATA AND POWER. REFER TO KEYED NOTE 18 ON SHEET E001 FOR TERMINATION OF CONDUITS.
15. STUB UP CONDUIT NEAR SWITCHBOARD SWB1.
16. 4" CONDUIT WITH PULL STRINGS FOR FUTURE PRESS BOX PANEL.
17. PROVIDE 3 POST UNISTRUT MOUNTING FOR PANELBOARD. MOUNT EMERGENCY SHUT-OFF BUTTON ON UNISTRUT TO CUT OFF POWER TO PANELBOARD LPF.
18. ROUTE ALL UNDERGROUND CONDUITS AROUND THE FIELD AND TRACK WHERE POSSIBLE.
19. QUAZITE BOX WITH POWER FOR FUTURE FUTSAL COURT LIGHTING.
20. PROVIDE UNISTRUT MOUNTING FOR RECEPTACLE.
21. MOUNT RECEPTACLE AT COLUMN INSIDE STORM SHELTER.
22. MOUNT LIGHT IN THE CENTER OF THE STORM SHELTER.

GENERAL SITE NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. REFER TO CIVIL PLANS FOR CONTINUATION OF SERVICES BEYOND 5'-0" FROM BUILDING UNLESS OTHERWISE SHOWN.
3. REFER TO RESPECTIVE FLOOR PLANS FOR CONTINUATION OF SERVICES INSIDE BUILDING AND/OR EXACT LOCATIONS OF EQUIPMENT.
4. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF ALL EXISTING UTILITIES BELOW GRADE.



MEP SITE PLAN

SCALE: 1" = 30'-0"

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David Lawrence Deatherage - Engineer
MO# E-29888

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913.492.2400 — WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

MEP - SITE

MEP101

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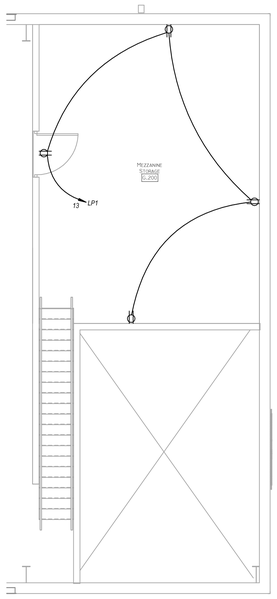
GENERAL POWER NOTES

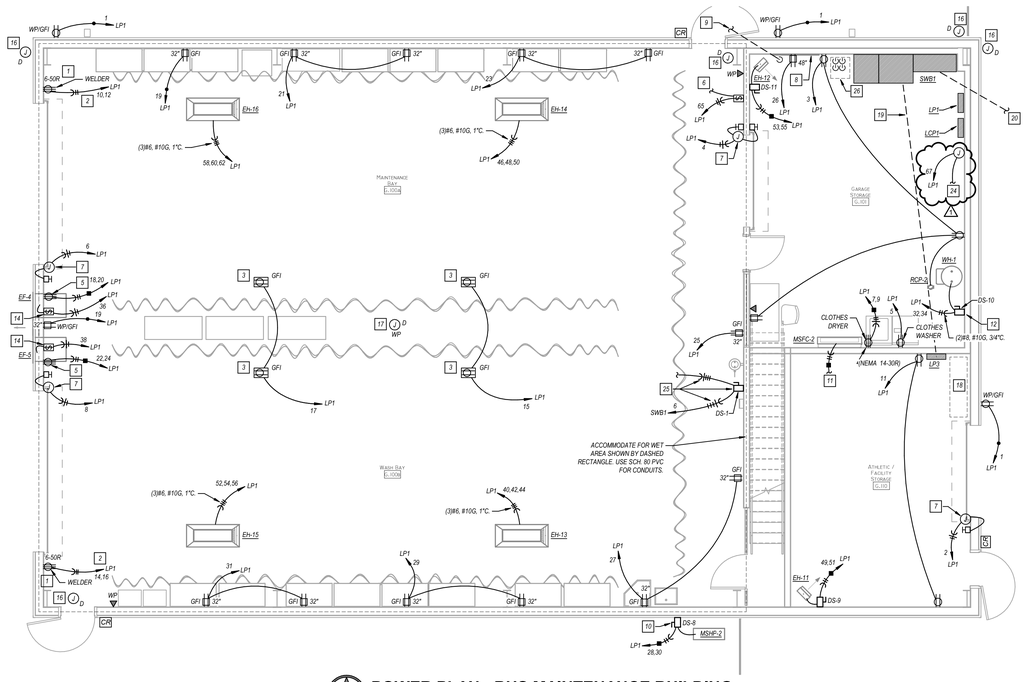
1. *REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.*
2. *COORDINATE EXACT NEMA CONFIGURATIONS OF RECEPTACLES SERVING EQUIPMENT WITH EXACT EQUIPMENT BEING FURNISHED.*
3. *EXACT MECHANICAL EQUIPMENT LOCATIONS MAY NOT BE SHOWN FOR CLARITY. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT, DUCT DETECTORS, ETC. WITH MECHANICAL DRAWINGS AND CONTRACTOR.*
4. *COORDINATE EXACT LOCATIONS OF SMOKE DETECTORS WITH CEILING FANS, HVAC DIFFUSERS, SPRINKLER HEADS, ETC. PER NFPA REQUIREMENTS.*

KEYED NOTES

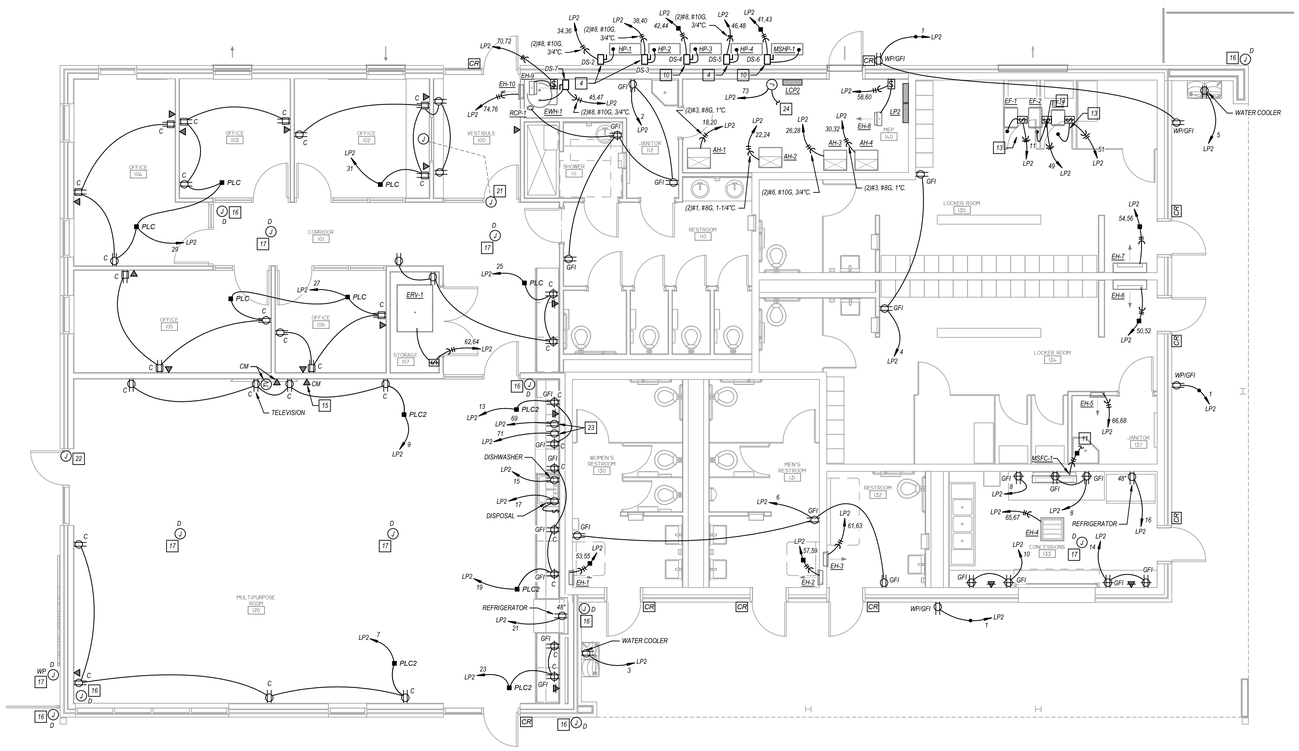
1. *COORDINATE WELDER RECEPTACLE WITH EQUIPMENT BEING PROVIDED. PROVIDE 60A/3P/4W/NEMA 1 HEAVY DUTY DISCONNECT SWITCH. NOT SHOWN FOR CLARITY. RE: WELDING OUTLET DETAIL FOR MORE INFORMATION.*
2. *(3)#6, #10G, 3/4" CONDUIT.*
3. *CORD REEL RECEPTACLE, INDUSTRIAL DUTY. HUBBEL #HBL45123GF30WMI OR SIMILAR. #12AWG CONDUCTORS, RATED 20A MINIMUM AND 45 FOOT LONG. PROVIDE WITH NEMA 5-30R RECEPTACLE AND GFCI MODULE. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED.*
4. *60A/NF/3-POLE/NEMA-3R HEAVY DUTY DISCONNECT SWITCH. MOUNT DISCONNECT CLOSE TO UNIT WITH ADEQUATE CLEARANCES.*
5. *NEMA 6-30R FOR POWER WASHER. (2)#10, #10G, 1/2" CONDUIT. COORDINATE EXACT CIRCUIT REQUIREMENTS AND RECEPTACLE TYPE WITH POWER WASHER VENDOR PRIOR TO INSTALLATION.*
6. *PROVIDE TOGGLE DISCONNECT FOR WINCH. COORDINATE EXACT LOCATION WITH ARCHITECTOWNER.*
7. *POWER FOR OVERHEAD DOOR. PROVIDE ROUGH-IN AND INTERCONNECTION OF DOOR CONTROLLER. PROVIDE 30A/1P/NF/NEMA 1 DISCONNECT SWITCH.*
8. *PROVIDE 3/4" THICK, 4'x8' PLYWOOD BACKBOARD, FIRE-RETARDANT, AND STAMPED FRT.*
9. *2" CONDUIT FROM STORAGE G101 TO PROPERTY LINE FOR TELECOM SERVICE.*
10. *30A/NF/2-POLE/NEMA-3R HEAVY DUTY DISCONNECT SWITCH. MOUNT DISCONNECT CLOSE TO UNIT WITH ADEQUATE CLEARANCES.*
11. *POWERED FROM ASSOCIATED OUTDOOR UNIT.*
12. *60A/NF/2-POLE/NEMA-1 HEAVY DUTY DISCONNECT SWITCH. MOUNT DISCONNECT CLOSE TO UNIT WITH ADEQUATE CLEARANCES.*
13. *MOUNT 120V/1-POLE TOGGLE DISCONNECT NEAR EXHAUST FAN WITH ADEQUATE CLEARANCES. REFER TO EXHAUST FAN SCHEDULE ON SHEET M201 FOR FAN CONTROL.*
14. *WEATHERPROOF 120V/1-POLE TOGGLE DISCONNECT. LOCATE WITH ADEQUATE CLEARANCES. REFER TO EXHAUST FAN SCHEDULE ON SHEET M201 FOR FAN CONTROL.*
15. *PROVIDE ROUGH-IN FOR HMDI CONNECTION. PROVIDE 1 1/2"CONDUIT PATHWAY FROM ROUGH-IN TO TELEVISION BACK BOX.*
16. *CAT6 DROP FOR CCTV CAMERA. COORDINATE EXACT LOCATION AND INSTALL A WEATHERPROOF DEVICE.*
17. *CAT6 DROP FOR AP. PROVIDE ROUGH-IN AND COORDINATE EXACT LOCATION.*
18. *DEDICATED SPACE FOR FUTURE FIELD POWER AND CONTROLS.*
19. *PROVIDE UNDERGROUND 4" CONDUIT FROM SWB1 TO LP3.*
20. *PROVIDE 4" UNDERGROUND CONDUIT WITH PULL STRINGS FROM SWB1 TO PANELBOARD PB1 FOR FUTURE POWER.*
21. *PROVIDE ROUGH-IN FOR MAGNETIC LOCK WITH RELEASE LOCATED AT COUNTER IN OFFICE 102.*
22. *EGRESS ONLY, CONTACT SENSOR.*
23. *RECEPTACLE FOR MICROWAVE. COORDINATE EXACT LOCATION WITH THE ARCHITECTOWNER.*
24. *CONNECT ALL MOTORIZED DAMPERS TO INDICATED CIRCUIT. COORDINATE WITH MECH PLANS.*
25. *POWER FOR COMPRESSOR. COORDINATE EXACT LOCATION WITH ARCHITECTOWNER. PROVIDE 60A/NF/3-POLE/NEMA-3R DISCONNECT SWITCH. (4)#4, #4G, 1-1/4"C.*
26. *DEDICATED SPACE FOR DATA STUB-UPS. REFER TO SHEET MEP101.*



POWER PLAN - BUS MAINTENANCE BUILDING MEZZANINE
SCALE: 3/16" = 1'-0"



POWER PLAN - BUS MAINTENANCE BUILDING
SCALE: 3/16" = 1'-0"



POWER PLAN - ATHLETICS BUILDING
SCALE: 3/16" = 1'-0"

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 — Project No: 14018.20

Construction Documents

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI — DAVID LAWRENCE DEATHERAGE — NUMBER E-29880 — REGISTERED PROFESSIONAL ENGINEER — 6/18/2026
David Lawrence Deatherage - Engineer
MO# E-29880

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

pkmr ENGINEERS
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26.032

ELECTRICAL - POWER

E201

6/18/2026 3:57:13 PM

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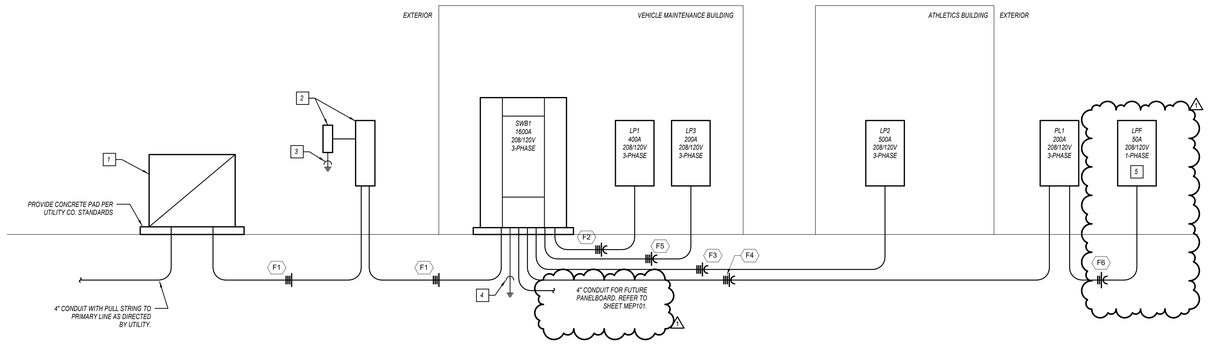
RISER DIAGRAM KEYED NOTES

1. *PAD-MOUNTED UTILITY TRANSFORMER. COORDINATE REQUIREMENTS WITH UTILITY COMPANY.*
2. *WALL-MOUNTED CT-CABINET AND UTILITY METER PER UTILITY COMPANY STANDARDS.*
3. *GROUND PER EVERGY STANDARDS.*
4. *(1)#3/0 GROUNDING ELECTRODE. REFER TO GROUNDING DETAIL ON SHEET E501 FOR MORE INFORMATION.*
5. *PROVIDE 50A MAIN BREAKER WITH SHUNT TRIP. PROVIDE WEATHER PROOF, EMERGENCY SHUT-OFF PUSH-BUTTON. REFER TO SHEET MEP101.*



ELECTRICAL RISER DIAGRAM

NOT TO SCALE

EQUIPMENT FEEDER SCHEDULE

FEEDER NO.	EQUIPMENT	LOAD (AMPS)	FEEDER					CONDUIT SIZE
			SETS	# OF WIRES	SIZE	GROUND	MATERIAL	
F1	*SWITCHBOARD SWB1*	*1,045.7*	*5*	*4*	*400 MCM*	*#4/0*	*COPPER*	*3-1/2"*
F2	*PANELBOARD LP1*	*316.8*	*2*	*4*	*#3/0*	*#3*	*COPPER*	*2-1/2"*
F3	*PANELBOARD LP2*	*342.4*	*2*	*4*	*250 MCM*	*#2*	*COPPER*	*3"*
F4	*PANELBOARD PL1*	*123.9*	*1*	*4*	*#3/0*	*#6*	*COPPER*	*2-1/2"*
F5	*PANELBOARD LP3*	*158.0*	*1*	*4*	*300MCM*	*#4*	*COPPER*	*3"*
F6	*PANELBOARD LPF*	*11.1*	*1*	*3*	*#6*	*#10*	*COPPER*	*1"*

EQUIPMENT FAULT CURRENT RATING SCHEDULE

EQUIPMENT	SCA **	SCCR	NOTES
SWITCHBOARD SWB1	*44,188*	*65,000*	*1*
PANELBOARD LP1	*41,449*	*42,000*	*1*
PANELBOARD LP2	*24,001*	*35,000*	*1*
PANELBOARD PL1	*5,809*	*10,000*	*1*
PANELBOARD LP3	*24,638*	*25,000*	*1*
PANELBOARD LPF	*1,451*	*10,000*	*1*

NOTES:

1. *RATING BASED ON A KNOWN FAULT AT UTILITY CO. TRANSFORMER OF 56,077A AS PROVIDED BY UTILITY CO.*
2. *EQUIPMENT MAY BE SERIES RATED.*

*** CALCULATIONS PERFORMED USING BUSSMANN POINT-TO-POINT METHOD.*

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Construction Documents

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

David Lawrence Deatherage - Engineer
MO# E-29880

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

ELECTRICAL RISER DIAGRAM

E301

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SWITCHBOARD SCHEDULE

PANEL DESIGNATION	MAIN BUS AMPS: 1600	VOLTAGE: 208/120	MOUNTING: -
SWB1	MAIN BREAKER AMPS: 1600	PHASE/WIRE: 3D, 4W	LOCATION: -
	SCCR RATING (AIC): 65,000		

CIRCUIT NO.	CIRCUIT DESIGNATION	KVA	CIRCUIT BREAKER POLE	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER TRIP	FEEDER SETS	FEEDER # OF WIRES	FEEDER SIZE	FEEDER GROUND	FEEDER CONDUIT
1	*PANELBOARD LP2*	128.5	3	400	400	2	4	#600	#3	2-1/2"
2	*PANELBOARD LP2*	128.4	3	400	400	2	4	250 MCM	#6	3"
3	*PANELBOARD PL1*	44.5	3	200	200	1	4	#3/0	#6	2-1/2"
4	*PROVISION FOR FUTURE PB1*	0.0	3	200	200	1	4	#3/0	#6	2-1/2"
5	*PANELBOARD LP3*	74.4	3	400	400	1	4	500 MCM	#4	4"
6	*COMPRESSOR*	11.5	3	100	80	1	4	#12	#12	1-1/4"
7	*DEDICATED SPACE*	0.0	-	-	-	-	-	-	-	-
8	*DEDICATED SPACE*	0.0	-	-	-	-	-	-	-	-
9	*DEDICATED SPACE*	0.0	-	-	-	-	-	-	-	-
10	*DEDICATED SPACE*	0.0	-	-	-	-	-	-	-	-

SECTION 1

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED LOAD	DEMAND FACTOR	CODE MIN. (VA)
LIGHTS	*9,993*	*1.25*	*12,491*
RECEPTACLES	*74,793*	*10KVA + 50% REST*	*42,396*
MOTORS	*19,821*	*1.25 x LARGEST + SUM OF REST*	*22,721*
AIR CONDITIONING	*31,366*	*0.00*	*0*
SPACE HEATING	*197,566*	*1.00*	*197,566*
HEAT PUMP	*0*	*1.00*	*0*
CONTINUOUS	*81,240*	*1.25*	*101,550*
NON-CONTINUOUS	*0*	*1.00*	*0*
MISC. LOADS 1	*0*	*1.00*	*0*
TOTAL CONNECTED LOAD (VA):	414,779	SIZING LOAD (VA):	376,725
TOTAL CONNECTED LOAD (AMPS):	1,151.3	SIZING LOAD (AMPS):	1,045.7

REMARKS:

1. EATON POW-R-LINE PRLX SWITCHBOARD OR EQUAL.

2. PROVIDE PULL/CT SECTION, MAIN DEVICE SECTION, AND NO. OF DISTRIBUTION SECTIONS AS INDICATED ABOVE.

3. FURNISH WITH EXTERNAL SPD.

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **LP3**	MAIN LUG AMPS: 400	SCCR RATING (AIC): 35,000
MOUNTING: *SURFACE*	MAIN BREAKER: 400	
LOCATION: *ELECTRICAL ROOM XXX*	VOLTAGE: 208/120	
	PHASE/WIRE: 3D, 4W	

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
-				-	1	1 2	1	-	-			-
-		-		-	1	3 4	1	-		-		-
-			-	-	1	5 6	1	-			-	-
-	-			-	1	7 8	1	-	-			-
-		-		-	1	9 10	1	-		-		-
-			-	-	1	11 12	1	-			-	-
-	-			-	1	13 14	1	-	-			-
-		-		-	1	15 16	1	-		-		-
-			-	-	1	17 18	1	-			-	-
-	-			-	1	19 20	1	-	-			-
-		-		-	1	21 22	1	-		-		-
-			-	-	1	23 24	1	-			-	-
-	-			-	1	25 26	1	-	-			-
-		-		-	1	27 28	1	-		-		-
-			-	-	1	29 30	1	-			-	-
-	-			-	1	31 32	1	-	-			-
-		-		-	1	33 34	1	-		-		-
-			-	-	1	35 36	1	-			-	-
-	-			-	1	37 38	1	-	-			-
-		-		-	1	39 40	1	-		-		-
-			-	-	1	41 42	1	-			-	-
-	-			-	1	43 44	1	-	-			-
-		-		-	1	45 46	1	-		-		-
-			-	-	1	47 48	1	-			-	-
-	-			-	1	49 50	1	-	-			-
-		-		-	1	51 52	1	-		-		-
-			-	-	1	53 54	1	-			-	-
-	-			-	1	55 56	1	-	-			-
-		-		-	1	57 58	1	-		-		-
-			-	-	1	59 60	1	-			-	-
TOTALS	0	0	0						0	0	0	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	*0*	*1.25*	*0*
RECEPTACLES	*0*	*10KVA + 50% REST*	*0*
MOTORS	*0*	*1.25 x LARGEST + SUM OF REST*	*0*
AIR CONDITIONING	*0*	*1.00*	*0*
SPACE HEATING	*0*	*1.00*	*0*
HEAT PUMP	*0*	*1.00*	*0*
CONTINUOUS	*0*	*1.25*	*0*
NON-CONTINUOUS	*0*	*1.00*	*0*
MISC. LOADS 1	*0*	*1.00*	*0*
		SIZING LOAD:	0
		SIZING LOAD (AMPS):	0

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	0	0.0
B	0	0.0
C	0	0.0
TOTALS	0	0.0

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **LP2**	MAIN LUG AMPS: 600	SCCR RATING (AIC): 35,000
MOUNTING: *SURFACE*	MAIN BREAKER: 500	
LOCATION: *ELECTRICAL ROOM XXX*	VOLTAGE: 208/120	
	PHASE/WIRE: 3D, 4W	

	DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION	
	REC: EXTERIOR / RM 136	900			20	1	1 2	1	20	720			*REC: RR 110/111/MECH 140*	
G	*WATER COOLER*		500		20	1	3 4	1	20		1080		*REC: LOCKER ROOMS*	
G	*WATER COOLER*			500	20	1	5 6	1	20			1080	*REC: RESTROOMS 130/131*	
	REC: WEST RM 120	540			20	1	7 8	1	20	360			*REC: CONCESSIONS*	
	REC: NORTH RM 120		900		20	1	9 10	1	20		360		*REC: CONCESSIONS/1*	
	EXHAUST FAN EF-1			528	15	1	11 12	1	20			540	*REC: CONCESSIONS/2*	
	REC: RM 102 COUNTER	360			20	1	13 14	1	20	360			*REC: CONCESSIONS/3*	
G	*DISHWASHER*		1200		20	1	15 16	1	20		1500		*REFRIGERATOR*	G
G	*DISPOSAL*			500	20	1	17 18	2	80			7436	*AIR HANDLER AH-1*	
	REC: RM 102 COUNTER	540			20	1	19 20			7436				
G	*REFRIGERATOR*		1200		20	1	21 22	2	100		9911		*AIR HANDLER AH-2*	
	REC: RM 102 COUNTER			360	20	1	23 24					9911		
	REC: STORAGE 107 / CORRIDOR	720			20	1	25 26	2	50	5200			*AIR HANDLER AH-3*	
	REC: OFFICES 105 / 106		1800		20	1	27 28				5200			
	REC: OFFICES 103 / 104			1800	20	1	29 30	2	80			7436	*AIR HANDLER AH-4*	
	REC: OFFICE 102	900			20	1	31 32			7436				
	LTS: EXTERIOR		427		20	1	33 34	2	35		3307		*HEAT PUMP HP-1*	
	LTS: LOCKERS / CONCESSIONS			623	20	1	35 36					3307		
	LTS: ALL RESTROOMS / MEP	495			20	1	37 38	2	40	3900			*HEAT PUMP HP-2*	
	LTS: OFFICE / MULTI. / CORR.		817		20	1	39 40				3900			
	MSHP-1			2246	25	2	41 42	2	25			2330	*HEAT PUMP HP-3*	
		2246					43 44			2330				
	WATER HEATER WH-1		3000		40	2	45 46	2	40		3900		*HEAT PUMP HP-4*	
				3000			47 48					3900		
	EXHAUST FAN EF-2	528			15	1	49 50	2	30	2500			*ELECTRIC HEATER EH-6*	
	EXHAUST FAN EF-3		528		15	1	51 52				2500			
	ELECTRIC HEATER EH-1			2400	30	2	53 54	2	30			2500	*ELECTRIC HEATER EH-7*	
		2400					55 56			2500				
	ELECTRIC HEATER EH-2		2400		30	2	57 58	2	20		1500		*ELECTRIC HEATER EH-8*	
				2400			59 60					1500		
	ELECTRIC HEATER EH-3	1500			20	2	61 62	2	15	312			*ENERGY RECOVERY VENT. ERV-1*	
			1500				63 64	-	-		312		-	
	ELECTRIC HEATER EH-4			1500	20	2	65 66	2	15			750	*ELECTRIC HEATER EH-5*	
		1500					67 68	-	-	750			-	
G	*MICROWAVE*		1500		20	1	69 70	2	20		1500		*ELECTRIC HEATER EH-9*	
G	*MICROWAVE*			1500	20	1	71 72	-	-			1500		
	MOTORIZED DAMPERS	200			20	1	73 74	2	15	750			*ELECTRIC HEATER EH-10*	
	SPARE		-		20	1	75 76	-	-		750		-	
	SPARE			-	20	1	77 78	1	20			-	*SPACE*	
	SPARE	-			20	1	79 80	1	-	-			*SPACE*	
	SPARE		-		20	1	81 82	1	-		-		*SPACE*	
	SPARE			-	20	1	83 84	1	-			-	*SPACE*	
	TOTALS	*12829*	*15772*	*17357*						*34554*	*35720*	*42190*	TOTALS	

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	*2,952*	*1.25*	*2,952*
RECEPTACLES	*21,920*	*10KVA + 50% REST*	*15,960*
MOTORS	*2,208*	*1.25 x LARGEST + SUM OF REST*	*2,364*
AIR CONDITIONING	*31,366*	*0.00*	*0*
SPACE HEATING	*94,566*	*1.00*	*94,566*
HEAT PUMP	*0*	*1.00*	*0*
CONTINUOUS	*6,000*	*1.25*	*7,500*
NON-CONTINUOUS	*0*	*1.00*	*0*
MISC. LOADS 1	*0*	*1.00*	*0*
		SIZING LOAD:	123,343
		SIZING LOAD (AMPS):	342

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	*47,383*	*394.6*
B	*51,493*	*428.8*
C	*59,547*	*495.9*
TOTALS	158,423	439.7

REMARKS:

1. EATON POW-R-LINE 2X OR EQUAL.

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **LP1**	MAIN LUG AMPS: 400	SCCR RATING (AIC): 42,000
MOUNTING: *SURFACE*	MAIN BREAKER: *M.L.O.*	
LOCATION: *ELECTRICAL ROOM XXX*	VOLTAGE: 208/120	
	PHASE/WIRE: 3D, 4W	

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
REC: EXTERIOR	540			20	1	1 2	1	20	500			*OVERHEAD DOOR - RM 110*
REC: GARAGE STORAGE		720		20	1	3 4	1	20		500		*OVERHEAD DOOR - RM 101*
CLOTHES WASHER			1500	20	1	5 6	1	20			500	*OVERHEAD DOOR - RM 100A*
CLOTHER DRYER	1250			20	2	7 8	1	20		500		*OVERHEAD DOOR - RM 100B*
		1250				9 10	2	50			4500	*WELDER*
REC: ATHLETIC STORAGE			360	20	1	11 12					4500	
REC: MEZZANINE	720			20	1	13 14	2	50	4500			*WELDER*
CORD REELS/1		360		20	1	15 16				4500		
CORD REELS/2			360	20	1	17 18	2	30			2000	*POWER WASHER*
REC: GARAGE/1	720			20	1	19 20			2000			
REC: GARAGE/2		720		20	1	21 22	2	30		2000		*POWER WASHER*
REC: GARAGE/3			720	20	1	23 24					2000	
REC: GARAGE/4	360			20	1	25 26	1	20	360			*REC: TELECOM BACKBOARD*
REC: GARAGE/5		720		20	1	27 28	2	25		2246		*MSHP-2*
REC: GARAGE/6			720	20	1	29 30					2246	
REC: GARAGE/7	720			20	1	31 32	2	40	3000			*WATER HEATER WH-2*
LTS: MAINTENANCE BAYS		1402		20	1	33 34				3000		
LTS: EXTERIOR			293	20	1	35 36	1	20			1656	*EXHAUST FAN EF-4*
LTS: STORAGE / MEZZANINE	504			20	1	37 38	1	20	1656			*EXHAUST FAN EF-5*
POLE LIGHTS/1		976		20	1	39 40	3	50		4500		*ELECTRIC HEATER EH-13*
POLE LIGHTS/2			976	20	1	41 42			4500			
SPARE	-			20	1	43 44				4500		
PATHWAY LIGHTS/1		540		20	1	45 46	3	50		4500		*ELECTRIC HEATER EH-14*
PATHWAY LIGHTS/2			540	20	1	47 48			4500			
ELECTRIC HEATER EH-11	2500			30	2	49 50	3	50		4500		*ELECTRIC HEATER EH-15*
		2500				51 52				4500		
ELECTRIC HEATER EH-12			2500	30	2	53 54			4500			
	2500					55 56				4500		
PATHWAY LIGHTS/3		500		20	1	57 58	3	50		4500		*ELECTRIC HEATER EH-16*
CCTV CAMERAS			400	20	1	59 60			4500			
CCTV CAMERAS	400			20	1	61 62	1	20		100		*MONUMENT SIGN*
CCTV CAMERAS		400		20	1	63 64	1	20			540	*REC: SHELTER/FUTSAL*
MOTORIZED DAMPERS	200			20	1	65 66	1	20	1800			*FUTURE LTG: FUTSAL COURT*
SPARE		1800		20	1	67 68	1	20		1800		*SPARE*
SPARE			1800	20	1	69 70	1	20			1800	*SPARE*
SPACE	-			-	1	71 72	1	20	-			*SPARE*
SPACE		-		-	1	73 74	1	-		-		*SPACE*
SPACE			-	-	1	75 76	1	20		-		*SPARE*
SPACE			-	-	1	77 78	1	-			-	*SPACE*
SPACE	-			-	1	79 80	1	-	-			*SPACE*
SPACE		-		-	1	81 82	1	-		-		*SPACE*
SPACE			-	-	1	83 84	1	-			-	*SPACE*
TOTALS	*10414*	*10088*	*9369*						*33316*	*34846*	*31442*	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	*7,631*	*1.25*	*9,539*
RECEPTACLES	*46,333*	*10KVA + 50% REST*	*28,166*
MOTORS	*4,512*	*1.25 x LARGEST + SUM OF REST*	*4,926*
AIR CONDITIONING	*0*	*0.00*	*0*
SPACE HEATING	*64,000*	*1.00*	*64,000*
HEAT PUMP	*0*	*1.00*	*0*
CONTINUOUS	*6,000*	*1.25*	*7,500*
NON-CONTINUOUS	*0*	*1.00*	*0*
MISC. LOADS 1	*0*	*1.00*	*0*
		SIZING LOAD:	114,131
		SIZING LOAD (AMPS):	317

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	*42,730*	*355.8*
B	*44,934*	*374.2*
C	*40,811*	*339.8*
TOTALS	128,476	356.6

REMARKS:

1. EATON POW-R-LINE 2X OR EQUAL.

PANELBOARD BREAKER KEYED NOTES

G *FURNISH GFCI-PROTECTED BREAKER.*

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **PL1**	MAIN LUG AMPS: 225	SCCR RATING (AIC): 10,000
MOUNTING: *SURFACE*	MAIN BREAKER: 200	
LOCATION: *ELECTRICAL ROOM XXX*	VOLTAGE: 208/120	
	PHASE/WIRE: 3D, 4W	

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
REC: BUS HEATER/1	1500			20	1	1 2	1	20	1500			*REC: BUS HEATER/15*
REC: BUS HEATER/2		1500		20	1	3 4	1	20		1500		*REC: BUS HEATER/16*
REC: BUS HEATER/3			1500	20	1	5 6	1	20			1500	*REC: BUS HEATER/17*
REC: BUS HEATER/4	1500			20	1	7 8	1	20	1500			*REC: BUS HEATER/18*
REC: BUS HEATER/5		1500		20	1	9 10	1	20		1500		*REC: BUS HEATER/19*
REC: BUS HEATER/6			1500	20	1	11 12	1	20			1500	*REC: BUS HEATER/20*
REC: BUS HEATER/7	1500			20	1	13 14	1	20	1500			*REC: BUS HEATER/21*
REC: BUS HEATER/8		1500		20	1	15 16	1	20		1500		*REC: BUS HEATER/22*
REC: BUS HEATER/9			1500	20	1	17 18	1	20			1500	*REC: BUS HEATER/23*
REC: BUS HEATER/10	1500			20	1	19 20	1	20	1500			*REC: BUS HEATER/24*
REC: BUS HEATER/11		1500		20	1	21 22	1	20		1500		*REC: BUS HEATER/25*
REC: BUS HEATER/12			1500	20	1	23 24	1	20			1500	*REC: BUS HEATER/26*
REC: BUS HEATER/13	1500			20	1	25 26	1	20	-			*SPARE*
REC: BUS HEATER/14		1500		20	1	27 28	1	20		-		*SPARE*
NORTH MOTORIZED GATE			500	20	1	29 30	1	20			-	*SPARE*
SOUTH MOTORIZED GATE/1	500			20	1	31 32	1	20	-			*SPARE*
SOUTH MOTORIZED GATE/2		500		20	1	33 34	1	20		-		*SPARE*
SPARE			-	20	1	35 36	1	-			-	*SPACE*
SPARE	-			20	1	37 38						*SPACE*
SPARE		-		20	1	39 40	2	50		2000		*PANELBOARD LPF*
SPARE			-	20	1	41 42					2000	
TOTALS	8000	8000	6500						8000	8000	8000	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	*0*	*1.25*	*0*
RECEPTACLES	*4,000*	*10KVA + 50% REST*	*4,000*
MOTORS	*1,500*	*1.25 x LARGEST + SUM OF REST*	*1,625*
AIR CONDITIONING	*0*	*0.00*	*0*
SPACE HEATING	*39,000*	*1.00*	*39,000*
HEAT PUMP	*0*	*1.00*	*0*
CONTINUOUS	*0*	*1.00*	*0*
NON-CONTINUOUS	*0*	*1.00*	*0*
MISC. LOADS 1	*0*	*1.00*	*0*
		SIZING LOAD:	44,625
		SIZING LOAD (AMPS):	124

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	*14,000*	*116.6*
B	*16,000*	*133.2*
C	*14,500*	*120.7*
TOTALS	44,500	123.5

REMARKS:

1. EATON POW-R-LINE 1X OR EQUAL.

2. PROVIDE NEMA-3R ENCLOSURE.

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **LPF**	MAIN LUG AMPS: 125	SCCR RATING (AIC): 10,000
MOUNTING: *2-POLE UNISTRUT*	MAIN BREAKER: 50	
LOCATION: *PARKING LOT*	VOLTAGE: 208/120	
	PHASE/WIRE: 1ID, 3W	

DESCRIPTION	PHASE A	PHASE B	C/B TRIP	C/B POLE	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	DESCRIPTION
FUEL PUMP/1	1000		20	1	1 2	1	20	1000		*SPARE*
FUEL PUMP/2		1000	20	1	3 4	1	20		1000	*SPARE*
SPACE	-		-	1	5 6	1	-	0		*SPACE*
SPACE		-	-	1	7 8	1	-		0	*SPACE*
TOTALS	1000	1000						1000	1000	TOTALS

PANELBOARD SIZING LOAD		
LOAD DESCRIPTION	CONNECTED	CODE MIN. (VA)
LIGHTS	*0*	*0*
RECEPTACLES	*4,000*	*4,000*
AIR CONDITIONING	*0*	*0*
SPACE HEATING	*0*	*0*
HEAT PUMP	*0*	*0*
CONTINUOUS	*0*	*0*
NON-CONTINUOUS	*0*	*0*
MISC. LOADS 1	*0*	*0*
SIZING LOAD:		4,000
SIZING LOAD (AMPS):		11

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	2,000	*16.7*
B	2,000	*16.7*
TOTALS	4,000	11.1

REMARKS:

1. PROVIDE NEMA-3R LOAD CENTER.

2. MOUNT LOAD CENTER ON 2-POLE UNISTRUT.

3. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

4. PROVIDE 50A MAIN BREAKER WITH SHUNT TRIP.

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Frontier School of Innovation - Athletics Master Plan

1601 N Universal Ave.
Kansas City, MO 64120 Project No: 14018.20

Construction Documents

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI — DAVID LAWRENCE DEATHERAGE — NUMBER E-29880 — REGISTERED PROFESSIONAL ENGINEER — 6/18/2026

David Lawrence Deatherage - Engineer
MO# E-29880

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Corp.
Licensee Number: 000377

PANELBOARD SCHEDULES

E311

pkmr ENGINEERS 26.032
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LIGHTING CONTROLS

REFER TO SCHEDULES FOR SPECIFIC INFORMATION ON DEVICES. UNLESS NOTED OTHERWISE, WHERE "#" IS USED BELOW IT REFERS TO THE DEVICE IDENTITY IN THE RESPECTIVE SCHEDULE.

STANDARD SENSORS/CONTROLLERS

- $_{S}$ *WALL-MOUNTED SENSOR*
- $_{S}$ *WALL-MOUNTED SENSOR - DUAL-RELAY*
- $_{S}$ *LOW VOLTAGE MOMENTARY SWITCH (# INDICATES NO. OF BUTTONS)*
- *CUNHEA-MOUNTED (ON CEILING) MOTION SENSOR*
- *CORNER-MOUNTED (ON WALL) MOTION SENSOR*
- *CEILING-MOUNTED MOTION SENSOR*
- *CEILING-MOUNTED MOTION SENSOR FOR HALLWAYS*
- *CEILING-MOUNTED MOTION SENSOR FOR HIGH CEILINGS*
- *CEILING-MOUNTED MOTION SENSOR FOR AISLES*
- *CEILING-MOUNTED MOTION SENSOR FOR ENDS OF AISLES*
- *DAYLIGHT SENSOR*

DIGITAL LIGHTING MANAGEMENT SENSORS/CONTROLLERS

- $_{MD\#}$ *DIGITAL WALL-MOUNTED SENSOR*
- $_{MDR\#}$ *DIGITAL WALL-MOUNTED SENSOR - DUAL-RELAY*
- *DIGITAL CORNER-MOUNTED (ON CEILING) MOTION SENSOR*
- *DIGITAL CORNER-MOUNTED (ON WALL) MOTION SENSOR*
- *DIGITAL CEILING-MOUNTED MOTION SENSOR*
- *DIGITAL CEILING-MOUNTED MOTION SENSOR FOR HALLWAYS*
- *DIGITAL DAYLIGHT SENSOR*
- $_{L\#}$ *DIGITAL ON/OFF SWITCH (# INDICATES NO. OF BUTTONS)*
- $_{DL\#}$ *DIGITAL DIMMING SWITCH (# INDICATES NO. OF BUTTONS)*
- ■ *RC#* *DIGITAL ON/OFF ROOM CONTROLLER*
- ■ *RD#* *DIGITAL DIMMING ROOM CONTROLLER*

TIME-BASED CONTROLS

- $_{TS}$ *DIGITAL TIME SWITCH*
- $_{AT}$ *ASTRONOMICAL TIME CLOCK*

LIGHTING CONTROL PANEL SYSTEMS

- $_{S\#}$ *LIGHTING CONTROL PANEL SWITCH*
- LCP-X *LIGHTING CONTROL PANEL*

TRAINING AND PROGRAMMING

OWNER TRAINING:

- *PROVIDE FACTORY REPRESENTATIVE TRAINING TO OWNER FOR EACH LIGHTING CONTROL SYSTEM UTILIZED, INCLUDING PROGRAMMING FOR SCHEDULING AND OPERATION OF EACH ROOM PER OWNER DIRECTION*
- *PROVIDE RECORD OF TIME DELAY SETTINGS ON ALL SENSOR DEVICES FOR OWNER USE.*

SENSOR ADJUSTMENTS AND SETTINGS:

- *SYSTEMS SHALL BE SET/PROGRAMMED TO OPERATE TYPICALLY IN MANUAL ON/AUTO OFF MODE:*
  1. *SET WALL MOUNTED MOTION SENSOR TO MANUAL ON MODE.*
  2. *SET POWER PACKS AND ROOM CONTROLLERS CONTROLLED BY MOTION SENSORS TO MANUAL ON AND CONTROL WITH MOMENTARY WALL SWITCH.*
- *PROVIDE FINAL SETTINGS/ADJUSTMENTS PER OWNER'S DIRECTION.*

CONTROLS SEQUENCES

WALL-MOUNTED LINE VOLTAGE SENSORS:

- *TURN ON LIGHTS IN ROOM/AREA UPON BUTTON ON SENSOR BEING ACTIVATED BY OCCUPANT.*
- *TURN OFF LIGHTS AFTER NO MOTION IS DETECTED AND DELAY EXPIRES.*

MAINTENANCE BAYS:

- *MANUAL ON AND DIMMING CONTROL OF LIGHTING VIA DIMMING SWITCHES.*
- *TURN OFF LIGHTS AFTER NO MOTION IS DETECTED BY CEILING SENSORS AND DELAY EXPIRES.*
- *(1) ZONE OF CONTROL/DIMMING FOR EACH GARAGE BAY FOR A TOTAL OF (2) ZONES OF CONTROL. WITH SWITCHES FOR BOTH ZONES LOCATED AT EACH EXIT DOOR.*

TRAINING/CONFERENCE ROOMS:

- *MANUAL ON/OFF AND DIMMING CONTROL OF LIGHTING VIA DIMMING SWITCHES.*
- *TURN OFF LIGHTS AFTER NO MOTION IS DETECTED AND DELAY EXPIRES.*
- *SWITCHES AT EACH DOOR:*
  1. *2X4 TROFFERS*
  2. *CAN LIGHTS*
- *EACH SWITCH IS TO FUNCTION AS A THREE-WAY SWITCH IN CONJUNCTION WITH THE SWITCH SERVING SAME LOAD AT THE OTHER DOOR IN THE ROOM.*

EXTERIOR BUILDING MOUNTED FIXTURES:

- *AUTOMATIC ON/OFF VIA PHOTOCELL.*

LIGHTING CONTROL DEVICE SCHEDULE

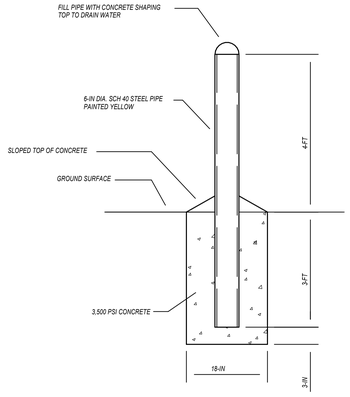
MARK	MANUFACTURER	MODEL	DESCRIPTION	VOLTAGE
CEILING SENSORS				
M	*WATTSTOPPER*	*CK-300*	*PASSIVE INFRARED CEILING SENSOR WITH EXTENDED HEIGHT LENS FOR MOUNTING UP TO 40' HIGH. 24V OPERATION - PROVIDE WITH ALL REQUIRED POWER PACKS, ETC.*	*24 V*
MD2	*WATTSTOPPER*	*LMDC-100*	*DIGITAL DUAL-TECHNOLOGY CEILING SENSOR. 24V OPERATION WITH CAT5 CONNECTION.*	*24 V*
SWITCHES				
LI#	*WATTSTOPPER*	*LMSW-100 SERIES*	*DIGITAL DECORA PUSHBUTTON SWITCH WITH LED PILOT LIGHT. CAT5 CONNECTION TO CONTROLLER. # REFERS TO QUANTITY OF BUTTONS ON FACE.*	*24 V*
LD1	*WATTSTOPPER*	*LMDM-101*	*DIGITAL DECORA DIMMING SWITCH WITH LED PILOT AND INDICATING LIGHTS. CAT5 CONNECTION TO CONTROLLER.*	*24 V*
WALL SENSORS				
WZ	*WATTSTOPPER*	*DSW-100*	*DUAL-TECHNOLOGY WALL SENSOR. LINE VOLTAGE.*	*120 V*

DISCONNECT SWITCH SCHEDULE

MARK	SWITCH RATING	POLES	TYPE	DESCRIPTION	STARTER SIZE	OCP SIZE	ENCLOSURE TYPE	LOCATION	EQUIPMENT SERVED	NOTES
DS-1	*60*	*3*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*	*Wash Bay G.100b*	*AIR COMPRESSOR*	*1*
DS-2	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*HEAT PUMP HP-1*	*1*
DS-3	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*HEAT PUMP HP-2*	*1*
DS-4	*30*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*HEAT PUMP HP-3*	*1*
DS-5	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*HEAT PUMP HP-4*	*1*
DS-6	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*MINI SPLIT HEAT PUMP MSHP-1*	*1*
DS-7	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 1*	*JANITOR 112*	*WATER HEATER WH-1*	*1*
DS-8	*30*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 3R*		*MINI SPLIT HEAT PUMP MSHP-2*	*1*
DS-9	*30*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 1*	*Athletic / Facility Storage G.110*	*ELECTRIC HEATER EH-8*	*1*
DS-10	*60*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 1*	*Garage Storage G.101*	*WATER HEATER WH-1*	*1*
DS-11	*30*	*2*	*NON-FUSIBLE*	*HEAVY-DUTY DISCONNECT SWITCH*	*N/A*	*0 A*	*NEMA 1*	*Garage Storage G.101*	*ELECTRIC HEATER EH-9*	*1*

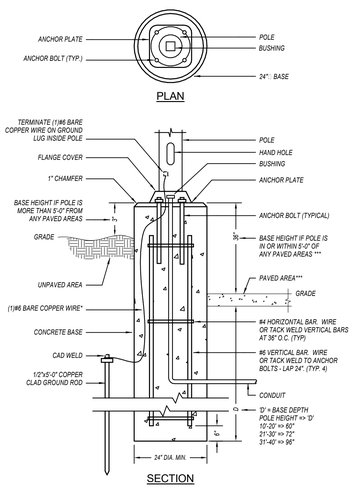
REMARKS:

1. *MAINTAIN ALL REQUIRED CLEARANCES ABOUT DISCONNECT AND/OR EQUIPMENT.*
2. *MOUNT AT 36" TO BOTTOM OF DISCONNECT ABOVE ROOF/GRADE.*
3. *REFER TO RISER DIAGRAM FOR ADDITIONAL DESCRIPTION/WORK.*
4. *SHUNT-TRIP CIRCUIT BREAKER - CONNECT TO ELEVATOR CONTROLLER, COORDINATE ALL WORK WITH ELEVATOR INSTALLER.*
5. *RECESSED ENCLOSURE.*



BOLLARD BASE DETAIL

NOT TO SCALE



POLE BASE DETAIL

NOT TO SCALE

LIGHT FIXTURE SCHEDULE

FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LED MODULE / DRIVER						REMARKS
				ID	WATTS	LUMENS	CRI	CCT	DIMMING	VOLTAGE	
A	*WILLIAMS*	*LRX4 SERIES*	*4" WIDE RECESSED LINEAR FIXTURE FOR GRID AND HARD CEILING MOUNT. 2'-0", 4'-0", 6'-0" OPTIONS AVAILABLE. REFER TO LIGHTING SHEETS FOR FIXTURE LENGTHS AND LOCATIONS. WHITE FINISH.*	*L8*	*6.7*	*915*	*80*	*3500K*	*0-10V*	*120*	*1,2,3*
B	*WILLIAMS*	*4DR SERIES*	*4.5" ROUND RECESSED DOWNLIGHT. DIE-FORMED STEEL PAN WITH FINNED, EXTRUDED ALUMINUM PASSIVE HEAT SINK. OPEN, SELF-FLANGED, SEMI-SPECULAR LOW IRIDESCENT FINISH ALUMINUM REFLECTOR WITH MEDIUM BEAM ANGLE/DISTRIBUTION AND FROSTED TOP DIFFUSER. SELECT OPTION "WET/CC" WET LOCATION LISTED.*	*L20*	*20*	*2002*	*80*	*3500K*	*0-10V*	*120*	*1,2*
C	*WILLIAMS*	*7SS*	*4'-0" LONG SUSPENDED AT 9'-0" AFF. 22-GAUGE DIE-FORMED C.R.S. HOUSING WITH FROSTED, DIFFUSE ACRYLIC LENS. PROVIDE NECESSARY EQUIPMENT TO SUSPEND-MOUNT THE FIXTURE. FINISH BY ARCHITECT.*	*L50*	*33*	*4,867*	*80*	*3500K*	*NO*	*120*	*1,2*
D	*COOPER/SIGNIFY*	*UHBS SELECTABLE HIGH BAY*	*PENDANT MOUNT FIXTURE AT 16'-0" AFF. RATED FOR NEMA 4X WASH DOWN. IMPACT PROTECTION RATING IK08 LENS AND IK08 HOUSING. FIELD SELECT LUMENS AND CCT AS SCHEDULED. WHITE FINISH.*	*-*	*120.1*	*18,353*	*82*	*4000K*	*0-10V*	*120*	*1,2*
G	*WILLIAMS*	*96 SERIES*	*8'-0" LONG FULLY-ENCLOSED AND GASKETED MOUNTED AT 18'-6" AFF INDUSTRIAL FIXTURE. INNER STEEL HOUSING WITH FIBERGLASS OUTER HOUSING AND FROSTED, RIBBED, IMPACT-RESISTANT ACRYLIC LENS. CLOSED CELL POLYURETHANE GASKET POURED AND FORMED IN PLACE. PROVIDE AIRCRAFT CABLE MOUNTING. FURNISH WITH OPTIONAL WATERTIGHT HUBS FOR UL-LISTED WET LOCATION.*	*L130*	*95*	*13,026*	*80*	*3500K*	*0-10V*	*120*	*1,2*
H	*HYDREL*	*TAYLORTWIN LED*	*EXTERIOR WALL MOUNT WITH TWO (2) FIXTURE HEADS. COORDINATE EXACT LOCATION WITH EXTERIOR SIGN. UL LISTED FOR WET LOCATION. 35 DEGREE ANGLE BEAM SPREAD. PROVIDE TRANSFORMER(S) FOR LOW VOLTAGE FIXTURE AS NECESSARY. COORDINATE FINISH OPTIONS WITH ARCHITECT.*	*-*	*9*	*636*	*80*	*3000K*	*NO*	*12*	*1,2*
J	*FINELITE*	*HP-WS*	*HIGH PERFORMANCE PERIMETER SLOT LED. 4" OPTIC WIDTH AND 2" OPTIC DEPTH. TOTAL FIXTURE LENGTH AS SHOWN ON PLANS - FIXTURE TO RUN CONTINUOUSLY FROM WALL TO WALL. REFER TO PLANS FOR TOTAL LENGTH. SIGNAL WHITE REFLECTOR SYSTEM.*	*B*	*9.3*	*399*	*80*	*3500K*	*0-10V*	*120*	*1,3*
P	*LIGMAN*	*LIGHT LINEAR PT SERIES*	*ARCHITECTURAL POLE-MOUNTED FIXTURE. DIE-CAST ALUMINUM HOUSING. IES TYPE II DISTRIBUTION. CAST ALUMINUM SUPPORT ARM. UL-LISTED WET LOCATION. PROVIDE WITH 15' HIGH, SQUARE STRAIGHT STEEL POLE. PROVIDE WITH OUTDOOR PHOTO/MOTION SENSOR. POWDER COAT FINISH DARK BRONZE - COORDINATE EXACT COLOR WITH ARCHITECT.*	*PT 3*	*54*	*6,193*	*70*	*3000K*	*NO*	*120*	*1*
Q	*ACUITY*	*BLADE BLD*	*72" LINEAR WALL MOUNT FIXTURE. CENTER EACH FIXTURE ABOVE THE DOOR. UL LISTED FOR WET LOCATION. PROVIDE WITH COMPATIBLE BATTERY BACKUP PER REMARK 2. ARCHITECT TO VERIFY FINISH OPTIONS.*	*-*	*30*	*3,003*	*80*	*3000K*	*NO*	*120*	*1,2,4*
Q2	*ACUITY*	*BLADE BLD*	*36" LINEAR WALL MOUNT FIXTURE. CENTER EACH FIXTURE ABOVE THE DOOR. UL LISTED FOR WET LOCATION. PROVIDE WITH COMPATIBLE BATTERY BACKUP PER REMARK 2. ARCHITECT TO VERIFY FINISH OPTIONS.*	*-*	*30*	*2,860*	*80*	*3000K*	*NO*	*120*	*1,2,4*
X	*ISOLITE*	*LPDC2*	*COMPACT, LOW-PROFILE EXIT SIGN. WHITE FINISH WITH RED LETTERS. SIDE, TOP, OR WALL MOUNTED IN SINGLE/DOUBLE FACE CONFIGURATION WITH DIRECTIONAL ARROWS AS INDICATED ON PLANS. FURNISH WITH EMERGENCY OPTION FOR MAINTENANCE-FREE NICKEL-METAL-HYDRIDE BATTERY FOR 2 HOUR OPERATION WITH INTEGRAL TEST SWITCH AND AC-ON LIGHT.*	*SIX (6) HIGH-OUTPUT LEDS TOTAL POWER CONSUMPTION = 1.4 WATTS.*		-	-	-	*120*	*1,4*
X1	*ISOLITE*	*LPDC2*	*COMPACT, LOW-PROFILE EXIT SIGN. WHITE FINISH WITH RED LETTERS. SIDE, TOP, OR WALL MOUNTED IN SINGLE/DOUBLE FACE CONFIGURATION WITH DIRECTIONAL ARROWS AS INDICATED ON PLANS. FURNISH WITH EMERGENCY OPTION FOR MAINTENANCE-FREE NICKEL-METAL-HYDRIDE BATTERY FOR 2 HOUR OPERATION WITH INTEGRAL TEST SWITCH AND AC-ON LIGHT. UL LISTED FOR WET LOCATION AND PROVIDE NEMA 4X OPTION FOR WET LOCATION.*	*TOTAL POWER CONSUMPTION = 1.4 WATTS.*		-	-	-	*120*	*1,4*
SL2	*MCGRAW-EDISON*	*GALLEON LED GLEON SERIES*	*POLE-MOUNTED AREA LIGHT. LOW-PROFILE. ONE-PIECE DIE-CAST ALUMINUM HOUSING. LIGHT SQUARE LED ARRAYS - REFER TO LAMP DESCRIPTION FOR QUANTITY. IES TYPE IV WIDE DISTRIBUTION . DIE CAST ALUMINUM MOUNTING ARM. PROVIDE WITH 25' HIGH, SQUARE STRAIGHT STEEL POLE AND 3' BASE FOR A MAXIMUM HEIGHT OF 28' AFG. MOUNT TWO (2) FIXTURE HEADS 180 DEGREES APART. PROVIDE COAT FINISH DARK BRONZE - COORDINATE EXACT COLOR WITH ARCHITECT AND OWNER.*	*SA3C*	*322*	*17,039*	*80*	*3000K*	*NO*	*120*	*1*
SL3	*MCGRAW-EDISON*	*GALLEON LED GLEON SERIES*	*SAME AS FIXTURE TYPE "SL1" EXCEPT TWO (2) FIXTURE HEADS 180 DEGREES APART.*	*SA3C*	*332*	*34528*	*80*	*3000K*	*NO*	*120*	*1*
SLW	*MCGRAW-EDISON*	*GALLEON LED GLEON SERIES*	*WALL-MOUNTED AREA LIGHT AT 16'-6" AFG. LOW-PROFILE, ONE-PIECE DIE-CAST ALUMINUM HOUSING. LIGHT SQUARE LED ARRAYS - REFER TO LAMP DESCRIPTION FOR QUANTITY. IES TYPE III DISTRIBUTION . POWDER COAT FINISH DARK BRONZE - COORDINATE EXACT COLOR WITH ARCHITECT AND OWNER.*	*SA2B*	*85*	*9293*	*80*	*3000K*	*NO*	*120*	*1*

REMARKS:

1. *FURNISH WITH AND INSTALL ALL NECESSARY HARDWARE AND MOUNTING BRACKETS.*
2. *WHERE FIXTURE IS LABELED "EM", PROVIDE WITH IOTA IL8-CP10 (10W CONSTANT POWER EMERGENCY BATTERY PACK) OR APPROVED EQUAL.*
3. *LUMENS AND WATTAGE VALUES LISTED ARE PER FOOT.*
4. *FIXTURE HAS BEEN SELECTED BY OWNER. IN GENERAL, NO SUBSTITUTIONS WILL BE ALLOWED - COORDINATE SAME WITH OWNER.*

GENERAL NOTES (APPLICABLE TO ALL FIXTURES):

1) EQUALS ARE ACCEPTABLE ON ALL LIGHT FIXTURES UNLESS SPECIFICALLY NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR APPROVED EQUAL FIXTURE MANUFACTURERS.
2) ALL DRIVERS ARE INTEGRAL TO FIXTURE UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR ADDITIONAL FIXTURE/DRIVER/BALLAST REQUIREMENTS.
3) ALL FIXTURES WITH PAINTED METAL PARTS SHALL BE PAINTED AFTER FABRICATION.
4) LUMENS LISTED FOR LED FIXTURES ARE GENERALLY DELIVERED LUMENS UNLESS NOTED OTHERWISE.
5) ALL EXTERIOR LED FIXTURES ARE FULL CUTOFF UNLESS NOTED OTHERWISE.
6) ALL FIXTURES IN FOOD PREPARATION OR SERVING AREAS SHALL BE FURNISHED WITH SHATTER-RESISTANT LAMPS UNLESS LENSED.
7) ALL FIXTURES SHALL BE IC RATED OR PROVIDED WITH INSULATION SHIELDS WHEN INSTALLED IN INSULATED AREAS OF THE TRUSS SPACE.
8) FOR ALL FIXTURES INSTALLED IN RATED ASSEMBLIES, FURNISH AND INSTALL APPROVED FIRE BARRIER (E.Z. BARRIER OR TENMAT FF109 SERIES) OVER FIXTURE TO MAINTAIN 1 HOUR CEILING ASSEMBLY RATING.

LIGHTING CONTROL PANEL SCHEDULE (LCP1)

RELAY	CIRCUIT #	DESCRIPTION	NOTES
1	*LP1-39*	*PARKING LOT POLE LIGHTS*	*1*
2	*LP1-41*	*PARKING LOT POLE LIGHTS*	*1*
3	*LP1-45*	*PATHWAY LIGHTING/1*	*1*
4	*LP1-47*	*PATHWAY LIGHTING/2*	*1*
5	*LP1-57*	*PATHWAY LIGHTING/3*	*1*
6	*LP1-64*	*MONUMENT SIGN*	*1*
7	*LP1-68*	*FUTSAL COURT LIGHTING*	*1*
8			

NOTES:

1. *PHOTOCELL ON / PHOTOCELL OFF.*
2. *PHOTOCELL ON / TIMECLOCK OFF.*
3. *PROVIDE CIRCUIT WITH UL-924 RELAY.*

PANEL REMARKS:

1. *WATTSTOPPER LP8 PANEL OR EQUAL.*
2. *FURNISH WITH EXTERIOR PHOTOCELL.*
3. *REFER TO DETAIL FOR CONNECTIONS, ETC.*

LIGHTING CONTROL PANEL SCHEDULE (LCP2)

RELAY	CIRCUIT #	DESCRIPTION	NOTES
1	*LP2-33*	*BUILDING MOUNTED LIGHTS*	*1,3*
2	*-*	*-*	*-*

NOTES:

1. *PHOTOCELL ON / PHOTOCELL OFF.*
2. *PHOTOCELL ON / TIMECLOCK OFF.*
3. *PROVIDE CIRCUIT WITH UL-924 RELAY.*

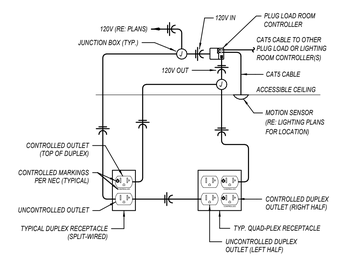
PANEL REMARKS:

1. *WATTSTOPPER LP8 PANEL OR EQUAL.*
2. *FURNISH WITH EXTERIOR PHOTOCELL.*
3. *REFER TO DETAIL FOR CONNECTIONS, ETC.*

PLUG LOAD CONTROLS

- *PLC* ■ *PLUG LOAD CONTROLLER: DIGITAL ON/OFF PLUG LOAD CONTROLLER. 120V INPUT; CLASS 2 OUTPUT AT 240VDC. 150mA (FOR USE WITH ON/OFF LIGHTING ROOM CONTROLLERS). (WATTSTOPPER LMPL-101 SERIES, OR EQUAL)*
- *PLC2* ■ *PLUG LOAD CONTROLLER: DIGITAL ON/OFF PLUG LOAD CONTROLLER. 120V INPUT; CLASS 2 OUTPUT AT 240VDC. 250mA (FOR USE WITH ON/OFF/DIMMING LIGHTING ROOM CONTROLLERS). (WATTSTOPPER LMPL-201 SERIES, OR EQUAL)*

PLUG LOAD CONTROLLER/ RECEPTACLE WIRING DIAGRAM



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Frontier School of Innovation - Athletics Master Plan

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Project No: 14018.20

Construction Documents

Issued: 06.01.2026

Rev. #	Description	Date Issued
1	Addendum #1	06.18.2026

STATE OF MISSOURI — DAVID LAWRENCE DEATHERAGE — NUMBER E-29880 — PROFESSIONAL ENGINEER
6/18/2026
David Lawrence Deatherage - Engineer
MO# E-29880

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ELECTRICAL SCHEDULES

E401

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