

Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082 VOLUME 3 Cover Sheet

W-G000

September 28, 2020

Project Team:

owner:

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice

www.gouldevans.com

architect:

Bob D. Campbell & Company, 4338 Belleview Avenue Kansas City, MO 64111 816.531.4144

structural engineer:

Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

civil engineer:

mechanical/electrical engineer:

Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000



02/09/2021

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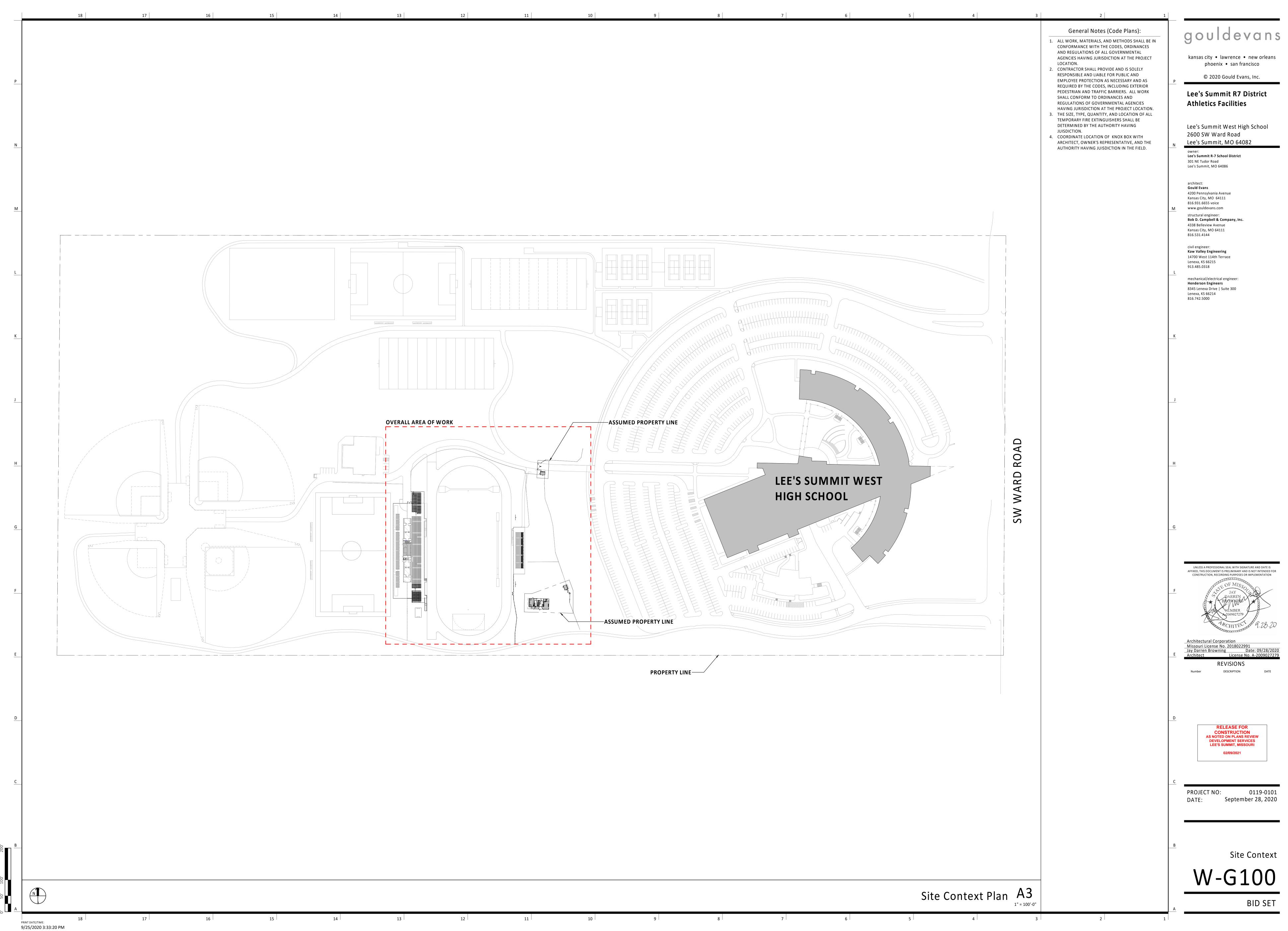
BID SET

0119-0101

	Index of Drawings		General Notes: 1. THE INTENT OF THE CONTRACT DOCUMENTS IS TO	gouldevan
Volume 1 - LSHS	Volume 2 - LSNHS 00 Covers	Volume 3 - LSWHS	INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. THE CONTRACT DOCUMENTS ARE	kansas city • lawrence • new orle
VOLUME 1 Cover Sheet	N-G000 VOLUME 2 Cover Sheet	W-G000 VOLUME 3 Cover Sheet	COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL; PERFORMANCE BY THE CONTRACTOR SHALL BE	phoenix • san francisco © 2020 Gould Evans, Inc.
eneral Information L Index of Drawings & General Project Notes	01.0 General Information N-G001 Index of Drawings & General Project Notes	01.0 General Information W-G001 Index of Drawings & General Project Notes	REQUIRED ONLY TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO	Lee's Summit R7 District
ode Information L Code Plan - Level 1	01.1 Code Information N-G100 Site Context	01.1 Code Information W-G100 Site Context	PRODUCE THE INDICATED RESULTS. 2. ORGANIZATION OF THE SPECIFICATIONS INTO DIVISIONS, SECTIONS AND ARTICLES, AND	Athletics Facilities
Civil	N-G101 Code Summary - Stadium, Press Box, & Ticket Booths N-G102 Code Summary - Home Press Box & Ticket Booths	W-G101 Code Summary - Stadium & Home Press Box W-G102 Code Summary - Press Box	ARRANGEMENT OF DRAWINGS SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG	
Site and Dimension Plan Site Details	N-G103 Code Summary - Athletics Building & Concessions	W-G103 Code Summary - Visitor Concessions & South Ticket Booth W-G104 Code Summary - North Ticket Booth	SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE. 3. DRAWINGS, SPECIFICATIONS, GENERAL AND	Lee's Summit West High Schoo 2600 SW Ward Road
Erosion Control Details Demolition and Erosion Control Plan	02.0 - Civil N-C100 Site and Dimension Plan	W-G200 Fire Rated Assemblies W-G201 Fire Rated Assemblies	SUPPLEMENTARY CONDITIONS ARE ESSENTIAL PARTS OF THE CONTRACT. IN THE EVENT OF ANY	Lee's Summit, MO 64082
Grading and Erosion Control Plan Retaining Wall Plan and Profile	N-C200 Demolition and Erosion Control Plan N-C300 Grading and Erosion Control Plan	02.0 - Civil	DISCREPANCY BETWEEN A DRAWING AND FIGURES WRITTEN THEREON, THE FIGURES, UNLESS	owner: Lee's Summit R-7 School District 301 NE Tudor Road
Utility Plan Storm Sewer Plan and Profile	N-C310 Site and Grading Plan Alternate N-C500 Utility Plan	W-C100 Site & Dimension Plan W-C200 Demolition and Erosion Control Plan	OBVIOUSLY INCORRECT, ARE TO GOVERN OVER SCALED DIMENSIONS. IN THE CASE OF ANY	Lee's Summit, MO 64086
Storm Details	N-C900 Detail Sheet N-C910 Detail Sheet	W-C300 Grading and Erosion Control Plan W-C500 Utility Plan	DISCREPANCY BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE SPECIFICATIONS ARE TO GOVERN. IF THERE IS A DISCREPANCY BETWEEN	architect: Gould Evans
rchitectural Site D2 Architectural Site Plan	03.1 Architectural Site	W-C900 Site Details W-C910 Utility Details	LARGE AND SMALL SCALE DETAILS, THE LARGER SCALE DETAILS ARE TO GOVERN. SUPPLEMENTARY	4200 Pennsylvania Avenue Kansas City, MO 64111
11 Fencing and Hardscape Plans	N-AS001 Architectural Site Plan N-AS101 Bleacher Plans	W-C920 Utility Details	CONDITIONS SHALL GOVERN OVER SPECIFICATIONS, DRAWINGS AND GENERAL CONDITIONS. THE	816.931.6655 voice M www.gouldevans.com
ructural General Notes	N-AS201 Fencing and Hardscape Plans	03.1 Architectural Site W-AS001 Architectural Site Plan	CONTRACTOR SHALL ADVISE THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS BETWEEN CONTRACT DOCUMENTS AS SOON AS THEY ARE DISCOVERED.	structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue
CMU Details Home Press Box Plans	04.0 Structural N-S001 General Notes	W-AS101 Bleacher Plans W-AS201 Fencing & Hardscape Plan	4. NOTWITHSTANDING THE ABOVE, IN THE CASE OF INCONSISTENCY BETWEEN DRAWINGS AND	Kansas City, MO 64111 816.531.4144
Home Gateway Plans Visitor Ticket Booth Plans	N-S002 CMU Details N-S111 Press Box Plans	04.0 Structural	SPECIFICATIONS, OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM OR BY ARCHITECT'S	civil engineer: Kaw Valley Engineering
Weight Room Addition Plans Foundation Sections	N-S121 North Ticket Booth Plans N-S131 South Ticket Booth Plans	W-S001 General Notes & Site Foundation Plans W-S002 CMU Details	SUPPLEMENTAL INSTRUCTION, THE BETTER QUALITY OR GREATER QUANTITY SHALL BE PROVIDED.	14700 West 114th Terrace Lenexa, KS 66215
Foundation Sections	N-S141 Vistior Restroom Plans	W-S111 Home Press Box Plans	5. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS. IF DIMENSIONS APPEAR TO BE INSUFFICIENT OR INCORRECT, THE CONTRACTOR	913.485.0318 L mechanical/electrical engineer:
Framing Sections Framing Sections	N-S200 Foundation Sections N-S300 Framing Sections	W-S121 Visitor Restrooms/Concession Plans W-S131 North Ticket Booth Plans	SHALL REQUEST CLARIFICATION FROM THE ARCHITECT.	Henderson Engineers 8345 Lenexa Drive Suite 300
Framing Sections Framing Sections	N-S301 Framing Sections N-S302 Framing Sections	W-S141 South Ticket Booth Plans W-S300 Framing Sections	6. WHENEVER CONTRACT DOCUMENTS REASONABLY IMPLY MATERIALS OR INSTALLATION AS NECESSARY	Lenexa, KS 66214 816.742.5000
Framing Sections Framing Elevations	N-S400 Framing Elevations	W-S301 Framing Sections W-S400 Framing Elevations	TO PRODUCE THE INTENDED RESULTS, BUT DO NOT FULLY DETAIL OR SPECIFY SUCH MATERIALS, THE CONTRACTOR SHALL PROVIDE THE MATERIALS AND	
rchitectural Demolition	05.0 Architectural Demolition N-AD100 Overall (Site) Demolition Plans	05.0 Architectural Demolition	LABOR REQUIRED FOR INSTALLATION NONETHELESS. 7. PROVIDE ALL WORK INDICATED UNLESS	
OVERALL (Site) Demolition Plans	N-AD111 Home Press Box Demolition Plans N-AD112 Restroom and Concessions Demolition Plans	W-AD100 Demolition Plan - Overall Site W-AD101 Demolition Plan - Press Box	SPECIFICALLY INDICATED AS "NOT IN CONTRACT" (NIC), "FURNISHED BY OTHERS" (FBO) OR "EXISTING".	K
chitectural Graphic Symbols, Abbreviations, and General Information	05.1 Architectural	05.1 Architectural	8. CONTRACT DOCUMENTS ARE INTENDED TO CONVEY DESIGN INTENT ONLY. PROVIDE PRODUCTS	
Accessibility Standards & Mounting Heights Exterior Enclosure Types & Interior Partition Types	N-A001 Graphic Symbols, Abbreviations, and General Information N-A002 Accessibility Standards	W-A001 Graphic Symbols, Abbreviations, and General Information W-A002 Accessibility Standards	COMPLETE WITH ACCESSORIES, TRIM, FINISH, FASTENERS, AND OTHER ITEMS NEEDED FOR A COMPLETE INSTALLATION AND INDICATED USE AND	
Door & Window Types & Details Overall Floor Plan	N-A020 Exterior Enclosure Types & Interior Partition Types N-A080 Door & Window Types, Schedule, & Details	W-A020 Exterior Enclosures & Railing W-A080 Door & Window Schedule, Types, & Details	EFFECT. 9. THESE NOTES ARE NOT INTENDED TO LIMIT THE	
Home Press Box - Floor/Roof Plans Home Press Box - Reflected Ceiling Plans	N-A101 Overall Floor Plan N-A111 Press Box - Floor/Roof Plans	W-A090 Interior Partition Types W-A101 Overall Floor Plan	RESPONSIBILITIES OF THE CONTRACTOR AS DEFINED ELSEWHERE IN THE CONTRACT DOCUMENTS	
Home Press Box - Exterior Elevations Home Press Box - Building Sections	N-A112 Press Box - Reflected Ceiling Plans N-A113 Press Box - Exterior Elevations	W-A101 Overall Hoof Plans W-A111 Press Box - Floor/Roof Plans W-A112 Press Box - Reflected Ceiling Plans		J
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Exterior Plan Details Casework Standards	N-AF003 Signage Types, Schedule & Details	05.2 Architectural Finishes /ADD02		
rehitaetural Finishes	06.0 - Plumbing N-P000 PLUMBING LEGEND AND NOTES	W-AF001 Finish Legend & Details W-AF002 Signage Types, Schedule & Details		
ADD02 Finish Legend, Schedule & Details Signage Types, Schedule & Details	N-P111 PRESS BOX - PLUMBING PLANS N-P141 VISITOR RESTROOMS - PLUMBING PLAN	W-AF003 Signage Types, Schedule & Details		UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED
33 Signage Types, Schedule & Details	N-P500 PLUMBING DETAILS N-P600 PLUMBING SCHEDULES	06.0 - Plumbing W-P000 PLUMBING LEGEND AND NOTES		CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION OF M/s
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HOME PRESS BOX - PLUMBING PLANS	07.0 - Mechanical	W-P500 PLUMBING DETAILS		BROWNING
HOME GATEWAY - PLUMBING PLAN PLUMBING DETAILS	N-M000 MECHANICAL LEGEND AND NOTES N-M111 PRESS BOX - HVAC PLANS	W-P600 PLUMBING SCHEDULES W-P700 PLUMBING RISERS		A-2009027279
PLUMBING SCHEDULES PLUMBING RISERS	N-M121 TICKET BOOTH - HVAC PLANS N-M141 VISITOR RESTROOMS - HVAC PLANS	07.0 - Mechanical		PRCHITECT OF 1.3.
Mechanical	N-M500 MECHANICAL DETAILS N-M600 MECHANICAL SCHEDULES & CONTROLS	W-M000 MECHANICAL LEGEND AND NOTES W-M111 HOME PRESS BOX - HVAC PLAN		Architectural Corporation Missouri License No. 2018022991 Jay Darren Browning Date: 11/03
0 MECHANICAL GENERAL NOTES AND LEGEND 1 HOME PRESS BOX - HVAC PLANS	08.0 - Electrical	W-M121 VISITOR RESTROOMS & CONCESSIONS - HVAC PLANS W-M131 TICKET BOOTH - HVAC PLANS		E Architect License No. A-200902
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0 MECHANICAL DETAILS 0 MECHANICAL SCHEDULES & CONTROLS	N-E111 PRESS BOX - LIGHTING RCPS N-E112 PRESS BOX - POWER PLANS	08.0 - Electrical		ADDUZ ADDENDUNIUZ 10/
Electrical	N-E121 TICKET BOOTH - ELECTRICAL PLANS N-E141 VISITOR RESTROOMS AND CONCESSIONS - ELECTRICAL PLANS	W-E000 ELECTRICAL LEGEND AND NOTES W-E001 ELECTRICAL SITE PLAN		
ELECTRICAL GENERAL NOTES AND LEGEND ELECTRICAL SITE PLAN - DEMO	N-E500 ELECTRICAL DETAILS N-E600 ELECTRICAL SCHEDULES	W-E111 HOME PRESS BOX - LIGHTING RCPS W-E112 HOME PRESS BOX - POWER PLANS		
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VISITOR TICKET BOOTH - ELECTRICAL PLANS	N-TN111 PRESS BOX - TECHNOLOGY PLANS			02/09/2021
ELECTRICAL DETAILS ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES	N-TN121 TICKET BOOTH - TECHNOLOGY PLANS N-TN141 VISITOR RESTROOMS - TECHNOLOGY PLAN N-TNEOD TECHNOLOGY PETALIS	10.0 - Technology W-TN000 TECHNOLOGY LEGEND AND NOTES		
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ELECTRICAL ONE-LINE DIAGRAM ELECTRICAL ONE-LINE DIAGRAM	99.0 Not Used NF-01 Food Establishment Plan	W-TN131 TICKET BOOTH - TECHNOLOGY PLANS W-TN500 TECHNOLOGY DETAILS		PROJECT NO: 0119-01 DATE: September 28, 20
- Technology		x_Unused		•
TECHNOLOGY GENERAL NOTES AND LEGEND HOME PRESS BOX - TECHNOLOGY PLANS		WF-01 Food Establishment Plan		
TECHNOLOGY HOME GATEWAY - PLAN TECHNOLOGY VISITOR TICKET BOOTH - PLAN				
00 TECHNOLOGY DETAILS				Index of Drawings General Project Net
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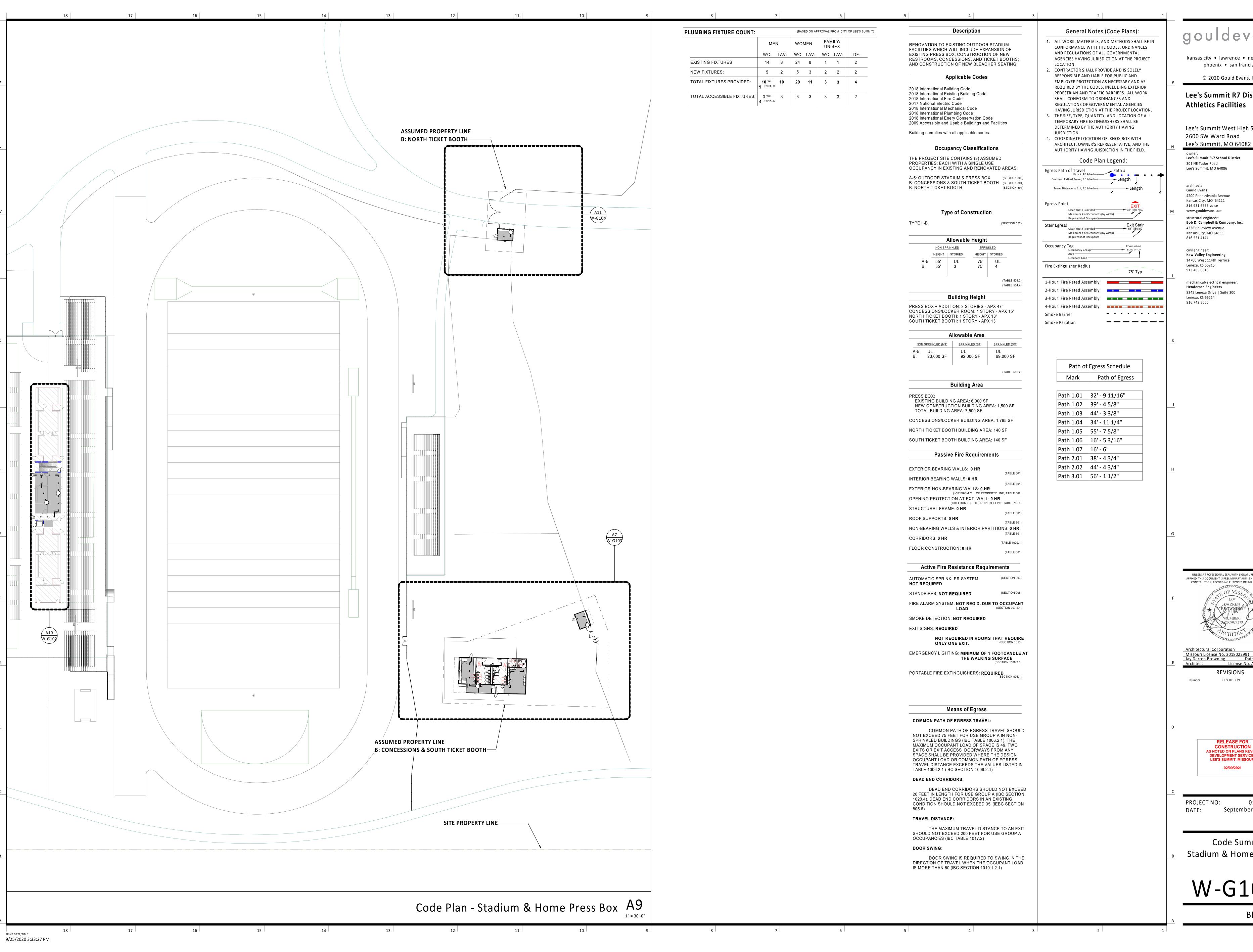
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Lee's Summit West High School

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CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

September 28, 2020



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Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District 301 NE Tudor Road

Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue

civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300

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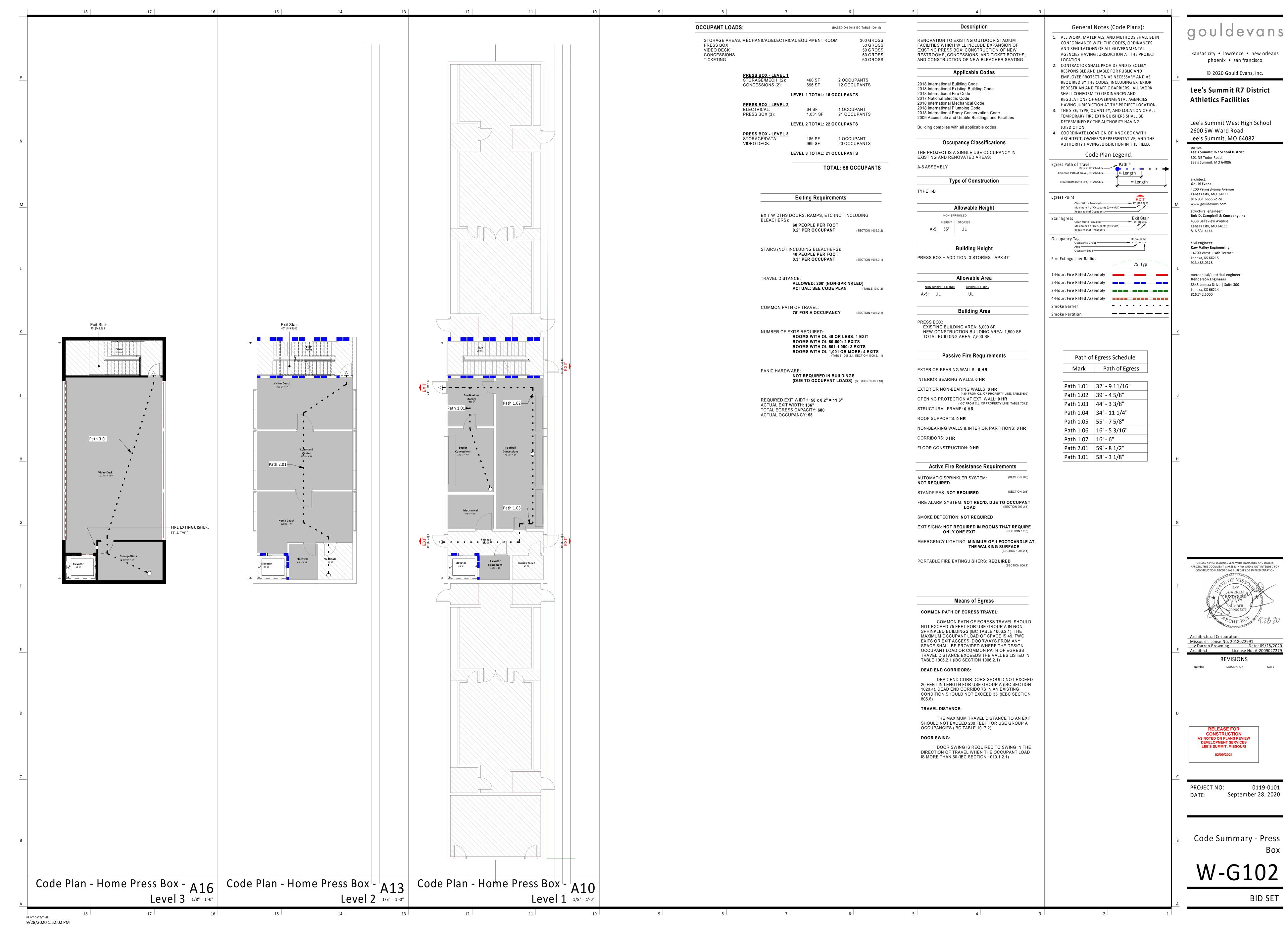
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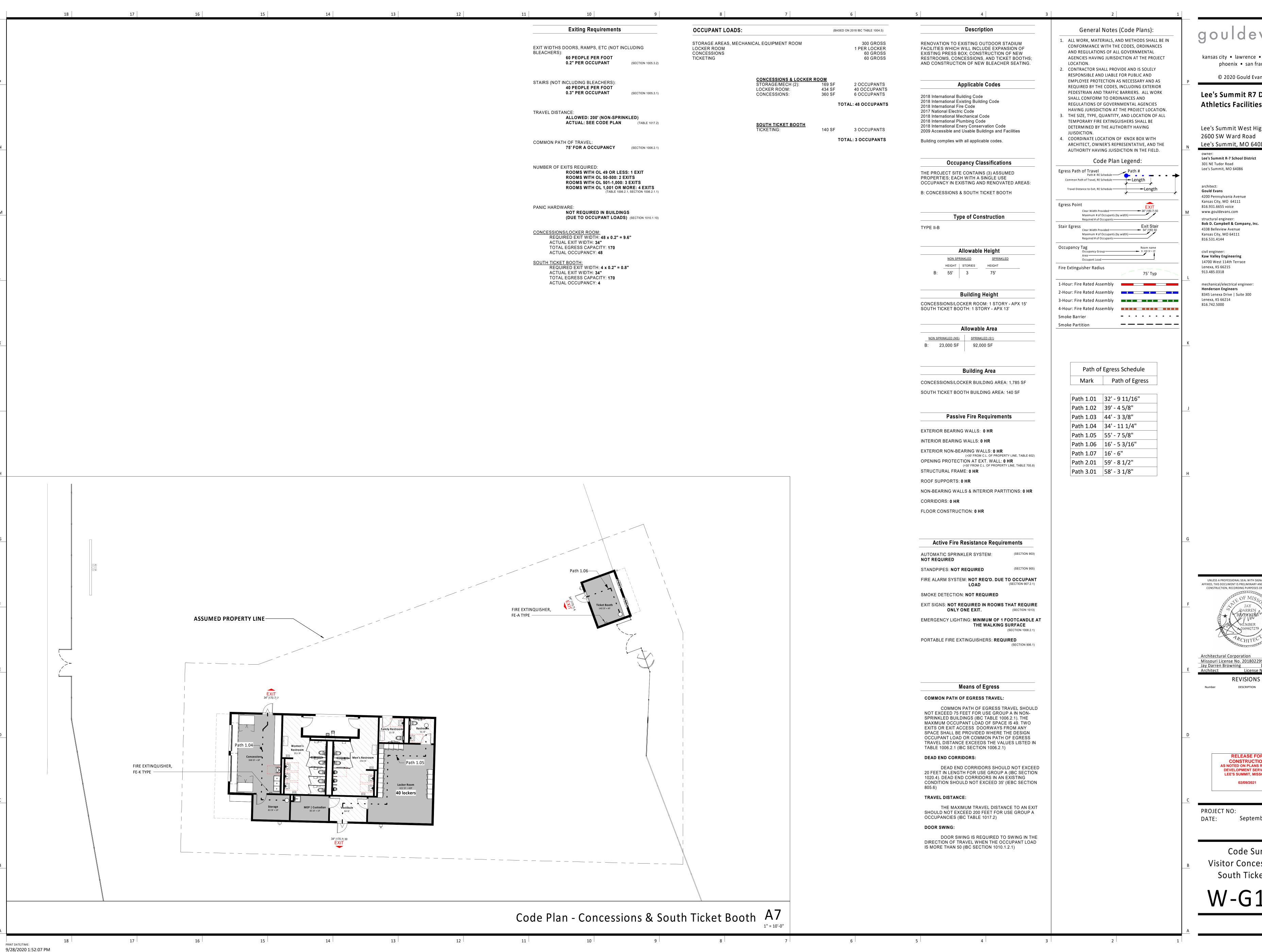
> CONSTRUCTION AS NOTED ON PLANS REVIEW LEE'S SUMMIT, MISSOURI

PROJECT NO:

September 28, 2020

Code Summary -Stadium & Home Press





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Lee's Summit R-7 School District Lee's Summit, MO 64086

4200 Pennsylvania Avenue Kansas City, MO 64111 www.gouldevans.com Bob D. Campbell & Company, Inc.

Kaw Valley Engineering 14700 West 114th Terrace

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300

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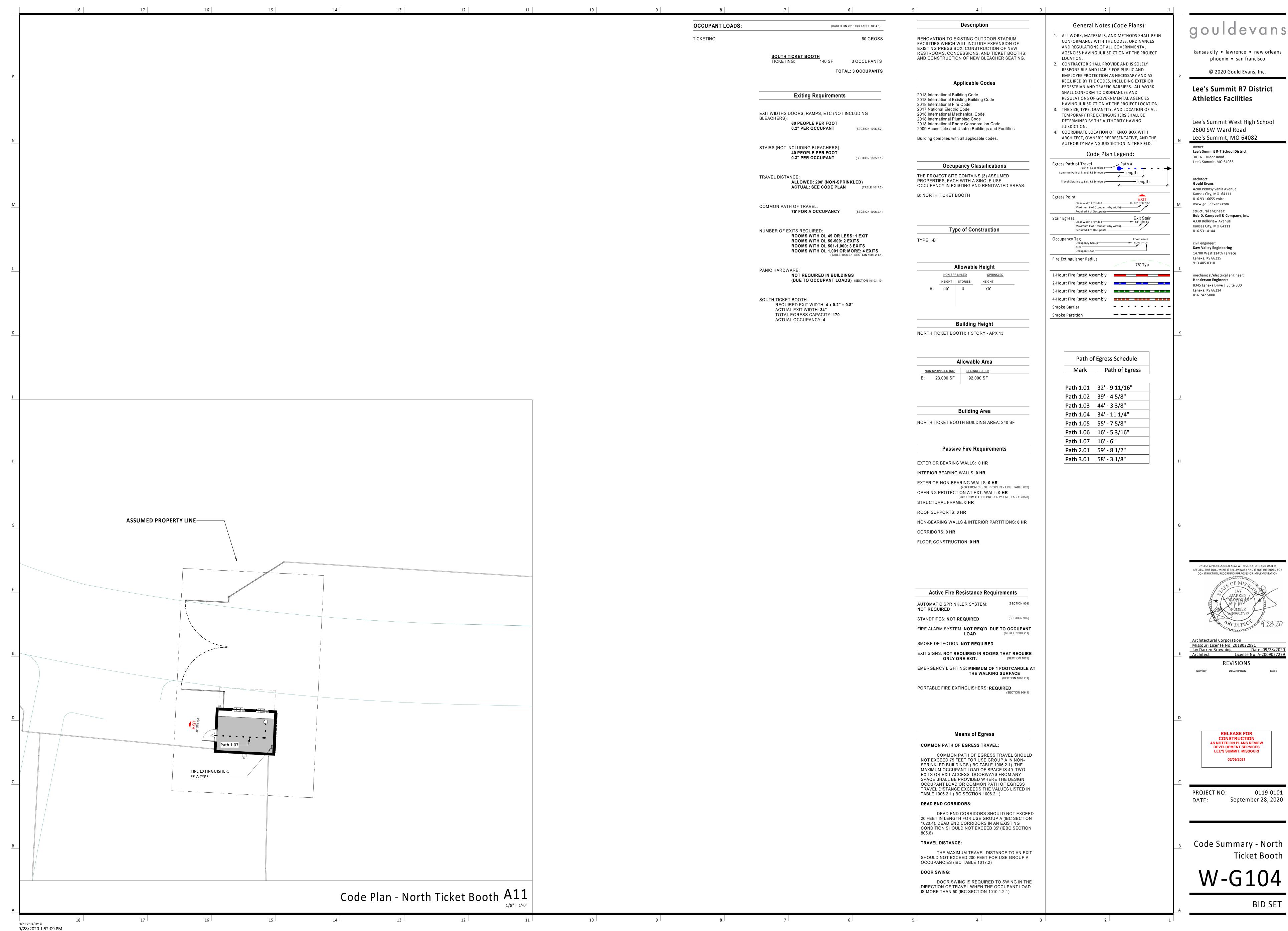
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Jay Darren Browning Date: 09/28/2020 License No. A-200902727

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> > September 28, 2020

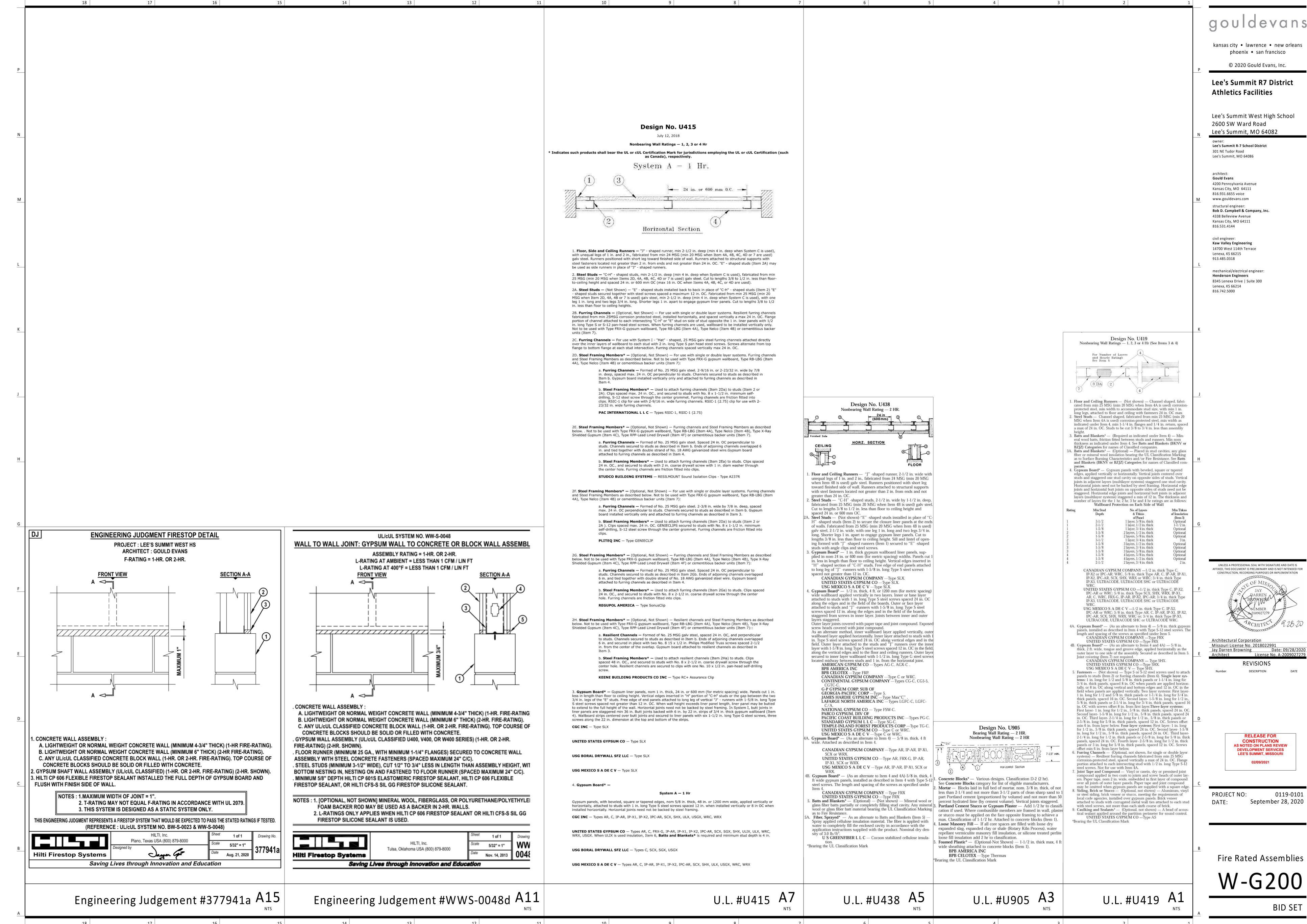
Code Summary -Visitor Concessions & South Ticket Booth



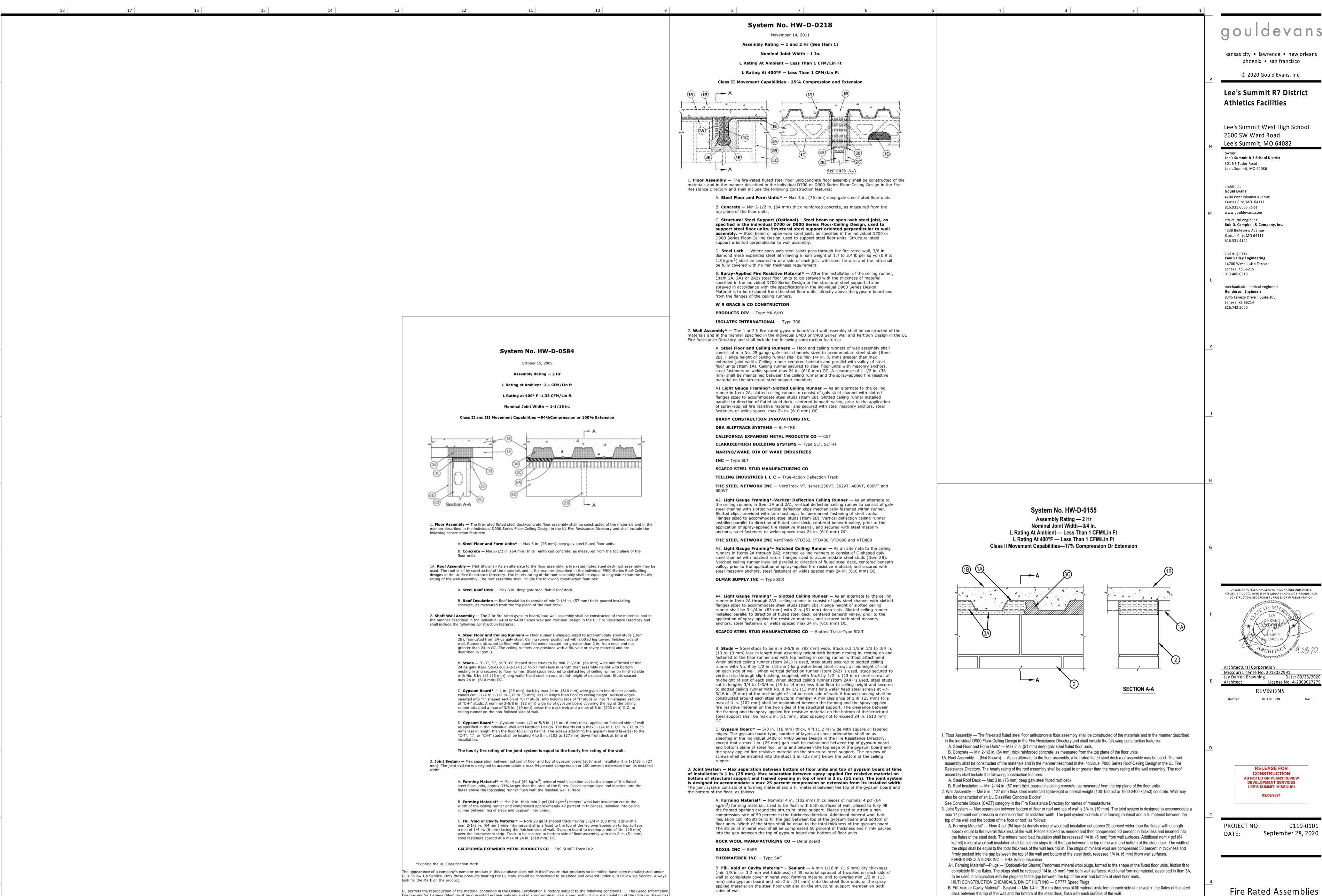
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0119-0101 September 28, 2020

Ticket Booth



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HILTI CONSTRUCTION CHEMICALS, DIV OF

earing the UL Classification Mark

HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

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Lee's Summit R7 District

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District

4200 Pennsylvania Avenue

www.gouldevans.com Bob D. Campbell & Company, Inc 4338 Belleview Avenue Kansas City, MO 64111

Kaw Valley Engineering 14700 West 114th Terrace

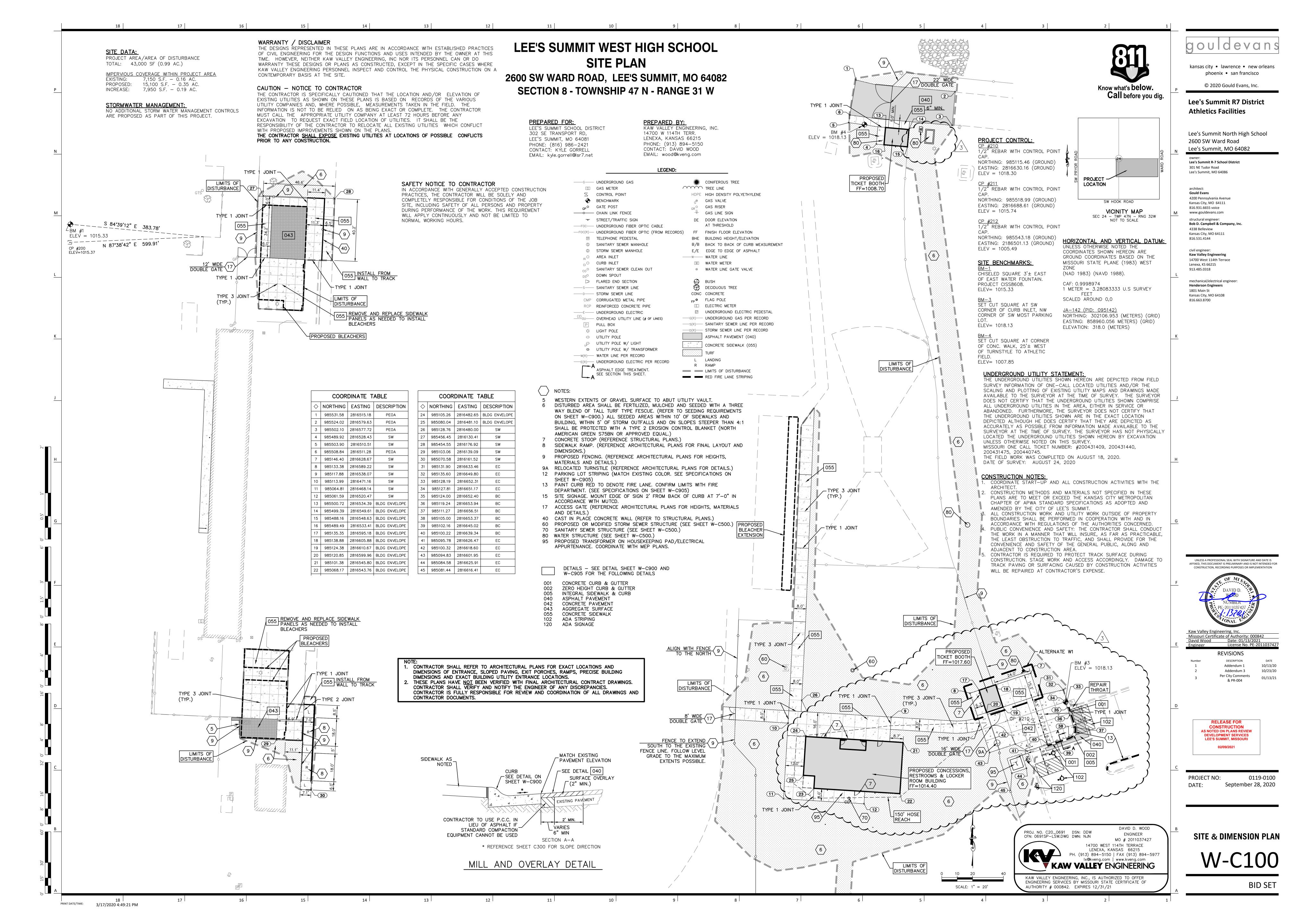
mechanical/electrical engineer Henderson Engineers 8345 Lenexa Drive | Suite 300

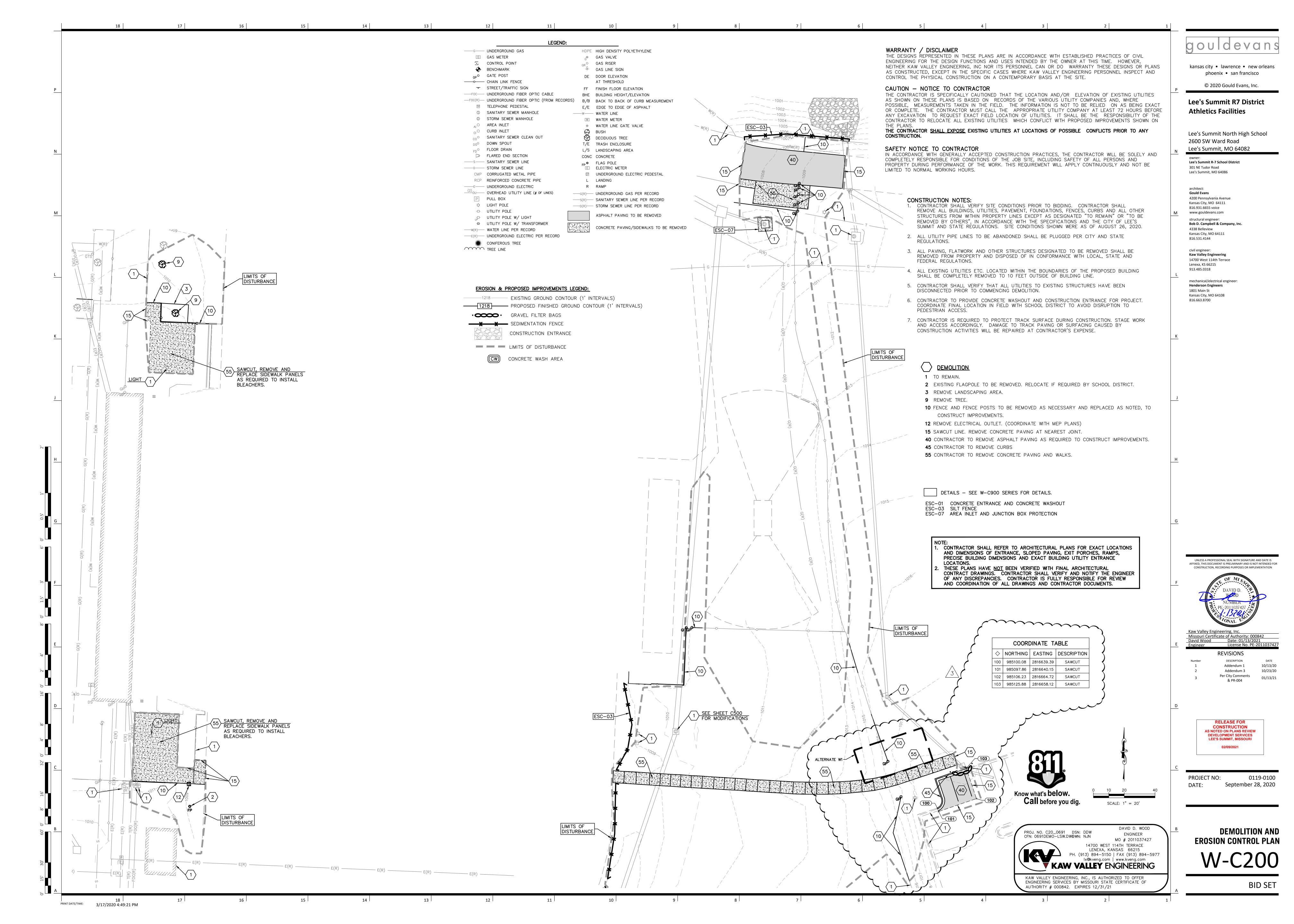
deck between the top of the wall and the bottom of the steel deck, flush with each surface of the wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant *Bearing the UL Classification Mark

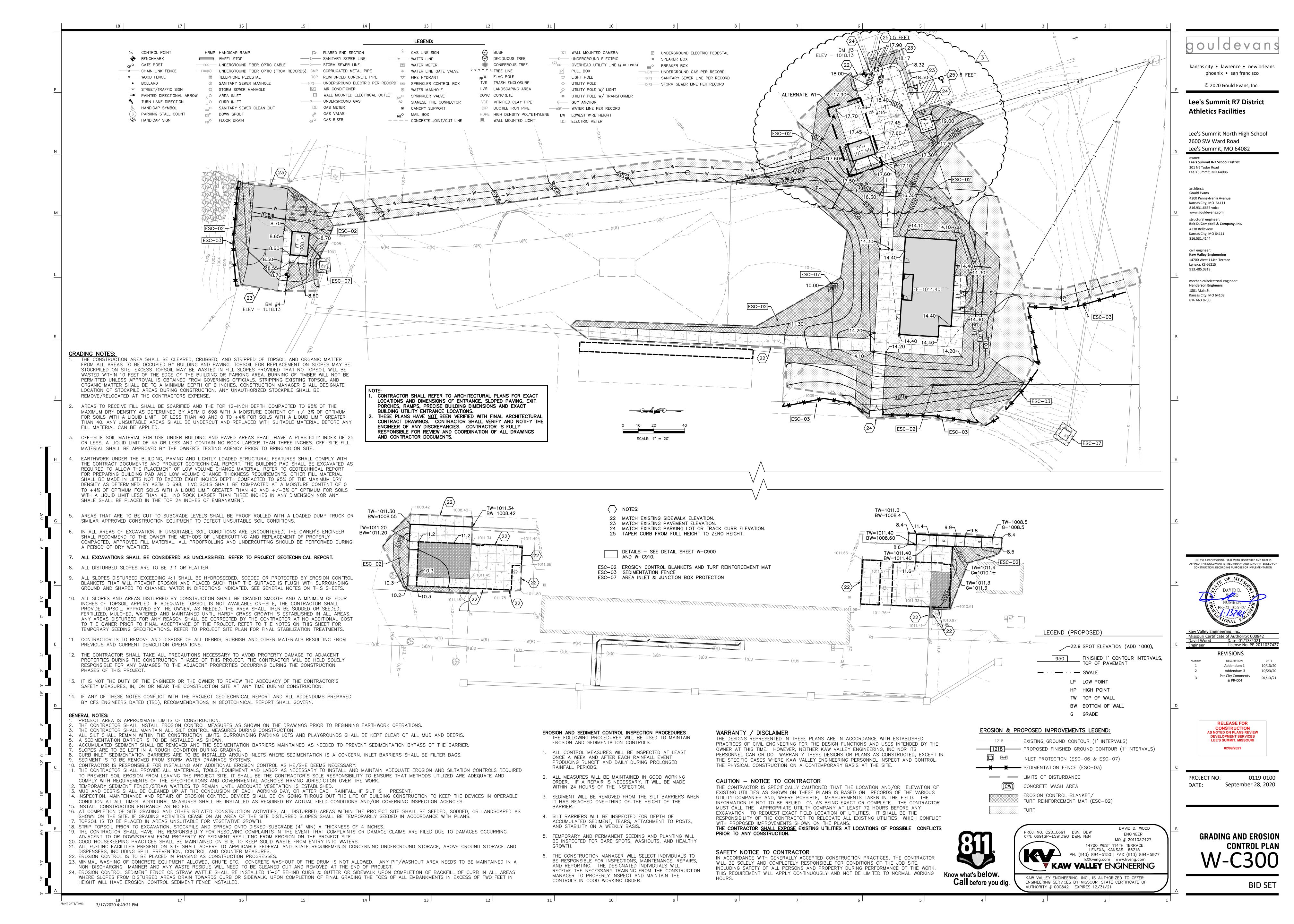
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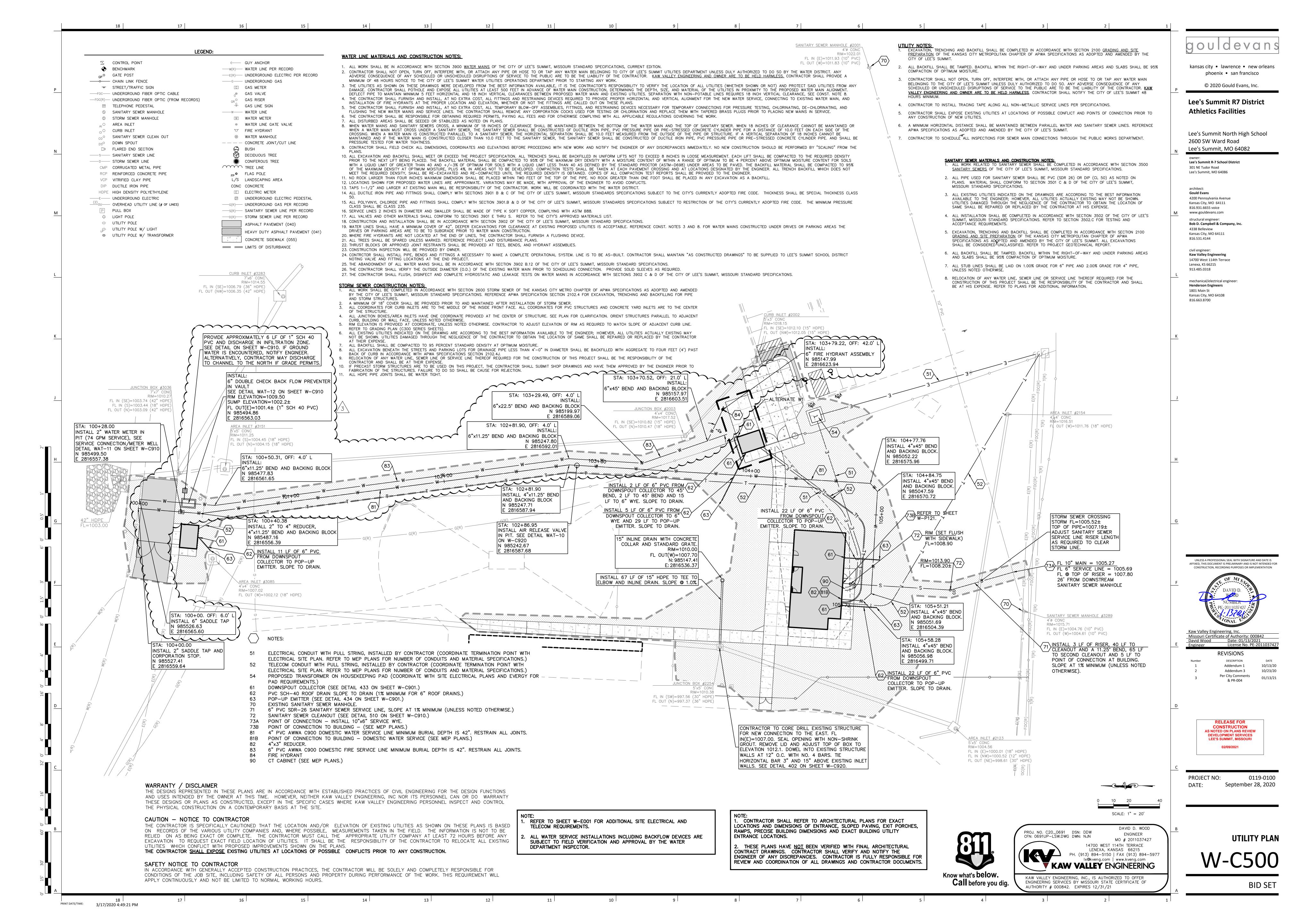
0119-0101 September 28, 2020

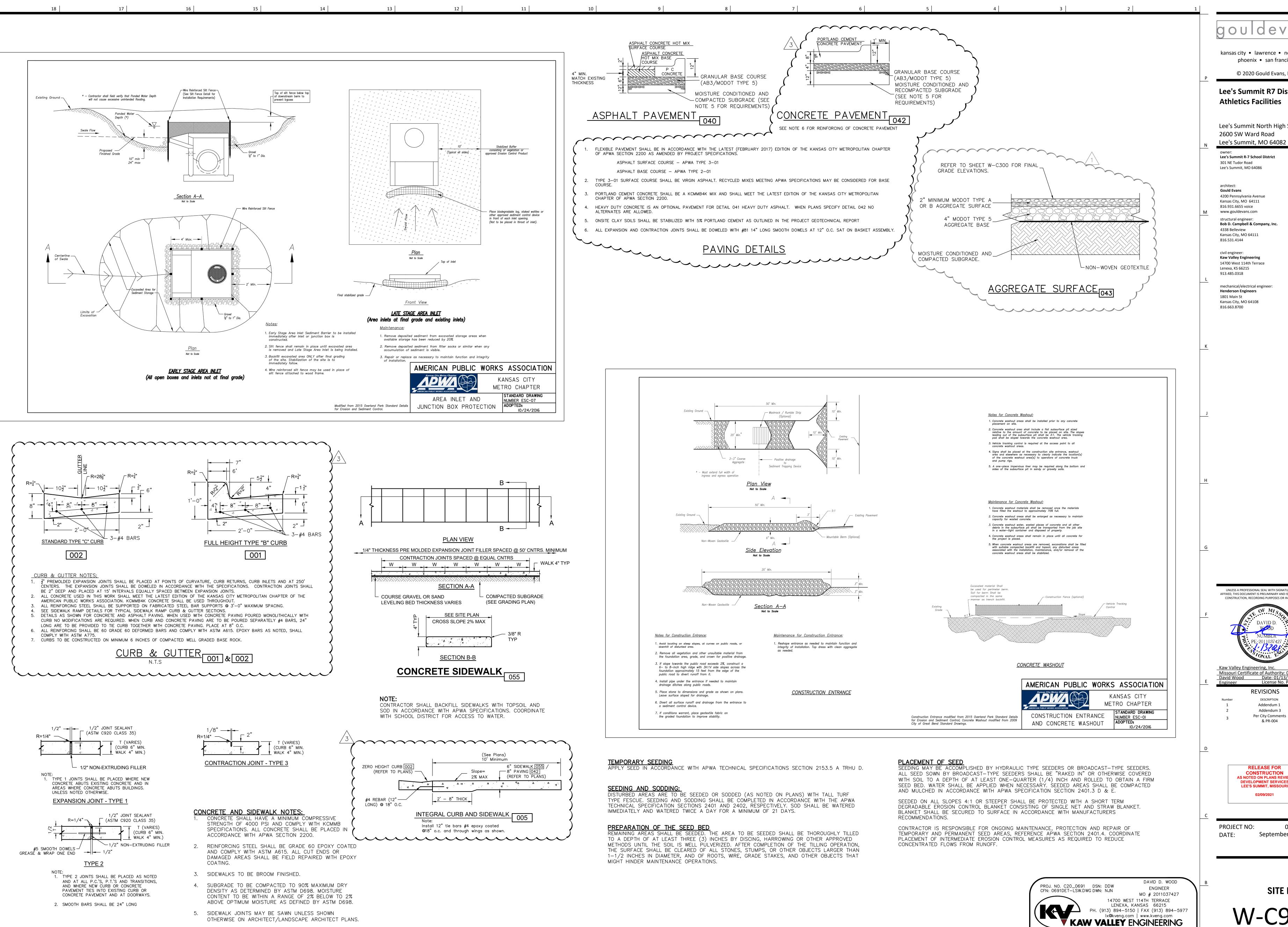
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Gould Evans 4200 Pennsylvania Avenue

Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer:

Bob D. Campbell & Company, Inc. 4338 Belleview Kansas City, MO 64111 816.531.4144

civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

mechanical/electrical engineer **Henderson Engineers** 1801 Main St Kansas City, MO 64108

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> RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

DESCRIPTION

Addendum 1

Addendum 3

Per City Comments

& PR-004

10/13/20

10/23/20

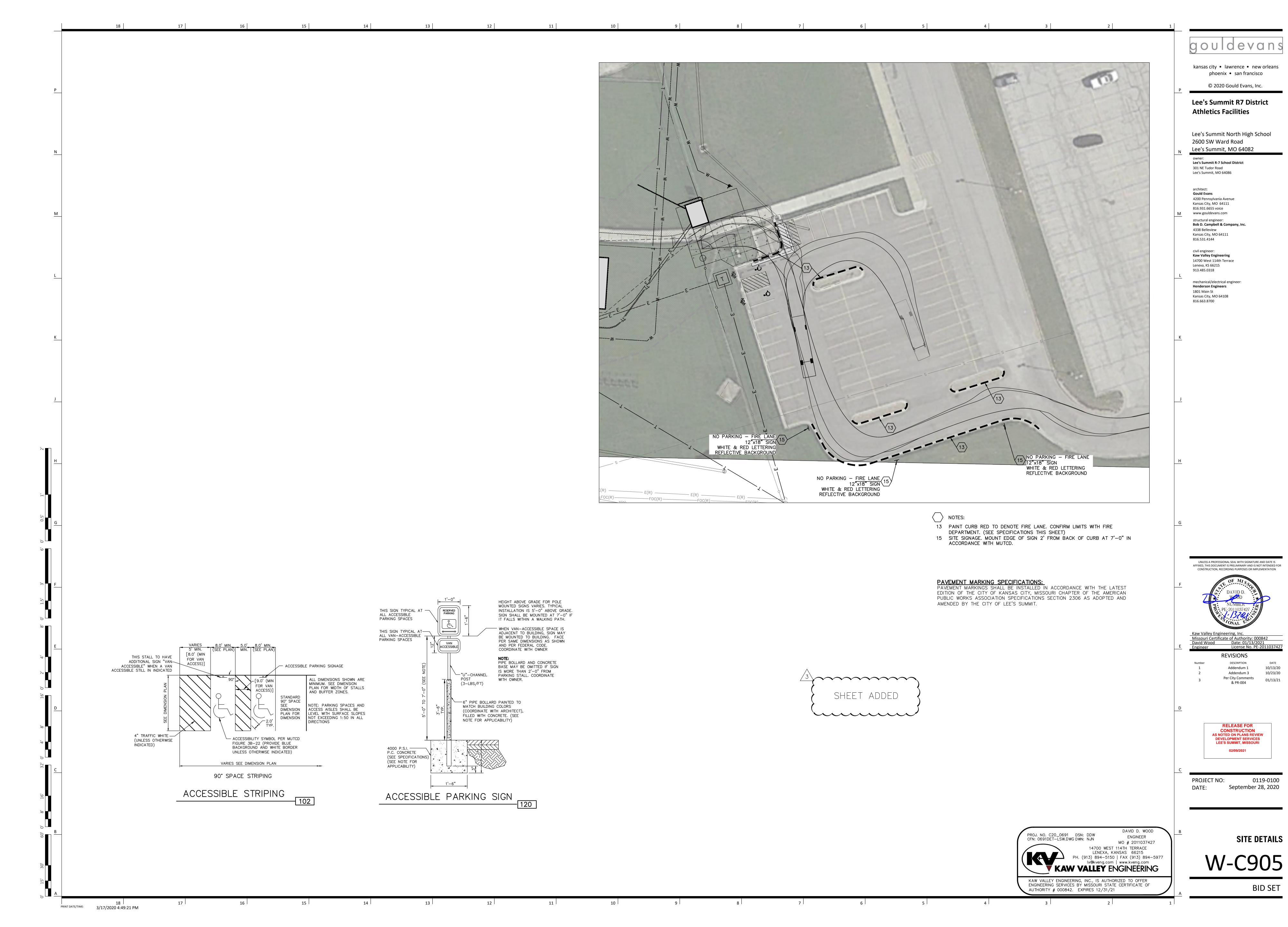
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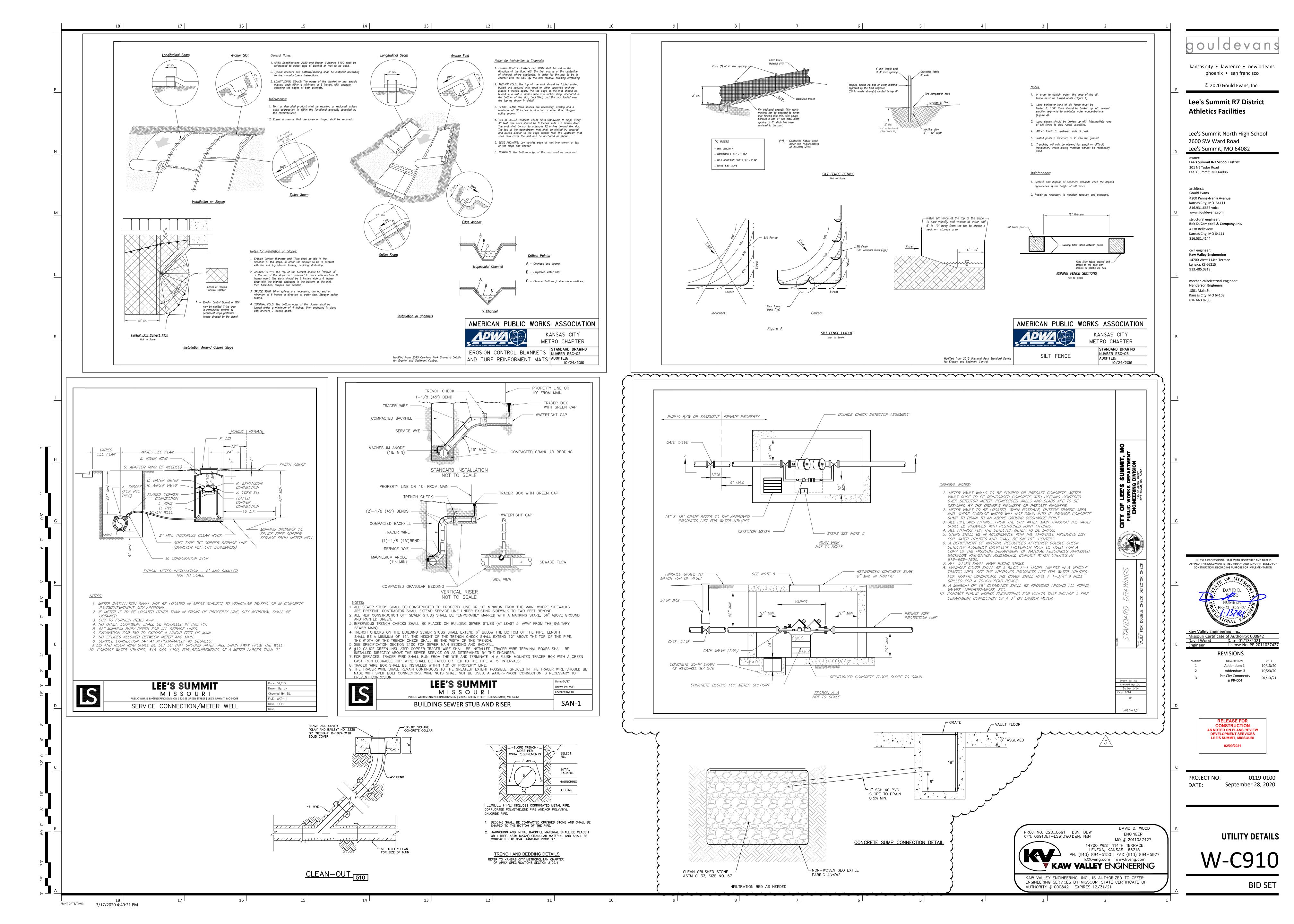
PROJECT NO: 0119-0100 September 28, 2020

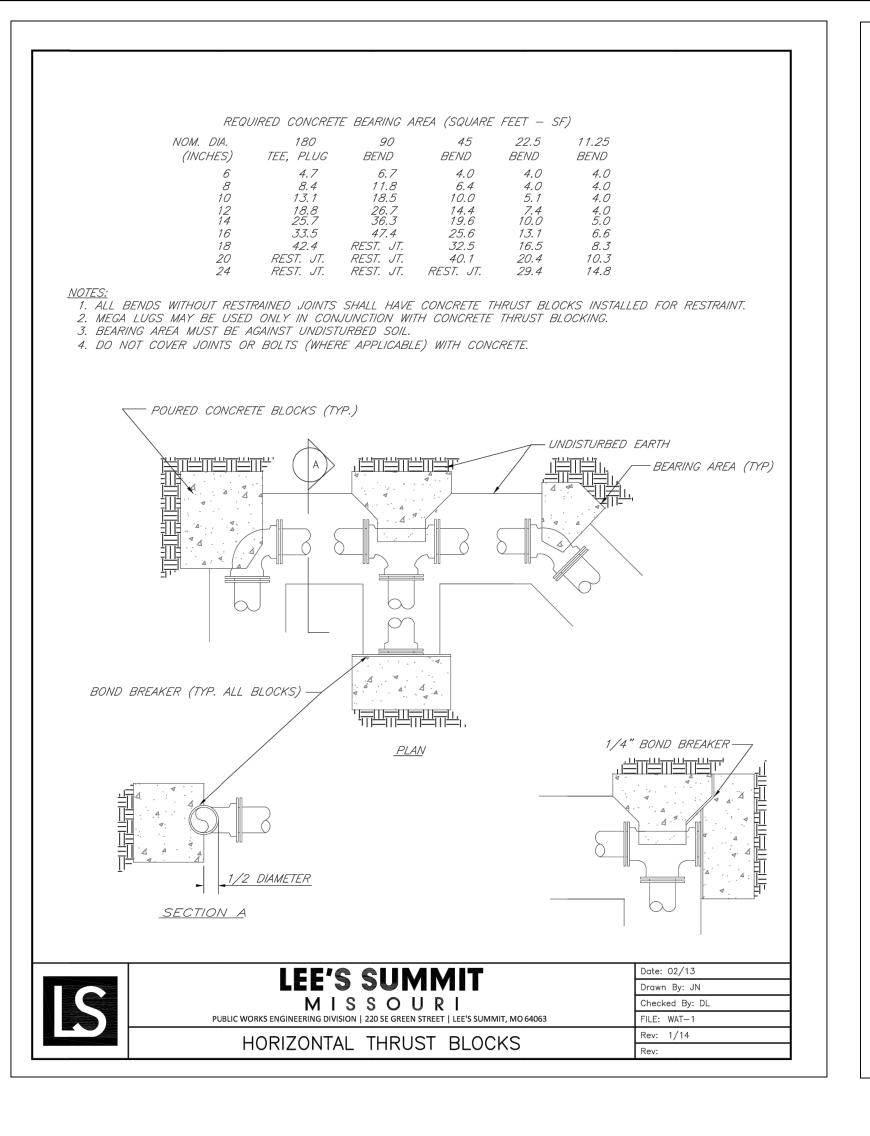
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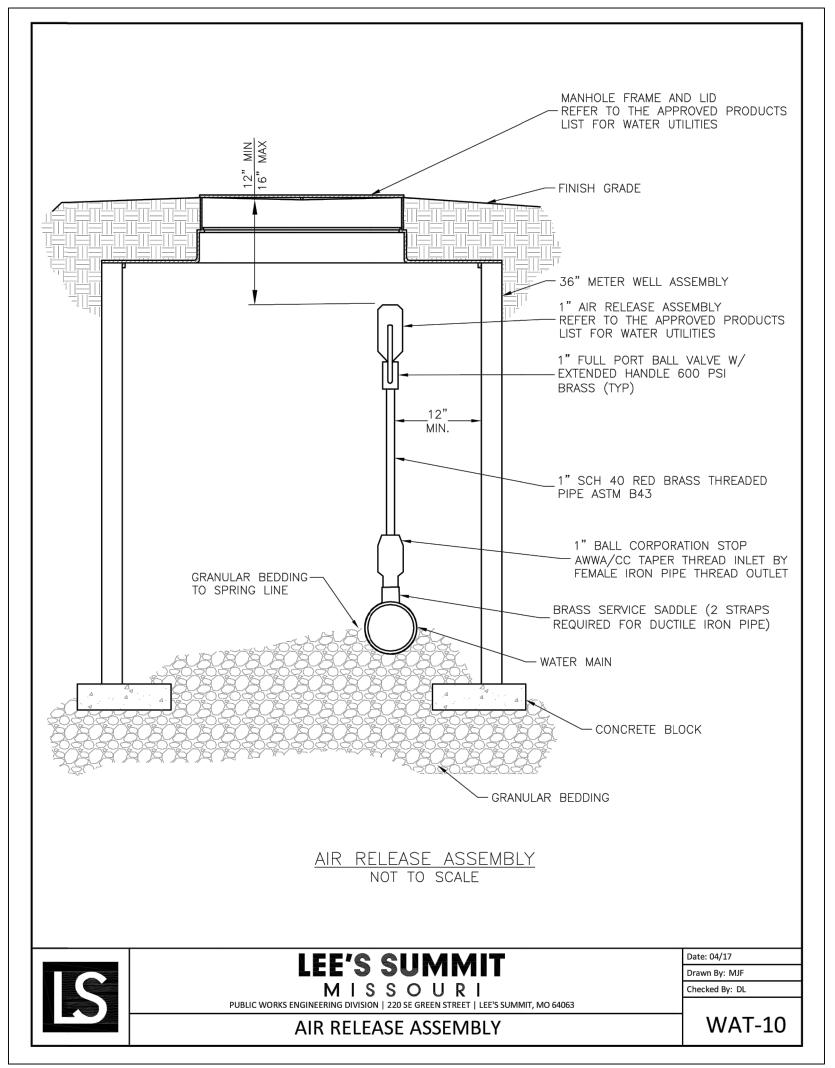
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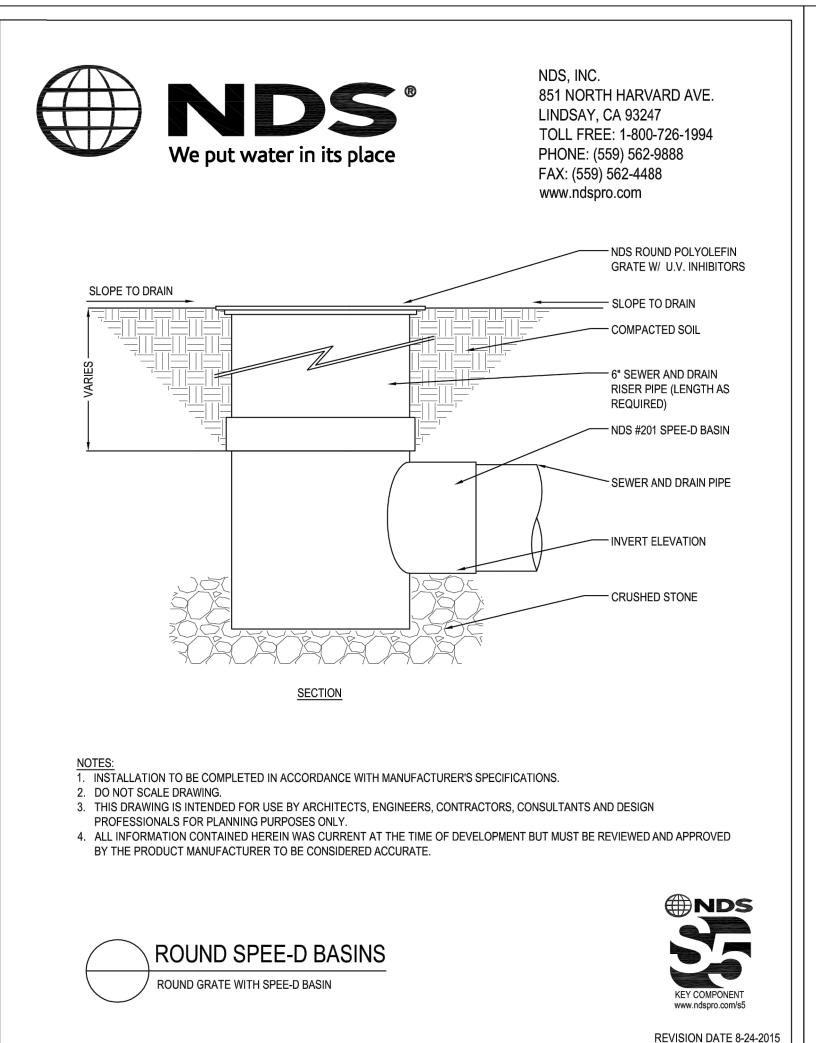
SITE DETAILS

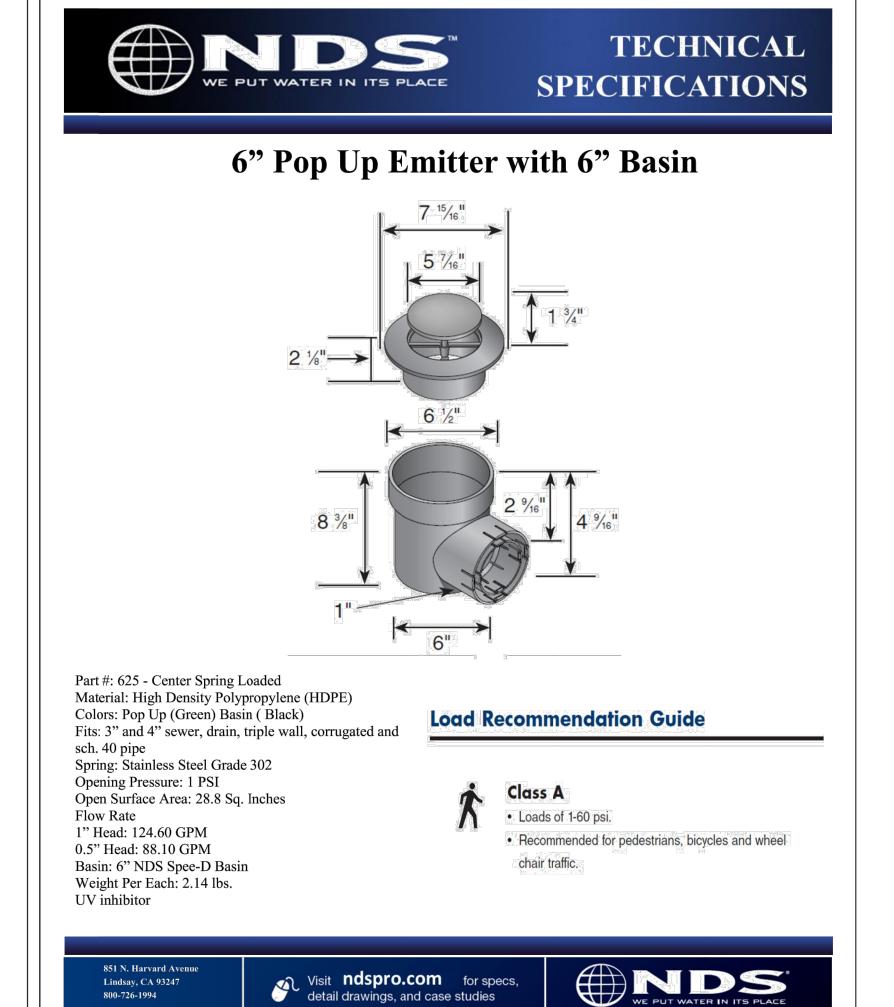


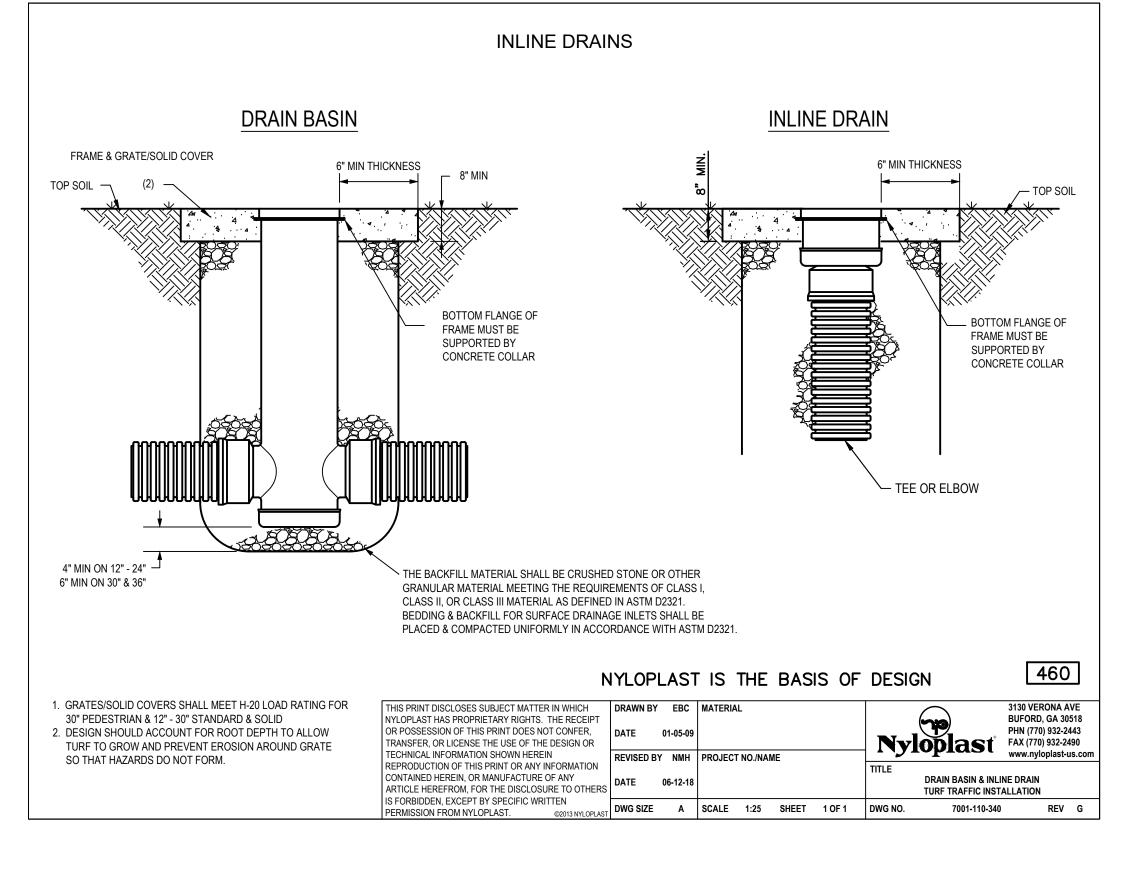












- Locations shown on

center of structure.

Heavy Duty Ring & Lid

(See Manhole Cover Detail)

For Private Systems Omit

─No. 4 Bars placed

at 45 degree angle

Logo & Lettering

Outside Edge of

Concrete Footing

∕ Inside Wall

construction plans are

4'-0" Min.

 $A \longrightarrow$

PLAN

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Clay & Bailey No. 2102

Cast Iron Step or

approved equal —

No. 4 Bars @ 6"ctrs.

No. 4 Bars @ 12" ctrs.

(Both Ways) (All Walls) —

No. 4 Bars @ 6"ctrs.

402

(Both Ways) ——

Concrete Footing —

JUNCTION BOX



GENERAL

- 1. ALL STORM SEWER STRUCTURES SHALL BE PRE-CAST OR POURED IN PLACE, IF PRE-CAST STRUCTURES ARE USED FOR PUBLICLY FINANCED, MAINTAINED OR ADMINISTERED CONSTRUCTION, THE TOPS SHALL BE POURED IN PLACE AND THE WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2" BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE CITY ENGINEER.
- 2. PRE-CAST SHOP DRAWINGS ARE TO BE APPROVED BY THE ENGINEER.
- 3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION. 4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THEN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED. PRECÁSTER SHALL PROVIDE DESIGN CALCULATIONS FOR DEEP STRUCTURES TO ENGINEER PRIOR TO

CONCRETE

- 5. CONCRETE USED IN THIS WORK SHALL BE CLASS "A" CONCRETE (AE) THROUGHOUT, AND SHALL MEET THE REQUIREMENTS OF THE KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.
- 6. CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR MCIB, LATEST EDITION, EXCEPT AS MODIFIED IN THE APWA TECHNICAL SPECIFICATIONS.
- 7. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
- 8. BEVEL ALL EXPOSED EDGES WITH $\frac{3}{4}$ " TRIANGULAR MOLDING.

CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.

Elevation Point

- 1 1/2"Clear

SECTION A-A

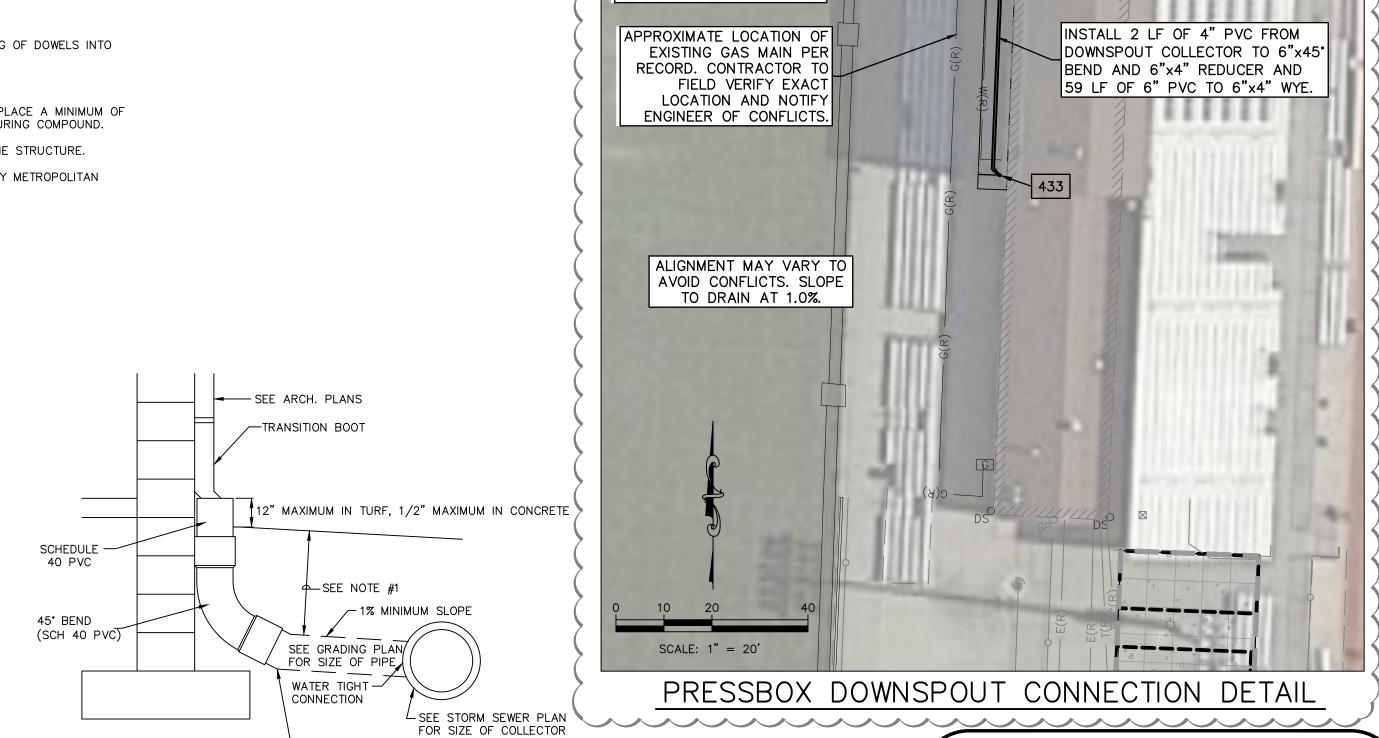
(Typical)

(Typical)

all sides

- 3 1/2" x 1 1/2" Keyway

- 9. 8" SOLID CONCRETE BLOCK OR BRICK MAY BE USED IN WALLS IN LIEU OF POURED CONCRETE WHERE NEITHER "H"+"L" NOR "H"+"W" (IN FEET) EXCEED FOURTEEN. BLOCK OR BRICK MAY BE USED IN ANY BOX WHERE "H" IS 5' OR LESS.
- 10. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE CONSTRUCTION SHALL BE OBTAINED FROM QUARRIES AND BEDS DESIGNATED BY THE MISSOURI DEPARTMENT OF TRANSPORTATION AS MEETING DURABILITY REQUIREMENTS OF KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.
- 11. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 60 AS PER ASTM A615, AND SHALL BE BENT COLD.
- 12. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $+/-\frac{1}{6}$ " SHALL BE PERMITTED.
- 13. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- 14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
- 15. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE. CONSTRUCTION
- 16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
- 17. PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2" OF THE STRUCTURE.
- 18. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE KANSAS CITY METROPOLITAN



INSTALL

linserta teel

EXISTING STORM

SEWER PER RECORD.

APPROXIMATE LOCATION OF

RECORD. CONTRACTOR 1

EXISTING WATER LINE PER

ENGINEER OF CONFLICTS

FIELD VERIFY EXACT

LOCATION AND NOTIFY

POP-UP EMITTER 434

DAVID D. WOOD PROJ. NO. C20_0691 DSN: DDW ENGINEER CFN: 0691DET-LSW.DWG DWN: NJN MO # 2011037427 14700 WEST 114TH TERRACE LENEXA, KANSAS 66215 PH. (913) 894-5150 | FAX (913) 894-5977 lx@kveng.com | www.kveng.com KAW VALLEY ENGINEERING KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER

ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF

AUTHORITY # 000842. EXPIRES 12/31/21

INSTALL 31 LF OF 6" PVC FROM 6"x4" WYE TO 6"x45° BEND, 3 LF

OF 6" PVC TO 6"x45" BEND AND

29 LF OF 6" PVC TO INSERTA

TEE AT EXISTING STORM SEWER.

REMOVE AND REPLACE CONCRET SIDEWALK AS NEEDED TO INSTALL

STORM SEWER. REMOVAL SHALL

OR ISOLATION JOINT. REFER TO

OCCUR AND NEAREST CONTROL

SIDEWALK DETAIL 055. MATCH

EXISTING THICKNESS. ASSUME 4" FOR BIDDING.

INSTALL 2 LF OF 4" PVC

COLLECTOR TO 6"x4" WYE

FROM DOWNSPOUT

UTILITY DETAILS

September 28, 2020

0119-0100

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CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION

Kaw Valley Engineering, Inc.

Missouri Certificate of Authority: 000842

REVISIONS

Addendum 1

Addendum 3

Per City Comments

& PR-004

CONSTRUCTION

AS NOTED ON PLANS REVIEW

LEE'S SUMMIT, MISSOURI

PROJECT NO:

License No. PE-201103742

10/13/20 10/23/20

01/13/21

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Lee's Summit R7 District

Lee's Summit North High School

Athletics Facilities

2600 SW Ward Road

Lee's Summit R-7 School District

301 NE Tudor Road

Gould Evans

Lee's Summit, MO 64086

4200 Pennsylvania Avenue Kansas City, MO 64111

Bob D. Campbell & Company, Inc

816.931.6655 voice

www.gouldevans.com

structural engineer:

Kansas City, MO 64111

Kaw Valley Engineering

Henderson Engineers

Kansas City, MO 64108

14700 West 114th Terrace

mechanical/electrical engineer

4338 Belleview

816.531.4144

civil engineer:

Lenexa, KS 66215

913.485.0318

1801 Main St

816.663.8700

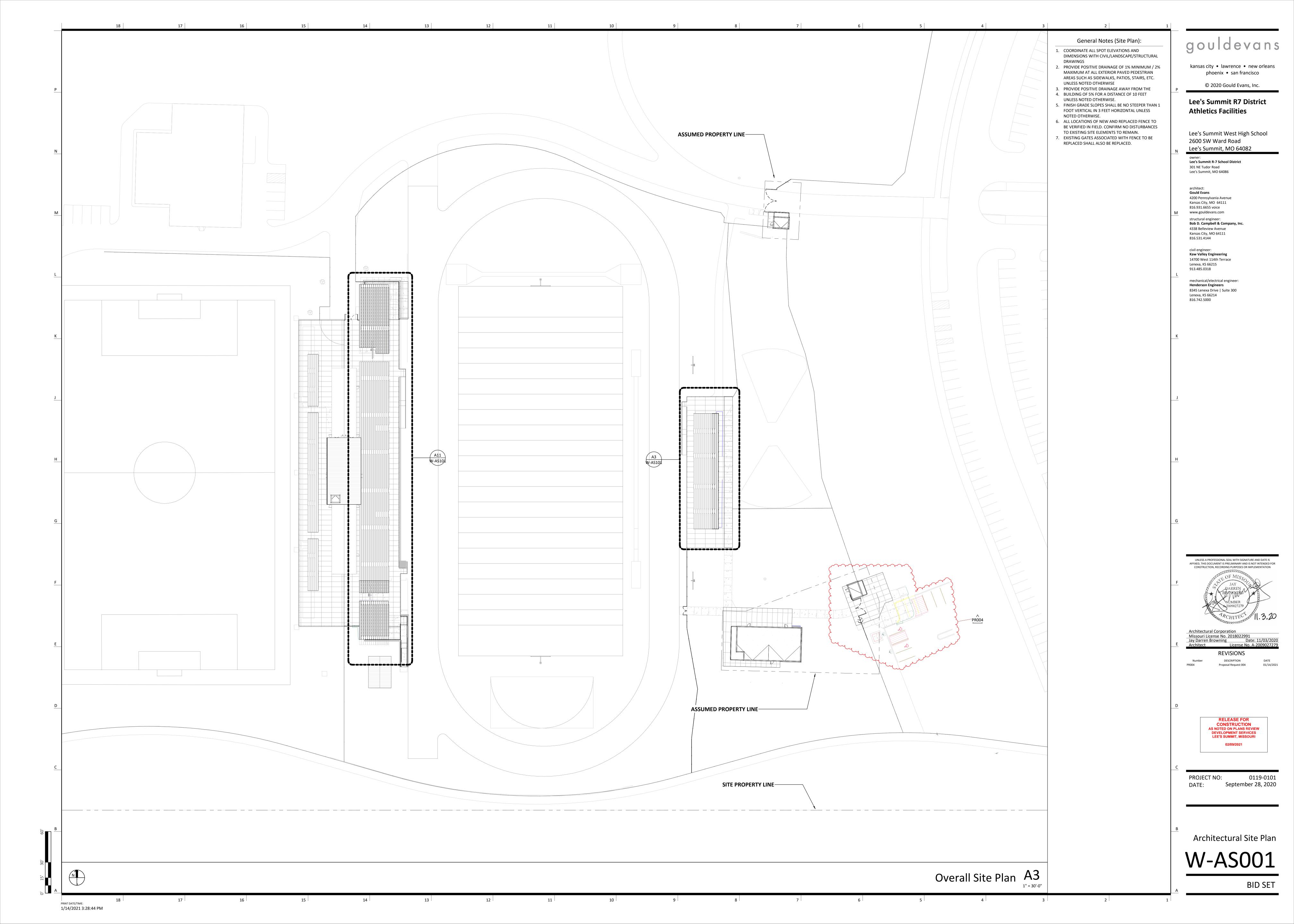
Lee's Summit, MO 64082

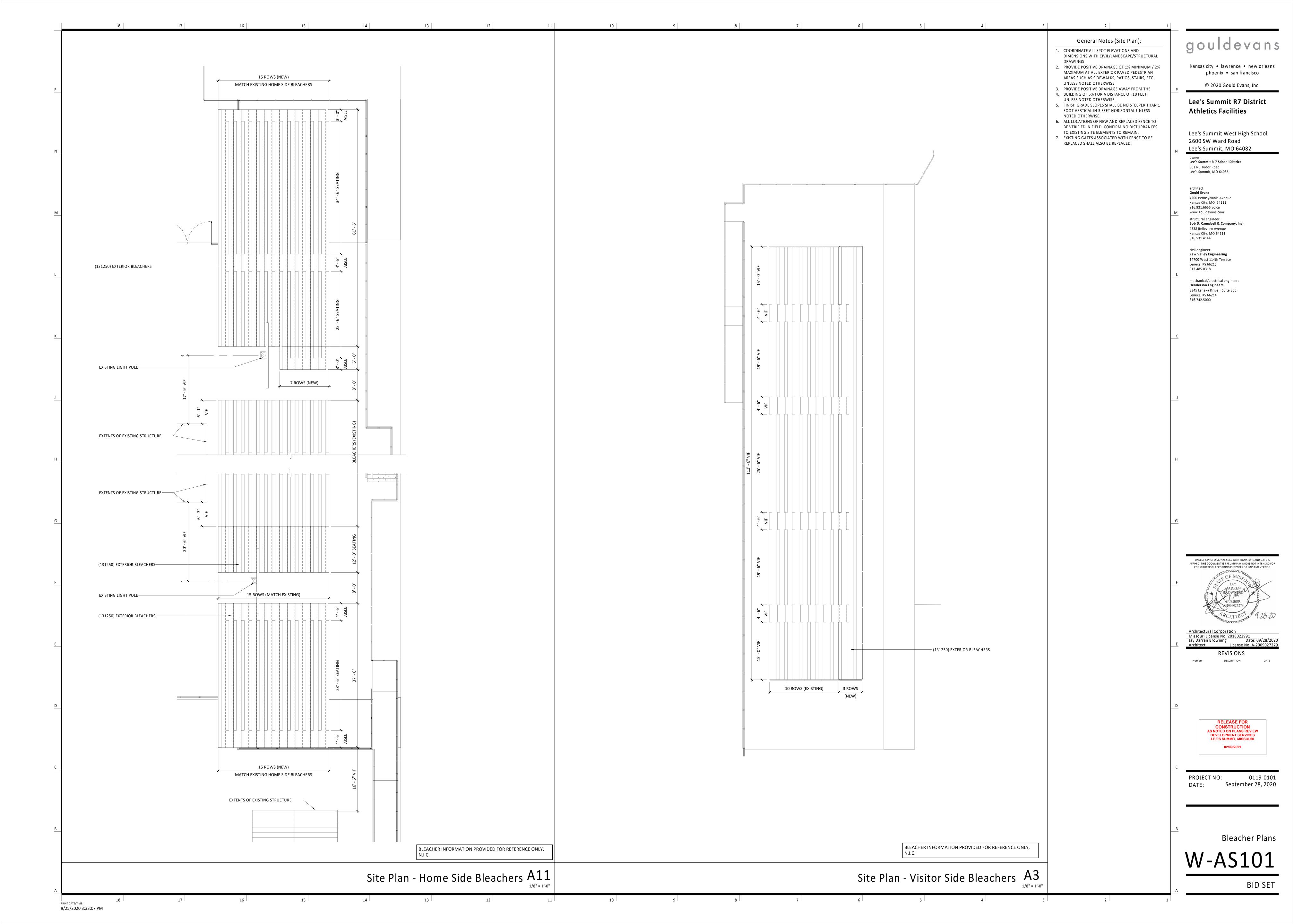
BID SET

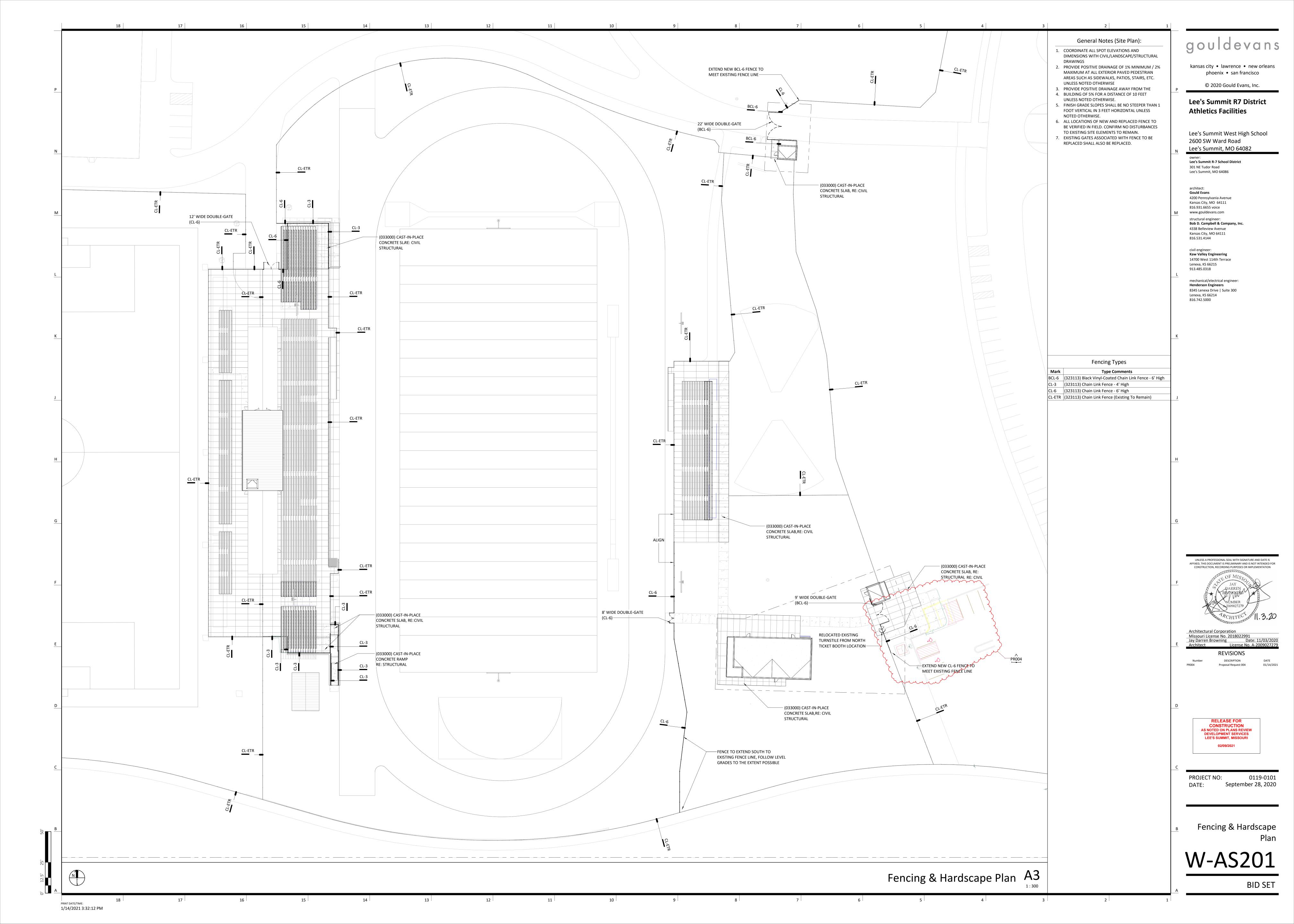
1) FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PÍPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES. 2) A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY 3) THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BÉFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING.

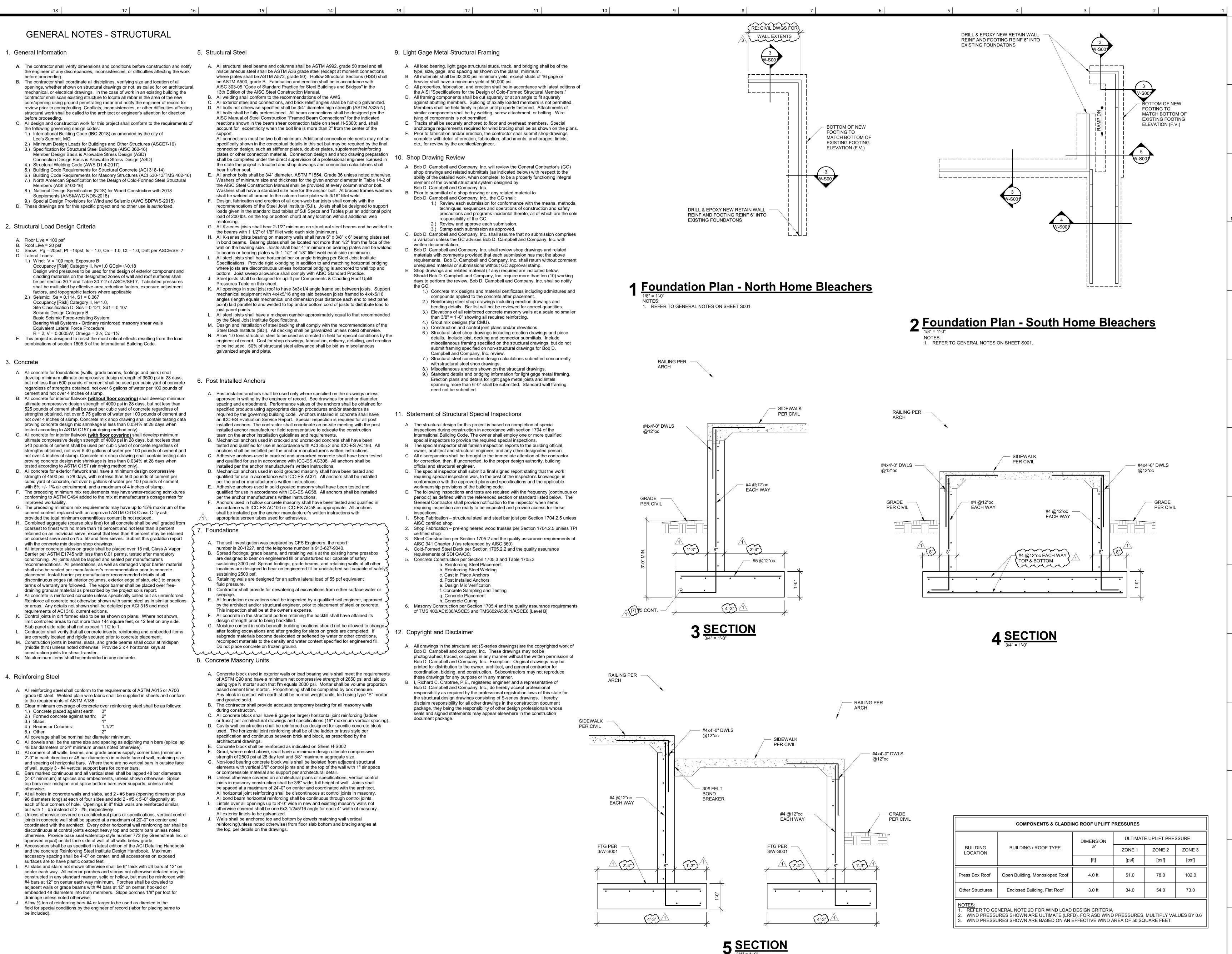
SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

DOWNSPOUT COLLECTOR 433









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Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Suumit R-7 School District 301 NE Tudor Road Lee's Summit, MO 6408

architect: Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, In-4338 Belleview Avenue

civil engineer: **Kaw Valley Engineering** 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

Kansas City, MO 64111

816.531.4144

mechanical/electrical engineer Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

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RICHARI CRABTRE

REVISIONS

CONSTRUCTION AS NOTED ON PLANS REVIEW **DEVELOPMENT SERVICES**

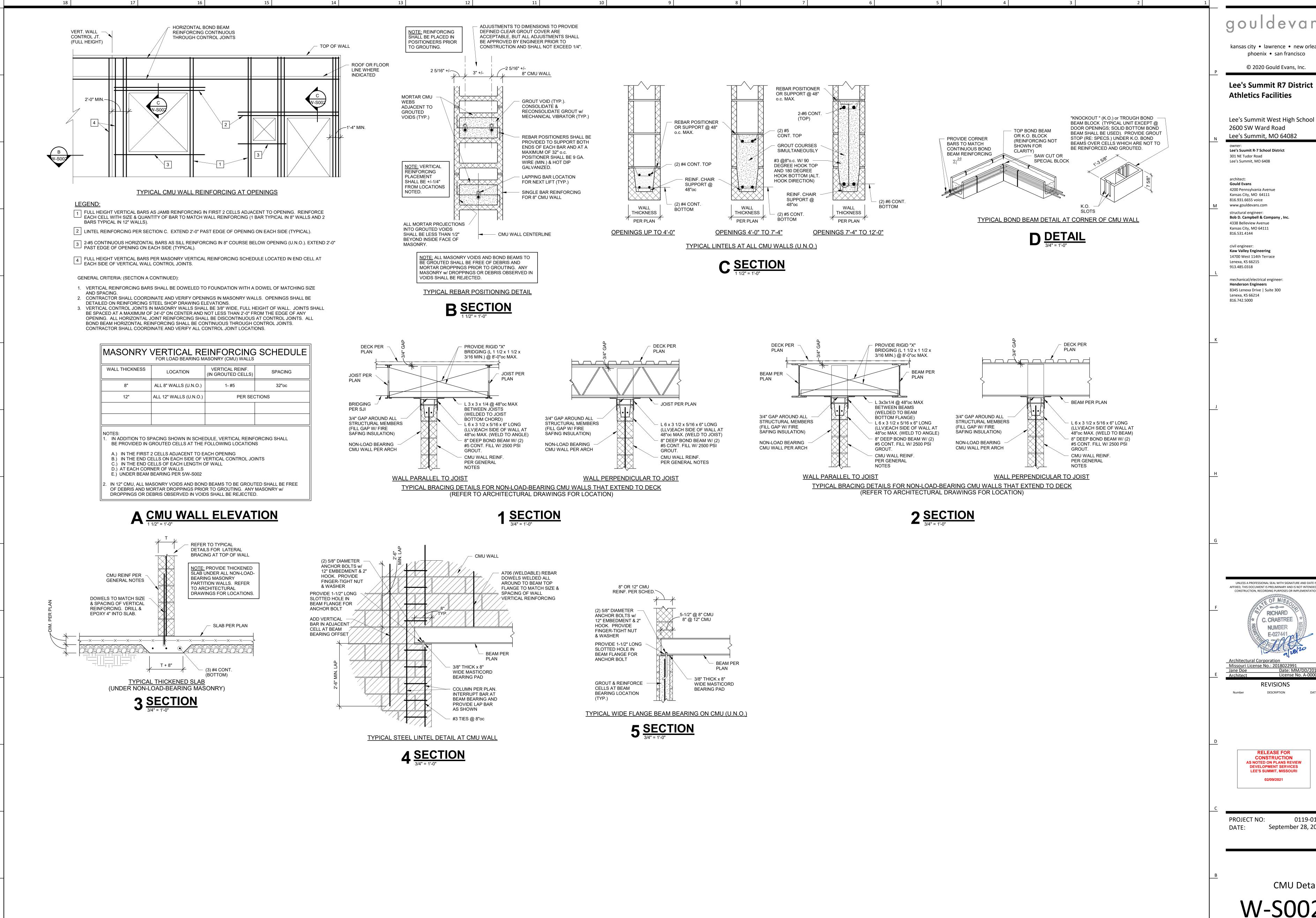
LEE'S SUMMIT, MISSOURI

PROJECT NO: 0119-0101 September 28, 2020

General Notes & Site **Foundation Plans**

BID SET

PRINT DATE/TIME: 11/5/2020 11:09:52 AM



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Lee's Summit R7 District **Athletics Facilities**

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816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, In-4338 Belleview Avenue Kansas City, MO 64111

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> mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214

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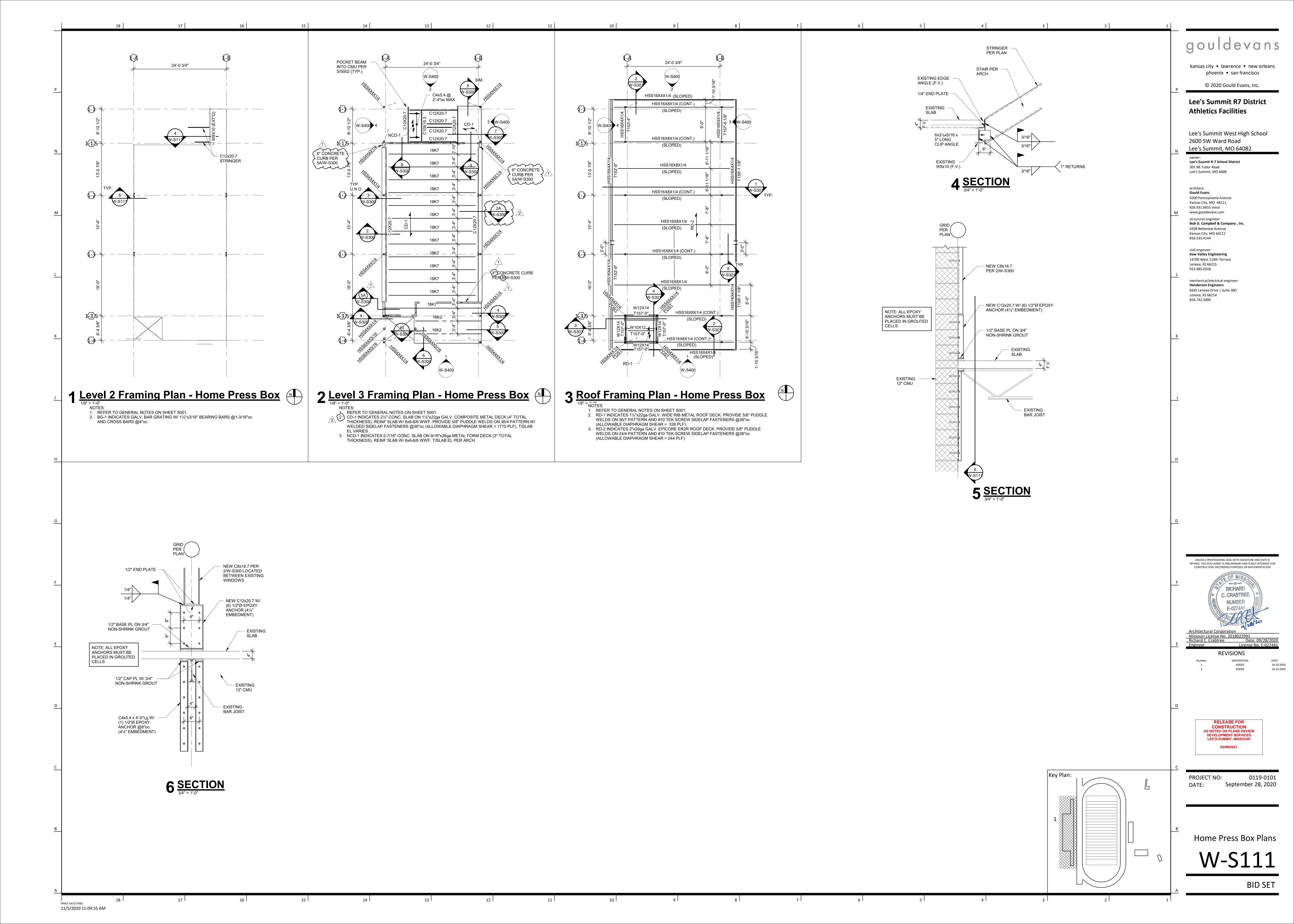
REVISIONS

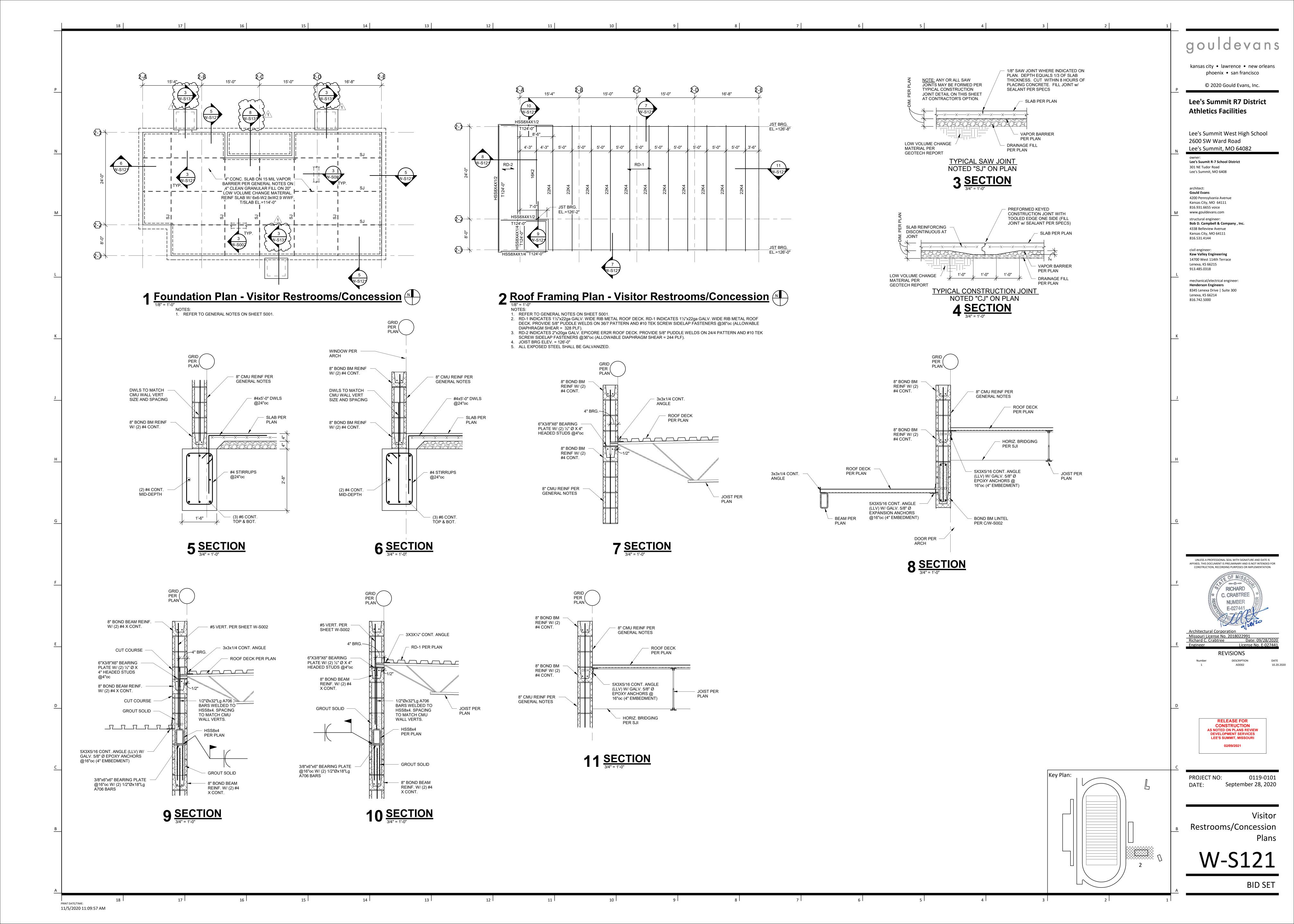
RELEASE FOR CONSTRUCTION **AS NOTED ON PLANS REVIEW** LEE'S SUMMIT, MISSOURI

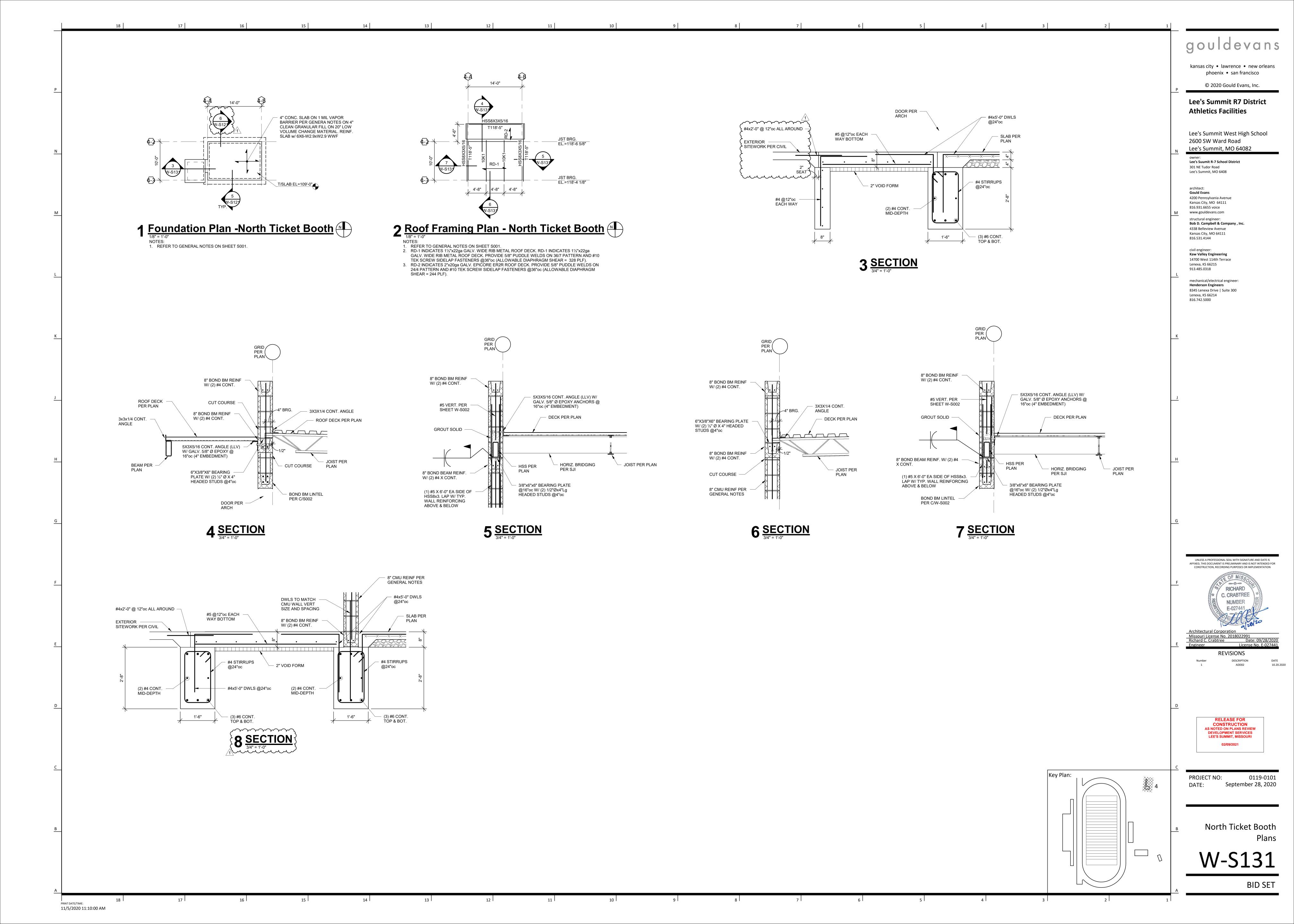
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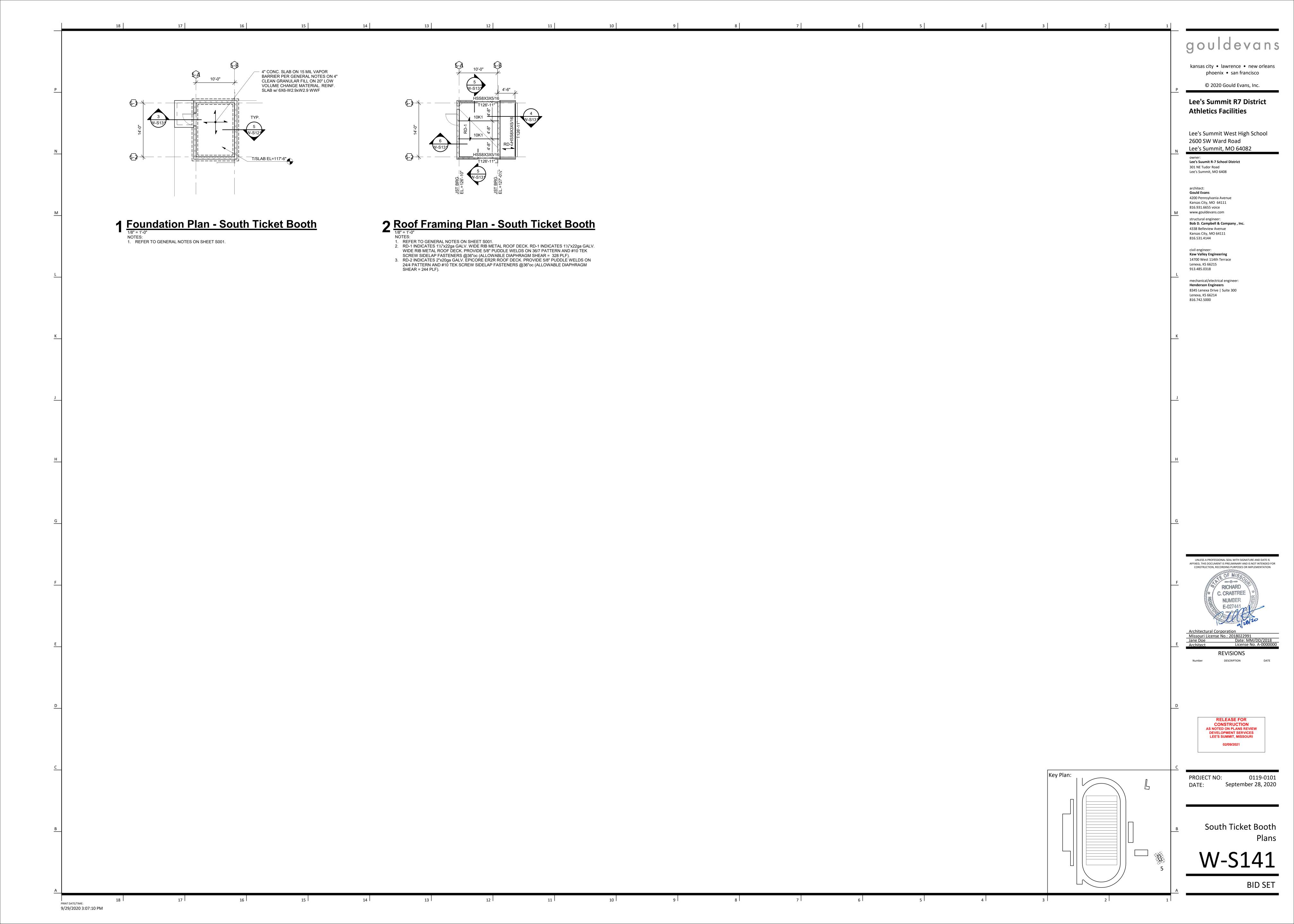
September 28, 2020

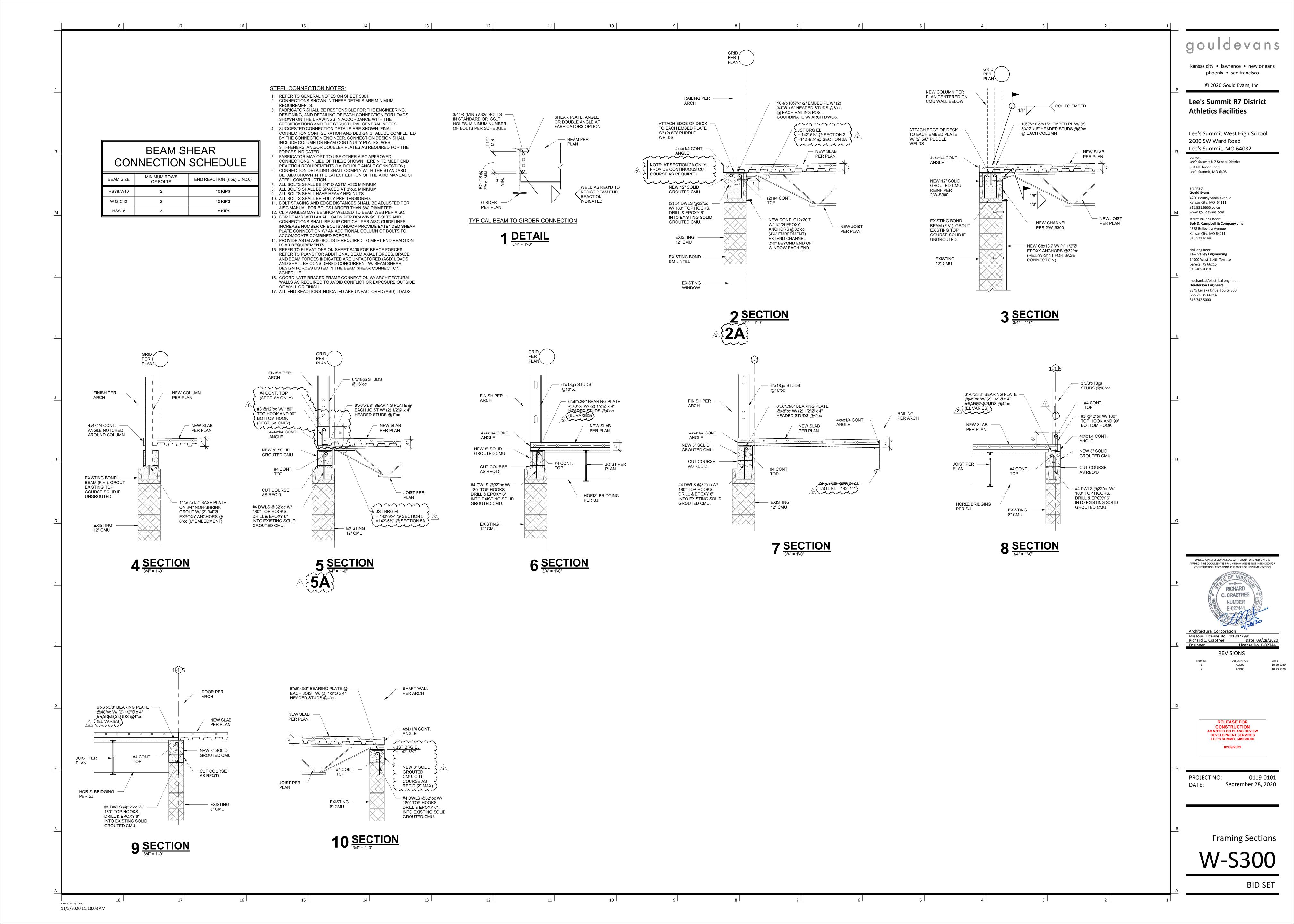
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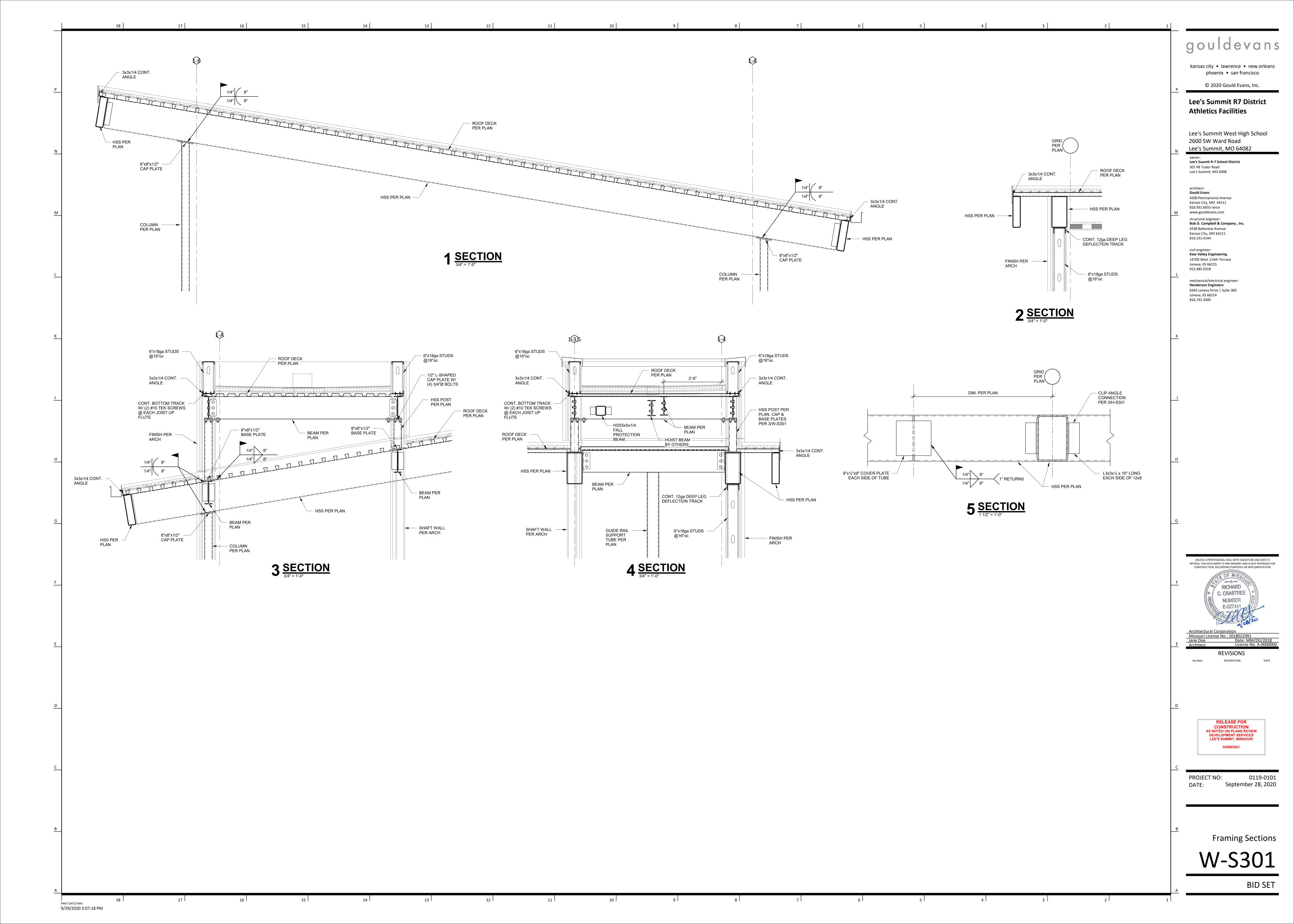


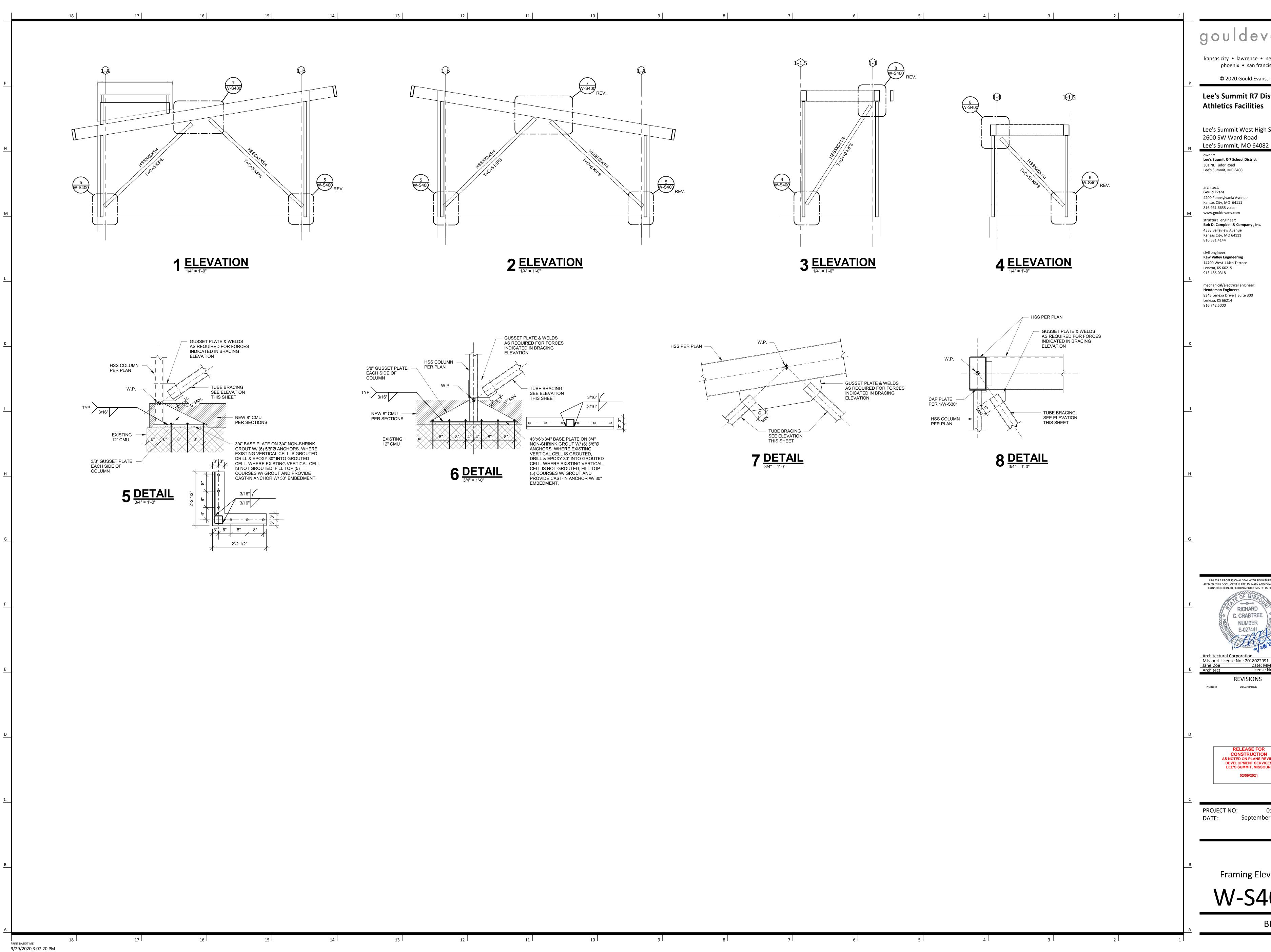












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Lee's Summit R7 District

Lee's Summit West High School

Lee's Suumit R-7 School District

Bob D. Campbell & Company, Inc

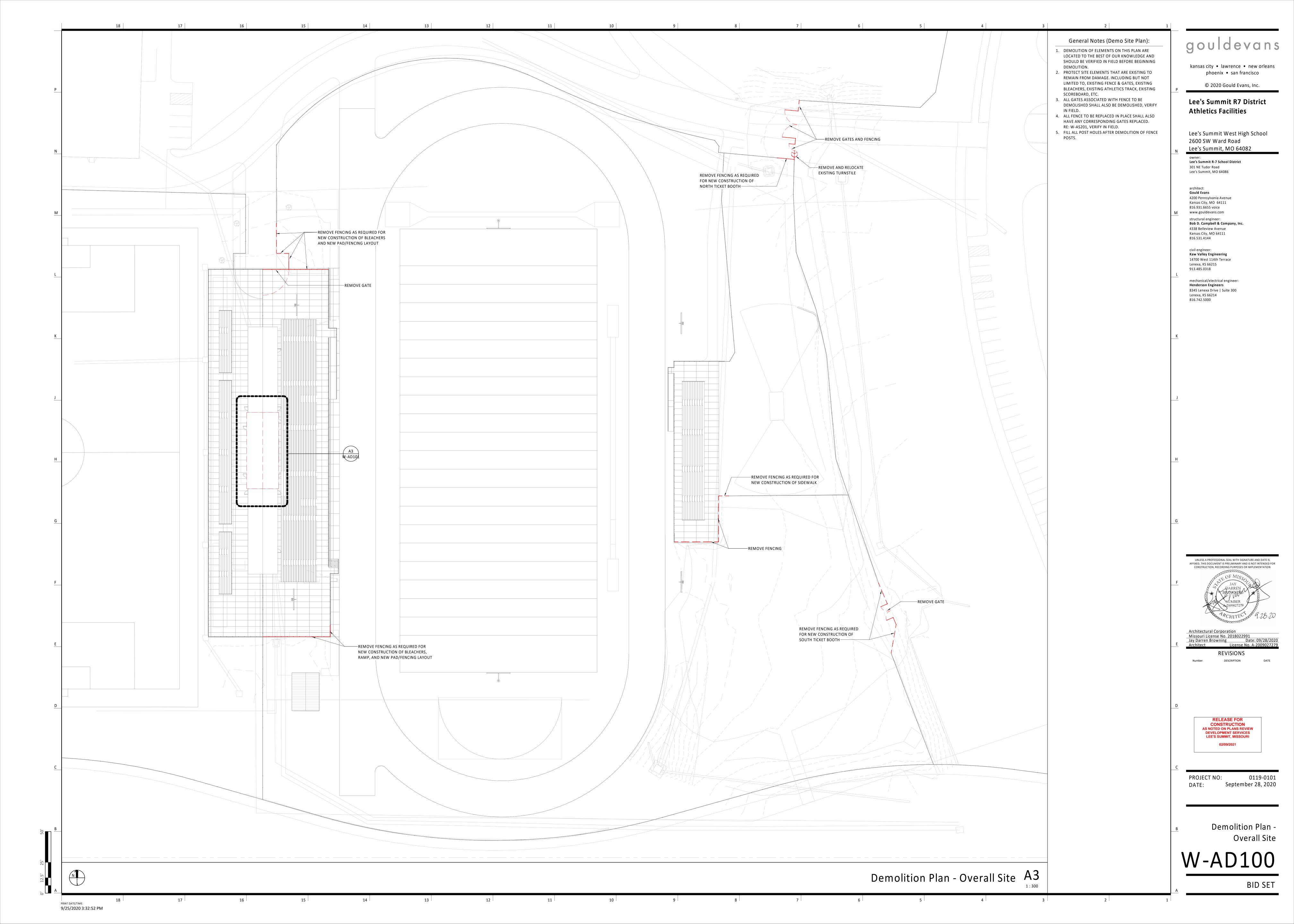
8345 Lenexa Drive | Suite 300

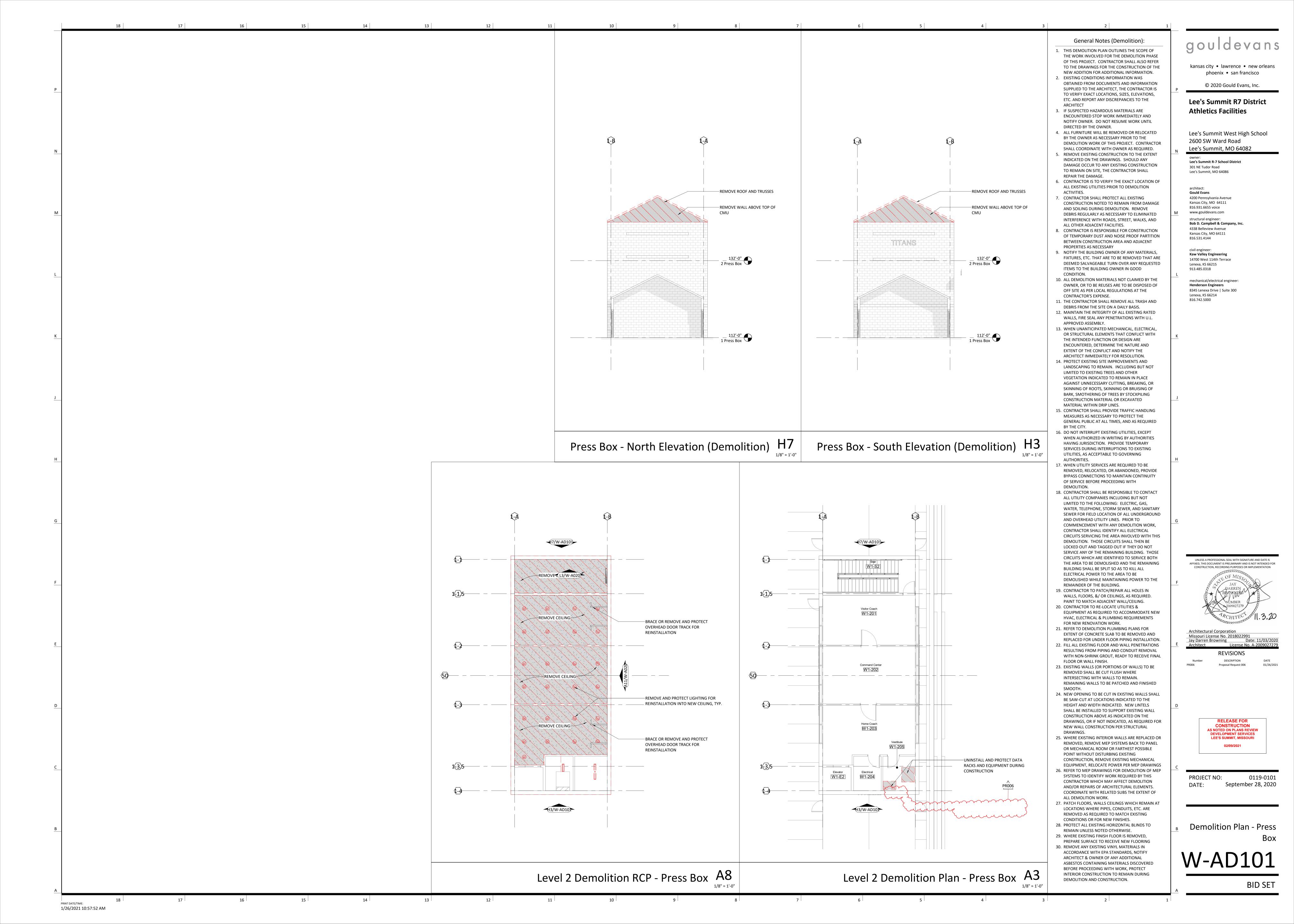
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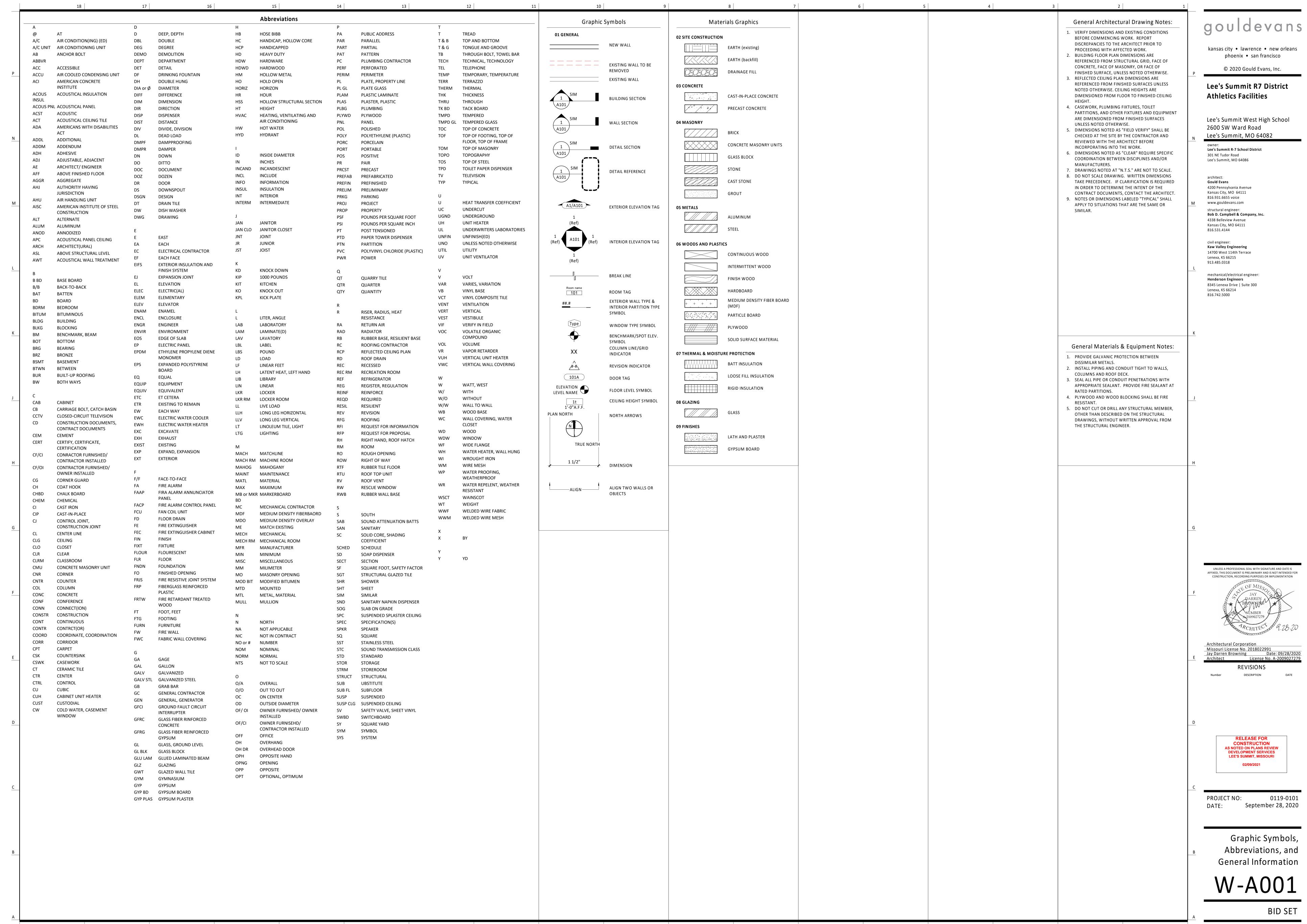
AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

September 28, 2020

Framing Elevations





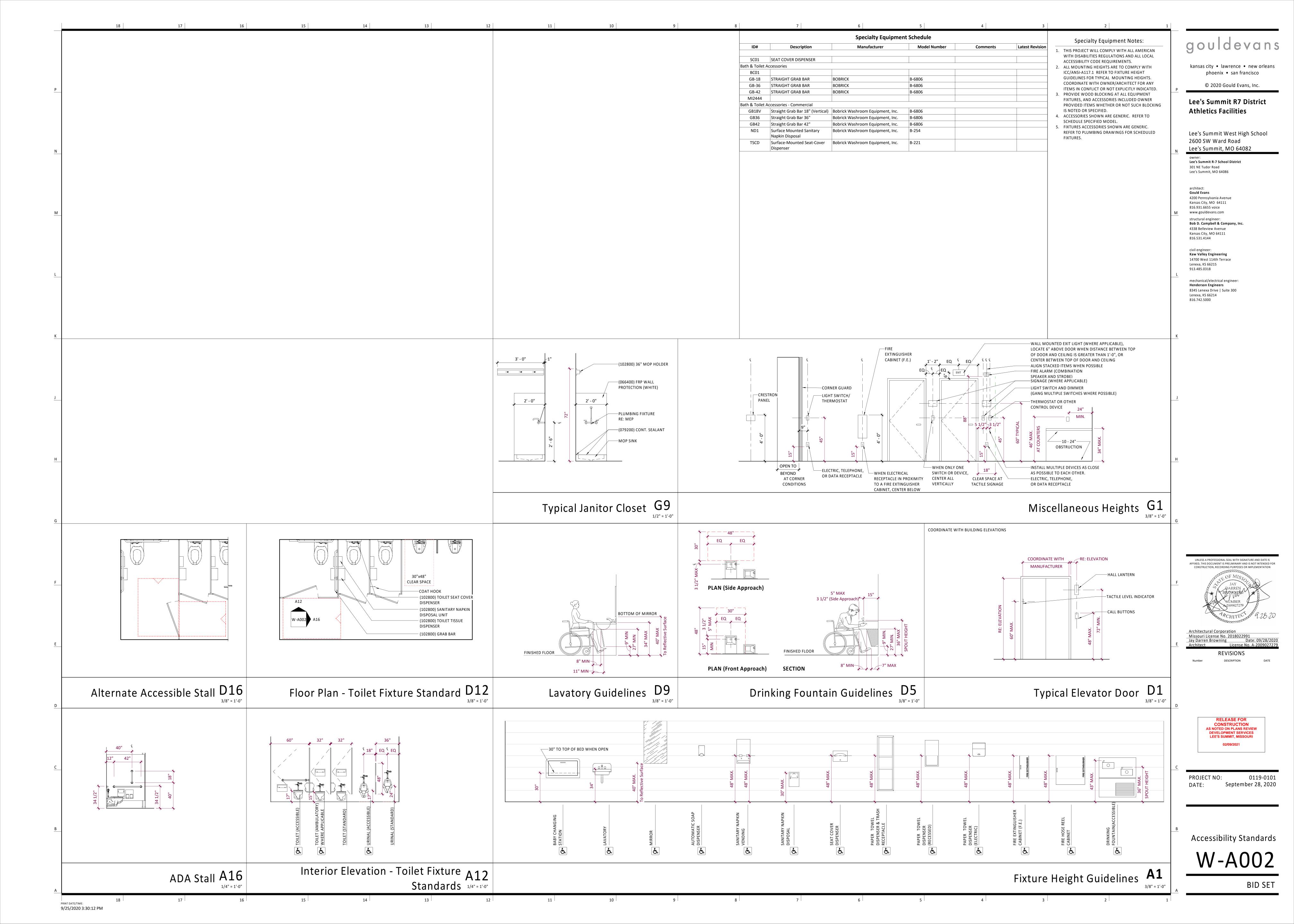


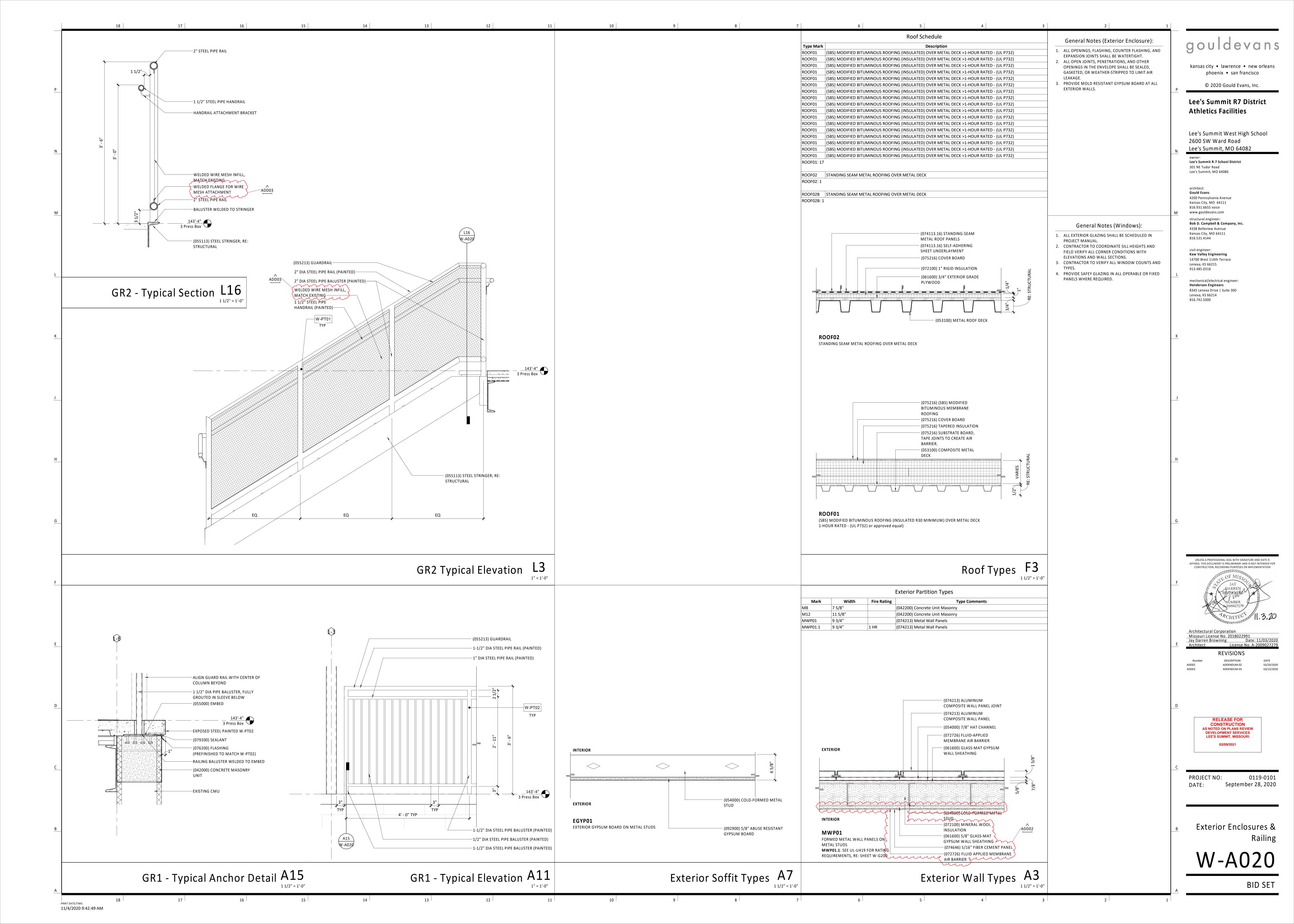
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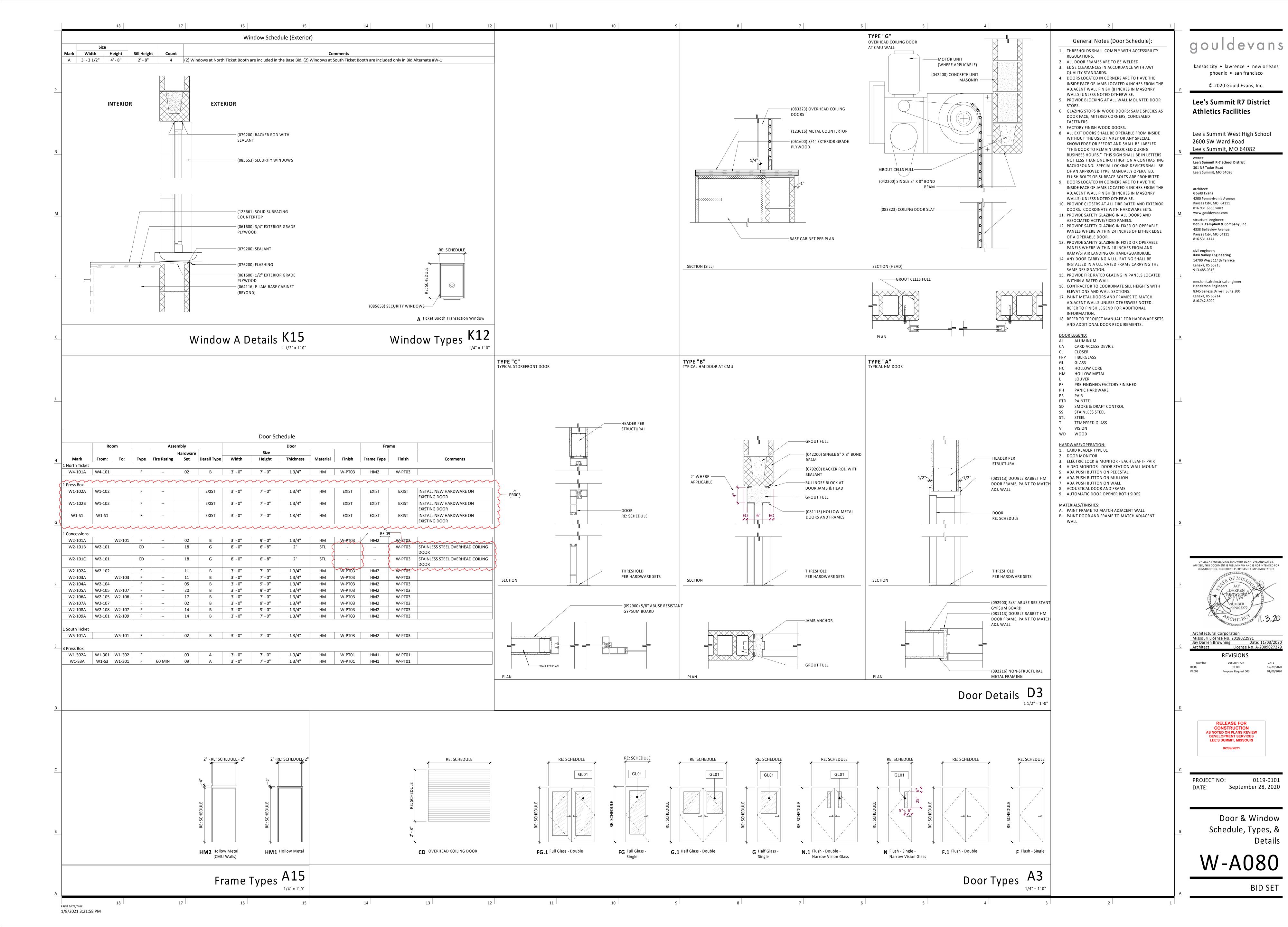
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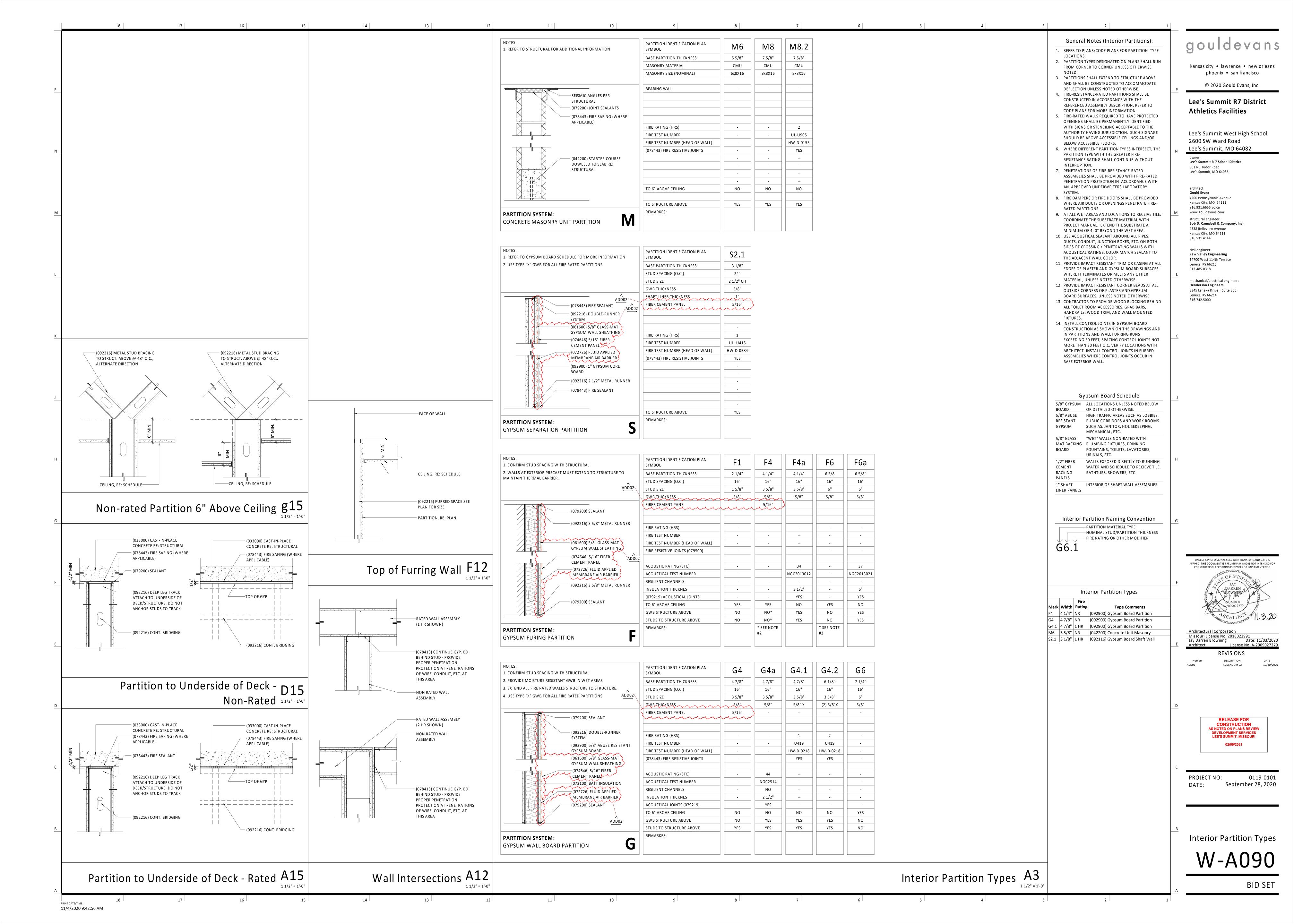
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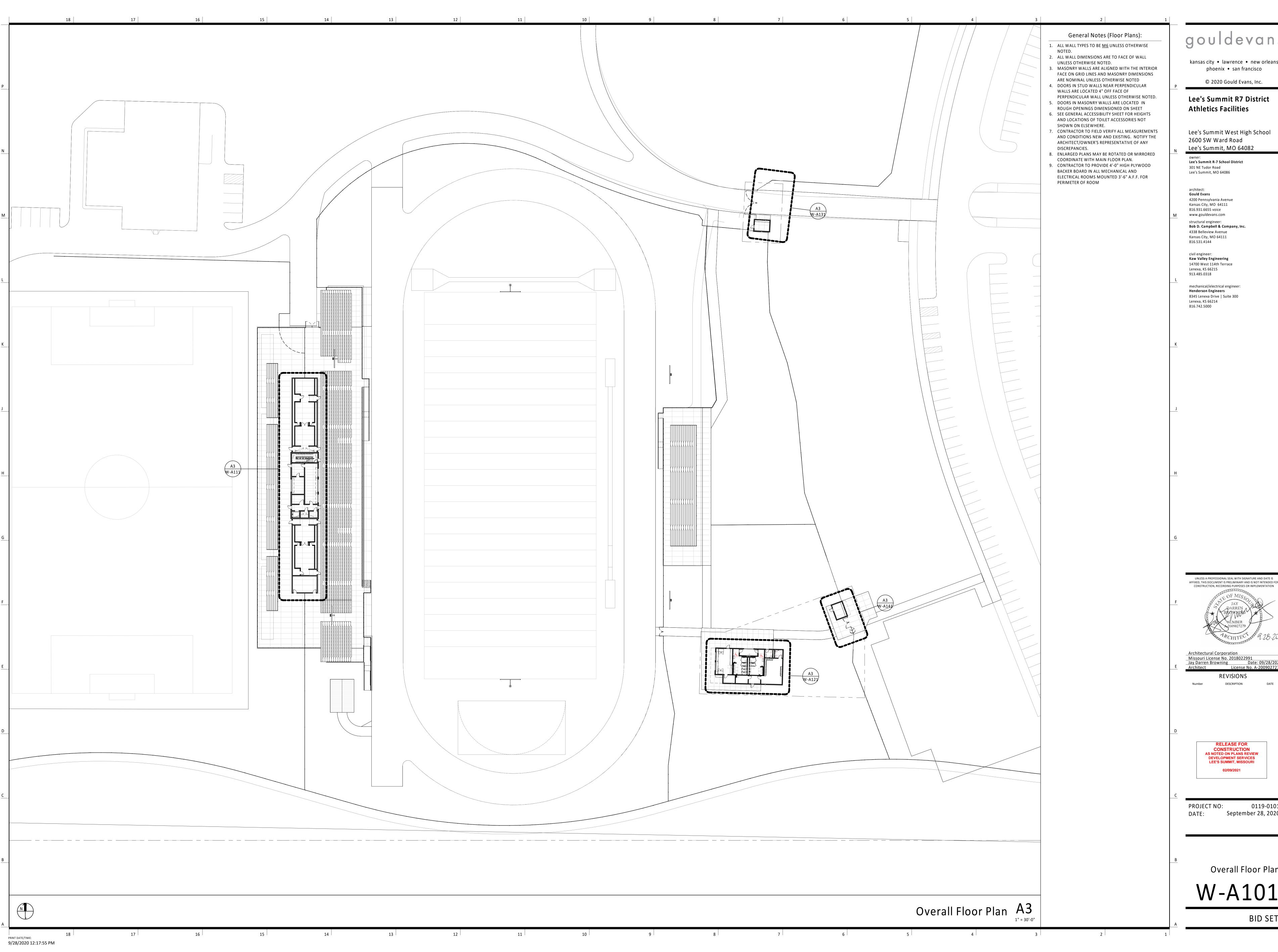
Graphic Symbols, Abbreviations, and











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Lee's Summit R7 District

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Lee's Summit R-7 School District 301 NE Tudor Road

4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue

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mechanical/electrical engineer: **Henderson Engineers** 8345 Lenexa Drive | Suite 300

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Architectural Corporation

Missouri License No. 2018022991

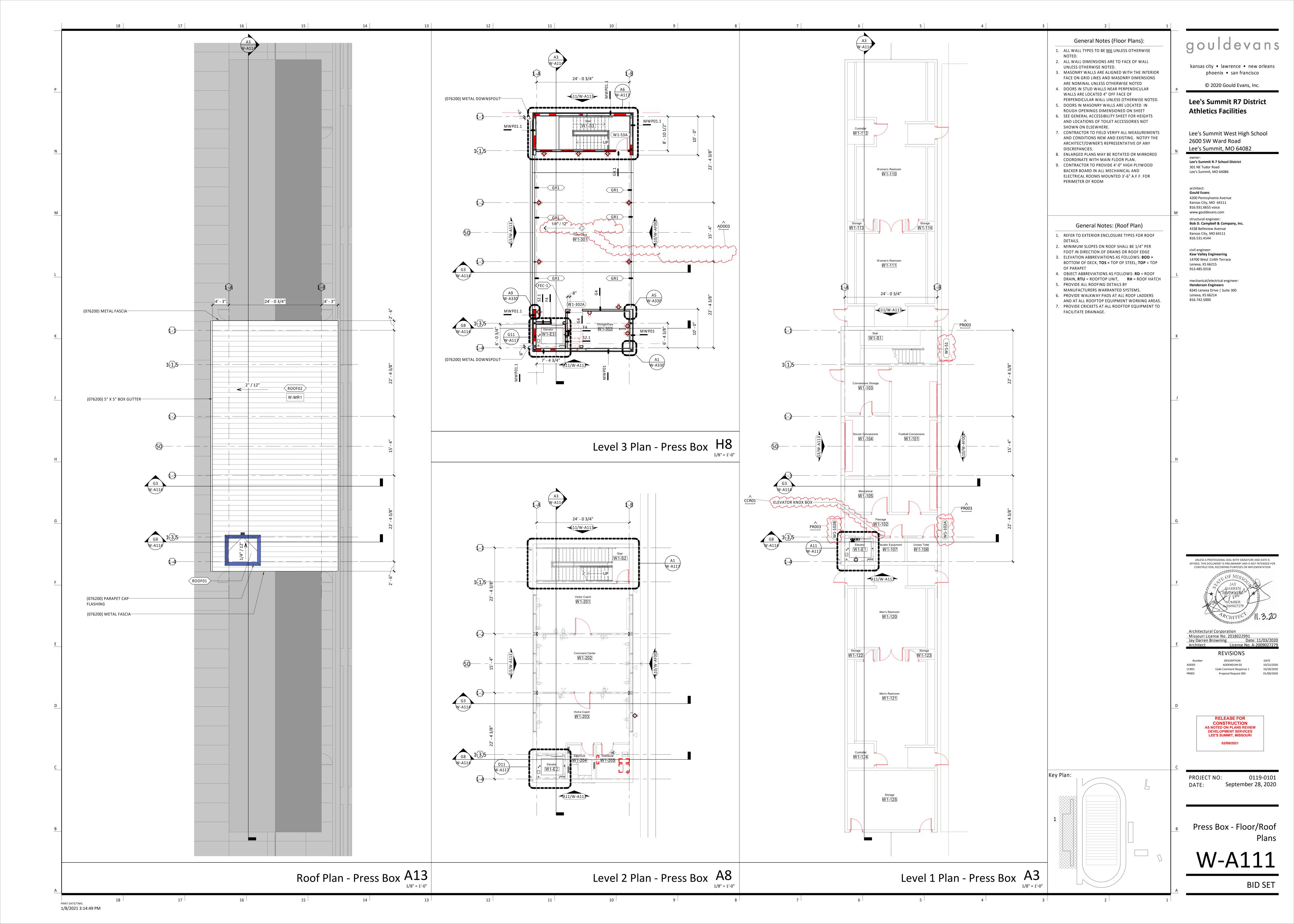
Jay Darren Browning Date: 09/28/2020

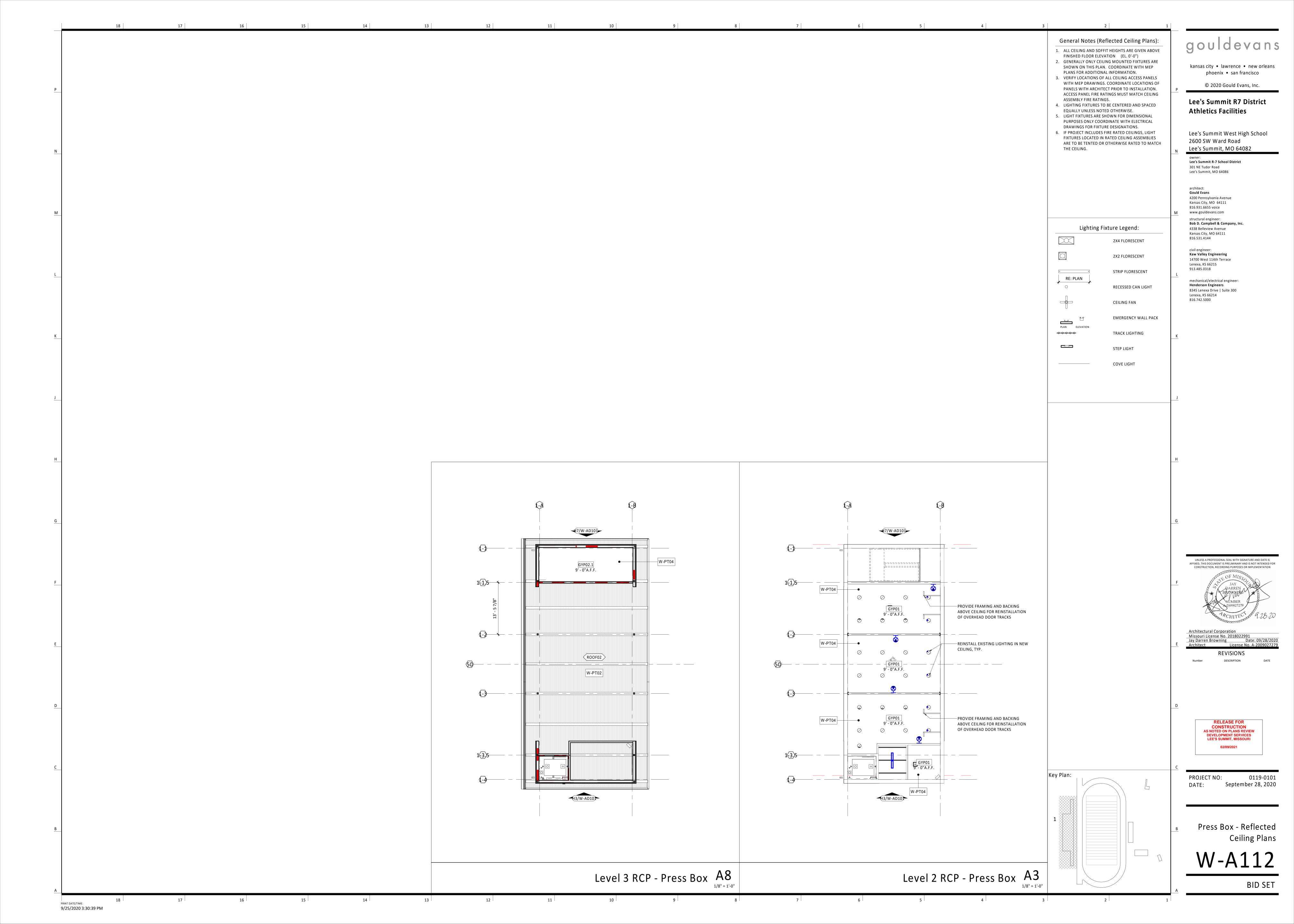
Architect License No. A-2009027279 REVISIONS

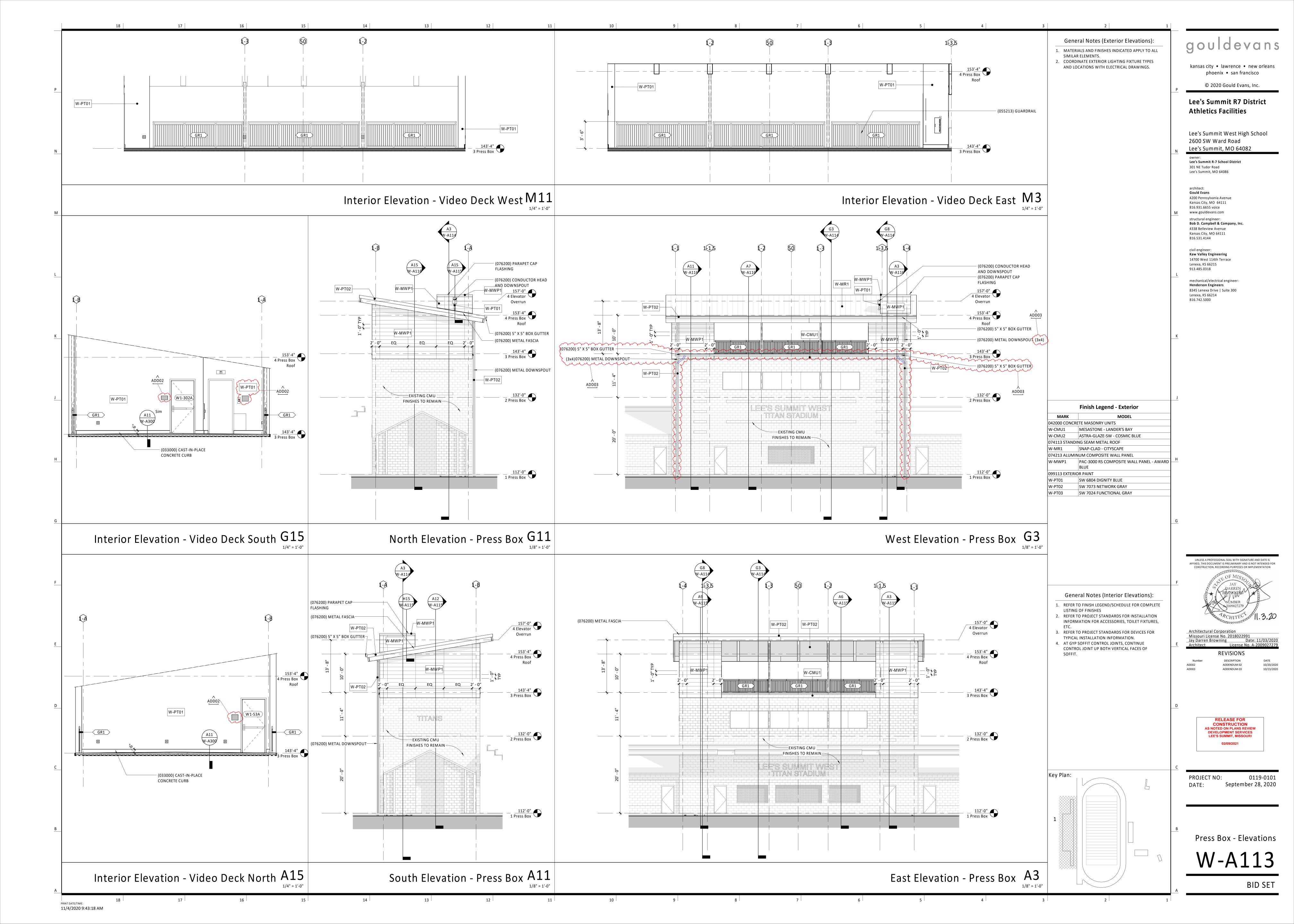
> CONSTRUCTION
> AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

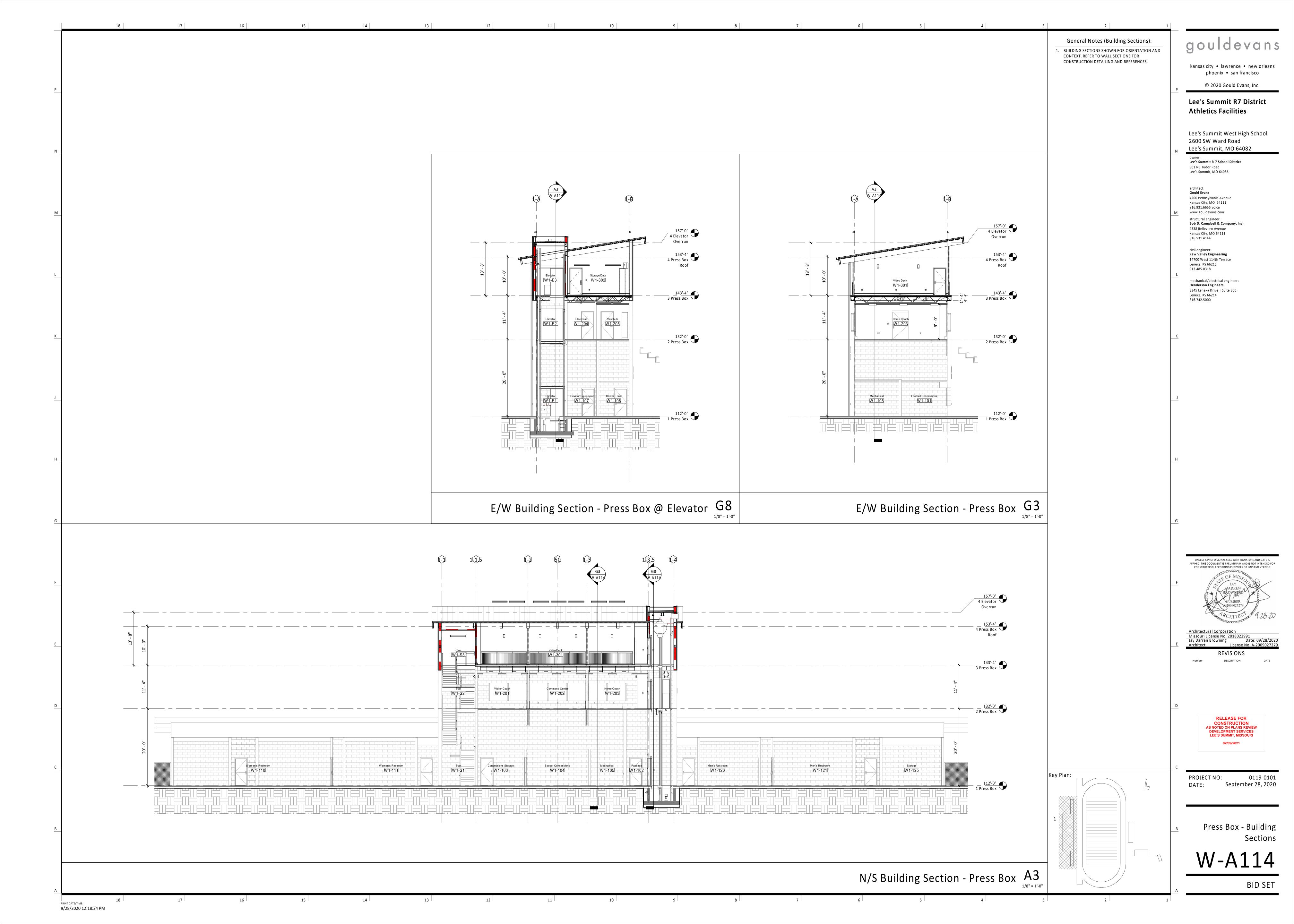
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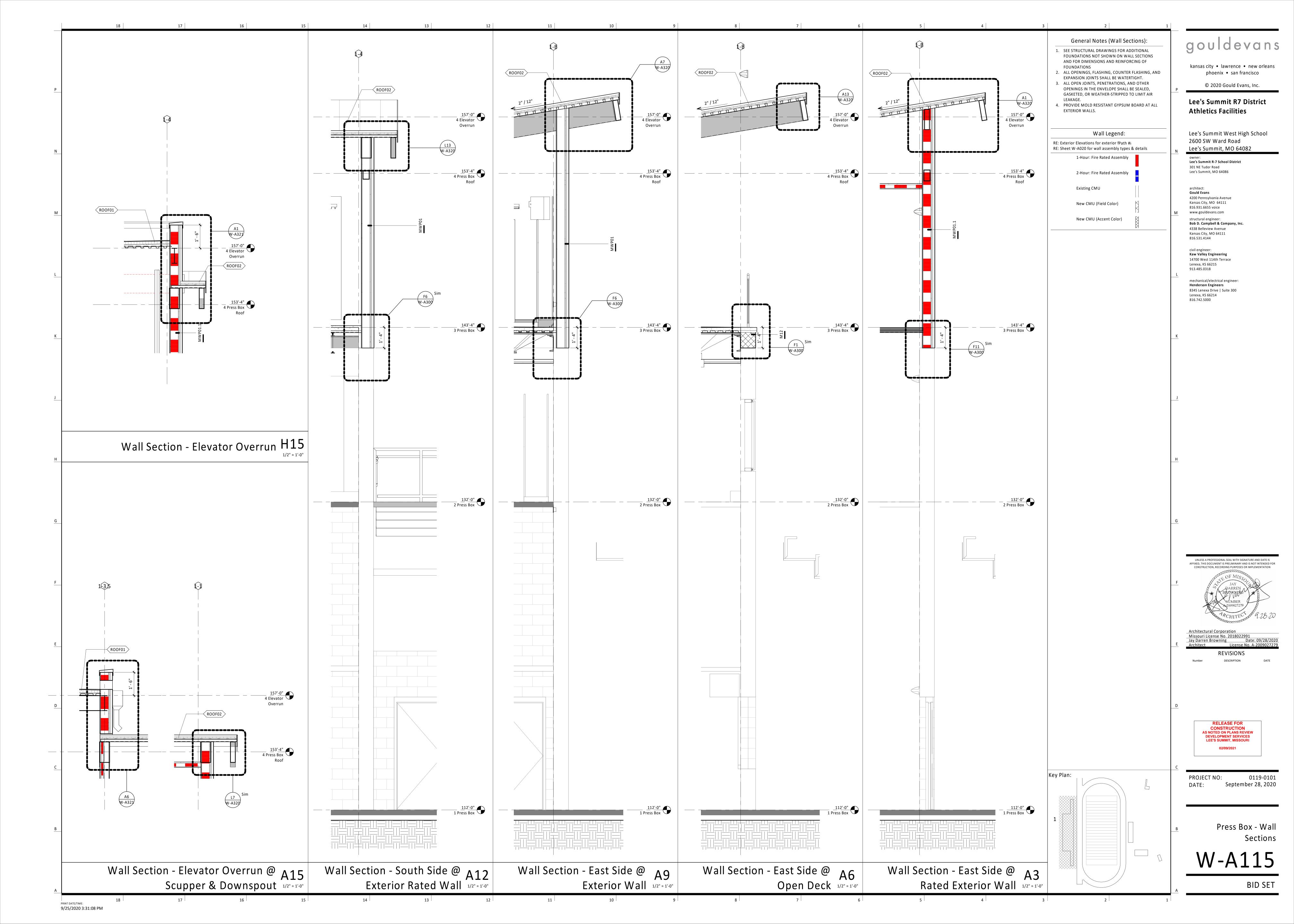
Overall Floor Plan

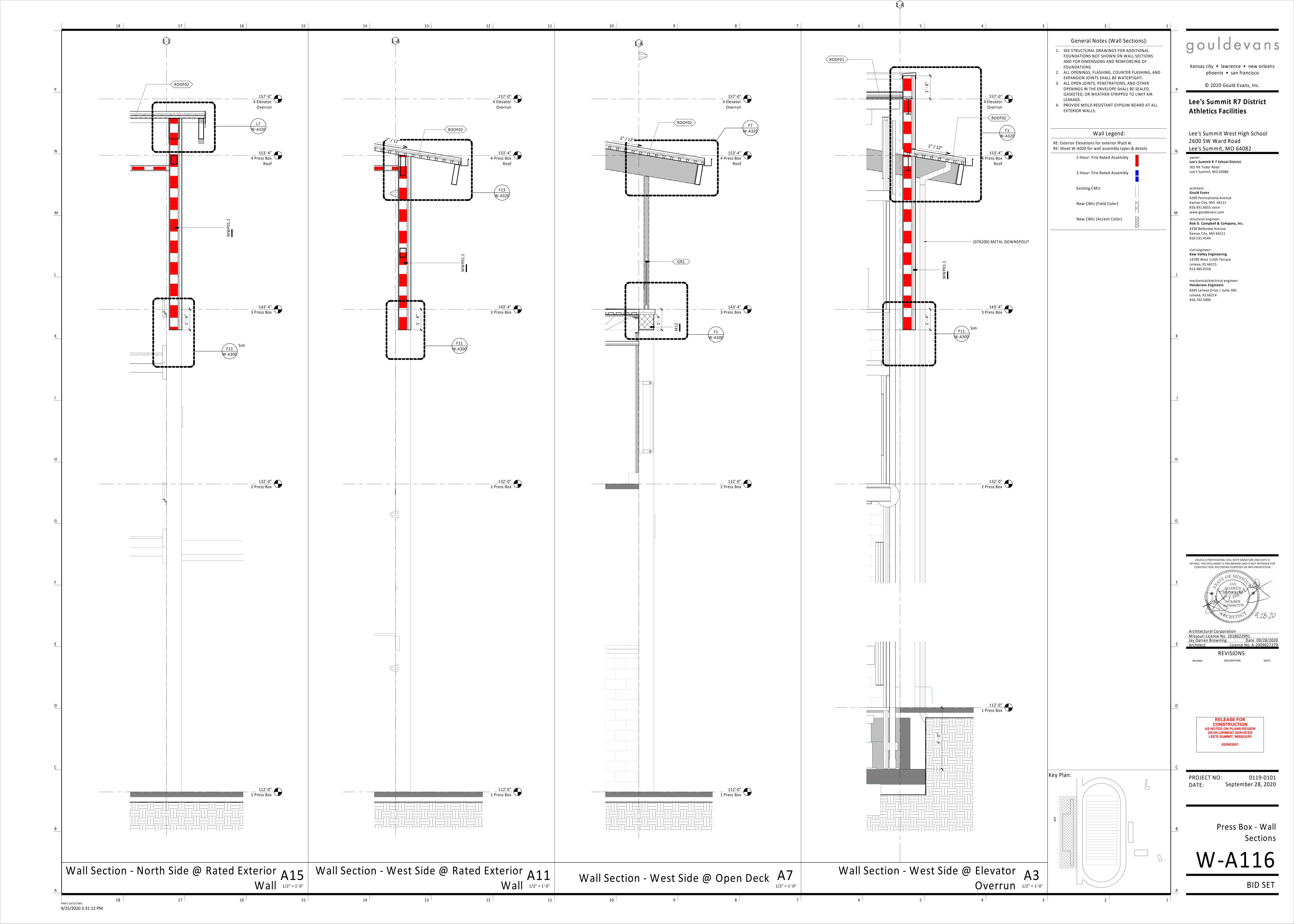


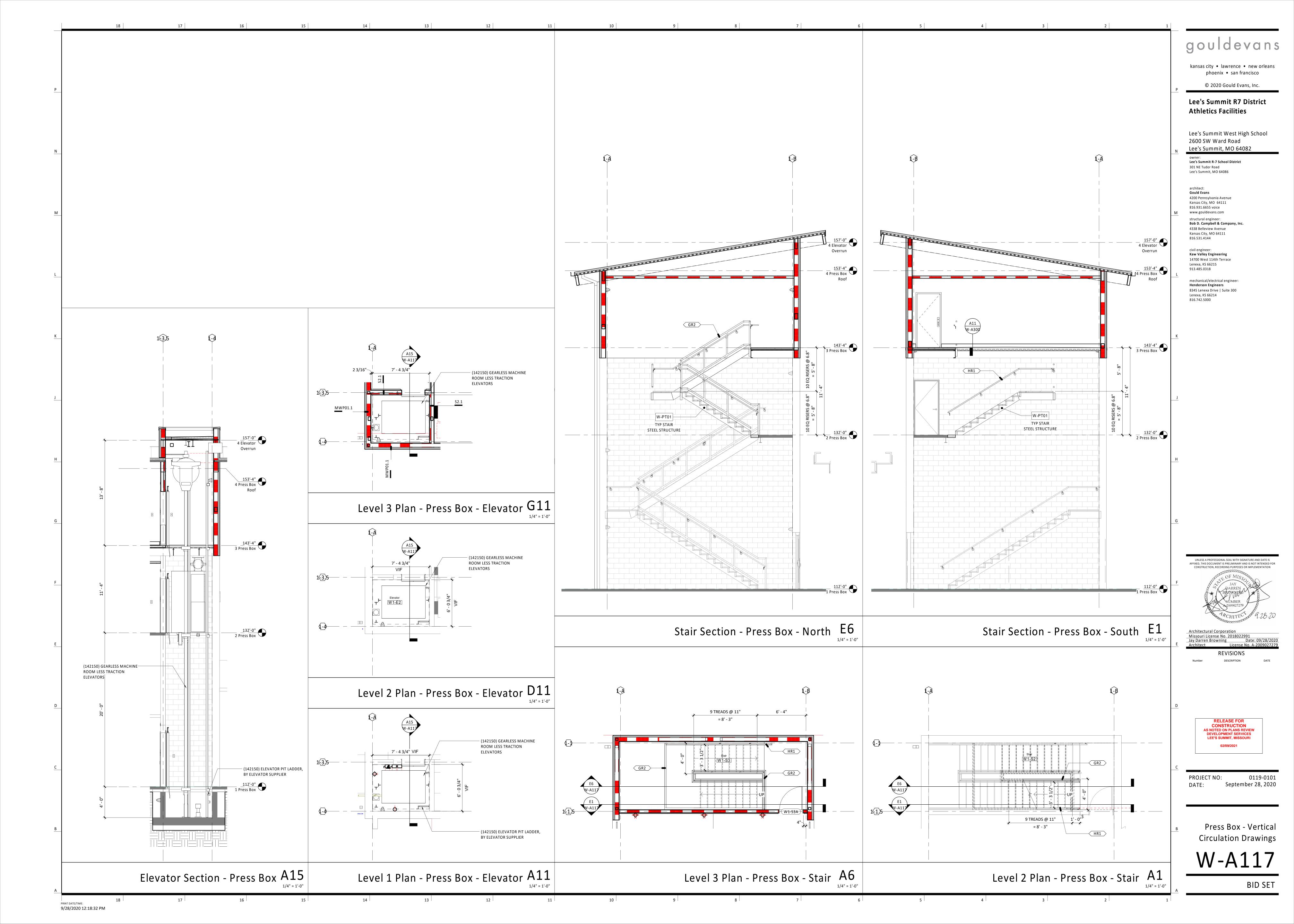


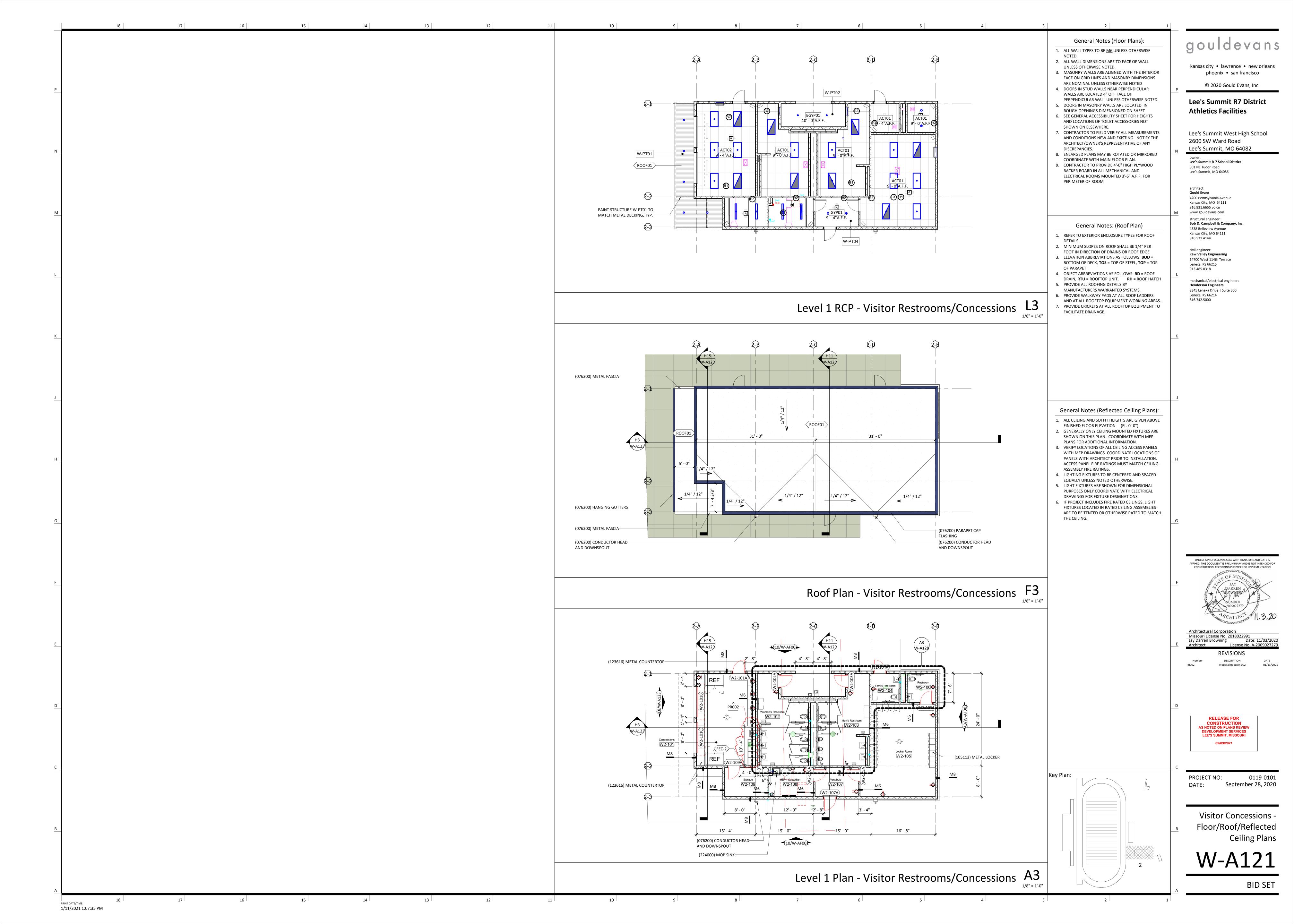


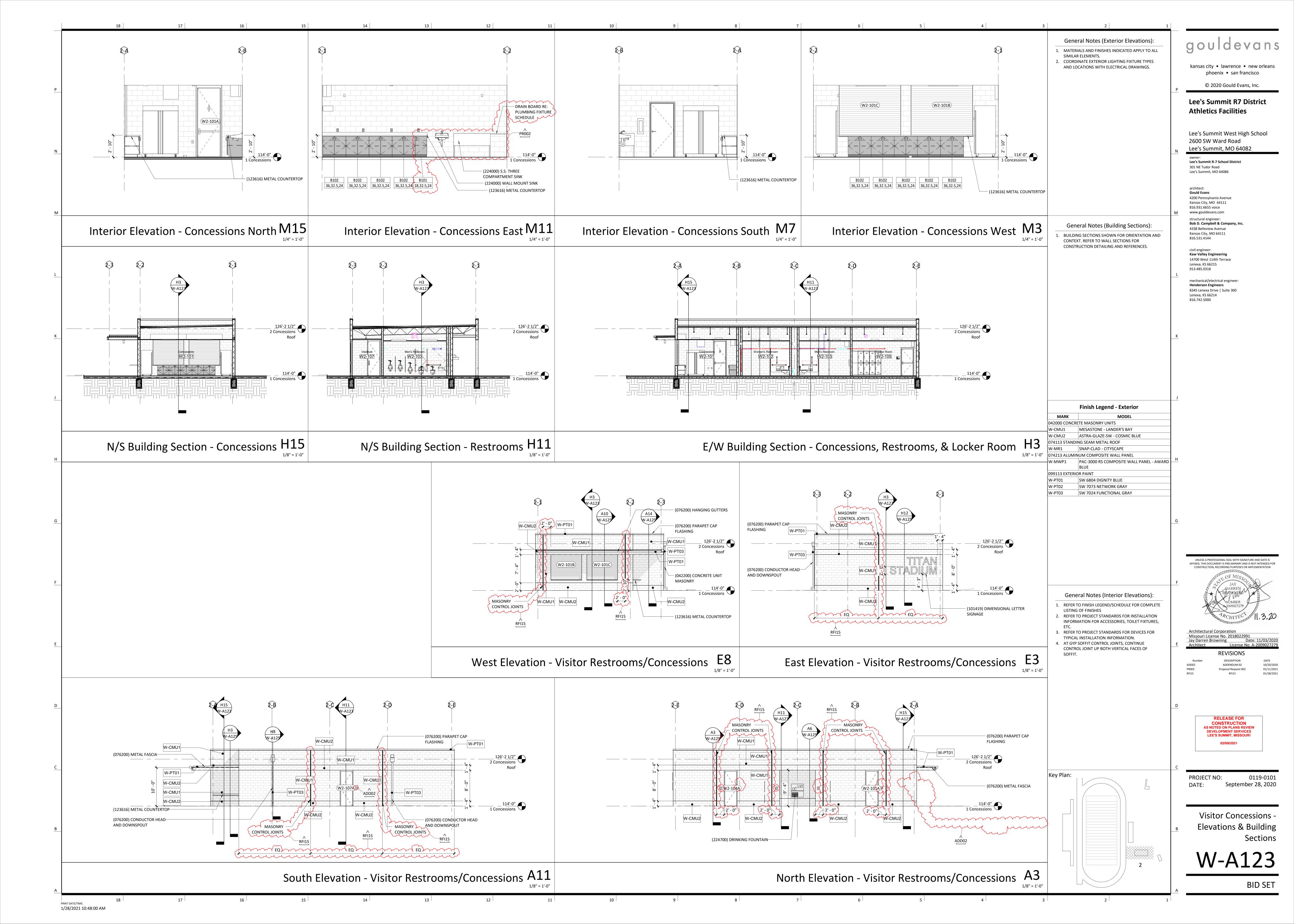


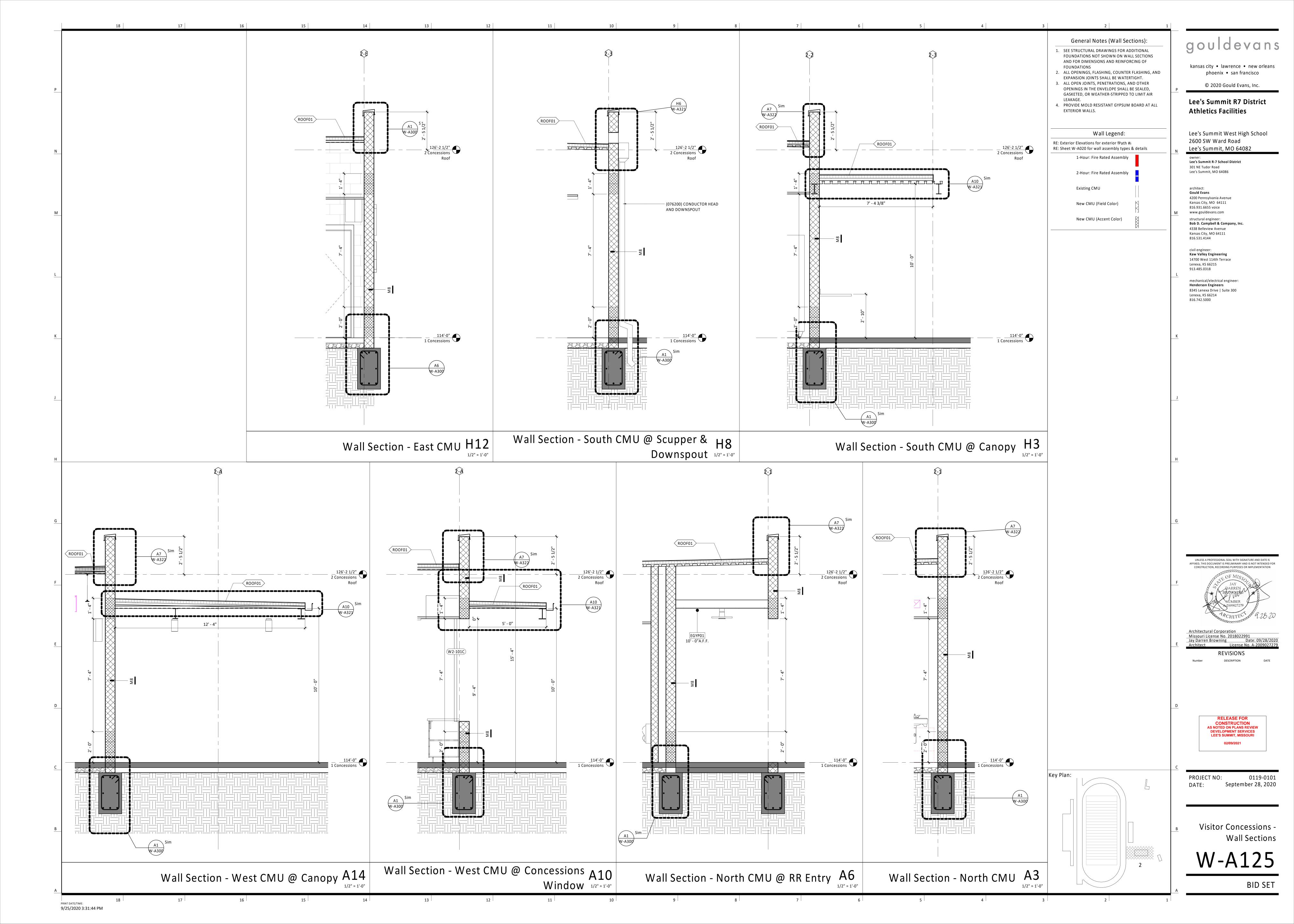


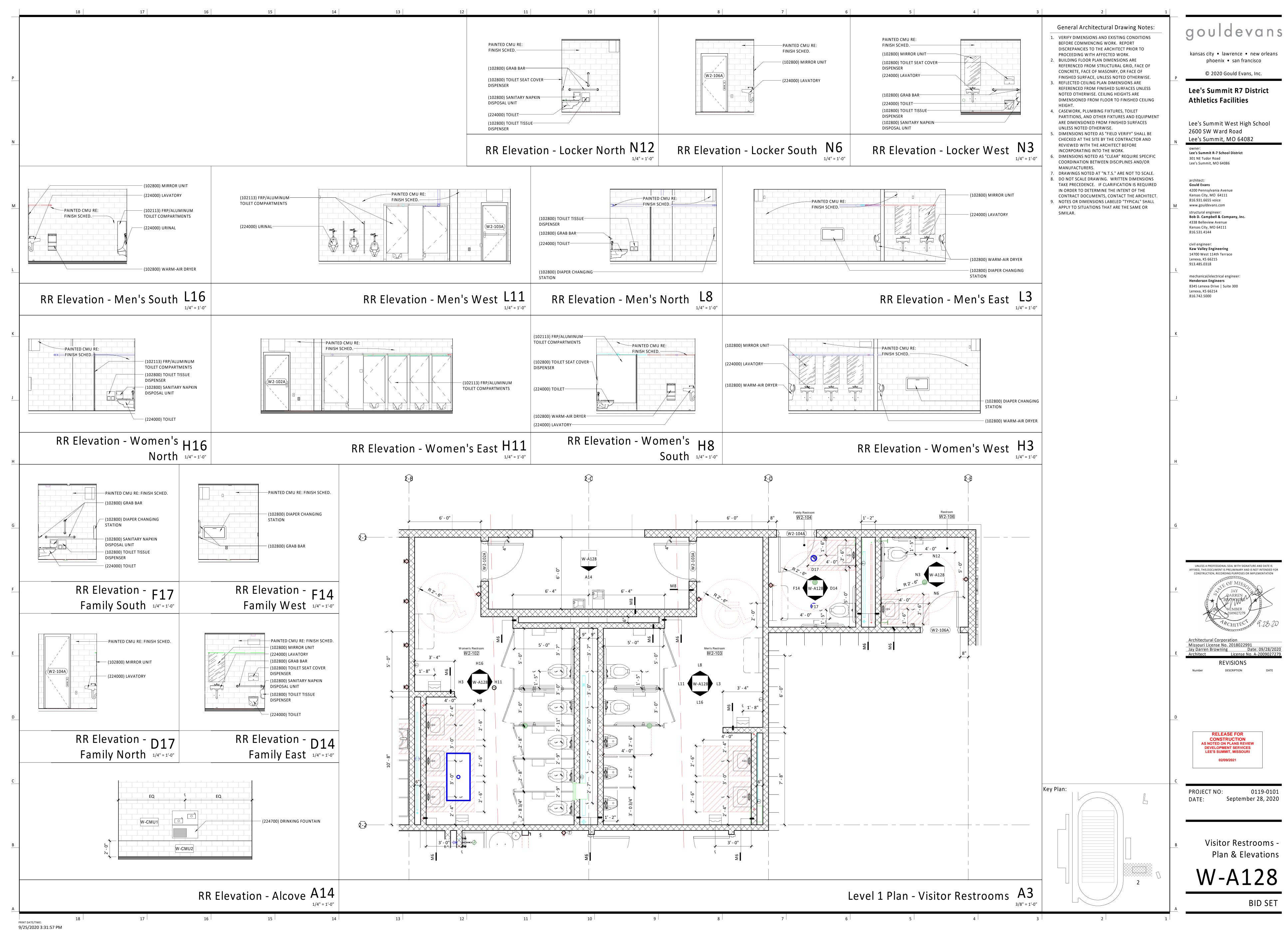












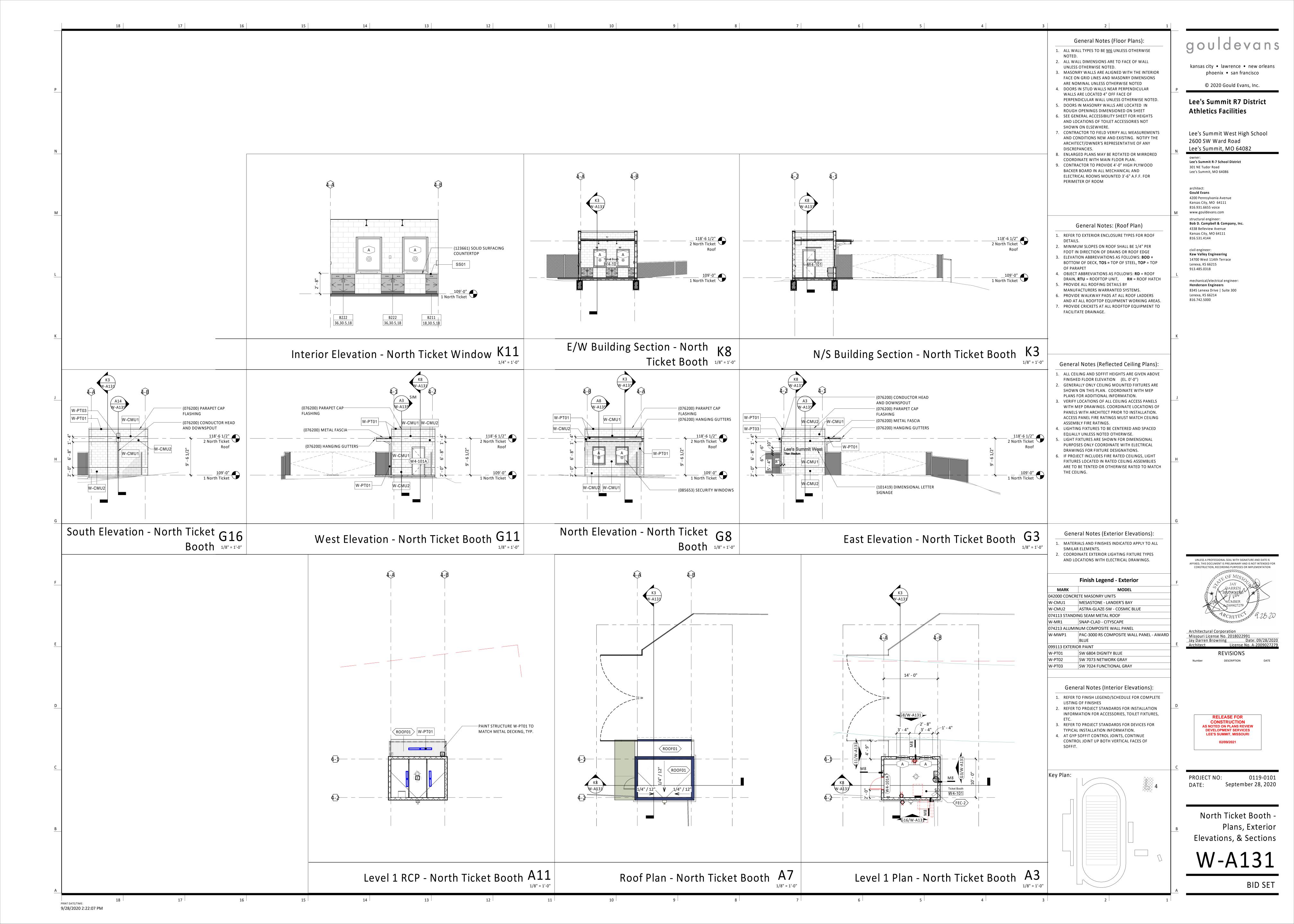
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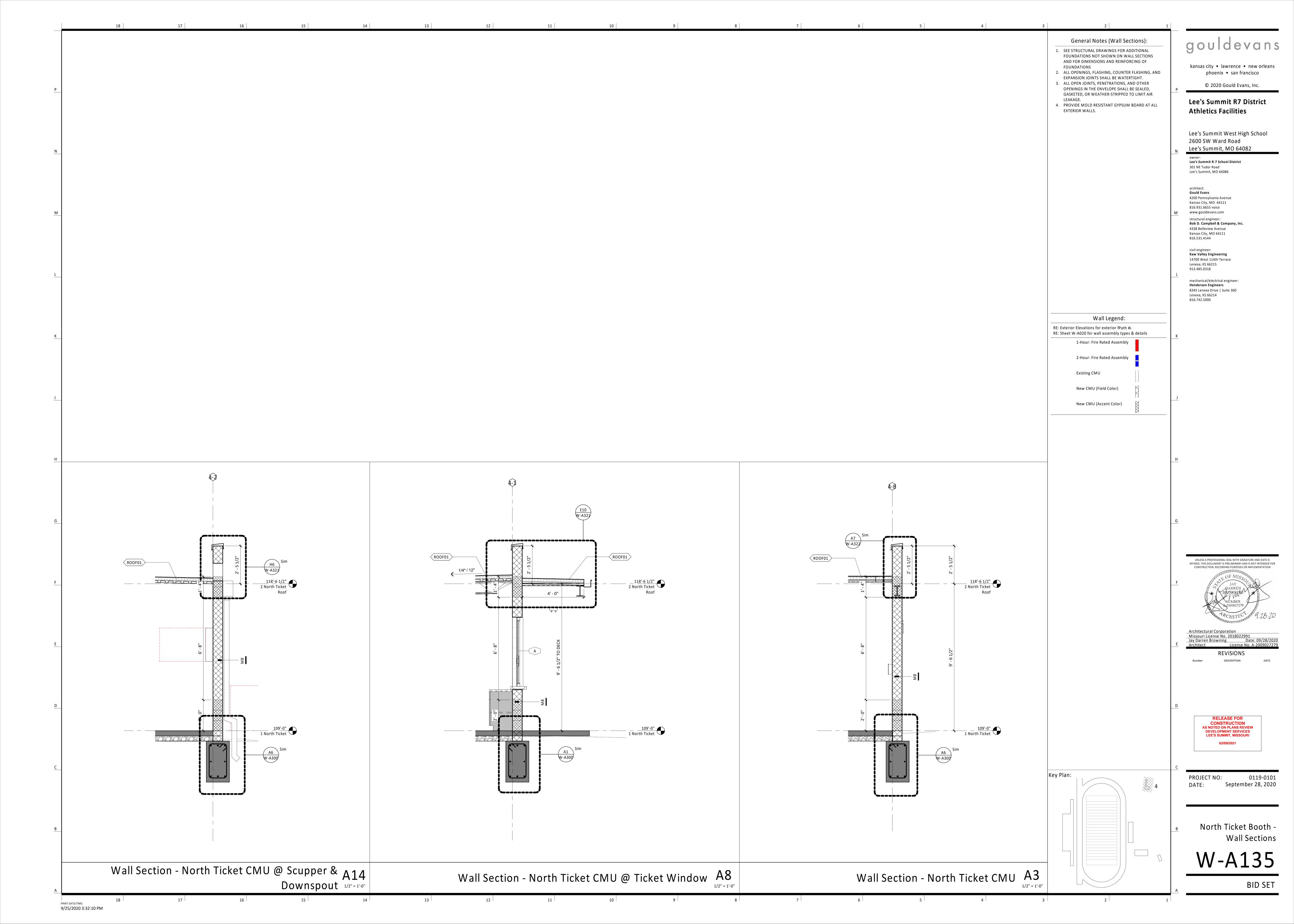
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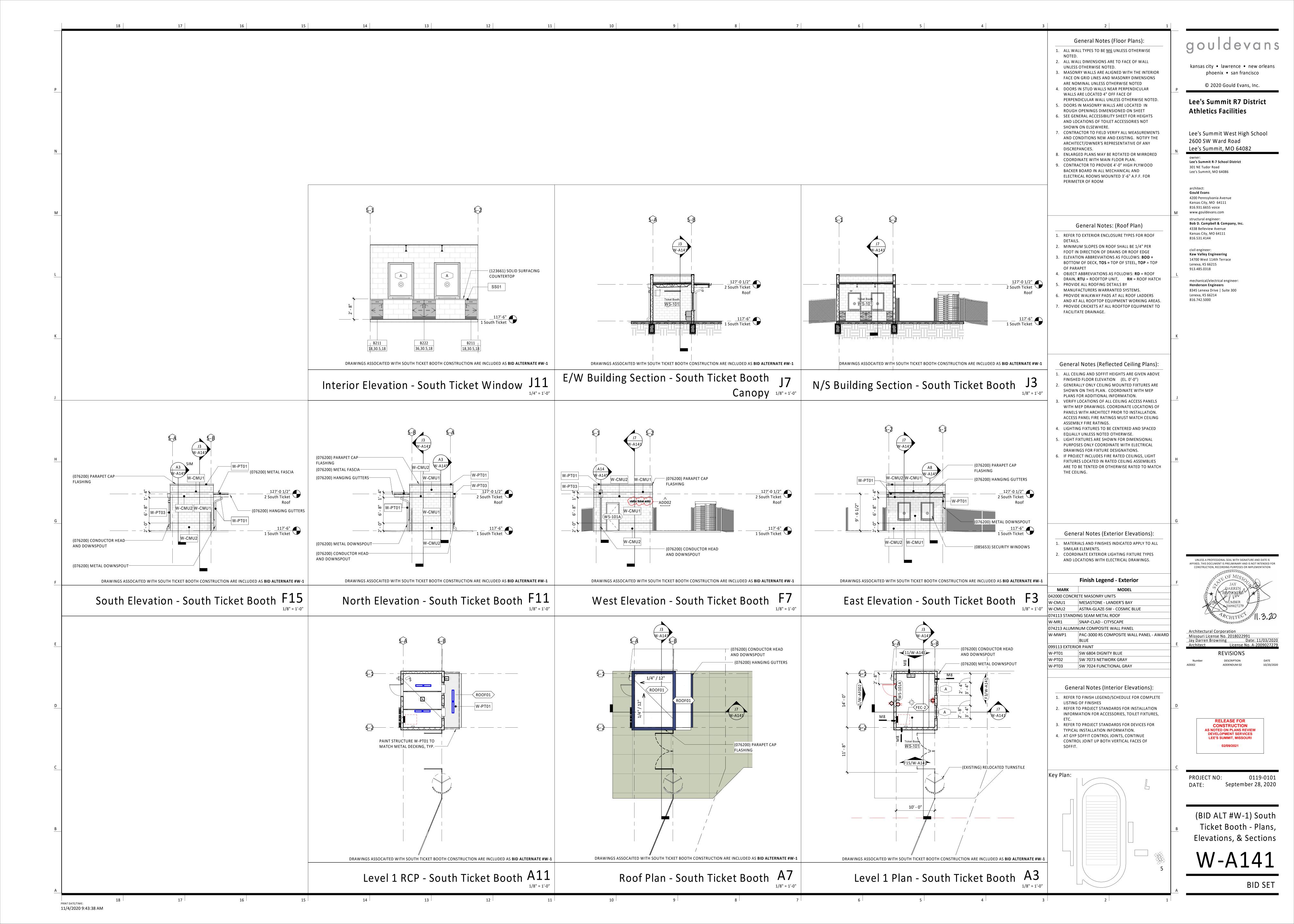
September 28, 2020

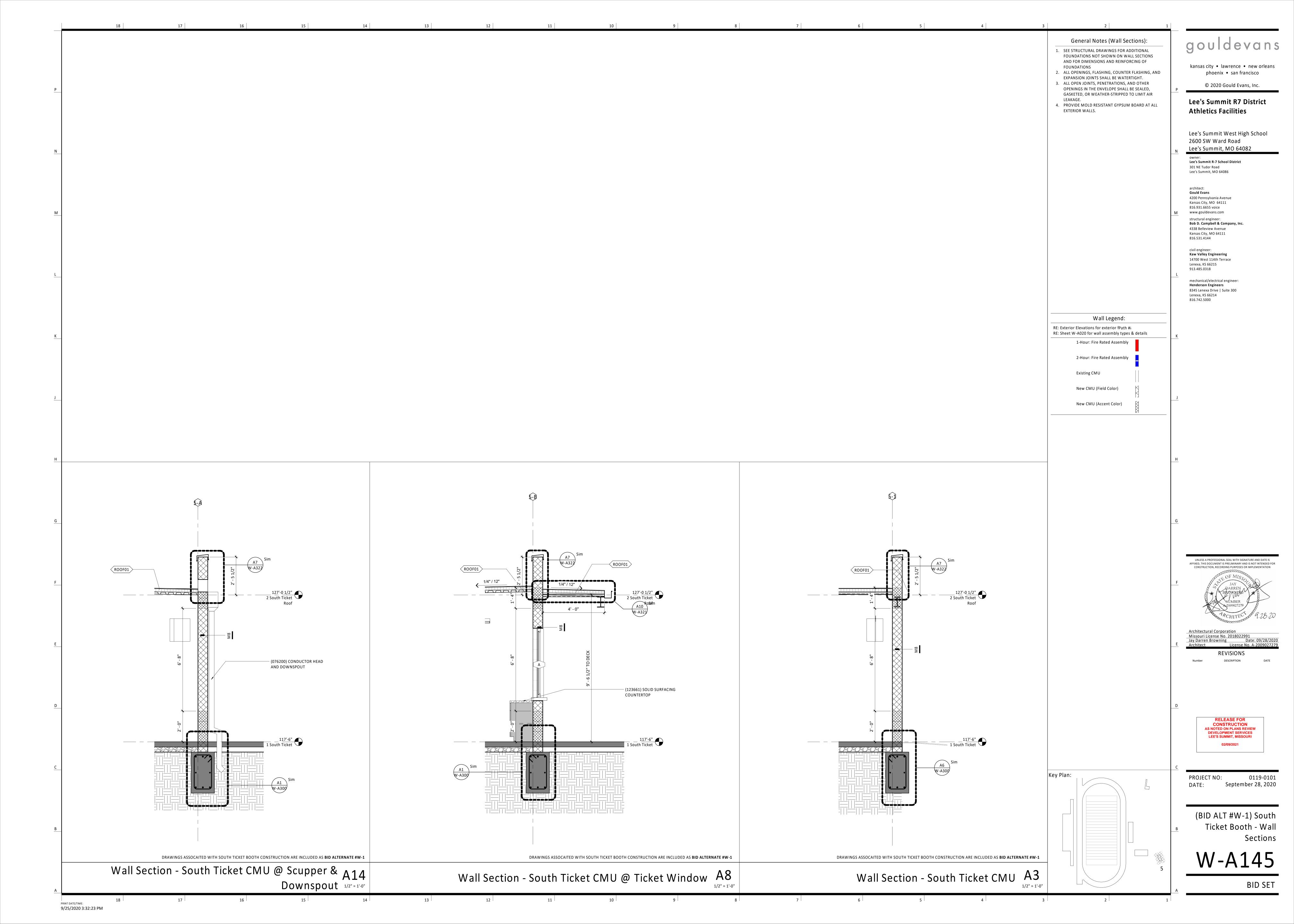
Visitor Restrooms -

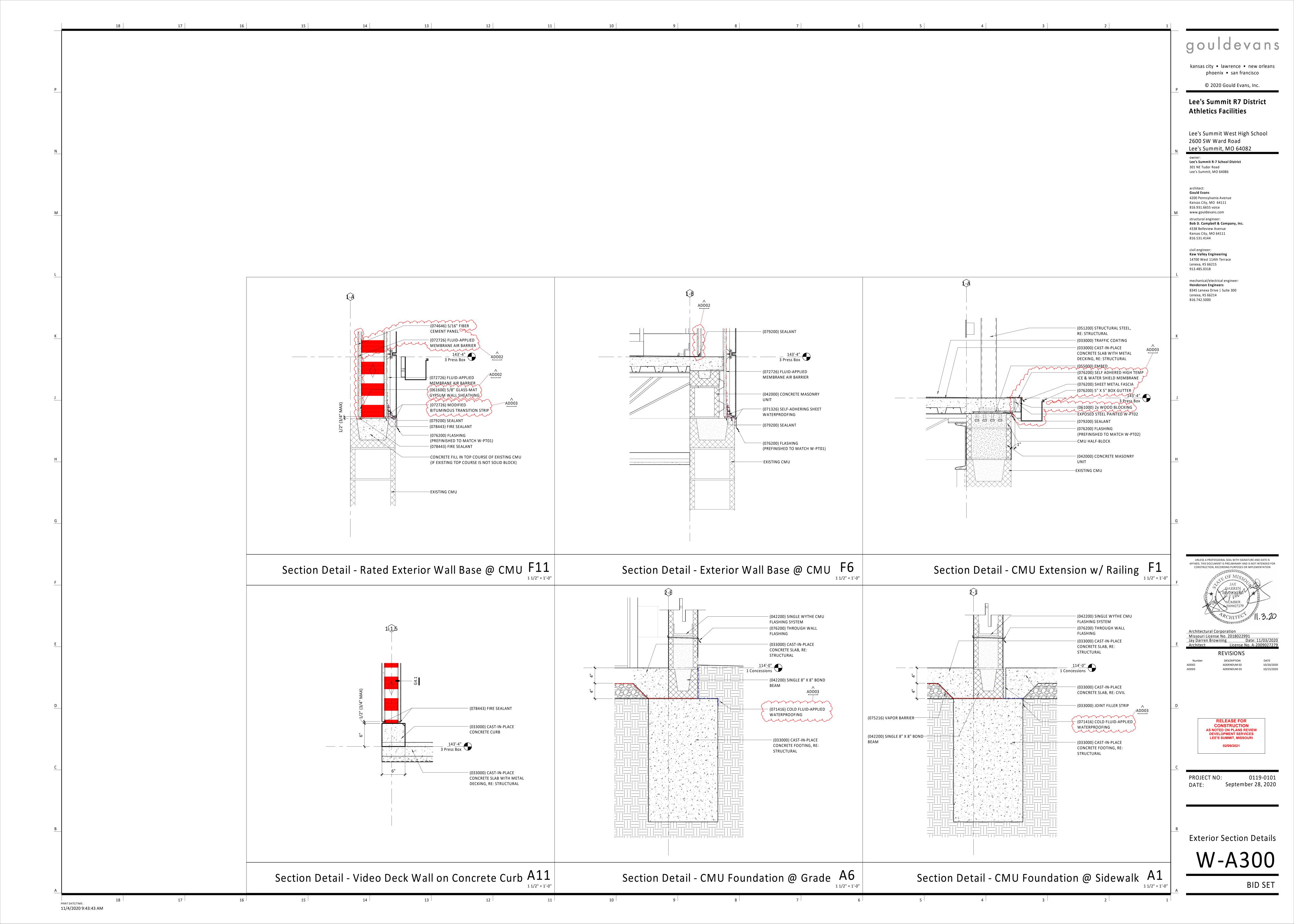
W-A128

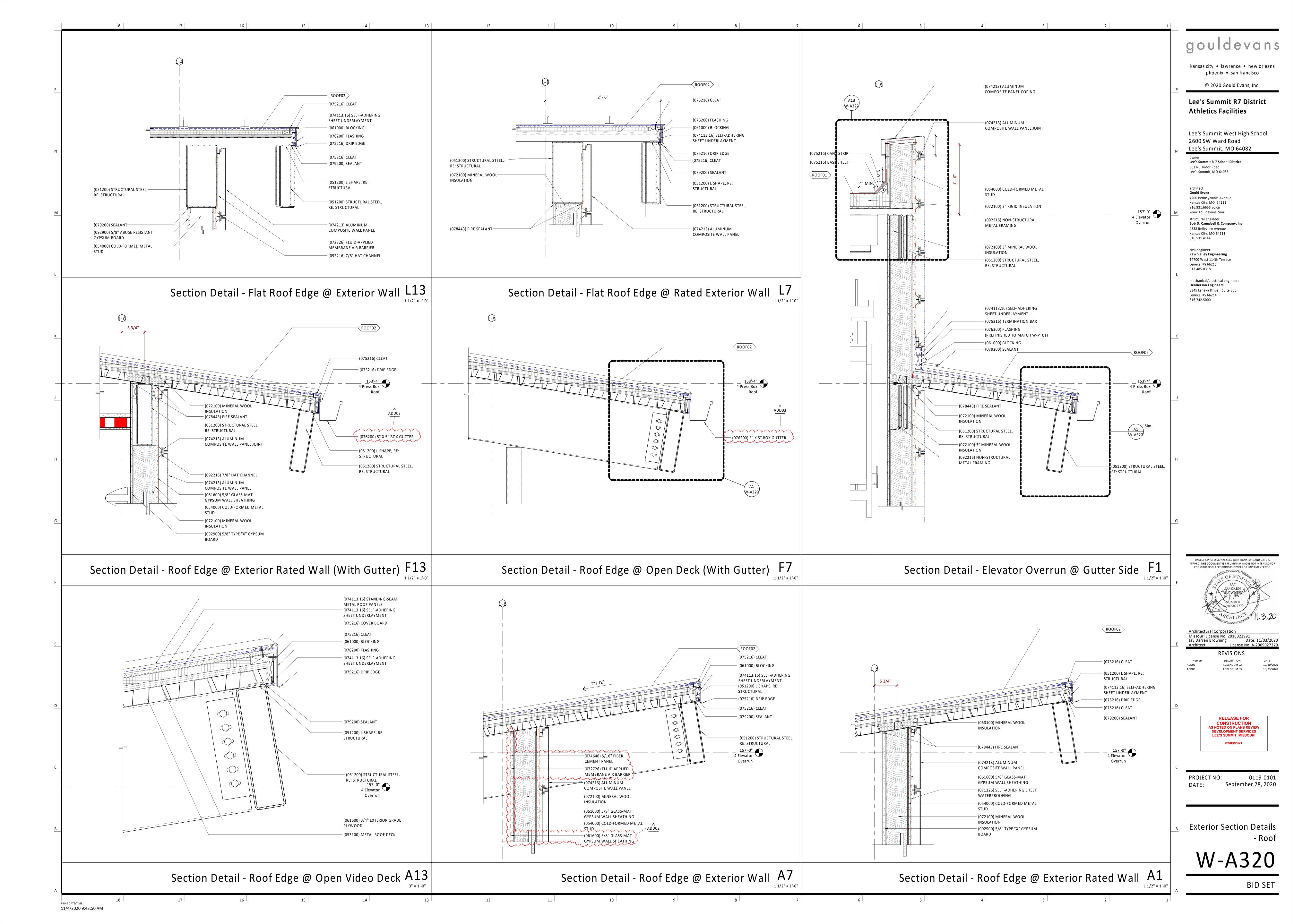


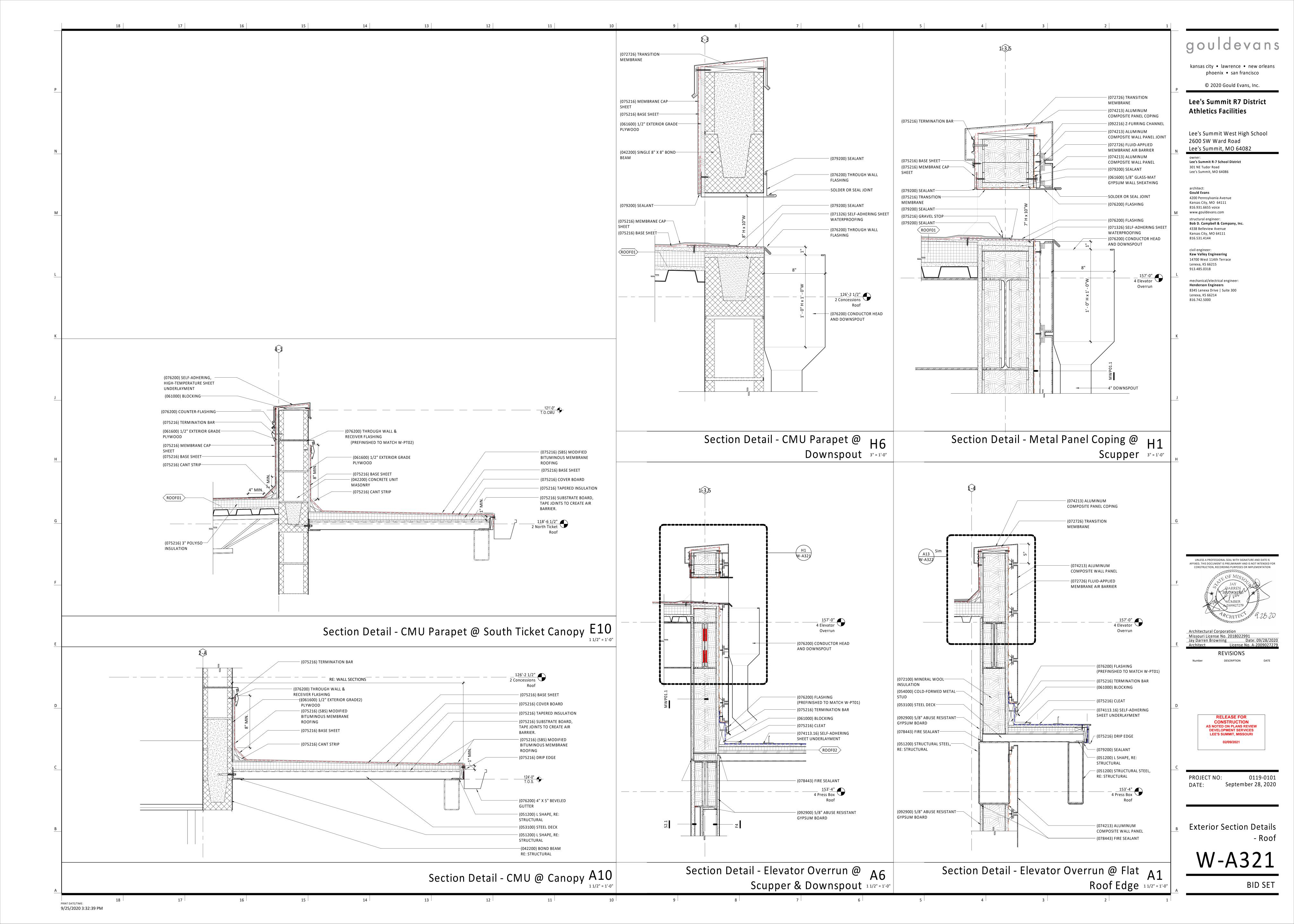


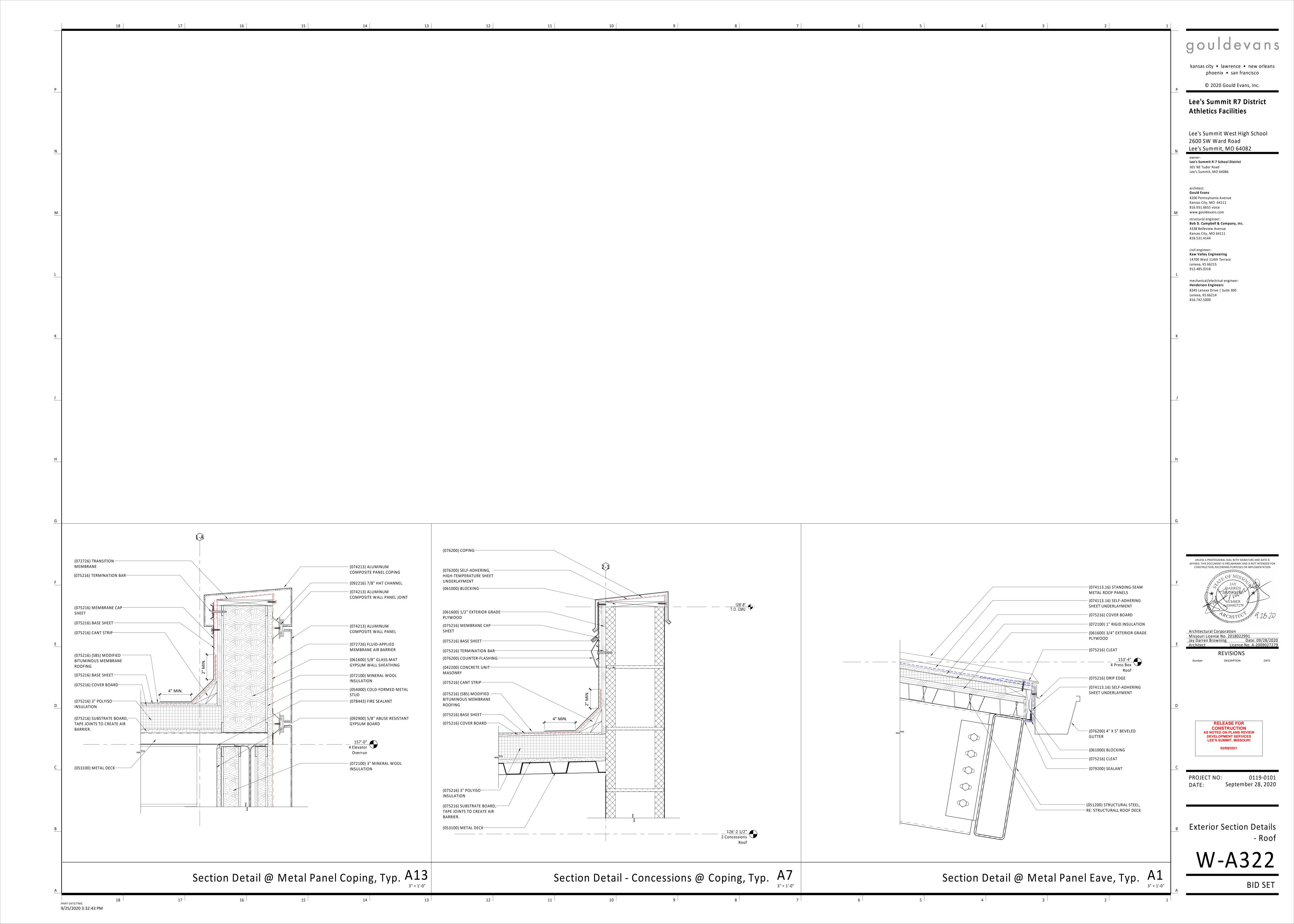


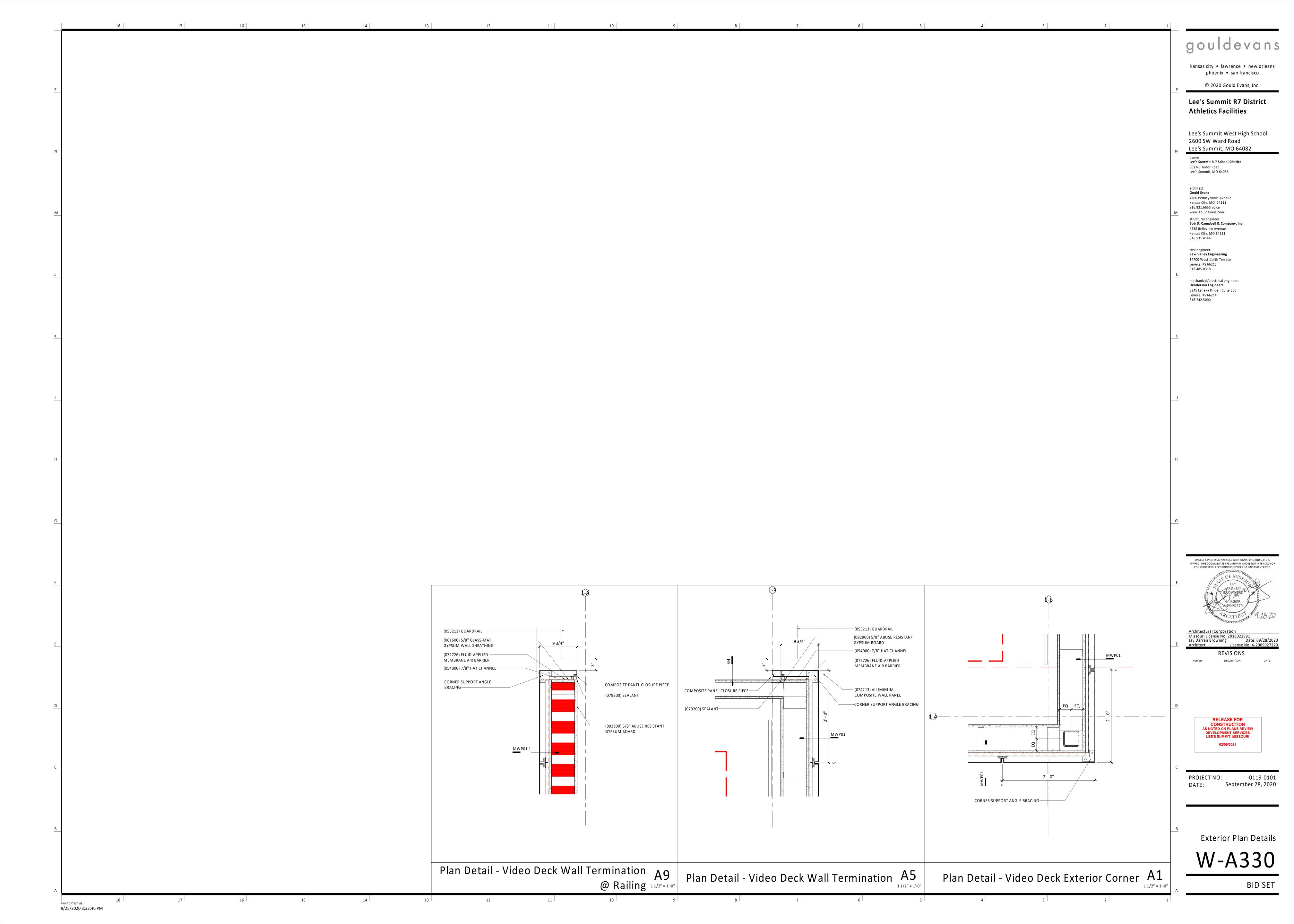


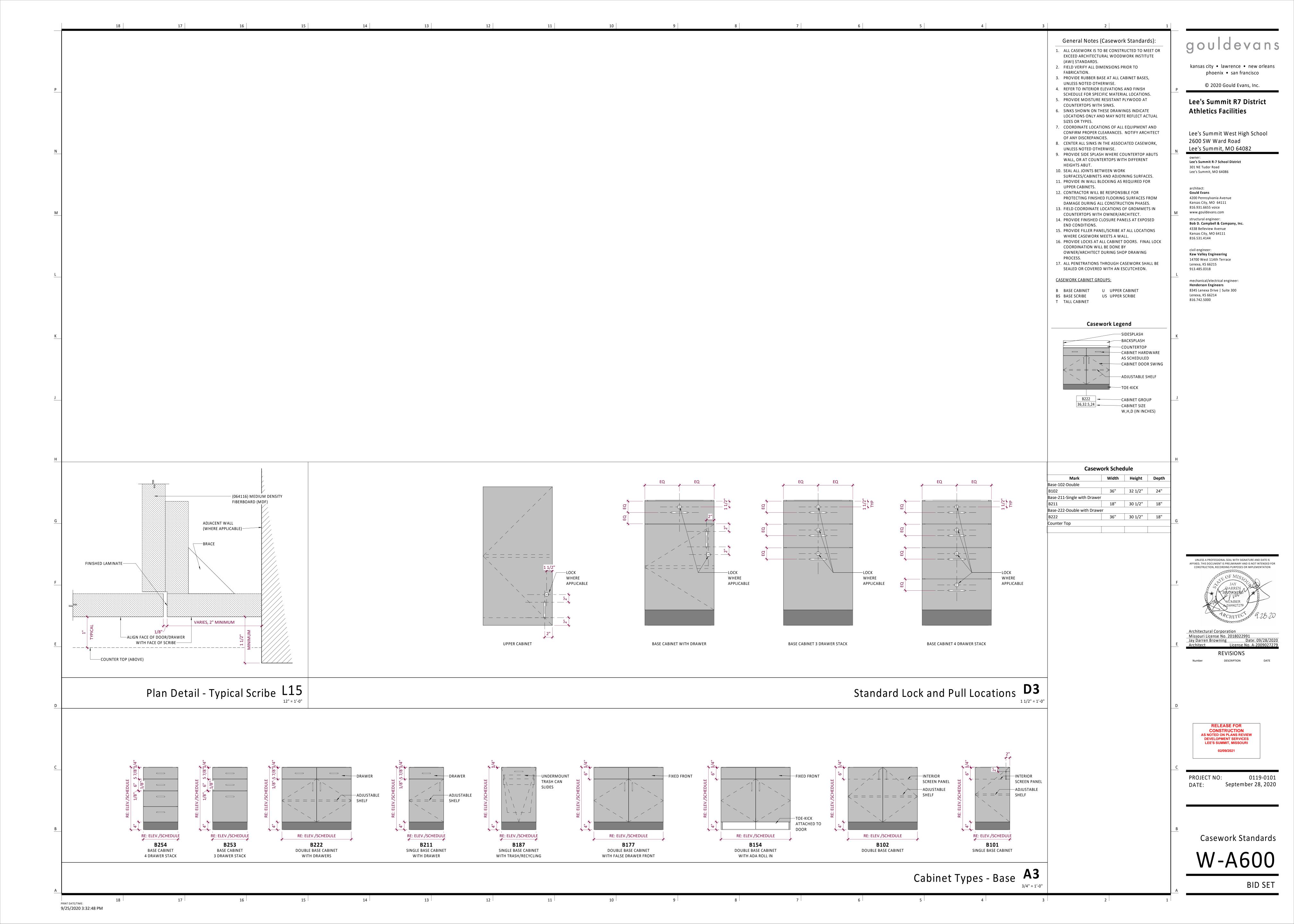


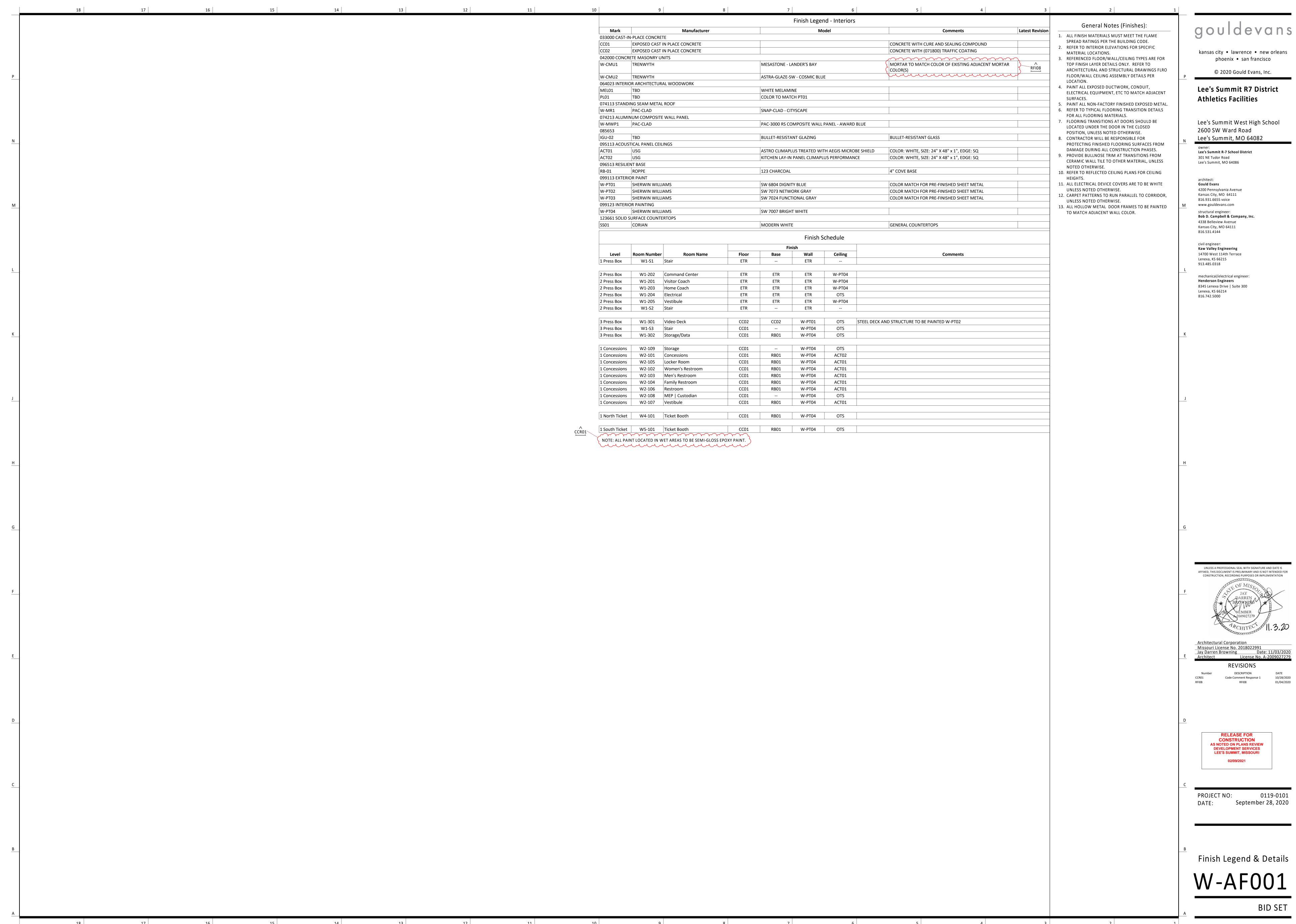






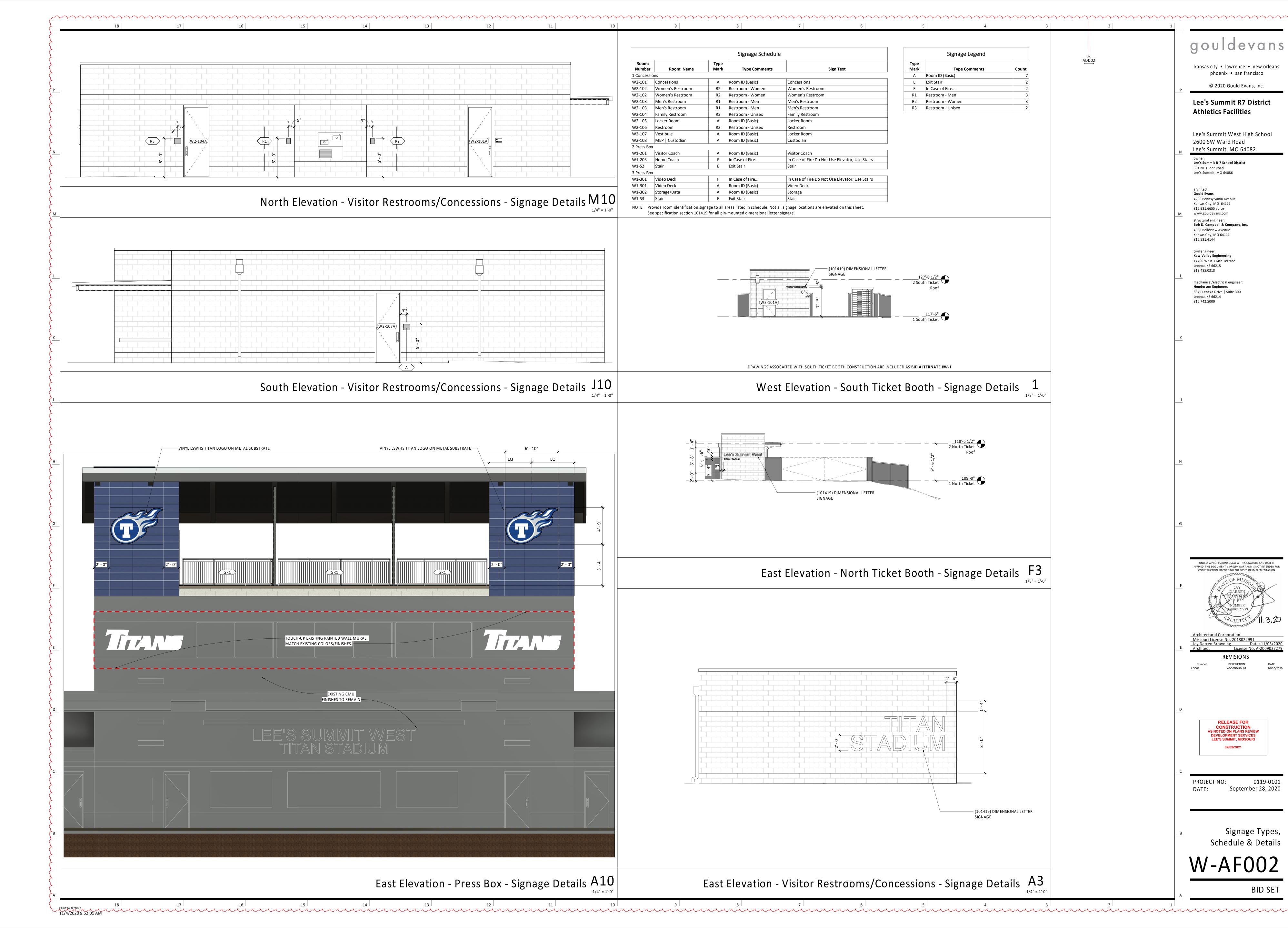


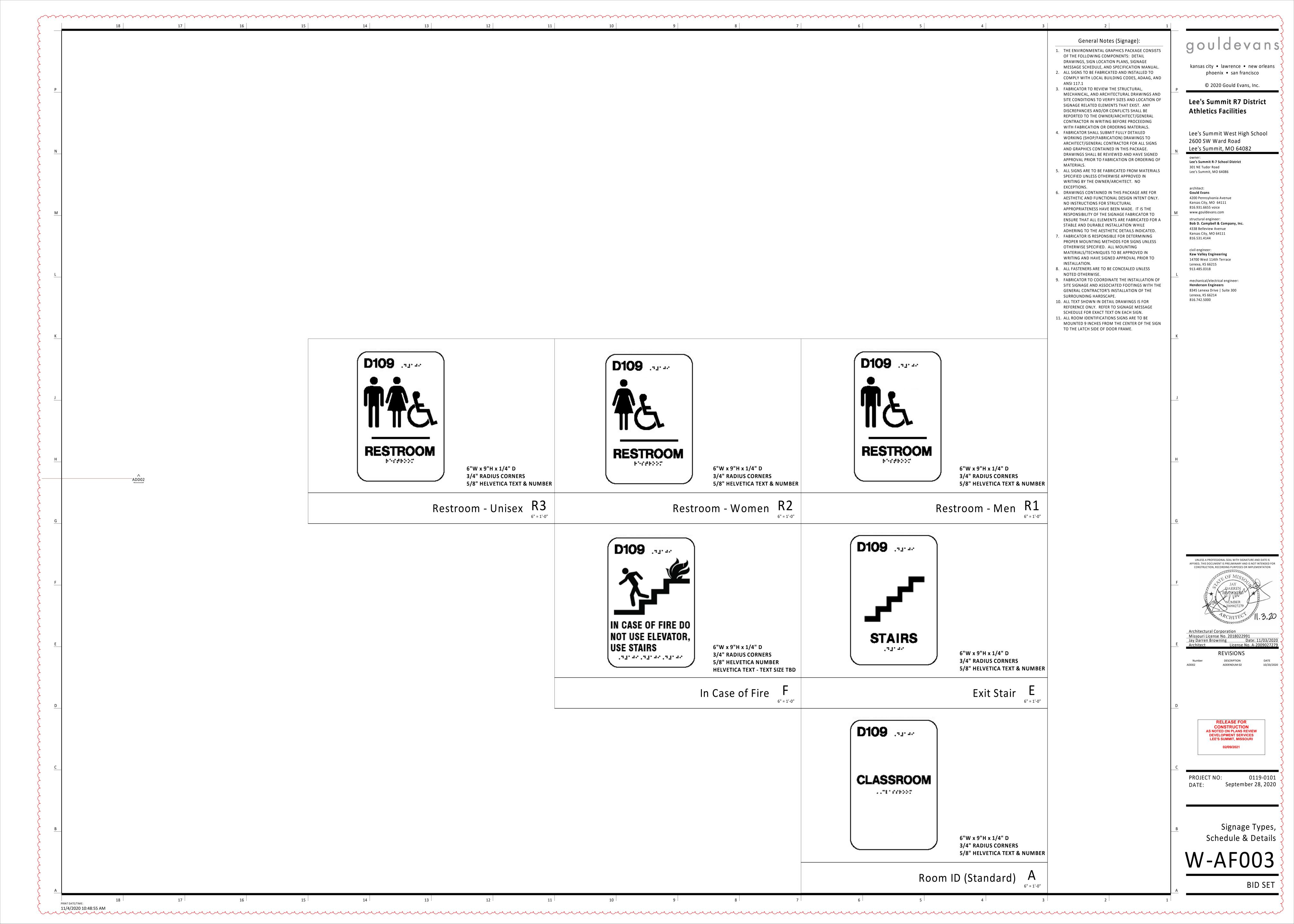




PRINT DATE/TIME:

1/4/2021 9:39:23 AM





PLUMBING SYMBOLS THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V2.02 PIPING SYMBOLS PIPING LINETYPES STANDARD MOUNTING HEIGHTS OXYGEN OUTLET CLINIC SERVICE SINKS (RIM) NITROUS OXIDE OUTLET ___ HOSE BIBB (CENTERLINE) MEDICAL AIR OUTLET ————HW——— DOMESTIC HOT WATER (HW) ICE MAKER OUTLET BOX (CENTER OF BOX) NITROGEN OUTLET ————HWR——— DOMESTIC HOT WATER RECIRC. (HWR) JANITOR'S SINK FAUCET FITTINGS (CENTERLINE) 42" $-\!\!\!\!-\!\!\!\!-\!\!\!\!\!-$ MEDICAL VACUUM INLET LAVATORY OR SINK STANDARD HEIGHT (RIM) FLOOR SINK (FS), SIZE & TYPE TRAP PRIMER LINE (T) ADA ACCESSIBLE (RIM) CHILD HEIGHT (RIM) FLOOR DRAIN (FD), SIZE & TYPE SOIL PIPING - ABOVE FLOOR (S) NON FREEZE WALL HYDRANT (AFG TO CENTERLINE) ROOF DRAIN (RD), SIZE & TYPE SHOWER HEAD ───────── BALL VALVE WASTE PIPING - ABOVE FLOOR (W) MEN (CENTERLINE) WOMEN (CENTERLINE) — W— WASTE PIPING - BELOW FLOOR (W) ───────── CONTROL VALVE SHOWER VALVE GREASE WASTE - ABOVE FLOOR (GW) ——──── SHUTOFF VALVE STANDARD HEIGHT - MEN (CENTERLINE) STANDARD HEIGHT - WOMEN (CENTERLINE) — CHECK VALVE — — GW — — GREASE WASTE - BELOW FLOOR (GW) ADA ACCESSIBLE (CENTERLINE) 38" TO 48" BALANCING VALVE WITH PRESSURE PORTS -----CGWV------ COMBINATION GREASE WASTE AND VENT (CGWV) SURGEON'S SCRUB-UP SINK (FRONT RIM) ──**─**─**─** WATER METER STANDARD HEIGHT (CENTERLINE) STORM DRAIN - ABOVE FLOOR (ST) STRAINER ADA ACCESSIBLE CENTER BETWEEN GRAB BAR AND TUB RIM STRAINER WITH BLOWOFF — → ·ST· — STORM DRAIN - BELOW FLOOR (ST) STANDARD HEIGHT (RIM) RELIEF/SAFETY VALVE OVERFLOW STORM DRAIN - ABOVE FLOOR (OST) ADA ACCESSIBLE (RIM) CHILD HEIGHT (RIM) ──────────── SOLENOID VALVE ── VBG ── VENT BELOW GRADE (VBG) WASHING MACHINE OUTLET BOX (RIM) PRESSURE REDUCING VALVE — WBF — VENT BELOW FLOOR (VBF) WATER CLOSET GAS PRESSURE REGULATOR INDIRECT DRAIN (ID) STANDARD HEIGHT (RIM) ADA ACCESSIBLE (TOP OF SEAT) 17" TO 19" ─────────────────────── THERMOSTATIC MIXING VALVE CHILD HEIGHT (RIM) PIPE ANCHOR WATER COOLER OR DRINKING FOUNTAIN STANDARD HEIGHT (SPOUT) EXPANSION JOINT ACD——ACD—— AUXILIARY CONDENSATE DRAIN (ACD) ADA ACCESSIBLE (SPOUT) CHILD HEIGHT (SPOUT) BACKFLOW PREVENTER SPD——SPD——SUMP OR SEWAGE PUMP DISCHARGE (SPD) PRESSURE GAUGE ————G——— NATURAL GAS (G) THERMOMETER — — -G- — NATURAL GAS ON ROOF (G) INSTALL PLUMBING FIXTURES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE ARCHITECTURAL DRAWINGS OR ELSEWHERE IN THE MPG——MPG—— MEDIUM PRESSURE NATURAL GAS (MPG) ───────── UNION CONSTRUCTION DOCUMENTS. FINAL APPROVAL OF LOCATIONS BY ARCHITECT. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE ───────── FLANGE CONNECTION — — MPG — — MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG) CONSTRUCTION DOCUMENTS, ARE AFF, UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL -----NPW------ NON-POTABLE WATER (NPW) HOSE BIBB (HB) ----- REQUIREMENTS. LIQUEFIED PETROLEUM GAS (LPG) NON-FREEZING WALL HYDRANT (NW) ANNOTATION MANUAL / AUTOMATIC AIR VENT OR VACUUM RELIEF WS— WATER SERVICE (WS) PLUMBING PLAN NOTE CALLOUT FP——FP——FIRE PROTECTION (FP) PRESSURE / VACUUM SWITCH ———PD——— CONDENSATE PUMP DISCHARGE (PD) PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR CLEANOUT FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE VENT PIPING (V) OR EQUIPMENT SCHEDULES ACID WASTE - ABOVE FLOOR (AW) WALL CLEANOUT (WCO) EQUIPMENT DESIGNATION (OWNER FURNISHED. — — AW — — ACID WASTE - BELOW FLOOR (AW) CONTRACTOR INSTALLED) FLOOR CLEANOUT (FCO) ACID VENT (AV) EXTERIOR CLEANOUT (ECO) MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR GRAY WATER (GWS) FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE) ELBOW UP ——ю CA——CA——— COMPRESSED AIR (CA) ELBOW DOWN CONNECTION POINT OF NEW WORK TO EXISTING ———MA——— MEDICAL AIR (MA) ────── TEE UP ———MV——— MEDICAL VACUUM (VE) DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER ELBOW UP WITH SHUT-OFF VALVE (SOV) ----IA------ INSTRUMENT AIR (IA) SECTION CUT DESIGNATION ELBOW DOWN WITH SHUT-OFF VALVE (SOV) ----IV----- INSTRUMENT VACUUM (IV) ABBREVIATIONS ──────Ō───── TEE UP WITH SHUT-OFF VALVE (SOV) N2—N2—NITROGEN (N2) TEE DOWN WITH SHUT OFF VALVE (SOV) ADA AMERICANS WITH MINIMUM N2O NITROUS OXIDE (N20) NORMALLY CLOSED DISABILITIES ACT WATER HAMMER ARRESTER (WHA) WITH PDI SIZES, N/O ABOVE FINISHED FLOOR NORMALLY OPEN O2—OXYGEN (O2) (A, B, C, D, & E) NIC ABOVE FINISHED GRADE NOT IN CONTRACT OVERFLOW ROOF DRAIN AIR HANDLING UNIT RECIRCULATION PUMP EVAC/WAGD (EV) PDI ACCESS PANEL PLUMBING DRAINAGE BUILDING AUTOMATION INSTITUTE SYSTEM PRV BELOW FINISHED FLOOR PRESSURE REDUCING BELOW FINISHED GRADE PVC POLYVINYL CHLORIDE BOTTOM OF PIPE **───** TRAP PRIMER ———VE——— MEDICAL VACUUM EXHAUST (VE) RCP BOTTOM OF STRUCTURE REINFORCED CONCRETE BTU BRITISH THERMAL UNIT TRAP PRIMER WITH DISTRIBUTION UNIT ———DA——— DENTAL AIR (DA) ROOF DRAIN CONDENSATE PUMP RPM REVOLUTIONS PER CPVC CHLORINATED POLYVINYL ———DV——— DENTAL VACUUM (DV) CHLORIDE ROOFTOP UNIT FILTERED WATER (FW1) DUCTILE IRON SQUARE FEET DOWN FW2—FW2—FILTERED WATER W/ SCALE INHIBITOR (FW2) SS DRAINAGE FIXTURE UNIT STAINLESS STEEL SANITARY SEWER, SOIL DOWNSPOUT ——DA—— REVERSE OSMOSIS (RO) EXISTING TDH TOTAL DYNAMIC HEAD ENERGY MANAGEMENT ROR—ROR—REVERSE OSMOSIS REMINERALIZATION (ROR) TFA TO FLOOR ABOVE SYSTEM EXISTING TO REMAIN TFB TO FLOOR BELOW LINETYPE LEGEND TYP ELECTRIC WATER COOLER TYPICAL EWC FLOOR DRAIN UNDERWRITERS THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN FROM FLOOR ABOVE LABORATORIES, INC. COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS UNO FROM FLOOR BELOW UNLESS NOTED OTHERWISE EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK FINISHED FLOOR AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. UNINTERRUPTIBLE FLOW LINE THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE POWER SUPPLY FULL LOAD AMPS VITRIFIED CLAY PIPE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT FLOOR VFD VARIABLE FREQUENCY INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING GPM GALLONS PER MINUTE HEAD, HUB DRAIN WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR HERTZ VENT STACK RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION VTR VENT THROUGH ROOF DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD INVERT ELEVATION IN WC INCHES OF WATER COLUMN W/ WITH ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, W/O WITHOUT JUNCTION BOX J-BOX JUNCTION BOX WC WATER COLUMN KILOWATT WS WASTE STACK WSFU WATER SUPPLY FIXTURE MAKE-UP AIR UNIT EXISTING -NEW MAX MAXIMUM WVS WASTE VENT STACK 1000 BTU PER HOUR MBH DEMOLISH — — — — FUTURE -MANHOLE

GENERAL NOTES:

- 1. PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE ARCHITECT REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS, REFER TO SPECIFICATIONS.
- 2. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- 3. PROVIDE TO THE ARCHITECT A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS, REFER TO SPECIFICATIONS.
- 4. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND ALSO MEET ALL REQUIREMENTS OF THE LANDLORD. OBTAIN A COPY OF THE LANDLORD'S REQUIREMENTS AND REVIEW PRIOR TO SUBMITTING BID.
- 5. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
- 6. VERIFY LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PIPING INSTALLATION.
- 7. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
- 8. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
- 9. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE.
- 10. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
- 11. INSTALL EXPOSED PIPING, WHERE NECESSARY, IN FINISHED AREAS TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. INSTALL PIPING PARALLEL AND / OR PERPENDICULAR TO WALLS.
- 12. INSTALL VALVES AND APPURTENANCES A MAXIMUM OF 24" ABOVE CEILING IN ACCESSIBLE LOCATION WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES. PROVIDE PIPE AND FITTINGS TO INSTALL VALVES AND APPURTENANCES AT REQUIRED HEIGHT AND WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES.
- 13. INSTALL NO PLASTIC PIPE OF ANY KIND ABOVE SLAB INSIDE OR UNDER THE BUILDING. INSTALL NO PLASTIC PIPE IN THE CEILING RETURN AIR PLENUM.
- 14. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 15. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
- 16. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
- 17. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL
- 18. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.
- 19. PAINT ALL EXPOSED WATER PIPING USING RUST INHIBITOR PAINT, PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.
- 20. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
- 21. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.
- PIPING 3" AND LARGER. SEE DIVISION 22 SPECIFICATION SECTION "SANITARY DRAINAGE AND VENT AND PIPING SPECIALTIES" FOR MORE INFORMATION.

22. PROVIDE "HEAVY-DUTY" NO-HUB COUPLINGS ON SANITARY

- 23. PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON SANITARY, WASTE AND VENT PIPE AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATION SECTION "SANITARY DRAINAGE AND VENT PIPING AND SPECIALTIES" FOR MORE INFORMATION.
- 24. FLOW CONTROL VALVES SHALL BE SIZE 1/2" AND SET AT 0.5 GPM UNLESS NOTED OTHERWISE.
- 25. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.
- 26. PROVIDE VERTICAL LIFT SPRING LOADED CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
- 27. PROVIDE WALL PIPES AT PIPING PENETRATIONS OF ELEVATED WATERPROOF FLOOR SLABS, REFER TO SPECIFICATIONS.
- 28. VERIFY EXISTING EQUIPMENT, INCLUDING ACCESSORIES, IS NOT DAMAGED AND IS IN GOOD WORKING ORDER. REPORT ANY DEFICIENCIES TO THE ARCHITECT.
- 29. PROVIDE SIZE AND LENGTH OF HOT WATER FIXTURE SUPPLY PIPE FROM CIRCULATED HOT WATER BRANCH OR MAIN TO TERMINATION OF HOT WATER FIXTURE SUPPLY PIPE AT EACH FIXTURE PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE, TABLE C404.3.1. FOR ½" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL LAVATORIES, PROVIDE MAXIMUM LENGTH OF TWO FEET. FOR 1/2" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 43 FEET. FOR 3/4" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 21 FEET.

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Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

Lee's Summit, MO 64082

architect: Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue

civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215

Kansas City, MO 64111

816.531.4144

913.485.0318

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

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MO. CORPORATE NO: E-556D

EXPIRES 12/31/2020

REVISIONS DESCRIPTION

RELEASE FOR CONSTRUCTION **AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI

02/09/2021

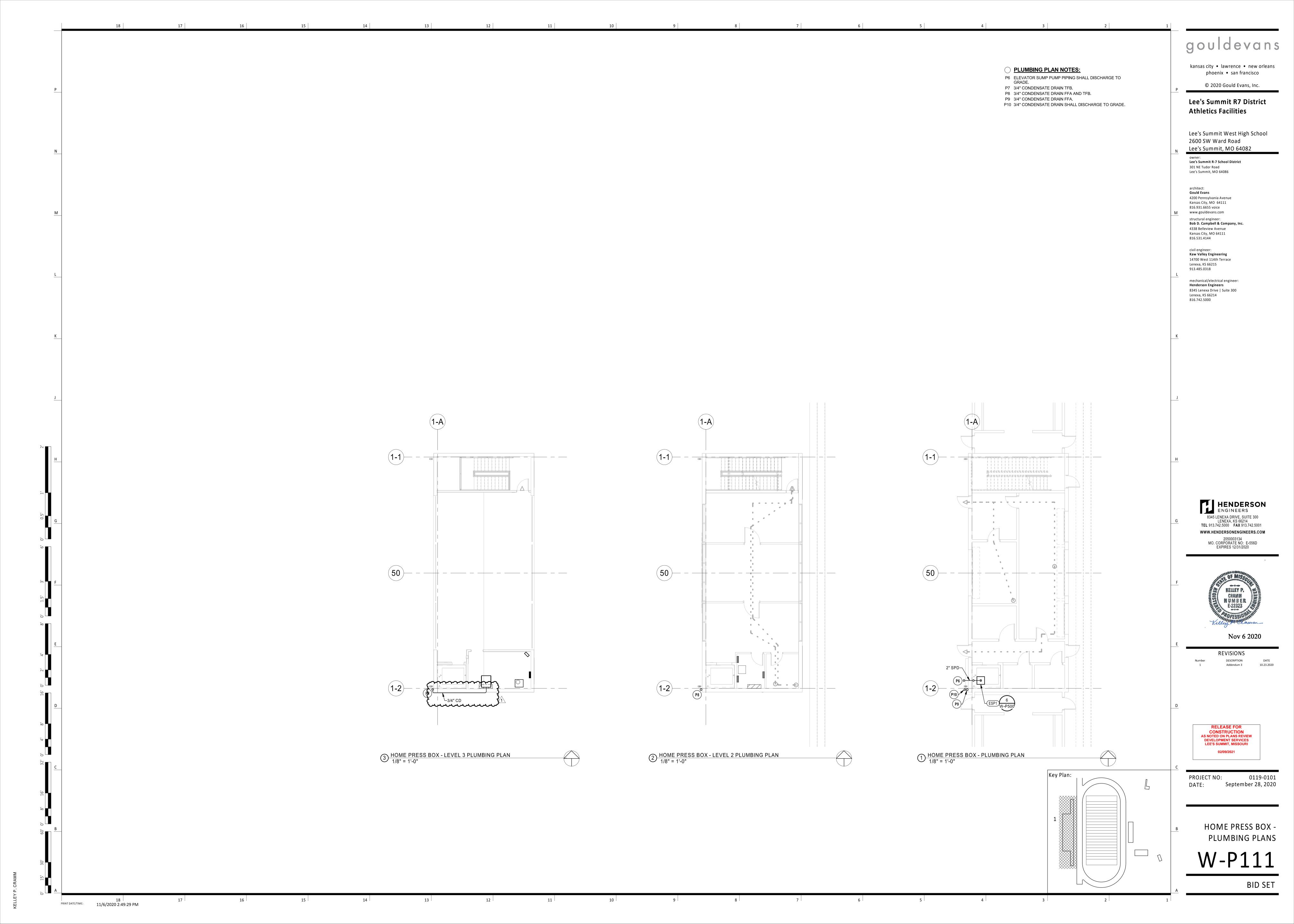
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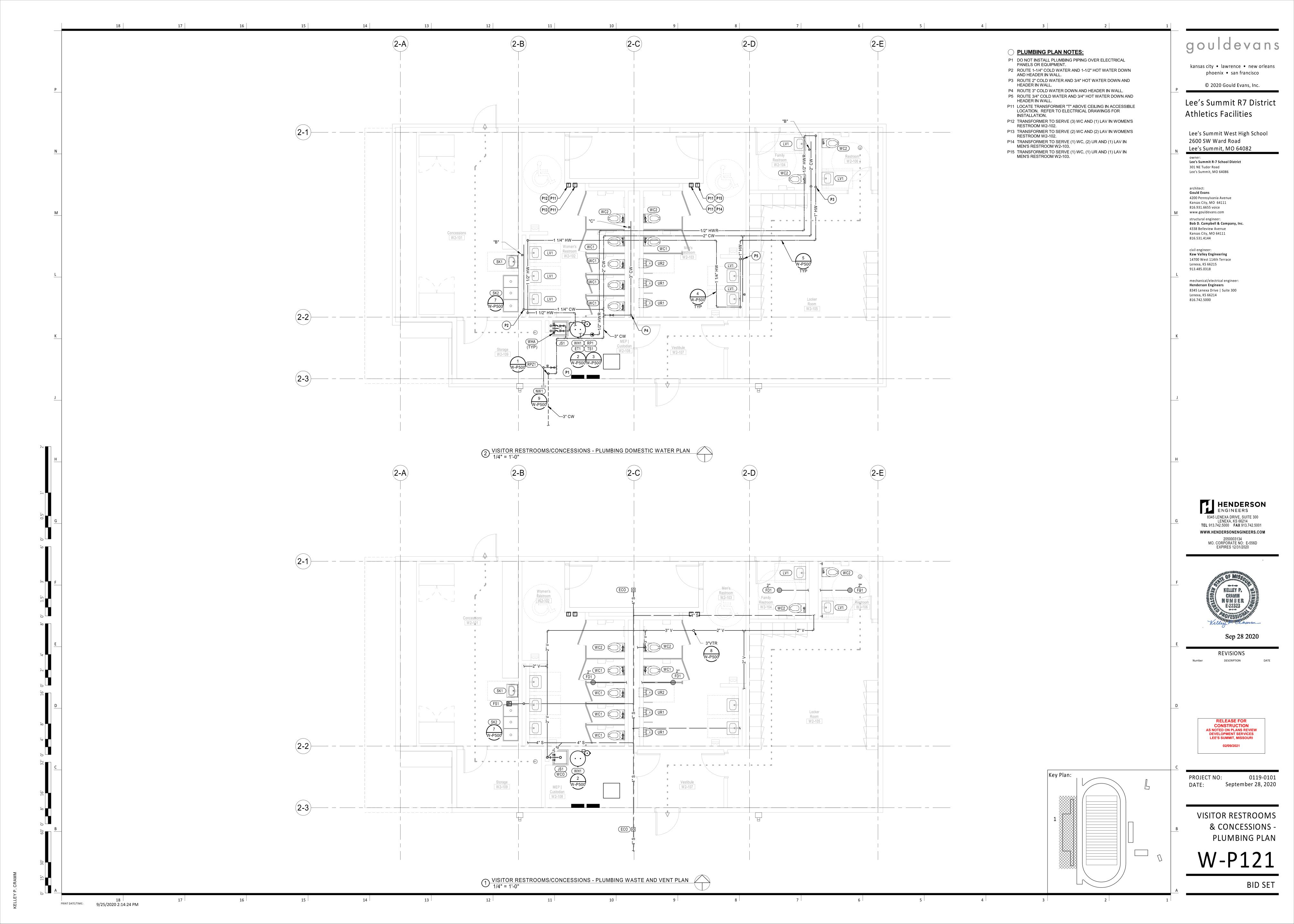
September 28, 2020

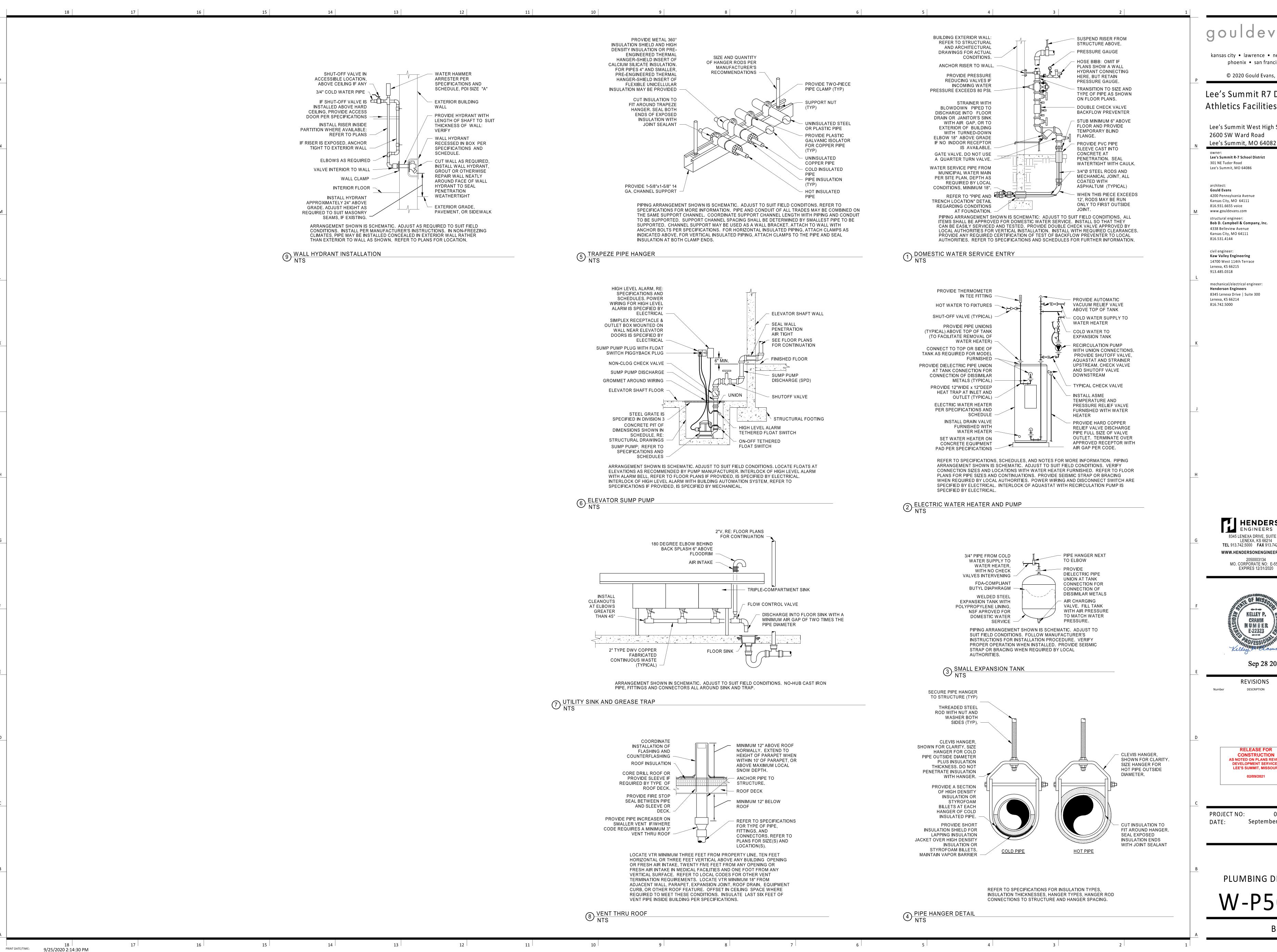
PLUMBING LEGEND AND NOTES

BID SET

PRINT DATE/TIME: 9/25/2020 2:14:12 PM







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Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School

Lee's Summit R-7 School District 301 NE Tudor Road

4200 Pennsylvania Avenue Kansas City, MO 64111

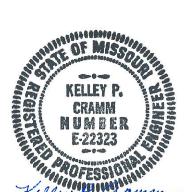
816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue Kansas City, MO 64111 816.531.4144

Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214

HENDERSON ENGINEERS 8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214 TEL 913.742.5000 FAX 913.742.5001

WWW.HENDERSONENGINEERS.COM MO. CORPORATE NO: E-556D EXPIRES 12/31/2020



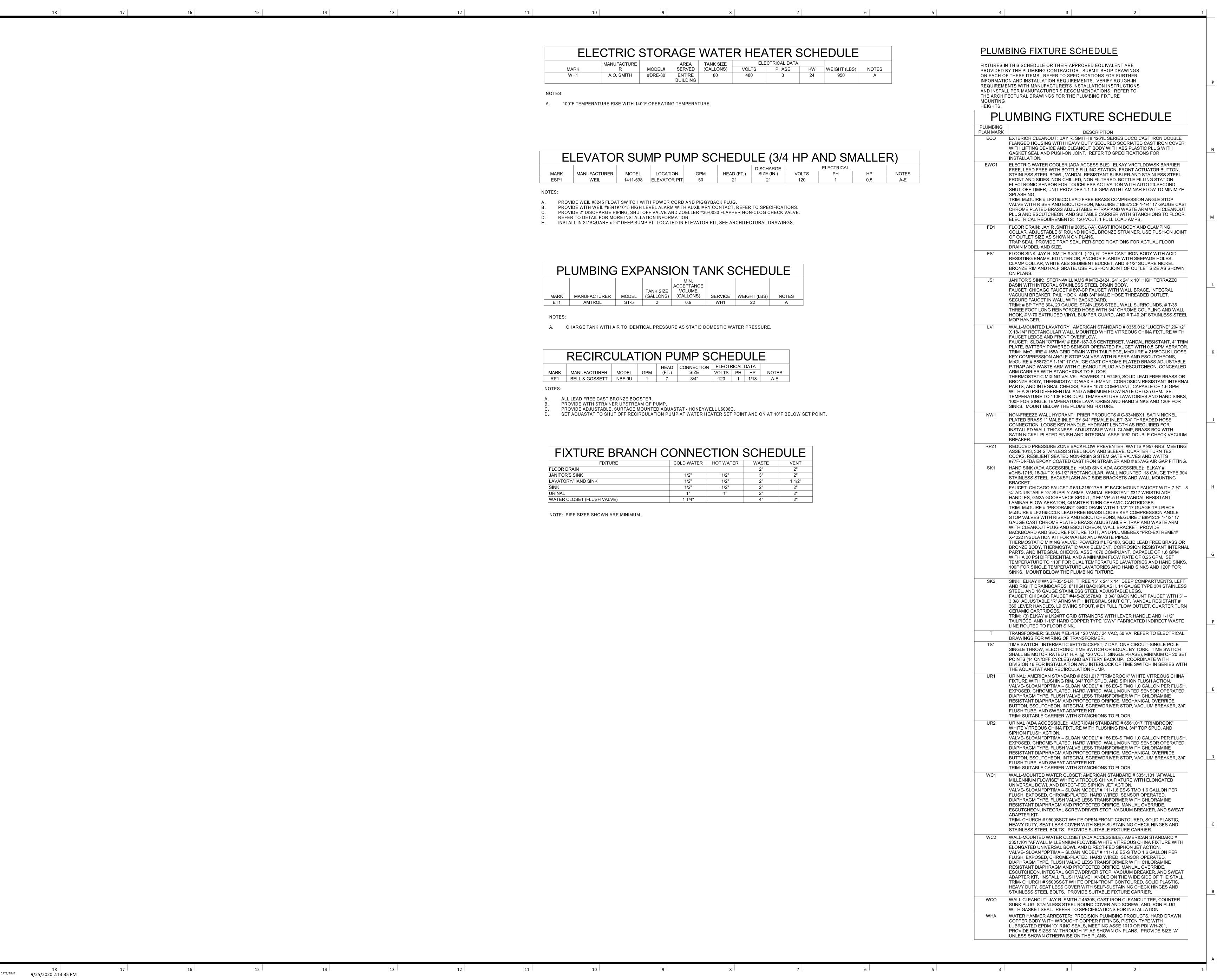
REVISIONS DESCRIPTION

RELEASE FOR CONSTRUCTION **AS NOTED ON PLANS REVIEW** LEE'S SUMMIT, MISSOURI

PROJECT NO: 0119-0101

September 28, 2020

PLUMBING DETAILS



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Lee's Summit R7 District
Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

Lee's Summit, MO 64082

architect: **Gould Evans**4200 Pennsylvania Avenue
Kansas City, MO 64111
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structural engineer:
Bob D. Campbell & Company, Inc.
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civil engineer:

Kaw Valley Engineering

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MO. CORPORATE NO: E-556D

EXPIRES 12/31/2020

Sep 28 2020

REVISIONS

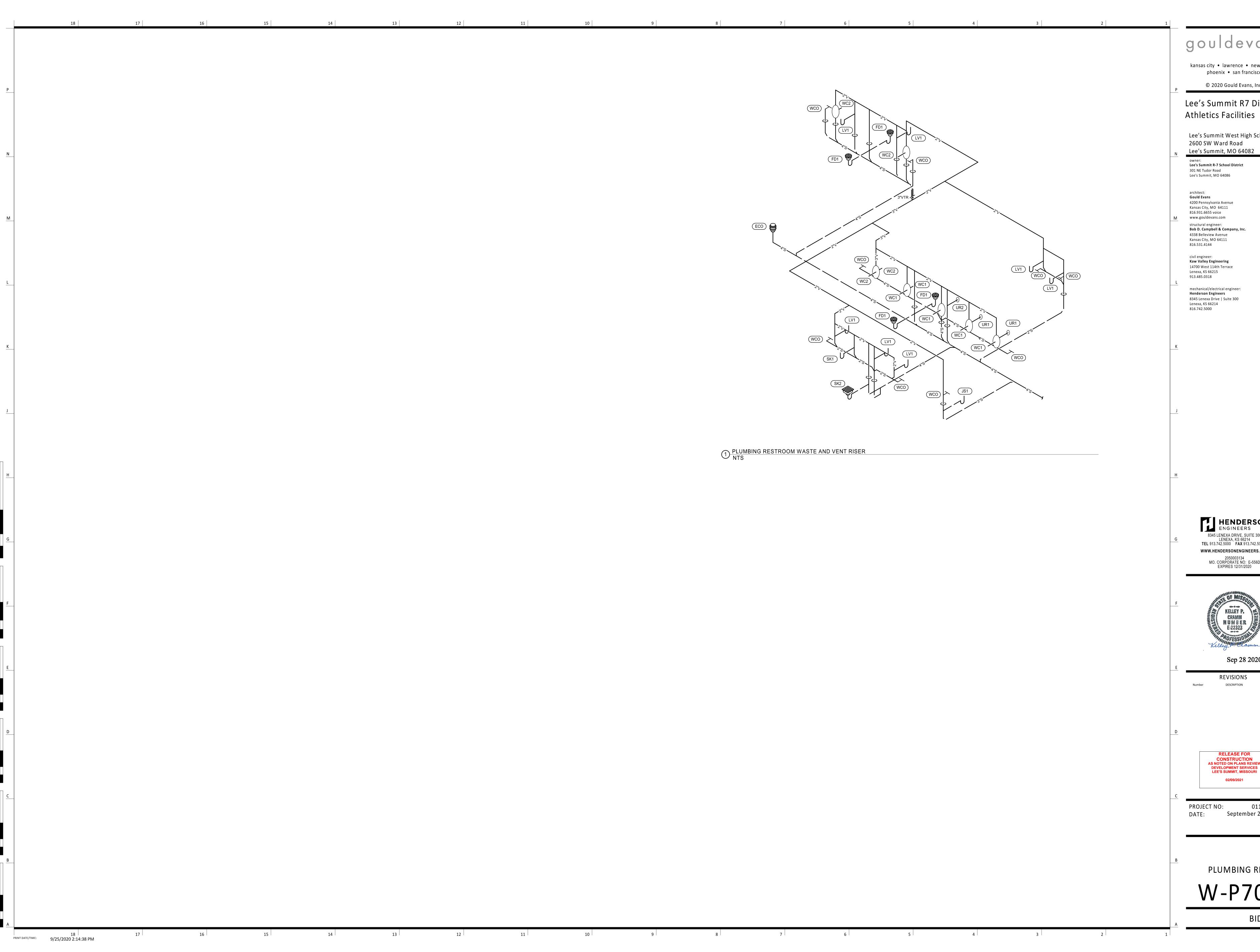
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
02/09/2021

PROJECT NO: DATE:

0119-0101 September 28, 2020

PLUMBING SCHEDULES

W-P600



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Lee's Summit R7 District

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District

4200 Pennsylvania Avenue Kansas City, MO 64111

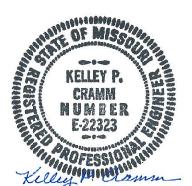
structural engineer:

Bob D. Campbell & Company, Inc.

8345 Lenexa Drive | Suite 300 Lenexa, KS 66214

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REVISIONS

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

0119-0101 September 28, 2020

PLUMBING RISERS

MECHANICAL SYMBOLS THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED V2.06 STANDARD MOUNTING HEIGHT HVAC DUCTWORK AND ACCESSORIES PIPING SYMBOLS PIPING LINETYPES _____ DIRECTION OF FLOW THERMOSTATS (USER ADJUSTABLE)(TOP OF DEVICE) ——CD—— CONDENSATE DRAIN (CD) LINEAR SLOT DIFFUSER CONTROL VALVE CONTROLS (TOP OF DEVICE) ACD——ACD—— AUXILIARY CONDENSATE DRAIN (ACD) INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG) THREE-WAY CONTROL VALVE NPW—NPW—NON-POTABLE WATER (NPW) INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE OR SHUTOFF VALVE ————G———— NATURAL GAS (G) BRANCH DUCT WITH 45° RECTANGLE-ROUND ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE AFF OR AFG TO BRANCH FITTING AND MANUAL VOLUME DAMPER BOTTOM OF DEVICE UNO. ALL DEVICES SHALL BE INSTALLED IN — G— MATURAL GAS ON ROOF (G) COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS. BALANCING VALVE WITH PRESSURE PORTS ——MPG—— MEDIUM PRESSURE NATURAL GAS (MPG) ELBOW WITH TURNING VANES ANNOTATION TRIPLE DUTY VALVE WITH PRESSURE PORTS — — MPG— — MEDIUM PRESSURE NATURAL GAS ON ROOF (MGP) MECHANICAL PLAN NOTE CALLOUT BRANCH DUCT WITH BELL-MOUTH FITTING & FOS—FUEL OIL SUPPLY (FOS) MANUAL VOLUME CONTROL DAMPER STRAINER WITH BLOWDOWN VALVE MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR ——FOR—— FUEL OIL RETURN (FOR) FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE) RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP RELIEF / SAFETY VALVE FOV—FOV—FUEL OIL VENT (FOV) SOLENOID VALVE CONNECTION POINT OF NEW WORK TO EXISTING ——LPG—— LIQUEFIED PETROLEUM GAS (LPG) RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN PRESSURE REDUCING VALVE ——BFW———BOILER FEED WATER (BFW) DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL SUPPLY AIR DUCT UP GAS PRESSURE REGULATOR ——HPS—— HIGH PRESSURE STEAM SUPPLY (HPS) NUMBER LOWER NUMBER INDICATES SHEET NUMBER THERMOSTATIC MIXING VALVE — — HPC— — HIGH PRESSURE STEAM CONDENSATE (HPC) SUPPLY AIR DUCT DOWN SECTION CUT DESIGNATION PIPE ANCHOR ——LPS——— LOW PRESSURE STEAM SUPPLY (LPS) EQUIPMENT WITH FLEXIBLE DUCT CONNECTION ABBREVIATIONS **EXPANSION JOINT** — —LPC— — LOW PRESSURE STEAM CONDENSATE (LPC) HWP HEATING WATER PUMP A/C AIR CONDITIONING PD——PD—— CONDENSATE PUMP DISCHARGE (PD) 10" (NECK SIZE) ACC AIR COOLED CHILLER IN WC INCHES OF WATER CSD-1 (TYPE) PIPING SUPPORT ACCU AIR COOLED CONDENSING ——HWS—— HEATING HOT WATER SUPPLY (HWS) COLUMN 300 CFM (CFM OF SUPPLY DIFFUSER OR REGISTER) LOUVER AFC ABOVE FINISHED CEILING LEAVING AIR -----HWR------- HEATING HOT WATER RETURN (HWR) ABOVE FINISHED FLOOR TEMPERATURE 24x24 (NECK SIZE) BUCKET TRAP LEAVING DRY BULB ——CHWS—— CHILLED WATER SUPPLY (CHWS) ABOVE FINISHED GRADE CEG-1 (TYPE) AUTHORITY HAVING LOW PRESSURE 800 CFM (CFM OF EXHAUST GRILLE) THERMOSTATIC TRAP JURISDICTION LWB LEAVING WET BULB ——CHWR—— CHILLED WATER RETURN (CHR) LWT LEAVING WATER AIR HANDLING UNIT BACKFLOW PREVENTER **TEMPERATURE** ANALOG INPUT ——HCS—— HOT / CHILLED WATER SUPPLY (HCS) MANUAL VOLUME DAMPER ANALOG OUTPUT MAU MAKE-UP AIR UNIT PRESSURE GAUGE ACCESS PANEL MAXIMUM — — HCR— — HOT / CHILLED WATER SUPPLY (HCR) AIR PRESSURE DROP MBH 1000 BTU PER HOUR SQUARE TO ROUND TRANSITION THERMOMETER MOTORIZED DAMPER AWG AMERICAN WIRE GAUGE MD ——CWS—— CONDENSER WATER SUPPLY (CWS) MFR MANUFACTURER PRESSURE AND TEMPERATURE TEST PLUG MIN BAS BUILDING AUTOMATION MINIMUM ——CWR—— CONDENSER WATER RETURN (CWR) DUCT MOUNTED SMOKE DETECTOR NOT APPLICABLE (SD=SUPPLY/RD=RETURN) BACKBONE NORMALLY CLOSED ——HPWS—— HEAT PUMP WATER SUPPLY (HPWS) NORMALLY OPEN BACKDRAFT DAMPER N/O ROUND DUCT TAG INDICATING DIAMETER FLANGE CONNECTION XX" Ø ——HPWR—— HEAT PUMP WATER RETURN (HPWR) NOM NOMINAL BLOWDOWN BELOW FINISHED CEILING NOISE CRITERIA RECTANGULAR DUCT TAG INDICATING INTERNAL VACUUM RELIEF VALVE BELOW FINISHED FLOOR NON-FUSED DUCT DIMENSIONS. BELOW FINISHED GRADE NOT IN CONTRACT BFG AUTOMATIC AIR VENT REFRIGERANT DISCHARGE (HOT GAS) (RD) BFP BOILER FEED PUMP OUTSIDE AIR FLAT OVAL DUCT TAG INDICATING INTERNAL DUCT PICV PRESSURE INDEP. BRAKE HORSEPOWER DIMENSIONS MANUAL AIR VENT CONTROL VALVE REFRIGERANT SUCTION (RS) BINARY INPUT BINARY OUTPUT PROVIDE FURNISH AND INSTALL PRESSURE / VACUUM SWITCH **BOTTOM OF DUCT** QTY QUANTITY RISER DESIGNATION BOTTOM OF STRUCTURE RETURN AIR CLEANOUT REFRIGERANT VENT (RV) BRITISH THERMAL UNIT RC ROOM CRITERIA CUBIC FEET PER MINUTE RETURN DUCT CFM FIRE DAMPER CHILLER REA RELIEF AIR RETURN FAN COOLING ELBOW UP CONDENSATE PUMP RFR REFRIGERANT ____o FIRE SMOKE DAMPER RELATIVE HUMIDITY CPT CONTROL POWER **ELBOW DOWN** ROOF HOOD TRANSFORMER CRAC COMPUTER ROOM AIR RPM REVOLUTIONS PER MINUTE SMOKE DAMPER RTU ROOFTOP UNIT CONDITIONING UNIT COMPUTER ROOM UNIT SUPPLY AIR STEAM CONDENSATE PUMP SCP COOLING TOWER VOLUME DAMPER CONTROL VALVE SMOKE DUCT DETECTOR ELBOW UP WITH SHUT-OFF VALVE (SOV) SUPPLY DUCT CONDENSER SUPPLY FAN WATER PUMP MOTORIZED DAMPER ELBOW DOWN WITH SHUT-OFF VALVE (SOV) SENSIBLE HEAT CAPACITY CONDENSING UNIT CHILLED WATER PUMP SOW SCOPE OF WORK TEE UP WITH SHUT-OFF VALVE (SOV) STATIC PRESSURE DECIBELS BACKDRAFT DAMPER DECIBEL AVERAGE STEAM TRAP TEE DOWN WITH SHUT-OFF VALVE (SOV) STM DDC DIRECT DIGITAL CONTROL STEAM DIGITAL INPUT TO BE DETERMINED ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. DISC TEMPERATURE CONTROLS DISCONNECT ____D REFER TO DUCTWORK SPECIFICATIONS FOR DUCTWORK INSULATION AND CONTRACTOR DOWN RECIRCULATION PUMP LINER INFORMATION. TCP DS DUCT SILENCER TEMPERATURE CONTROL DIRECT EXPANSION PANEL P-TRAP HVAC CONTROL DEVICES TRANSFER FAN EXISTING TFA TO FLOOR ABOVE EXHAUST AIR (H)HUMIDISTAT GAS COCK TFB EAT ENTERING TO FLOOR BELOW AIR TEMPERATURE TOTAL HEAT CAPACITY T THERMOSTAT TOP BEAM CLAMP EXHAUST DUCT TOTAL STATIC PRESSURE EDB ENTERING DRY BULB TEMPERATURE TRAPEZE HANGER STATIC PRESSURE SENSOR EXHAUST FAN TRANSMITTAL LINETYPE LEGEND EFF EFFICIENCY TYPICAL TS TEMPERATURE SENSOR _______ FLEXIBLE CONNECTION U/F EMS ENERGY MANAGEMENT UNDERFLOOR UNDERGROUND THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN CARBON MONOXIDE SENSOR ESP COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXTERNAL STATIC UNDERSLAB UNIT HEATER EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK UH PRESSURE CO2 CARBON DIOXIDE SENSOR EXISTING TO REMAIN UNO UNLESS NOTED OTHERWISE AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. ENTERING WET BULB VAVVARIABLE AIR VOLUME THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE DIFFERENTIAL PRESSURE SENSOR EWT ENTERING WATER VEL VELOCITY VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT TEMPERATURE VFD VARIABLE FREQUENCY INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING. FLOW SWITCH FCU WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR FAN COIL UNIT FROM FLOOR ABOVE VRF VARIABLE REFRIGERANT RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION **HUMIDITY SENSOR** DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD FROM FLOOR BELOW FINISHED FLOOR VRV VARIABLE REFRIGERANT ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING PS PULL STATION FINS PER INCH LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE VOLUME FEET PER MINUTE FPM WITH REMOTE TESTING STATION WITH INDICATING LIGHT GENERAL CONTRACTOR W/O WITHOUT GALLONS PER MINUTE WB WET BULB GPM SP STATIC PRESSURE HOA HAND-OFF-AUTOMATIC WC WATER COLUMN EXISTING NEW WATER PRESSURE DROP HORSEPOWER TEMPERATURE SENSOR HTG HEATING EXPLOSION PROOF DEMOLISH — — — — FUTURE

GENERAL NEW NOTES:

- 1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- 2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- 3. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- 4. WHERE SHUTDOWN OF EXISTING SYSTEMS IS REQUIRED DURING NEW WORK, COORDINATE SHUTDOWN TIME AND DURATION WITH THE OWNER TO MINIMIZE DOWNTIME. NOTIFY OWNER SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.
- 5. DURING INSTALLATION OF NEW WORK, AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST
- 6. PROVIDE TEMPORARY BARRIERS TO CONTAIN DUST AND DEBRIS RESULTING FROM THE PERFORMANCE OF THE WORK TO THE AREA WHERE WORK IS BEING PERFORMED.
- 7. ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY DIVISION 23 UNLESS OTHERWISE NOTED.
- 8. NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
- 9. REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
- 10. INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS BECOME WET AT ANY TIME DURING CONSTRUCTION, DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER. THE INTERNAL SURFACES AND ASSOCIATED COILS OF ANY HVAC UNITS THAT WERE OPERATED SHALL ALSO BE CLEANED.
- 11. INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- 12 OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- 13. COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
- 14. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS
- 15. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
- 16. ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
- 17. PAINT PORTIONS OF DUCTWORK AND INSULATION THAT ARE EXPOSED TO VIEW BY THE INSTALLATION OF DIFFUSERS, REGISTERS. AND GRILLES IN CEILINGS OR WALLS FLAT BLACK. PORTIONS INCLUDE BOTH THE INTERIOR OF UNLINED DUCTWORK AND THE EXTERIOR OF DUCTWORK AND
- 18. DUCTWORK CROSSING FIRE RATED WALLS OR OTHER FIRE RATED ASSEMBLIES SHALL BE MINIMUM 26 GAUGE SHEET
- 19. LOCATE AND SET THERMOSTATS AND HUMIDISTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE
- 20. COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.
- 21. PROVIDE A MANUAL BALANCING DAMPER IN EACH DUCT TAKEOFF FROM SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.

- 22. PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY. RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES. PROVIDE WITH INTEGRAL MANUAL BALANCING DAMPER AND LOCKING
- QUADRANT WHERE INDICATED ON PLANS. 23. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS

OUTLET NECK SIZE UNLESS OTHERWISE NOTED.

- 24. REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER.
- 25. RIGIDLY SUSPEND UNIT HEATER FROM STRUCTURE WITH SUPPORTING ANGLES AND ALL-THREAD HANGING RODS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 26. PROVIDE WALL MOUNTED LOUVERS AND DAMPERS WITH SUITABLE MOUNTING FRAME TO MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 27. PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
- 28. FIELD VERIFY THAT THE EXISTING EQUIPMENT INCLUDING ACCESSORIES BEING REUSED FOR THIS PROJECT IS NOT DAMAGED AND IS IN GOOD WORKING ORDER. REPORT ANY DEFICIENCIES TO THE OWNER OR ARCHITECT. SUBMIT TO THE OWNER AND ARCHITECT A WRITTEN REPORT DESCRIBING TESTS PERFORMED TO VERIFY OPERATION AND RESULTS OF
- 29. CLEAN EXISTING EQUIPMENT AND EQUIPMENT COMPONENTS BEING REUSED FOR THIS PROJECT. PROVIDE NEW FILTERS FOR EXISTING AIR HANDLING EQUIPMENT PRIOR TO STARTUF OF EQUIPMENT. NEW FILTERS SHALL BE COMPATIBLE WITH THE EXISTING EQUIPMENT AND EQUAL IN PERFORMANCE TO THE EXISTING FILTERS AT NEW CONDITION UNLESS OTHERWISE NOTED. CLEAN STRAINERS IN PIPING SYSTEMS PRIOR TO STARTING PUMPS.
- 30. CLEAN THE EXTERIOR OF EXISTING COILS TO BE REUSED FOR THIS PROJECT. VACUUM BRUSH THE COIL IN THE DIRECTION OF THE FINS AND CLEAN THE COILS WITH COIL CLEANING FLUID. COMB ANY FINS BENT TO PROVIDE A STRAIGHT

SURFACE FOR AIRFLOW.

31. LUBRICATE EXISTING EQUIPMENT BEING REUSED FOR THIS PROJECT IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. OBTAIN INSTRUCTIONS FROM MANUFACTURER IF THEY ARE NOT AVAILABLE AT THE SITE.

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Lee's Summit R7 District

Athletics Facilities

Lee's Summit West High School

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Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc 4338 Belleview Avenue Kansas City, MO 64111

architect:

civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

816.531.4144

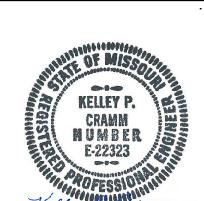
mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

> HENDERSON ENGINEERS 8345 LENEXA DRIVE, SUITE 300 **TEL** 913.742.5000 **FAX** 913.742.5001

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MO. CORPORATE NO: E-556D

EXPIRES 12/31/2020



REVISIONS DESCRIPTION

RELEASE FOR CONSTRUCTION **AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI

PROJECT NO:

September 28, 2020

MECHANICAL LEGEND AND NOTES

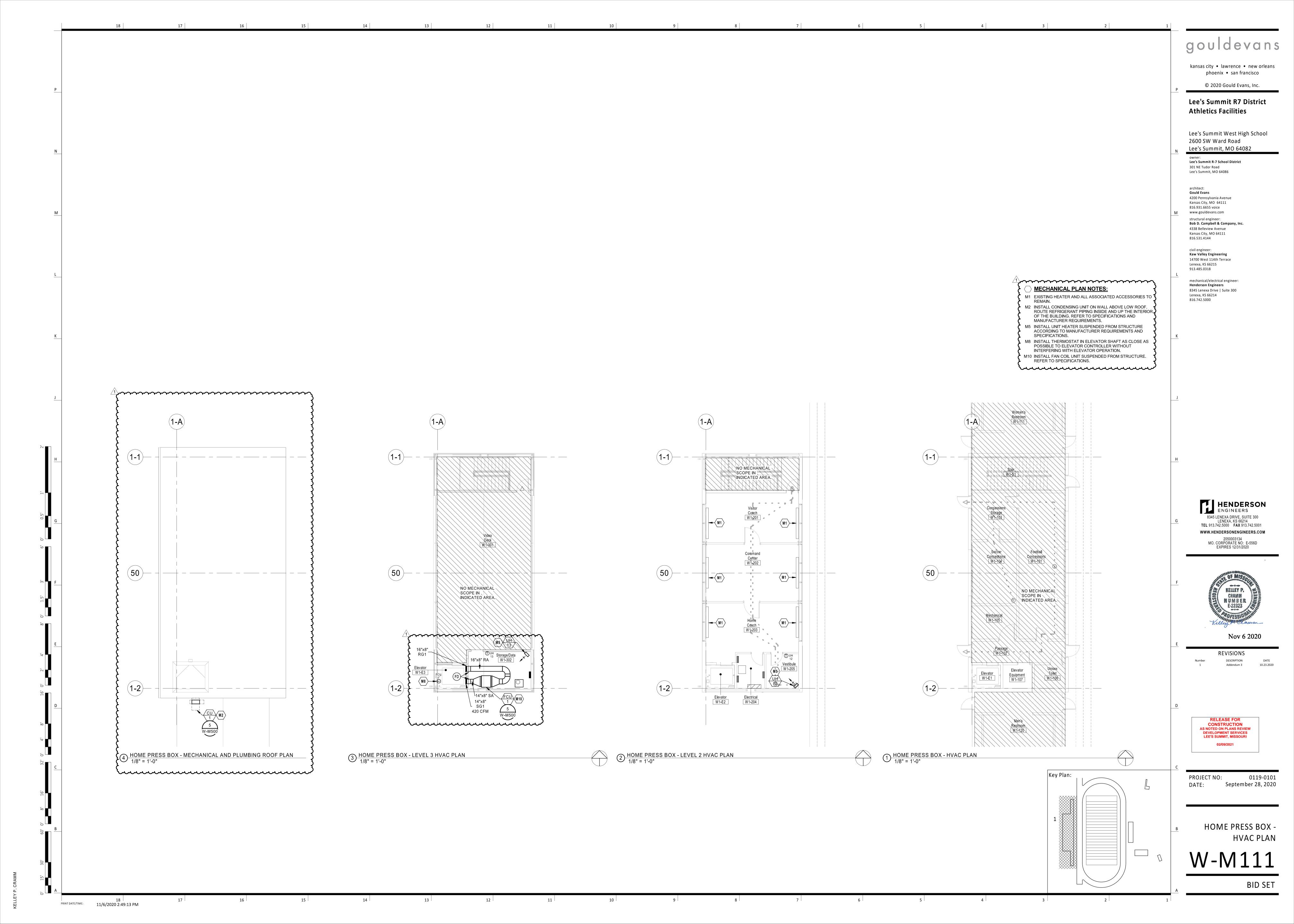
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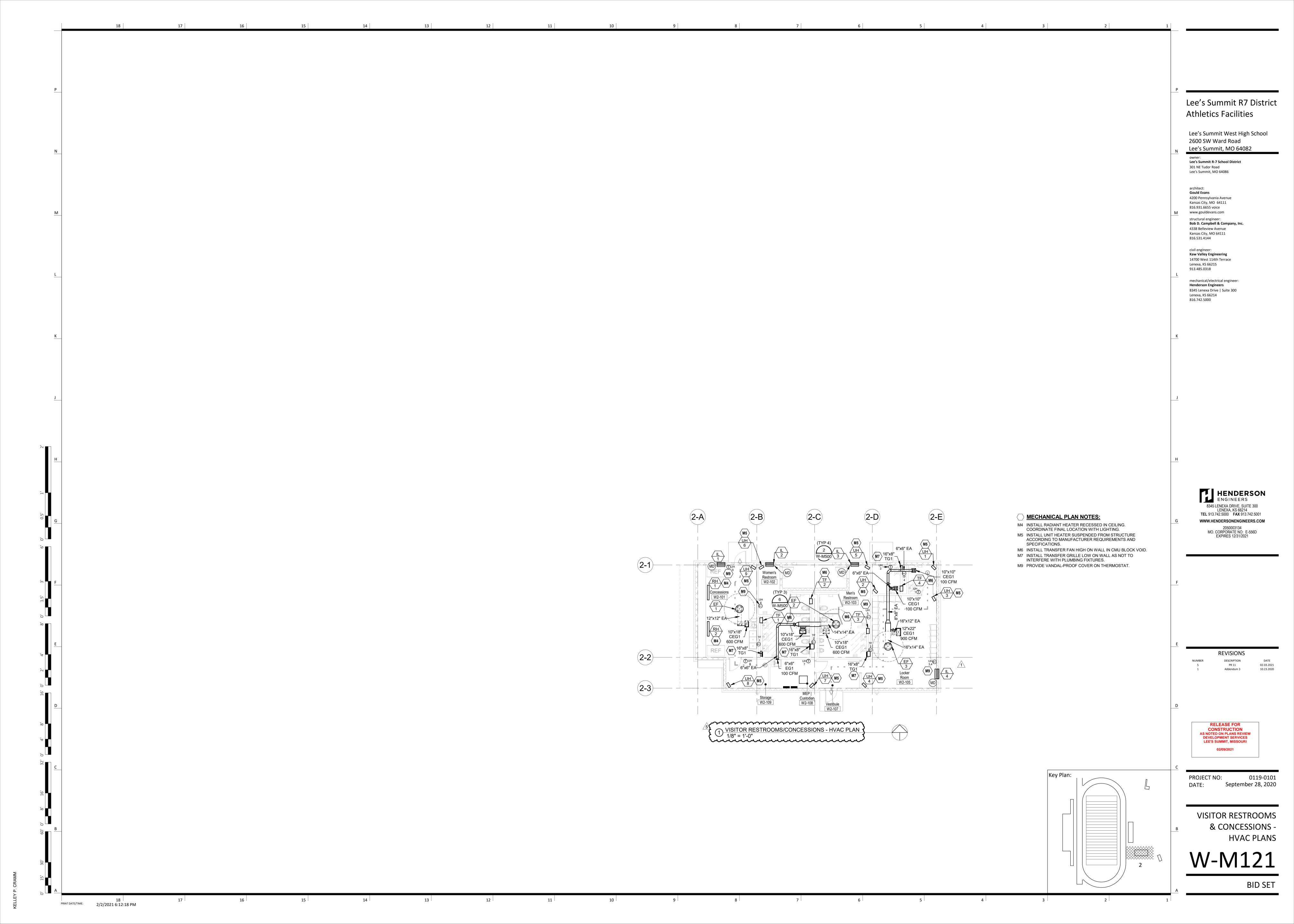
Sheet List - Mechanical Sheet Name

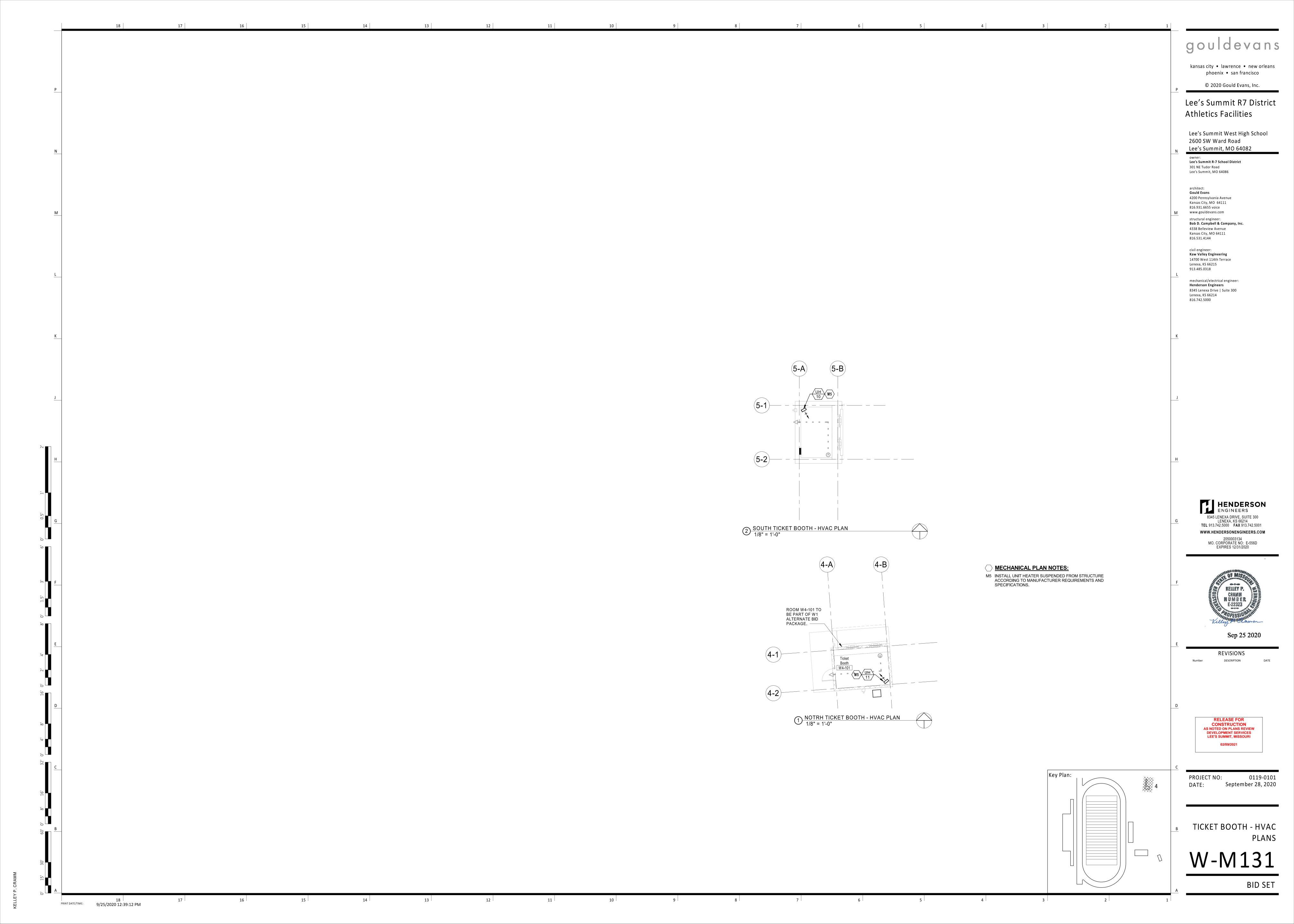
Sheet Number MECHANICAL LEGEND AND NOTES HOME PRESS BOX - HVAC PLAN W-M111 W-M121 VISITOR RESTROOMS & CONCESSIONS - HVAC PLANS TICKET BOOTH - HVAC PLANS W-M131 W-M500 MECHANICAL DETAILS W-M600 MECHANICAL SCHEDULES & CONTROLS

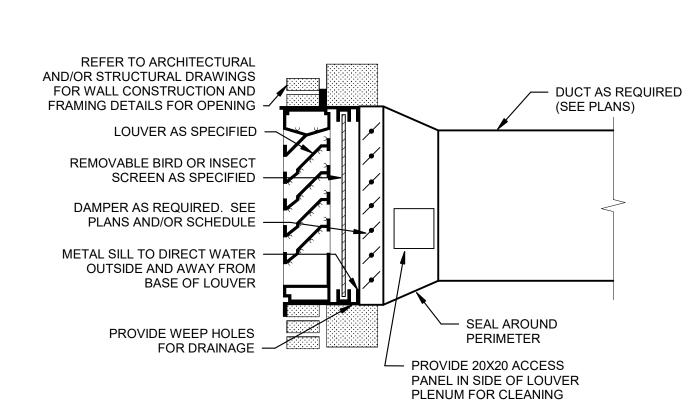
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NOTES:

1. SEAL ALL JOINTS AND SEAMS OF PLENUM AND DUCT TO PROVIDE WATER TIGHT CONSTRUCTION.
PROVIDE INSULATION FOR PLENUM AND DUCT PER SPECIFICATIONS.

1) EXHAUST LOUVER INSTALLATION DETAIL

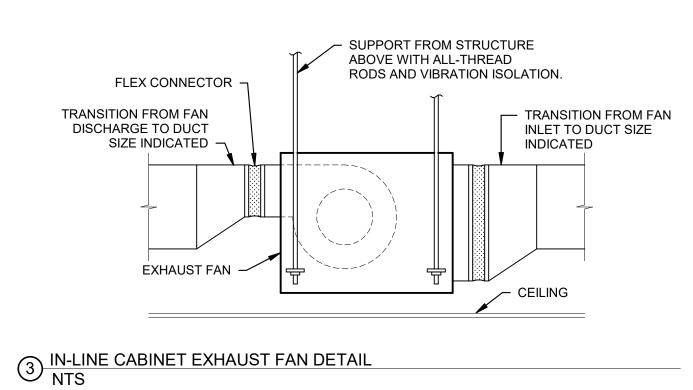
REFER TO ARCHITECTURAL DUCT AS REQUIRED AND/OR STRUCTURAL DRAWINGS (SEE PLANS) FOR WALL CONSTRUCTION AND FRAMING DETAILS FOR OPENING PROVIDE WIRE MESH REMOVABLE BIRD OR INSECT COVERING INSIDE OF SCREEN AS SPECIFIED — DAMPER AS REQUIRED. SEE PLANS AND/OR SCHEDULE -METAL SILL TO DIRECT WATER -OUTSIDE AND AWAY FROM BASE OF LOUVER PROVIDE WEEP HOLES SEAL AROUND FOR DRAINAGE PERIMETER

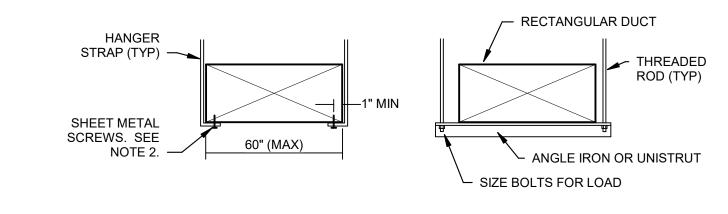
NOTES:

1. SEAL ALL JOINTS AND SEAMS OF PLENUM AND DUCT TO PROVIDE WATER TIGHT CONSTRUCTION. PROVIDE INSULATION FOR PLENUM AND DUCT PER SPECIFICATIONS.

[Online]

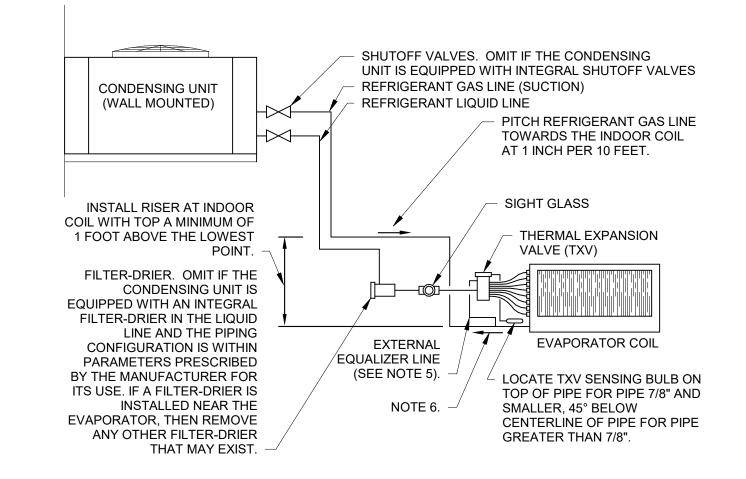
[INTAKE LOUVER INSTALLATION DETAIL]





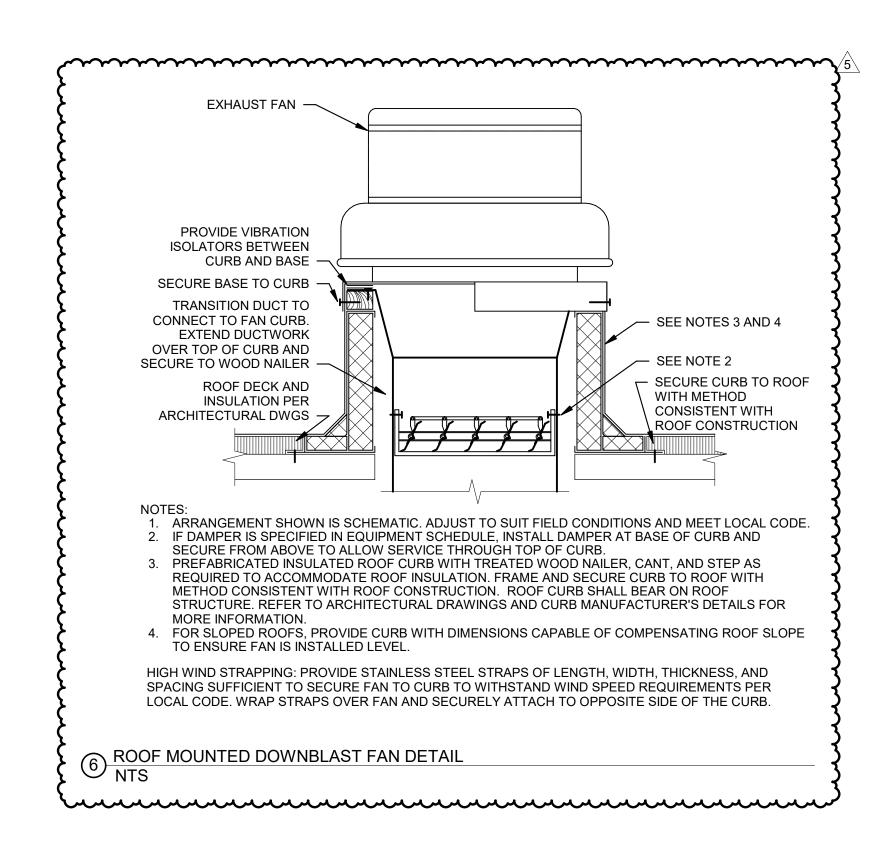
NOTES:
1. USE THREADED ROD FOR RECTANGULAR DUCTS LARGER THAN 60" WIDE.
2. OMIT SHEET METAL SCREWS IF HANGER STRAP IS CONTINUOUS AND LOOPS UNDER ENTIRE RECTANGULAR DUCT.
3. HANGERS MUST NOT DEFORM DUCT SHAPE.

4 DUCT HANGER LOWER ATTACHMENT DETAILS NTS



NOTES:
 INSTALL REFRIGERANT PIPING AND COMPONENTS IN STRICT CONFORMANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS, WHICH SHALL TAKE PRECEDENT OVER INFORMATION PRESENTED IN THIS DETAIL.
 ALL COMPONENTS INSTALLED SHALL BE THE EXACT MODEL RECOMMENDED BY THE MANUFACTURER.
 CONSULT THE MANUFACTURER REGARDING THE NEED TO INSTALL A SOLENOID VALVE IN THE LIQUID LINE BETWEEN THE FILTER-DRIER AND SITE GLASS.
 INSTALL REFRIGERATION PIPE SIZES RECOMMENDED BY THE MANUFACTURER AND CONSULT THE MANUFACTURER REGARDING THE NEED FOR INTERMEDIATE TRAPS BASED ON THE RECOMMENDED PIPE SIZES AND PIPING CONFIGURATION.
 INSTALL THERMAL EXPANSION VALVE WITH BALANCED PORT CONSTRUCTION AND EXTERNAL EQUALIZER LINES FOR ALL EVAPORATOR COILS EQUIPPED WITH A REFRIGERANT DISTRIBUTOR.
 PITCH REFRIGERANT GAS LINE AWAY FROM INDOOR COIL AT 1 INCH PER 10 FEET.
 FILTER- DRIER MAY BE OMITTED IF NOT REQUIRED BY MANUFACTURER AND SYSTEM IS LESS THAN 5 TONS.

5 SPLIT SYSTEM PIPING DETAIL NTS



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EXPIRES 12/31/2021

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civil engineer:

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Lenexa, KS 66214

816.742.5000

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Lee's Summit, MO 64082

REVISIONS

NUMBER DESCRIPTION
5 PR 11

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

PROJECT NO:

September 28, 2020

02.03.2021 10.23.2020

MECHANICAL DETAILS

W-M500

BID SET

LEY P. CRAMM

PRINT DATE/TIME: 2/2/2021 6:12:21 PM

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- PROVIDE RUBBER IN SHEAR ISOLATION AND ALL-THREAD HANGING RODS. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
- PROVIDE WITH MANUFACTURER'S FAN SPEED CONTROLLER FOR BALANCING PURPOSES.
- PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR. PROVIDE WITH WALL MOUNTED TEMPERATURE SENSOR.

				LOUV	ER SC	CHEDU	LE				
MARK	AREA SERVED	SERVICE	MANUFACTURER	MODEL	WIDTH (IN)	LENGTH (IN)	CFM	MIN FREE AREA (SF)	MAX VEL (FPM)	MAX APD (IN W.C.)	NOTES
IL 1	CONCESSIONS	EXHAUST	GREENHECK	ESD-635	24"	24"	600 CFM	1.19	500 FPM	0.01 in-wg	A,B,C,E,F
IL 2	WOMENS RESTROOM	EXHAUST	GREENHECK	ESD-635	24"	24"	600 CFM	1.19	500 FPM	0.01 in-wg	A,B,C,E,F
IL 3	MENS RESTROOM	EXHAUST	GREENHECK	ESD-635	24"	24"	600 CFM	1.19	500 FPM	0.01 in-wg	A,B,C,E,F
IL 4	LOCKER ROOM	EXHAUST	GREENHECK	ESD-635	24"	30"	900 CFM	1.81	500 FPM	0.01 in-wg	A,B,C,E,F

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THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- PROVIDE 1/2" MESH ALUMINUM BIRD SCREEN.
- PROVIDE ANNODIZED FINISH WITH COLOR SELECTED BY ARCHITECT. FRAME TYPE SHALL MATCH WALL CONSTRUCTION, COORDINATE WITH ARCHITECT.
- PROVIDE WITH INTEGRAL BACKDRAFT DAMPER.

PROVIDE WITH INTEGRAL 24 V MOTOR OPERATED DAMPER. INTERLOCK MOTOR-OPERATED DAMPER WITH EXHAUST FAN.

		G	RILLE	, REGI	STER	AND DIFF	USER S	SCHEDU	LE		
MADIZ	MANUEACTURER	SEDVICE	MODEL	CONSTRUCTION TYPE	FACE TYPE	MOLINTING LOCATION	PODDED TYPE	EACE SIZE (INI)		MAX PRESS DROP (IN W.C.)	
MARK CEG1	MANUFACTURER PRICE	SERVICE EXHAUST	MODEL 630	ALUMINIUM	LOUVERED	MOUNTING LOCATION CEILING	BORDER TYPE SURFACE	FACE SIZE (IN) REFER TO PLANS	MAX NC	0.08	NOTES A,B,C,D
EG1	PRICE	EXHAUST	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,B,C,D
RG1	PRICE	RETURN	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.05	A,C,D
SG1	PRICE	SUPPLY	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,C,D
TG1	PRICE	TRANSFER	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,B,C,D

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

- NECK SIZE SHOWN ON DRAWINGS. PROVIDE BRANCH DUCT TO MATCH NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.
- FRONT BLADES PARALLEL TO LONG DIMENSION. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING/WALL PLAN.

		SI	PLI	T S	YS	STE	M	FAN	1 C	OIL	UNI	TSC	HE	DU	LE	(HE	AT P	JMI	P)		
			SUF	PPLY FA	AN		CC	OOLING C	OIL		HEAT	PUMP HEA	ATING CO	OIL			ELECTRICAL				
				ESP	NOM	TH	SH	EA	T	REFR	MIN OUT	AMBIENT	EAT	HTG				STA	ARTER	WEIGHT	
MARK	MANUFACTURER	MODEL	CFM	(IN)	HP	(MBH)	(MBH)	(°F DB) ((°F WB)	TYPE	(MBH)	(DB)	(°F DB)	LAT	V/PH	MCA M	OCP DISC TY	PE T	TYPE	(LBS)	NOTES
FCU 1	MITSUBISHI	PEAD-A12/PUZ-A12	420	0.20	0.01	12.0	10.0	80.0	67.0	R-410A	10.5	5 °F	55 °F	85 °F	208/1	11	28 NON-FUS	SED INT	EGRAL	58	A-L

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

- EQUIPMENT COMPONENTS SHALL BE BY THE SAME MANUFACTURER.
- FOR COOLING, EQUIPMENT SIZED FOR 100° F AMBIENT TEMPERATURE. HEAT PUMP HEATING CAPACITY BASED ON AMBIENT TEMPERATURE LISTED.
- PROVIDE 2" PLEATED THROWAWAY AIR FILTERS. PROVIDE FACTORY MOUNTED STARTER AND DISCONNECT SWITCH.
- PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH STAGED HEATING AND COOLING CAPABILITY AS REQUIRED FOR OPERATION OF HEATING, COOLING CONTROLS. SUSPEND FAN COIL UNIT FROM STRUCTURE IN HORIZONTAL POSITION WITH ALL -THREAD ROD AND SPRING VIBRATION ISOLATION (2" MINIMUM DEFLECTION).
- PROVIDE WALL MOUNTING BRACKET FOR CONDENSING UNIT. ROUTE CONDENSATE DRAIN PIPING FROM UNIT TO NEAREST FLOOR DRAIN AND TERMINATE WITH CODE-APPROVED AIR GAP.
- PROVIDE AUXILIARY DRAIN PAN WITH [FLOOD DETECTOR SWITCH TO SHUT OFF UNIT WHEN WATER IS PRESENT IN DRAIN PAN.] [AUXILIARY DRAIN PROVIDED BY PLUMBING CONTRACTOR.]
- PROVIDE CUSTOM COLOR FINISH ON CONDENSING UNIT. COORDINATE COLOR WITH ARCHITECT.

		UN	IIT HE	ATER	RSC	CHED	ULE	E (EL	EC	ΓRI	C)	
				MIN OUT	NOM	MIN NO OF		MOTOR	THROW			
MARK	AREA SERVED	MANUFACTURER	MODEL	(MBH)	(KW)	STAGES	CFM	HP	(FT)	V/PH	DISC TYPE	NOTES
UH 1	RESTROOM	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 2	FAMILY RESTROOM	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 3	LOCKER ROOM	QMARK	MUH05-71	17.0	5.0	2	350	0.01	12	277/1	NON-FUSED	A,E,F,G
UH 4	LOCKER ROOM	QMARK	MUH05-71	17.0	5.0	2	350	0.01	12	277/1	NON-FUSED	A,E,F,G
UH 5	MENS RESTROOM	QMARK	MUH-07-4	25.6	7.5	2	650	0.04	18	480/3	NON-FUSED	A,B,E,F
UH 6	WOMENS RESTROOM	QMARK	MUH-07-4	25.6	7.5	2	650	0.04	18	480/3	NON-FUSED	A,B,E,F
UH 7	MEP-CUSTODIAN	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 8	STORAGE	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 9	CONCESSIONS	QMARK	MUH05-71	17.0	5.0	2	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 10	SOUTH TICKET BOOTH	QMARK	MUH05-81	17.0	5.0	2	350	0.01	12	208/3	NON-FUSED	A,C,D,E,F
UH 11	NORTH TICKET BOOTH	QMARK	MUH03-81	10.2	3.0	1	350	0.01	12	208/1	NON-FUSED	A,C,D,E,F

MUH03-71 10.2 3.0 1 350 0.01 12 277/1 NON-FUSED

UH 13 STORAGE/DATA QMARK MUH03-81 10.2 3.0 1 350 0.01 12 208/1 NON-FUSED MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED.

THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN. NOTES:

VESTIBULE

- MOUNT 8 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW. PROVIDE WITH WALL MOUNTED THERMOSTAT.
- DIVISION 26 TO PROVIDE TIMER SWITCH. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH TIMER SWITCH TO UNIT.
- PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR HORIZONTAL DISCHARGE MOUNTING.
- PROVIDE FACTORY MOUNTED DISCONNECT SWITCH INSTALLED ON SERVICE SIDE OF UNIT. PROVIDE WITH SINGLE WALL MOUNTED THERMOSTAT TO CONTROL 2 UNIT HEATERS.

	RADIANT HEATER SCHEDULE (ELECTRIC)									
MARK	LOCATION	MANUFACTURER	MODEL	MOUNTING TYPE	SIZE (L" x W")	INPUT (W)	VOLTS	PHASE	NOTES	
RH 1	CONCESSIONS	QMARK	HRK42027	SURFACE	5.5"x46"	2000.0 W	277 V	1	A,B	
RH 2	CONCESSIONS	QMARK	HRK42027	SURFACE	5.5"x46"	2000.0 W	277 V	1	A,B	

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES

DIVISION 26 TO PROVIDE SINGLE TIMER SWITCH TO CONTROL 2 RADIANT PANELS. B. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH TIMER SWITCH TO UNITS.

SEQUENCE OF OPERATIONS MISCELLANEOUS EQUIPMENT OCCUPIED MODE: The unit shall be in occupied mode when the room light switch is turned on. **UNOCCUPIED MODE:** The unit shall be in unoccupied mode for all periods when the room light switch is turned off. **COMPONENT CONTROL LOOPS:** The units shall be controlled by the room lighting controls system. A 2 position motorized damper at the intake louver shall be linked with the exhaust fan. When in occupied mode: The unit shall run continuously 2 position motorized damper at intake louver shall be open. When in unoccupied mode: The unit shall be off. 2 position motorized damper at intake louver shall be closed. TRANSFER FAN (TF-1,2,3,4) **OPERATING MODES STANDBY MODE:** The unit shall be in standby mode when the zone temperature (Z-T) is above space temperature setpoint of 50 F. The unit shall be in heating mode when the zone temperature (Z-T) falls below space temperature setpoint of 50 F. **COMPONENT CONTROL LOOPS:** The units shall operate as an independent system. The unit shall be controlled by a wall mounted thermostat located within the respective plumbing chase. When in Standby Mode: The unit shall remain off. When in Heating Mode: The unit shall be on. The unit shall remain on unitl space temperature as sensed by the wall mouted thermostat is above space temperature setpoint of 50 F. **ELECTRIC UNIT HEATER (UH-1,2,3,4,5,6,7,8,9,12) OPERATING MODES** The unit shall be in standby mode when the zone temperature (Z-T) is above space temperature setpoint. The unit shall be in heating mode when the zone temperature (Z-T) falls below space temperature setpoint. COMPONENT CONTROL LOOPS The units shall operate as an independent system. The units shall be controlled by a wall mounted thermostat located within the respective space. When in Standby Mode: The unit shall remain off. When in Heating Mode: The unit shall be on. The unit shall stage/cycle heater as required to maintain temperature setpoint of 68 F as sensed by the wall mounted thermostat. **ELECTRIC UNIT HEATER (UH-10,11)** OPERATING MODES STANDBY MODE: The unit shall be in standby mode when the timer switch is off. **HEATING MODE:** The unit shall be in heating mode when the timer switch is on. COMPONENT CONTROL LOOPS The units shall operate as an independent system. The units shall be controlled by a timer switch located within each respective room. When in Standby Mode: The unit shall remain off. When in Heating Mode: The unit shall stage/cycle heater as required to maintain temperature setpoint of 68 F as sensed by the integral SPLIT SYSTEM FAN COIL UNIT (FCU-1) **OPERATING MODES STANDBY MODE:** The unit shall be in standby mode when the zone temperature (Z-T) does not call for heating or cooling. The unit shall be in cooling mode when the zone temperature (Z-T) falls below space temperature setpoint. The unit shall be in heating mode when the zone temperature (Z-T) is above space temperature setpoint. COMPONENT CONTROL LOOPS The unit shall operate as an independent system. The unit shall be controlled by a wall mounted thermostat located within the space. When in Standby Mode: The unit shall remain off. When in Cooling Mode: The unit shall be on. The unit shall stage/cycle cooling as required to maintain space temperature setpoint of 80 F as sensed by the wall mounted thermostat. When in Heating Mode: The unit shall be on. The unit shall stage/cycle heating as required to maintain space temperature setpoint of 68 F as sensed by the wall mounted thermostat. **RADIANT HEATER (RH-1,2) OPERATING MODES** STANDBY MODE: The units shall be in standby mode when the timer switch is off. <u>HEATING MODE:</u> The units shall be in heating mode when the timer switch is on. COMPONENT CONTROL LOOPS The units shall operate as an independent system. The units shall be controlled by a single timer switch located within When in Standby Mode:

The unit shall remain off.

The unit shall be on.

When in Heating Mode:

Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

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> > EXPIRES 12/31/2021

REVISIONS PR 11

> **RELEASE FOR** CONSTRUCTION AS NOTED ON PLANS REVIEW **DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI

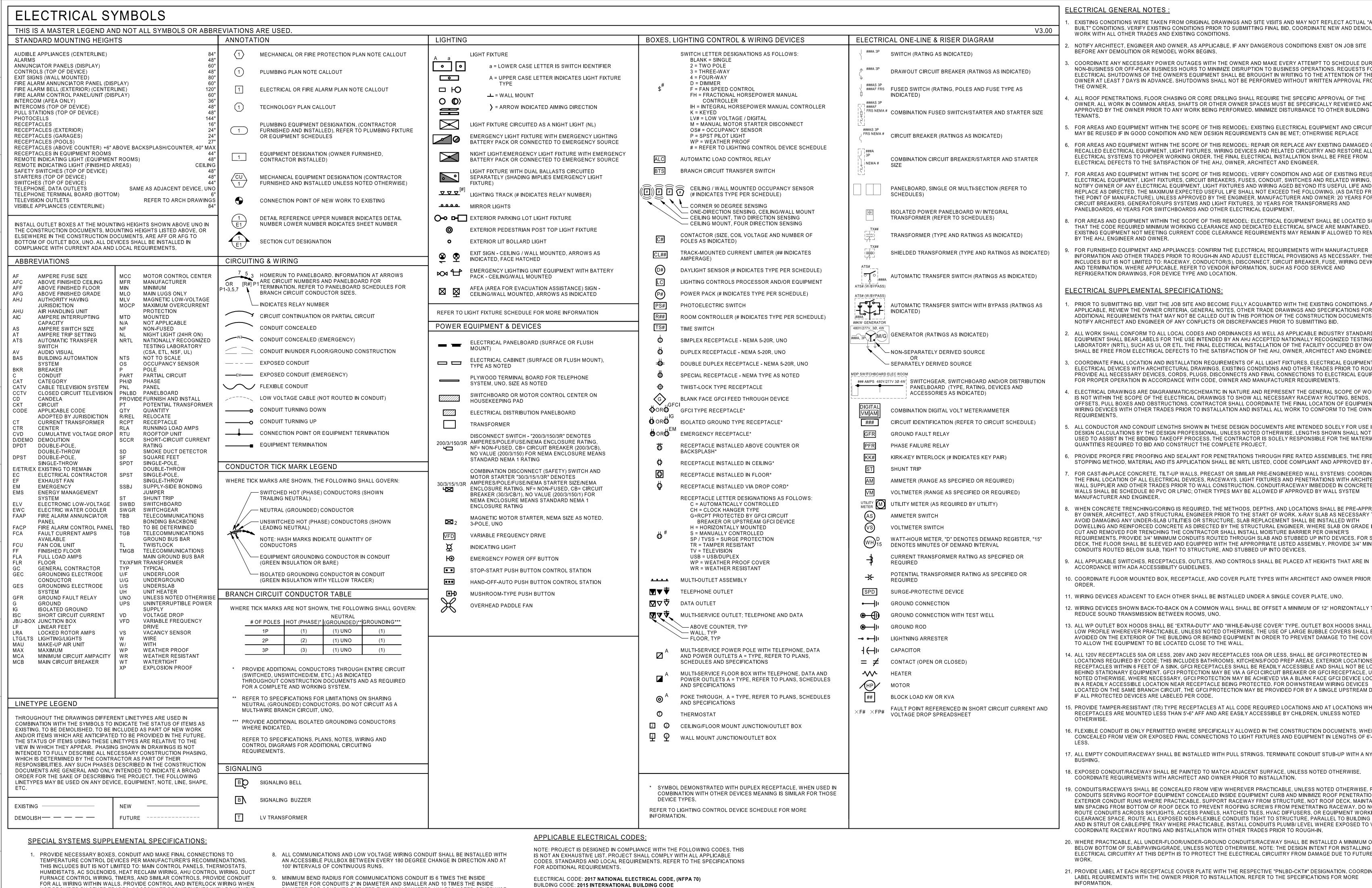
PROJECT NO:

September 28, 2020

MECHANICAL SCHEDULES & **CONTROLS**

BID SET

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FOR ALL WIRING WITHIN WALLS. PROVIDE CONTROL AND INTERLOCK WIRING WHEN NOT PROVIDED BY OTHER TRADES. COORDINATE REQUIREMENTS WITH EQUIPMENT SUPPLIERS AND OTHER TRADES PRIOR TO ROUGH-IN.

PROVIDE LINE VOLTAGE WIRING AND MAKE FINAL CONNECTIONS TO ALL DUCT-MOUNTED SMOKE DETECTORS, FIRE/SMOKE AND SMOKE DAMPERS WHERE APPLICABLE. COORDINATE REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.

3. DEVICES MOUNTED ON ACOUSTICAL TILE CEILINGS SHALL BE CENTERED ON THE

4. PROVIDE BOX AND [3/4"] CONDUIT FROM EACH THERMOSTAT LOCATION TO MECHANICAL EQUIPMENT, (FLUSH MOUNT BOX WHEREVER PRACTICABLE). COORDINATE LOCATION OF ALL THERMOSTAT BOXES WITH MECHANICAL/CONTROLS CONTRACTOR AND OWNER PRIOR TO ROUGH-IN.

5. PROVIDE BOXES AND CONDUITS FOR THE FIRE PROTECTION SYSTEM LOW VOLTAGE WIRING AS REQUIRED. THIS INCLUDES EXPOSED WIRING LESS THAN 96" AFF. AT A MINIMUM. PROVIDE 13/4"1 CONDUIT. UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER AND FIRE ALARM SPECIFICATIONS.

6. AT A MINIMUM, PROVIDE EXTRA DEEP, DOUBLE GANG COMMUNICATION OUTLET BOXES, (FLUSH MOUNTED WHEREVER PRACTICABLE), WITH SINGLE-GANG PLASTER RING AND [1"] CONDUIT STUBBED-UP CONCEALED TO ACCESSIBLE CEILING SPACE, UNLESS NOTED OTHERWISE. PROVIDE SURFACE MOUNTED DATA BOXES WITHIN CABINETRY, AND SELECT OTHER LOCATIONS AS INDICATED ON THE DRAWINGS. COORDINATE TELEPHONE/DATA BOX AND CONDUIT LOCATIONS AND SIZES WITH OWNER AND OTHER TRADES PRIOR TO ROUGH-IN.

7. PROVIDE NYLON BUSHINGS FOR ALL COMMUNICATIONS AND LOW VOLTAGE WIRING CONDUITS AND SLEEVES, UNLESS NOTED OTHERWISE.

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DIAMETER FOR CONDUITS 2" IN DIAMETER AND SMALLER AND 10 TIMES THE INSIDE

DIAMETER FOR CONDUITS GREATER THAN 2" IN DIAMETER, UNLESS NOTED OTHERWISE. 10. LOW VOLTAGE COMMUNICATION, ENERGY MANAGEMENT, SOUND SYSTEM, SECURITY AND RELATED WIRING IS TO BE PERFORMED BY OTHERS UNDER A SEPARATE CONTRACT, UNLESS NOTED OTHERWISE. PROVIDE BOXES AND CONDUIT IN FINISHED AND RATED FLOORS/WALLS/CEILINGS TO ACCESSIBLE LOCATIONS FOR ALL LOW VOLTAGE WIRING. PROVIDE ALL LINE VOLTAGE CIRCUITRY (120V AND HIGHER) TO OWNER FURNISHED EQUIPMENT AND LOW VOLTAGE STEP-DOWN TRANSFORMERS AS REQUIRED

COORDINATE ELECTRICAL REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER

11. ALL LOW VOLTAGE CLASS 2 OR 3 WIRING NOT IN CONDUIT SHALL BE PLENUM RATED

WHERE APPLICABLE. 12. LOW VOLTAGE CABLE SHEATH LABELS AND RELATED MANUFACTURER INFO SHALL REMAIN APPARENT IN ALL EXPOSED APPLICATIONS. PROTECT ALL EXPOSED CABLING FROM PAINTING AND OVERSPRAY (INCLUDES CABLE NOT ROUTED IN CONDUIT AND THAT IS IN CABLE TRAY).

13. CABLES SHALL BE ROUTED THROUGH THE BUILDING CABLE TRAY/RACEWAY SYSTEM, UNLESS NOTED OTHERWISE. EXPOSED CABLING SHALL NOT BE ROUTED IN AREAS EXPOSED TO STRUCTURE UNLESS SPECIFICALLY PERMITTED BY THE OWNER. IN AREAS WHERE EXPOSED CABLES ARE ALLOWED, IT SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS. WHERE REQUIRED, PROVIDE CONDUIT TO ROUTE LOW VOLTAGE CABLING TO THE CABLE TRAY OR NEAREST ACCESSIBLE CEILING SPACE.

14. CONDUITS FOR COMMUNICATIONS OUTLETS SERVING ELEVATOR EQUIPMENT ROOMS, FACP, AND SIMILAR CRITICAL EQUIPMENT AS DESIGNATED BY THE OWNER SHALL BE CONTINUOUS ("HOMERUN") FROM OUTLET TO SERVING COMMUNICATIONS ROOM.

COMMISSIONING / FUNCTIONAL TESTING:

ENERGY CODE: NOT ADOPTED

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CONTRACTOR'S BID SHALL INCLUDE PROVISIONS TO PROVIDE ALL SERVICES RELATED TO THE CODE REQUIRED BUILDING SYSTEMS COMMISSIONING INCLUDING A COMMISSIONING PLAN, FUNCTIONAL TESTING, AND RELATED DOCUMENTATION, REPORTS AND OWNER TRAINING. THIS INCLUDES RETAINING THE SERVICES OF A 3RD PARTY REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY. REFER TO THE LATEST ADOPTED EDITION OF THE APPLICABLE ENERGY CODE FOR MORE INFORMATION. CONTRACTOR SHALL COMPLETE ALL RELATED COMMISSIONING REQUIREMENTS PRIOR TO FINAL INSPECTIONS IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, CODE AND MANUFACTURER'S INSTRUCTIONS.

ELECTRICAL GENERAL NOTES

EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT ACTUAL "AS-BUILT" CONDITIONS. VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BID. COORDINATE NEW AND DEMOLITION WORK WITH ALL OTHER TRADES AND EXISTING CONDITIONS.

NOTIFY ARCHITECT, ENGINEER AND OWNER, AS APPLICABLE, IF ANY DANGEROUS CONDITIONS EXIST ON JOB SITE BEFORE ANY DEMOLITION OR REMODEL WORK BEGINS.

COORDINATE ANY NECESSARY POWER OUTAGES WITH THE OWNER AND MAKE EVERY ATTEMPT TO SCHEDULE DURING NON-BUSINESS OR OFF-PEAK BUSINESS HOURS TO MINIMIZE DISRUPTION TO BUSINESS OPERATIONS. REQUESTS FOR ELECTRICAL SHUTDOWNS OF THE OWNER'S EQUIPMENT SHALL BE BROUGHT IN WRITING TO THE ATTENTION OF THE OWNER AT LEAST 7 DAYS IN ADVANCE. SHUTDOWNS SHALL NOT BE PERFORMED WITHOUT WRITTEN APPROVAL FROM

ALL ROOF PENETRATIONS, FLOOR CHASING OR CORE DRILLING SHALL REQUIRE THE SPECIFIC APPROVAL OF THE OWNER, ALL WORK IN COMMON AREAS, SHAFTS OR OTHER OWNER SPACES MUST BE SPECIFICALLY REVIEWED AND APPROVED BY THE OWNER PRIOR TO ANY WORK BEING PERFORMED. MINIMIZE DISTURBANCE TO OTHER BUILDING

FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: EXISTING ELECTRICAL EQUIPMENT AND CIRCUITRY MAY BE REUSED IF IN GOOD CONDITION AND NEW DESIGN REQUIREMENTS CAN BE MET; OTHERWISE REPLACE FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: REPAIR OR REPLACE ANY EXISTING DAMAGED OR RECALLED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, WIRING DEVICES AND RELATED CIRCUITRY AND RESTORE ALL

FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: VERIFY CONDITION AND AGE OF EXISTING REUSED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, CIRCUIT BREAKERS, FUSES, CONDUIT, SWITCHES AND RELATED WIRING. NOTIFY OWNER OF ANY ELECTRICAL EQUIPMENT, LIGHT FIXTURES AND WIRING AGED BEYOND ITS USEFUL LIFE AND REPLACE AS DIRECTED. THE MAXIMUM EXPECTED USEFUL LIFE SHALL NOT EXCEED THE FOLLOWING, (AS DATED FROM THE POINT OF MANUFACTURE), UNLESS APPROVED BY THE ENGINEER, MANUFACTURER AND OWNER: 20 YEARS FOR CIRCUIT BREAKERS, GENERATOR/UPS SYSTEMS AND LIGHT FIXTURES, 30 YEARS FOR TRANSFORMERS AND PANELBOARDS, 40 YEARS FOR SWITCHBOARDS AND OTHER ELECTRICAL EQUIPMENT.

FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: ELECTRICAL EQUIPMENT SHALL BE LOCATED SO THAT THE CODE REQUIRED MINIMUM WORKING CLEARANCE AND DEDICATED ELECTRICAL SPACE ARE MAINTAINED. EXISTING EQUIPMENT NOT MEETING CURRENT CODE CLEARANCE REQUIREMENTS MAY REMAIN IF ALLOWED TO REMAIN BY THE AHJ, ENGINEER AND OWNER.

FOR FURNISHED EQUIPMENT AND APPLIANCES: CONFIRM THE ELECTRICAL REQUIREMENTS WITH MANUFACTURER INFORMATION AND OTHER TRADES PRIOR TO ROUGH-IN AND ADJUST ELECTRICAL PROVISIONS AS NECESSARY. THIS INCLUDES BUT IS NOT LIMITED TO: RACEWAY, CONDUCTOR(S), DISCONNECT, CIRCUIT BREAKER, FUSE, WIRING DEVICE AND TERMINATION. WHERE APPLICABLE, REFER TO VENDOR INFORMATION, SUCH AS FOOD SERVICE AND REFRIGERATION DRAWINGS, FOR DEVICE TYPE AND LOCATION.

ELECTRICAL SUPPLEMENTAL SPECIFICATIONS:

PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS. AS APPLICABLE. REVIEW THE OWNER CRITERIA. GENERAL NOTES, OTHER TRADE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.

ALL WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES AS WELL AS APPLICABLE INDUSTRY STANDARDS. ALL EQUIPMENT SHALL BEAR LABELS FOR THE USE INTENDED BY AN AHJ ACCEPTED NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), SUCH AS UL OR ETL. THE FINAL ELECTRICAL INSTALLATION OF THE FACILITY OCCUPIED BY OWNER SHALL BE FREE FROM ELECTRICAL DEFECTS TO THE SATISFACTION OF THE AHJ, OWNER, ARCHITECT AND ENGINEER.

COORDINATE FINAL LOCATION AND INSTALLATION REQUIREMENTS OF ALL LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWINGS. EXISTING CONDITIONS AND OTHER TRADES PRIOR TO ROUGH-IN. PROVIDE ALL NECESSARY DEVICES, CORDS, PLUGS, DISCONNECTS AND FINAL CONNECTIONS TO ELECTRICAL EQUIPMENT FOR PROPER OPERATION IN ACCORDANCE WITH CODE, OWNER AND MANUFACTURER REQUIREMENTS.

ELECTRICAL DRAWINGS ARE DIAGRAMMATIC/SCHEMATIC IN NATURE AND REPRESENT THE GENERAL SCOPE OF WORK. IT IS NOT WITHIN THE SCOPE OF THE ELECTRICAL DRAWINGS TO SHOW ALL NECESSARY RACEWAY ROUTING. BENDS. OFFSETS. PULL BOXES AND OBSTRUCTIONS, CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF EQUIPMENT AND WIRING DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION AND INSTALL ALL WORK TO CONFORM TO THE OWNER REQUIREMENTS.

ALL CONDUCTOR AND CONDUIT LENGTHS SHOWN IN THESE DESIGN DOCUMENTS ARE INTENDED SOLELY FOR USE IN THE DESIGN CALCULATIONS BY THE DESIGN PROFESSIONAL, UNLESS NOTED OTHERWISE, LENGTHS SHOWN SHALL NOT BE USED TO ASSIST IN THE BIDDING TAKEOFF PROCESS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MATERIAL

PROVIDE PROPER FIRE PROOFING AND SEALANT FOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. THE FIRE STOPPING METHOD, MATERIAL AND ITS APPLICATION SHALL BE NRTL LISTED, CODE COMPLIANT AND APPROVED BY AHJ. FOR CAST-IN-PLACE CONCRETE, TILT-UP WALLS, PRECAST OR SIMILAR PRE-ENGINEERED WALL SYSTEMS: COORDINATE THE FINAL LOCATION OF ALL ELECTRICAL DEVICES, RACEWAYS, LIGHT FIXTURES AND PENETRATIONS WITH ARCHITECT, WALL SUPPLIER AND OTHER TRADES PRIOR TO WALL CONSTRUCTION. CONDUIT/RACEWAY IMBEDDED IN CONCRETE

MANUFACTURER AND ENGINEER. WHEN CONCRETE TRENCHING/CORING IS REQUIRED, THE METHODS, DEPTHS, AND LOCATIONS SHALL BE PRE-APPROVED BY OWNER, ARCHITECT, AND STRUCTURAL ENGINEER PRIOR TO THE START OF WORK. X-RAY SLAB AS NECESSARY TO AVOID DAMAGING ANY UNDER-SLAB UTILITIES OR STRUCTURE. SLAB REPLACEMENT SHALL BE INSTALLED WITH DOWELLING AND REINFORCED CONCRETE AS DIRECTED BY THE STRUCTURAL ENGINEER. WHERE SLAB ON GRADE IS SAW-CUT AND REMOVED FOR TRENCHING THE CONTRACTOR SHALL INSTALL MOISTURE BARRIER PER OWNER'S REQUIREMENTS. PROVIDE 3/4" MINIMUM CONDUITS ROUTED THROUGH SLAB AND STUBBED UP INTO DEVICES. FOR SLAB ON | H DECK, THE FLOOR SHALL BE SLEEVED AND EQUIPPED WITH THE APPROPRIATE LISTED ASSEMBLY. PROVIDE 3/4" MINIMUM CONDUITS ROUTED BELOW SLAB, TIGHT TO STRUCTURE, AND STUBBED UP INTO DEVICES.

ALL APPLICABLE SWITCHES, RECEPTACLES, OUTLETS, AND CONTROLS SHALL BE PLACED AT HEIGHTS THAT ARE IN ACCORDANCE WITH ADA ACCESSIBILITY GUIDELINES.

10. COORDINATE FLOOR MOUNTED BOX, RECEPTACLE, AND COVER PLATE TYPES WITH ARCHITECT AND OWNER PRIOR TO

1. WIRING DEVICES ADJACENT TO EACH OTHER SHALL BE INSTALLED UNDER A SINGLE COVER PLATE, UNO.

2. WIRING DEVICES SHOWN BACK-TO-BACK ON A COMMON WALL SHALL BE OFFSET A MINIMUM OF 12" HORIZONTALLY TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS, UNO.

3. ALL WP OUTLET BOX HOODS SHALL BE "EXTRA-DUTY" AND "WHILE-IN-USE COVER" TYPE. OUTLET BOX HOODS SHALL BE LOW PROFILE WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. THE USE OF LARGE BUBBLE COVERS SHALL BE AVOIDED ON THE EXTERIOR OF THE BUILDING OR BEHIND EQUIPMENT IN ORDER TO PREVENT DAMAGE TO THE COVER AND TO ALLOW THE EQUIPMENT TO BE LOCATED CLOSE TO THE WALL.

4. ALL 120V RECEPTACLES 50A OR LESS, 208V AND 240V RECEPTACLES 100A OR LESS, SHALL BE GFCI PROTECTED IN LOCATIONS REQUIRED BY CODE; THIS INCLUDES BATHROOMS, KITCHENS/FOOD PREP AREAS, EXTERIOR LOCATIONS AND RECEPTACLES WITHIN 6 FEET OF A SINK. GFCI RECEPTACLES SHALL BE READILY ACCESSIBLE AND SHALL NOT BE LOCATED BEHIND STATIONARY EQUIPMENT. GFCI PROTECTION MAY BE VIA A GFCI CIRCUIT BREAKER OR GFCI RECEPTACLE, UNLESS NOTED OTHERWISE. WHERE NECESSARY, GFCI PROTECTION MAY BE ACHIEVED VIA A BLANK FACE GFCI DEVICE LOCATED IN A READILY ACCESSIBLE LOCATION NEAR RECEPTACLE BEING PROTECTED. FOR DOWNSTREAM WIRING DEVICES LOCATED ON THE SAME BRANCH CIRCUIT, THE GFCI PROTECTION MAY BE PROVIDED FOR BY A SINGLE UPSTREAM DEVICE IF ALL PROTECTED DEVICES ARE LABELED PER CODE.

5. PROVIDE TAMPER-RESISTANT (TR) TYPE RECEPTACLES AT ALL CODE REQUIRED LOCATIONS AND AT LOCATIONS WHERE RECEPTACLES ARE MOUNTED LESS THAN 5'-6" AFF AND ARE EASILY ACCESSIBLE BY CHILDREN, UNLESS NOTED

16. FLEXIBLE CONDUIT IS ONLY PERMITTED WHERE SPECIFICALLY ALLOWED IN THE CONSTRUCTION DOCUMENTS, WHERE CONCEALED FROM VIEW OR EXPOSED FINAL CONNECTIONS TO LIGHT FIXTURES AND EQUIPMENT IN LENGTHS OF 6'-0" OR

7. ALL EMPTY CONDUIT/RACEWAY SHALL BE INSTALLED WITH PULL STRINGS. TERMINATE CONDUIT STUB-UP WITH A NYLON

18. EXPOSED CONDUIT/RACEWAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.

19. CONDUITS/RACEWAYS SHALL BE CONCEALED FROM VIEW WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. ROUTE CONDUITS SERVING ROOFTOP EQUIPMENT CONCEALED INSIDE EQUIPMENT CURB AND MINIMIZE ROOF PENETRATIONS AND EXTERIOR CONDUIT RUNS WHERE PRACTICABLE. SUPPORT RACEWAY FROM STRUCTURE, NOT ROOF DECK. MAINTAIN 2" MIN SPACING FROM BOTTOM OF ROOF DECK TO PREVENT ROOFING SCREWS FROM PENETRATING RACEWAY. DO NOT ROUTE CONDUITS ACROSS SKYLIGHTS, ACCESS PANELS, HATCHED TILES, HVAC DIFFUSERS, OR EQUIPMENT WORKING CLEARANCE SPACE. ROUTE ALL EXPOSED NON-FLEXIBLE CONDUITS TIGHT TO STRUCTURE, PARALLEL TO BUILDING LINES AND IN STRUT OR CABLE/PIPE TRAY WHERE PRACTICABLE. INSTALL CONDUITS PLUMB/ LEVEL WHERE EXPOSED TO VIEW. COORDINATE RACEWAY ROUTING AND INSTALLATION WITH OTHER TRADES PRIOR TO ROUGH-IN.

20. WHERE PRACTICABLE, ALL UNDER-FLOOR/UNDER-GROUND CONDUITS/RACEWAY SHALL BE INSTALLED A MINIMUM OF **24"** BELOW BOTTOM OF SLAB/PAVING/GRADE, UNLESS NOTED OTHERWISE. NOTE: THE DESIGN INTENT FOR INSTALLING ELECTRICAL CIRCUITRY AT THIS DEPTH IS TO PROTECT THE ELECTRICAL CIRCUITRY FROM DAMAGE DUE TO FUTURE

21. PROVIDE LABEL AT EACH RECEPTACLE COVER PLATE WITH THE RESPECTIVE "PNLBD-CKT#" DESIGNATION. COORDINATE LABEL REQUIREMENTS WITH THE OWNER PRIOR TO INSTALLATION. REFER TO THE SPECIFICATIONS FOR MORE

22. MULTIWIRE BRANCH CIRCUITS ARE NOT ALLOWED, UNLESS NOTED OTHERWISE.

23. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR ALL CIRCUITS, UNLESS NOTED OTHERWISE.

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Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

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DESCRIPTION

REVISIONS

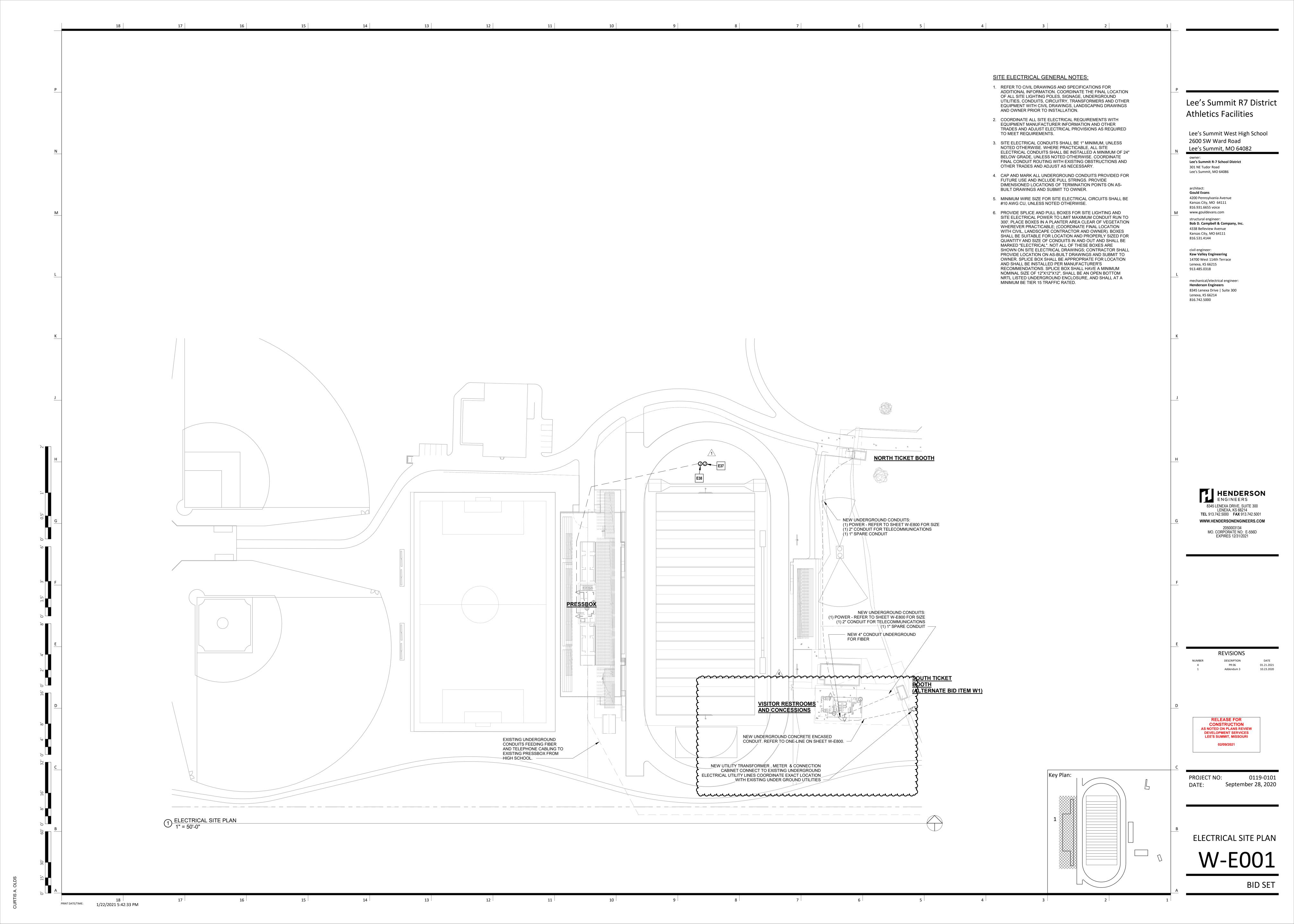


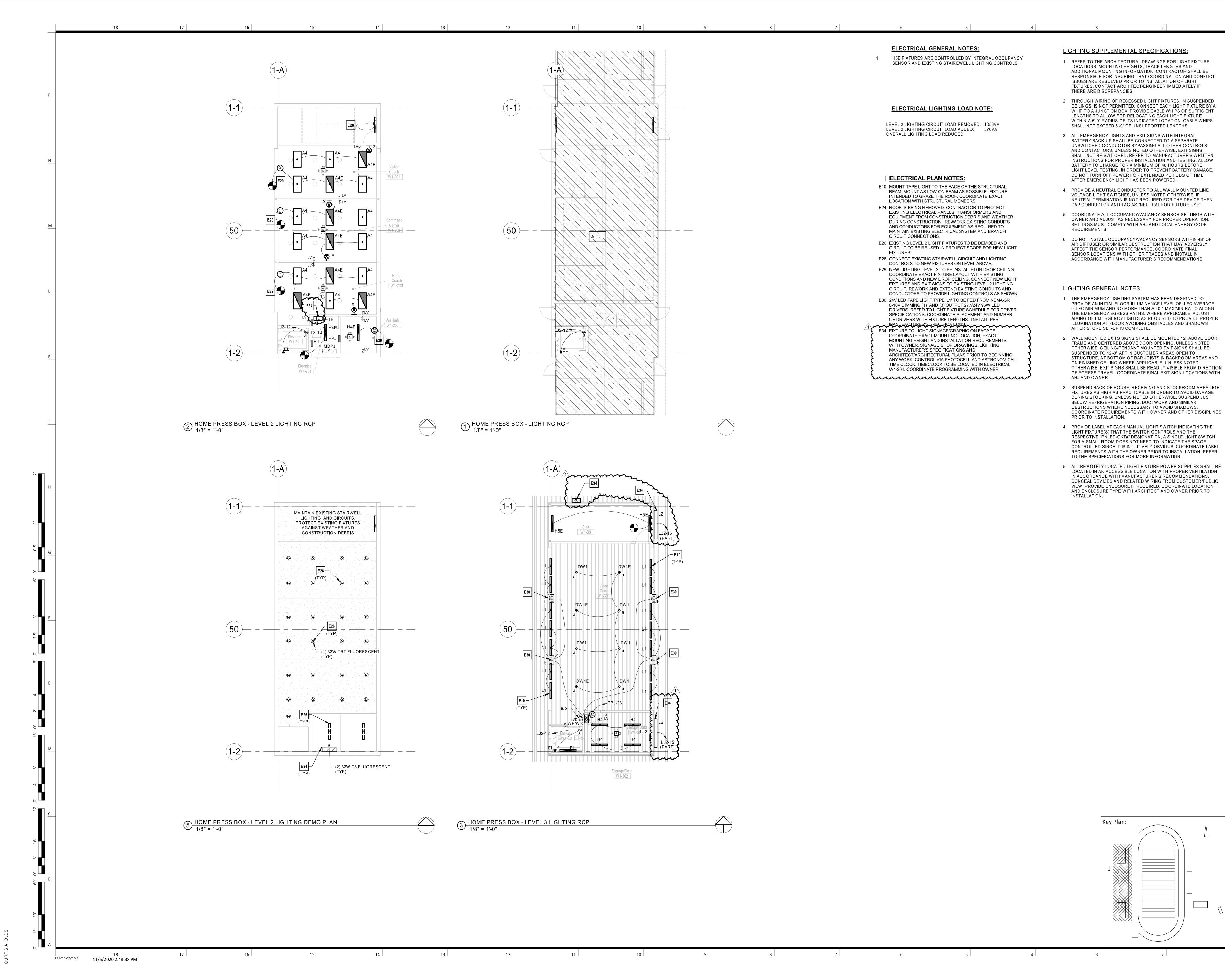
PROJECT NO:

September 28, 2020

ELECTRICAL LEGEND

AND NOTES





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Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road

owner: **Lee's Summit R-7 School District** 301 NE Tudor Road **Lee's Summit, MO 64086**

Lee's Summit, MO 64082

Gould Evans

4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com
structural engineer:
Bob D. Campbell & Company, Inc.

Kansas City, MO 64111 816.531.4144 civil engineer: Kaw Valley Engineering

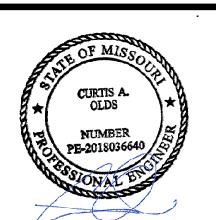
4338 Belleview Avenue

Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

> HENDERSON ENGINEERS

8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214 TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM 2050003134 MO. CORPORATE NO: E-556D EXPIRES 12/31/2020



Nov 9 2020

REVISIONS

DESCRIPTION D.
Addendum 3 10.2:

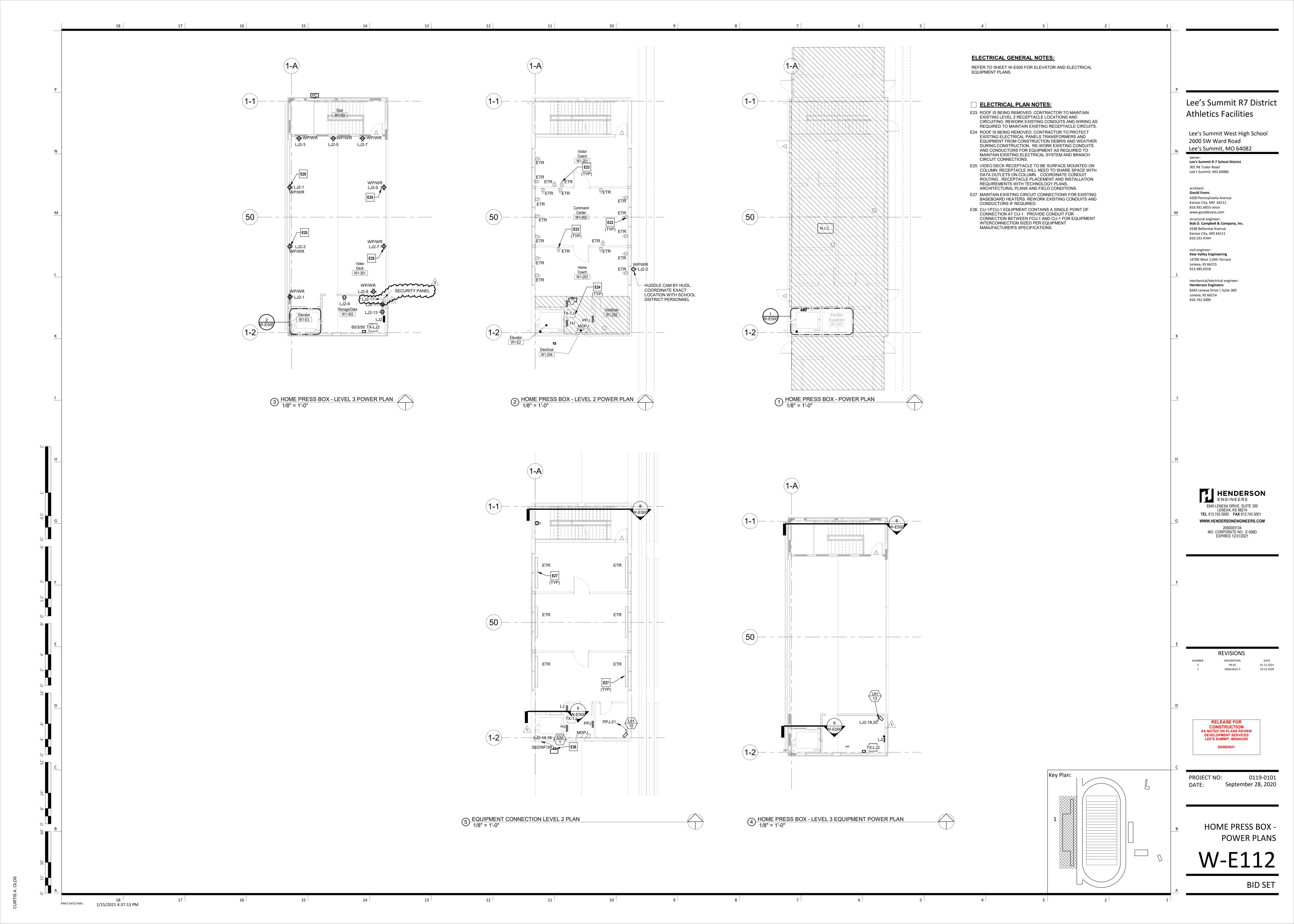
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

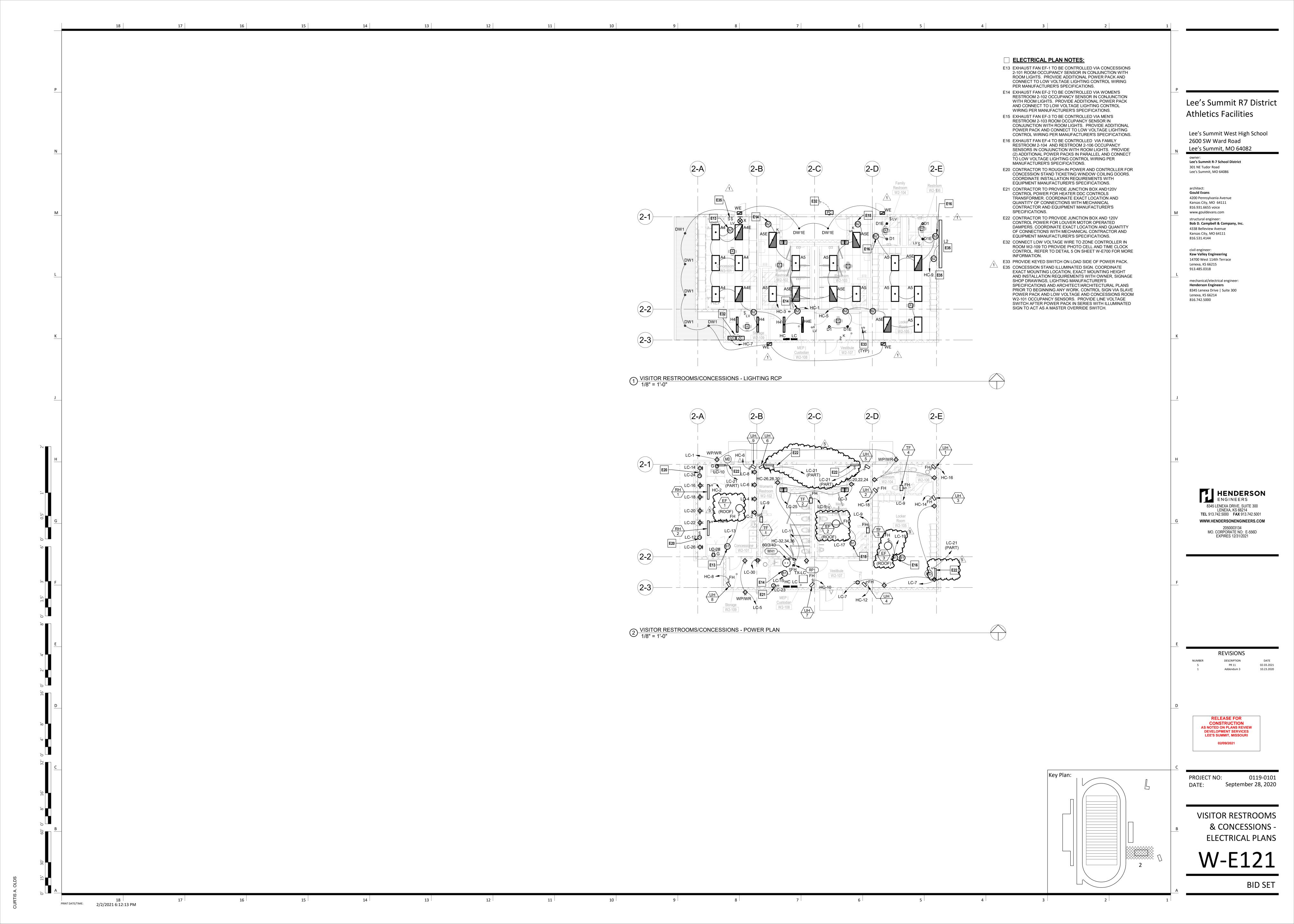
PROJECT NO:

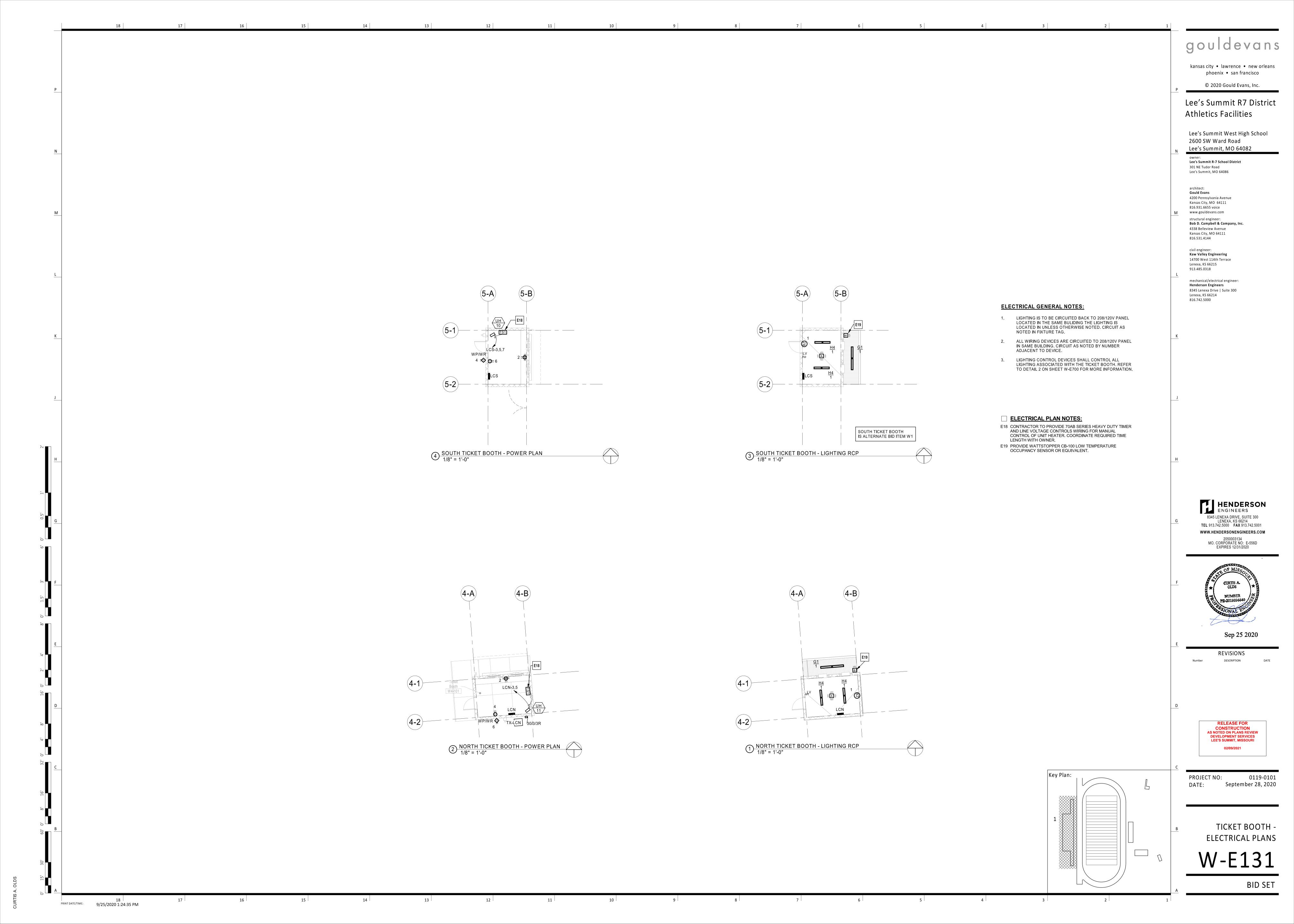
0: 0119-0101 September 28, 2020

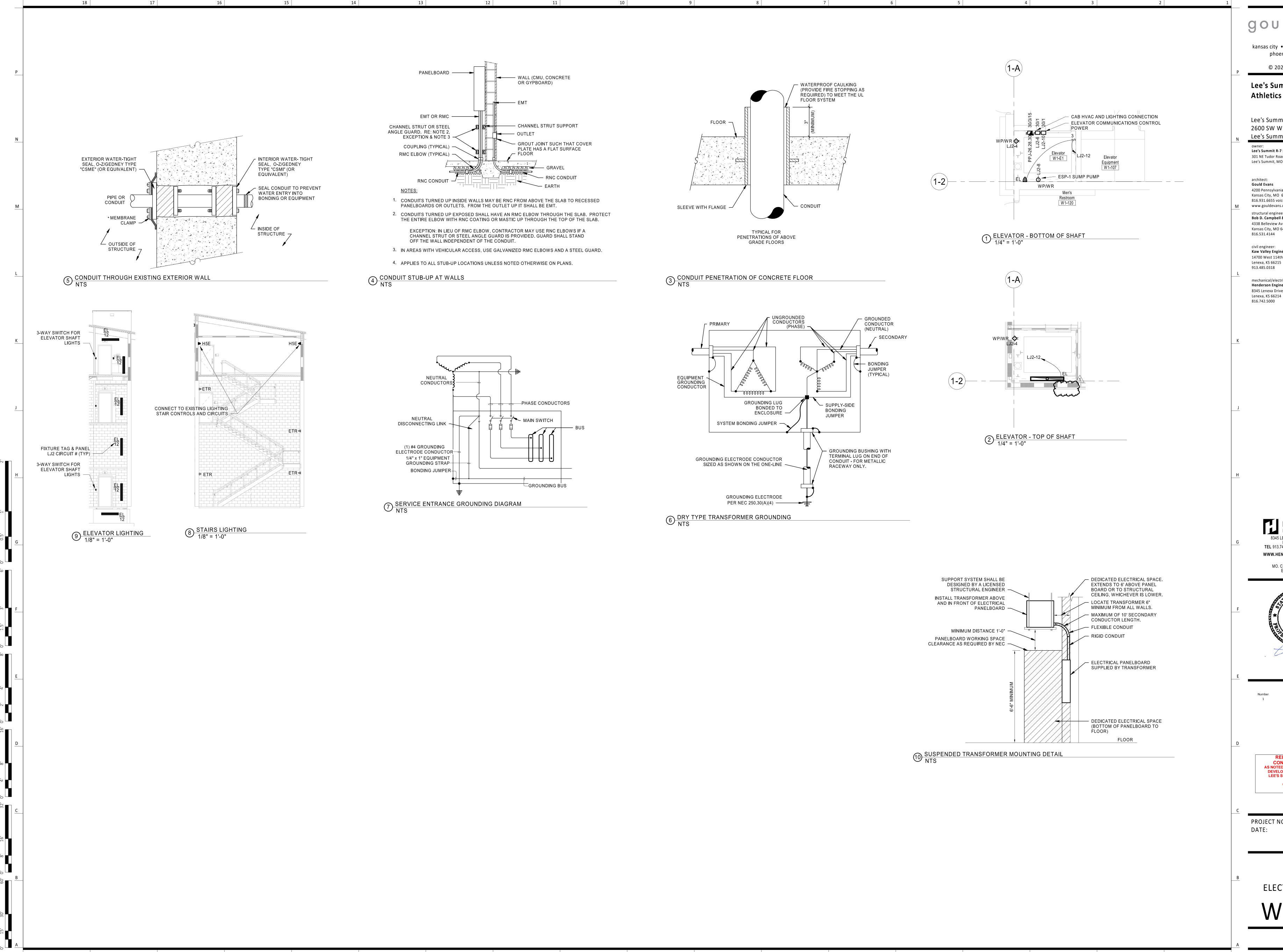
HOME PRESS BOX - LIGHTING RCPS

V-E111









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Lee's Summit R7 District

Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

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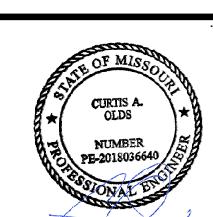
> civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300

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Nov 9 2020

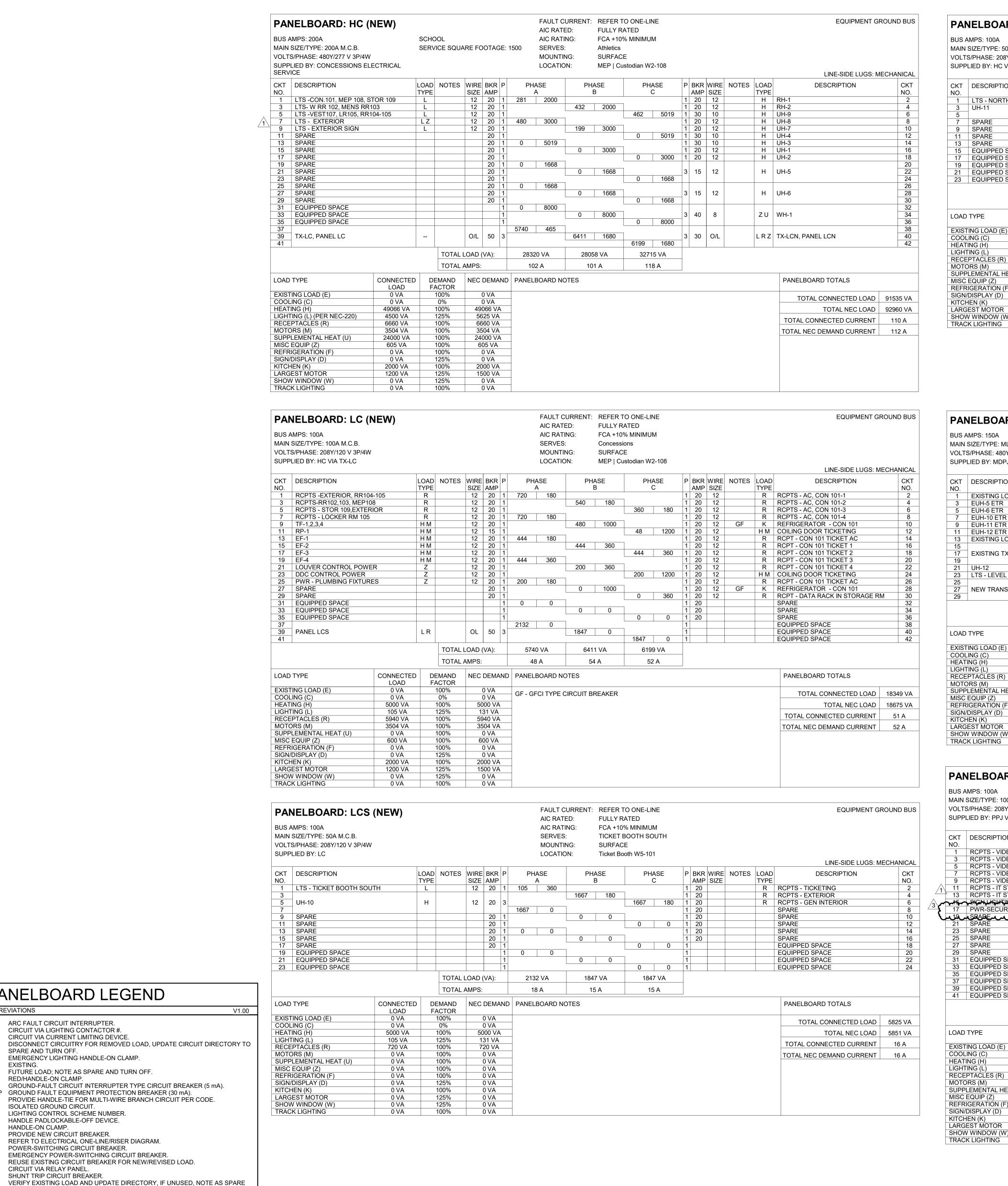
REVISIONS DESCRIPTION Addendum 3



PROJECT NO:

0119-0101 September 28, 2020

ELECTRICAL DETAILS



PAN	IELBOARD: LCN (NEW)						FAULT C	URRENT:	REFER T		E					EQUIPMENT G	ROUND BU
DIIC A	MPS: 100A						AIC RATI			ATED % MINIMUN	ı						
										_							
	SIZE/TYPE: 50A M.C.B.						SERVES		Ticket Bo								
VOLTS	S/PHASE: 208Y/120 V 3P/4W						MOUNTI	NG:	SURFAC	E							
SUPPL	LIED BY: HC VIA TX-LCN						LOCATIO	N:	Ticket Bo	oth W4-101							
																LINE-SIDE LUGS: M	ECHANICA
CKT	DESCRIPTION	LOAD	NOTES	WIRE	BKR P	PH	ASE	PHA	SE	PHA	SE	P BKI	R WIRE	NOTES	LOAD	DESCRIPTION	СКТ
NO.	DESCRIPTION	TYPE			AMP		A	B		1 1 7			SIZE	NOTES	TYPE		NO.
I	LTS - NORTH TICKET BOOTH	T	*	12	20 1	105	360		<u></u>			1 20	1		R	RCPTS - TICKETING WINDOW	2
	UH-11	HZ	+	12	20 2	100	300	1500	180]		1 20			R	RCPT - GEN	4
5		''-		'-				1000	100	1500	180	1 20			R	RCPT - EXTERIOR	6
	SPARE				20 1	0	0]				1 20	_		' '	SPARE	8
	SPARE	_			20 1			0	0			1 20				SPARE	10
	SPARE				20 1					0	0	1 20				SPARE	12
13	SPARE				20 1	0	0					1 20				SPARE	14
15	EQUIPPED SPACE				1		1	0	0]		1				EQUIPPED SPACE	16
	EQUIPPED SPACE				1					0	0	1				EQUIPPED SPACE	18
	EQUIPPED SPACE				1	0	0			_		1				EQUIPPED SPACE	20
	EQUIPPED SPACE				1			0	0	_		1				EQUIPPED SPACE	22
23	EQUIPPED SPACE				1					0	0	1				EQUIPPED SPACE	24
			TOTAL I	LOAD ((VA):	465	5 VA	1680) VA	1680	VA						
					` '												
			I() A	AMDC.		4	Α	16	Α	16	A						
			TOTAL	AIVII O.		<u> </u>		•				l					
	LOAD	F.	DEMAND FACTOR	NEC	DEMAND		BOARD NO	DTES								PANELBOARD TOTALS	
EXISTI	LOAD ING LOAD (E) 0 VA	F.	DEMAND FACTOR 100%	NEC	DEMAND		BOARD NO	OTES				1					3826 \/^
EXISTII COOLII	LOAD ING LOAD (E) 0 VA ING (C) 0 VA	F.	DEMAND FACTOR 100% 0%	NEC	DEMAND 0 VA 0 VA		BOARD NO	DTES				1				TOTAL CONNECTED LOAD	
EXISTII COOLII HEATIN	LOAD NG LOAD (E)	F	DEMAND FACTOR 100% 0% 100%	NEC	DEMAND 0 VA 0 VA 001 VA		BOARD NO	DTES									
EXISTII COOLII HEATIN LIGHTI	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA	F	DEMAND FACTOR 100% 0% 100% 125%	NEC 30	DEMAND 0 VA 0 VA 001 VA 31 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD	3852 VA
EXISTII COOLII HEATIN LIGHTI RECEF	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100%	NEC 30	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA		BOARD NO	OTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
COOLII HEATIN LIGHTI RECEP MOTOR	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA	F.	DEMAND FACTOR 100% 0% 100% 125% 100%	30 11 7	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA		BOARD NO	OTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD	3852 VA
EXISTII COOLII HEATIN LIGHTI RECEF MOTOR SUPPL	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100%	NEC 30 11 7:	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
EXISTII COOLII HEATIN LIGHTI RECEF MOTON SUPPL MISC E	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA EQUIP (Z) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100% 100%	30 1:	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA 0 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
EXISTII COOLII HEATIN LIGHTI RECEF MOTOI SUPPL MISC E REFRIC	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA EQUIP (Z) 0 VA GERATION (F) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100% 100%	30 1: 7:	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA 0 VA 0 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
EXISTII COOLII HEATIN LIGHTI RECEF MOTOI SUPPL MISC E REFRIG SIGN/D	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA EQUIP (Z) 0 VA GERATION (F) 0 VA DISPLAY (D) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100% 100% 100% 125%	NEC 30 11 77	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA 0 VA 0 VA 0 VA 0 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
EXISTII COOLII HEATIN LIGHTI RECEF MOTOR SUPPL MISC E REFRIC SIGN/E	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA EQUIP (Z) 0 VA GERATION (F) 0 VA DISPLAY (D) 0 VA EN (K) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100% 100% 100% 100% 125%	30 11 7	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	3852 VA 11 A
EXISTII COOLII HEATIN LIGHTI RECEF MOTOI SUPPL MISC E REFRIG SIGN/D KITCHE	LOAD ING LOAD (E) 0 VA ING (C) 0 VA NG (H) 3001 VA ING (L) 105 VA PTACLES (R) 720 VA RS (M) 0 VA LEMENTAL HEAT (U) 0 VA EQUIP (Z) 0 VA GERATION (F) 0 VA DISPLAY (D) 0 VA	F	DEMAND FACTOR 100% 0% 100% 125% 100% 100% 100% 100% 125%	30 11 7	DEMAND 0 VA 0 VA 001 VA 31 VA 20 VA 0 VA 0 VA 0 VA 0 VA 0 VA 0 VA		BOARD NO	DTES								TOTAL CONNECTED LOAD TOTAL NEC LOAD TOTAL CONNECTED CURRENT	

PAN	NELBOARD: PPJ (EXISTING	3)						FAULT C	URRENT:	FULLY R	ATED							EQUIPMENT G	ROUND BUS
BUS A	MPS: 150A							AIC RATI			% MINIMUN	1							
_	SIZE/TYPE: MLO							SERVES		PRESS E									
	S/PHASE: 480Y/277 V 3P/4W							MOUNTI		SURFAC	_								
SUPP	LIED BY: MDPJ							LOCATIO	DN:	Electrical	W1-204								
																		LINE-SIDE LUGS: N	MECHANICAL
CKT	DESCRIPTION	LOAD	NOTES	WIRE	BKE	ð	PH	ASE	PH	ASE	PHA	SE	Р	BKR V	/IRF	NOTES	LOAD	DESCRIPTION	СКТ
NO.	BEGGINI HOIV	TYPE		SIZE				A		3	'''	;		AMP S		NOTEO	TYPE		NO.
1	EXISTING LOAD				20		1000	3000				<u> </u>	1	20				EUH-7 ETR	2
3	EUH-5 ETR					1			3000	3000			1	20				EUH-8 ETR	4
5	EUH-6 ETR					1					3000	3000	1	20				EUH-9 ETR	6
7	EUH-10 ETR				20		3000	3000					1	20				EXISTING LOAD	8
9	EUH-11 ETR					1			3000	3000			1	20				LTS - FLAGPOLE ETR	10
11	EUH-12 ETR				20	1					3000	3000	1	20				EUH-4 ETR	12
13	EXISTING LOAD				20	1	1000	1000]				1	20				EXISTING LOAD	14
15								•	15000	1000]		1	20				EXISTING LOAD	16
17	EXISTING TX-TJ AND PANEL LTJ			O/L	70	3				•	15000	0	1					EQUIPPED SPACE	18
19							15000	0					1					EQUIPPED SPACE	20
21	UH-12	ΗZ		12	20	1			3000	0			1					EQUIPPED SPACE	22
23	LTS - LEVEL 3 VIDEO DECK	LΖ		12	20	1			-		951	0	1					EQUIPPED SPACE	24
25							5860	3326			1								26
27	NEW TRANSFORMER TX-LJ2 & PANEL LJ2	2		O/L	50	3			2988	3326			3	30	O/L		M	NEW ELEVATOR	28
29			<u> </u>								3920	3326							30
			TOTAL	LOAD ((VA):		3618	35 VA	3731	3 VA	3519	6 VA							
			TOTAL	AMPS:			13	1 A	13	5 A	127	' A							

LOAD TYPE	CONNECTED	DEMAND	NEC DEMAND	PANELBOARD NOTES PANELBOARD TOTALS	
	LOAD	FACTOR			
EXISTING LOAD (E)	82000 VA	100%	82000 VA	TOTAL CONNECTED LOAD	108696 V
COOLING (C)	2288 VA	0%	0 VA	TOTAL CONNECTED EGAD	100090 77
HEATING (H)	6000 VA	100%	6000 VA	TOTAL NEC LOAD	109457 V
LIGHTING (L)	2220 VA	125%	2775 VA	TOTAL CONNECTED CURRENT	131 A
RECEPTACLES (R)	3420 VA	100%	3420 VA	TOTAL CONNECTED CORRENT	131 A
MOTORS (M)	1176 VA	100%	1176 VA	TOTAL NEC DEMAND CURRENT	132 A
SUPPLEMENTAL HEAT (U)	0 VA	100%	0 VA		1
MISC EQUIP (Z)	1615 VA	100%	1615 VA		
REFRIGERATION (F)	0 VA	100%	0 VA		
SIGN/DISPLAY (D)	0 VA	125%	0 VA		
KITCHEN (K)	0 VA	100%	0 VA		
LARGEST MOTOR	9977 VA	125%	12471 VA		
SHOW WINDOW (W)	0 VA	125%	0 VA		
TRACK LIGHTING	0 VA	100%	0 VA		

BUS AI MAIN S VOLTS	MPS: 100A SIZE/TYPE: 100A M.C.B. S/PHASE: 208Y/120 V 3P/4W LIED BY: PPJ VIA TX-LJ2	,						FAULT CO AIC RATE AIC RATE SERVES: MOUNTIN LOCATIO	ED: NG: : NG:	FULLY FCA +1 PRESS SURFA	0% MINIMU BOX	М						EQUIPMENT GI	ROUND BUS
										· ·								LINE-SIDE LUGS: M	IECHANICAI
СКТ	DESCRIPTION		LOAD	NOTES	WIRE B	KB B	PHA		DL	HASE	DL	ASE	В	DVD	WIDE	NOTES	LOAD	DESCRIPTION	СКТ
NO.	DESCRIPTION		TYPE	NOTES	SIZE AI			43E 4	-	R		ASE C			SIZE	NOTES	TYPE	DESCRIPTION	NO.
1	RCPTS - VIDEO DECK 1		R			20 1	720	600					1	20	12		Z	HUDL CAM	2
3	RCPTS - VIDEO DECK 2		R			20 1	720		540	360			1	20	12		R	RCPTS - ELEVATOR SHAFT	4
5	RCPTS - VIDEO DECK 3		R			20 1			0.10	000	540	500	1	20	12	LO	Z	ELEVATOR CAB LTS/EF	6
7	RCPTS - VIDEO DECK 4		R			20 1	540	1176	1		0.0		1	20	12		M	ESP-1	8
9	RCPTS - VIDEO DECK 5/S	STOR	R			20 1			360	500			1	20	12		7	ELEVATOR COMMUNICATIONS PO	
11	RCPTS - IT STOR/DATA 1		R			20 1					180	1200	1	20	12	LO	L	LTS - ELEVATOR SHAFT	12
	RCPTS - IT STOR/DATA 2		R			20 1	180	1144]				2	20	12		CZ	CU/FCU-1 ELEVATOR SHAFT COOL	
	PHONTHALLANDIAN TO THE PARTIES AND THE PARTIES			~~~		20 1			84	1144									16
17	PWR-SECURITY PANEL		Z	• • •		20 1					400	1500	2	20	12		ΗZ	UH-13	18
مرواب	SPAREMMAN	nnnn	سس	سس		20 1	0	1500					7						20
21	SPARE					20 1			0	0			1	20				SPARE	22
23	SPARE				2	20 1					0	0	1	20				SPARE	24
25	SPARE				2	20 1	0	0]			<u>'</u>	1	20				SPARE	26
	SPARE				2	20 1			0	0			1	20				SPARE	28
29	SPARE				2	20 1					0	0	1	20				SPARE	30
	EQUIPPED SPACE					1	0	0					1					EQUIPPED SPACE	32
	EQUIPPED SPACE					1			0	0			1					EQUIPPED SPACE	34
	EQUIPPED SPACE					1			-		0	0	1					EQUIPPED SPACE	36
	EQUIPPED SPACE					1	0	0					1					EQUIPPED SPACE	38
	EQUIPPED SPACE					1			0	0			1					EQUIPPED SPACE	40
41	EQUIPPED SPACE					1					0	0	1					EQUIPPED SPACE	42
				TOTAL	LOAD (VA	<i>\</i> .	5860) VA	298	88 VA	432	0 VA							
					,	1,7.							+						
				TOTAL	AMPS:		51	Α	2	25 A	3	3 A							
LOAD ⁻	TYPE	CONNECTED LOAD		MAND CTOR	NEC DE	MAND	PANEL	BOARD NO	DTES									PANELBOARD TOTALS	
EXISTI	NG LOAD (E)	0 VA		00%	0 V	/A												TOTAL COMMISSION CO.	4040037
COOLI		2288 VA		0%	0 V		1											TOTAL CONNECTED LOAD	13168 VA
HEATI		3000 VA		00%	3000		1											TOTAL NEC LOAD	11495 VA
LIGHTI		1284 VA		25%	1605		1												
	PTACLES (R)	3420 VA		00%	3420		1											TOTAL CONNECTED CURRENT	37 A
MOTO	RS (M)	0 VA	1	00%	0 V	Ά												TOTAL NEC DEMAND CURRENT	32 A
	EMENTAL HEAT (U)	0 VA		00%	0 V														
	EQUIP (Z)	2000 VA		00%	2000														
	GERATION (F)	0 VA		00%	0 V														
	DISPLAY (D)	0 VA		25%	0 V														
KITCHI		0 VA		00%	0 V														
	EST MOTOR	1176 VA		25%	1470														
	WINDOW (W)	0 VA		25%	0 V														
TRACK	(LIGHTING	0 VA	1	00%	0 V	/Α													

Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

architect: **Gould Evans** 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc 4338 Belleview Avenue Kansas City, MO 64111

civil engineer: **Kaw Valley Engineering** 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

816.531.4144

mechanical/electrical engineer: **Henderson Engineers** 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

> HENDERSON **ENGINEERS** 8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214 TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM MO. CORPORATE NO: E-556D

EXPIRES 12/31/2021

REVISIONS DESCRIPTION PR 03

01.15.2021

CONSTRUCTION **AS NOTED ON PLANS REVIEW** DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

PROJECT NO:

September 28, 2020

SCHEDULES

ELECTRICAL

BID SET

1/15/2021 4:37:20 PM

PANELBOARD LEGEND

ARC FAULT CIRCUIT INTERRUPTER.

SPARE AND TURN OFF.

RED/HANDLE-ON CLAMP.

IG ISOLATED GROUND CIRCUIT.

LO HANDLE-ON CLAMP.

RP CIRCUIT VIA RELAY PANEL.

AND TURN OFF.

NOT ALL ABBREVIATIONS ARE USED.

L# LIGHTING CONTROL SCHEME NUMBER.

PS POWER-SWITCHING CIRCUIT BREAKER.

SHUNT TRIP CIRCUIT BREAKER.

LCK HANDLE PADLOCKABLE-OFF DEVICE.

N PROVIDE NEW CIRCUIT BREAKER.

CIRCUIT VIA LIGHTING CONTACTOR #.

EM EMERGENCY LIGHTING HANDLE-ON CLAMP.

CIRCUIT VIA CURRENT LIMITING DEVICE.

FUTURE LOAD; NOTE AS SPARE AND TURN OFF.

OL REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.

PSE EMERGENCY POWER-SWITCHING CIRCUIT BREAKER.

GFEP GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).

R REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.

VD BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED. CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.

GF GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).

HT PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PÉR CODE.

ABBREVIATIONS

EXISTING.

14

12

11

			STAND-ALONE LOW-VOLTAGE LIGHTING CONTROL SYSTEMS STAND-ALONE LOW-VOLTAGE OCCUPANCY SENSORS		
YMBOL	MANUFACTURER	ALTERNATE		OVERAGE	
TAG	MODEL/SERIES	MANUFACTURER		W X D) VOLTAGE	NOTES
<u> </u>	LEGRAND	ACUITY, COOPER	·	MAJOR 36' Ø 24	110120
((<u>A</u>))	DT-300	HUBBELL, LEVITON		MINOR 25' Ø	
			UL	T 36' x 36'	
(B))	LEGRAND	ACUITY, COOPER		JOR 50' Ø 24	
	CB-100	HUBBELL		NOR 25' Ø	
			RATED FOR -40 DEGREES FAHRENHEIT.		
			STAND-ALONE LOW-VOLTAGE PHOTOELECTRIC SWITCHES		
/MBOL	MANUFACTURER	ALTERNATE		VO. 74.05	
TAG	MODEL/SERIES LEGRAND	MANUFACTURER	DEVICE DESCRIPTION EXTERIOR LOW-VOLTAGE PHOTOELECTRIC SWITCH. FACE SENSOR NORTH AND ORIENT	VOLTAGE	NOTES
PC	EM-24D2	ACUITY HUBBELL	VERTICALLY, 0-15 FC.	24	
_	LIVI-24D2	LEVITON	VERTIFICALET. 0-101 O.		
′MBOL	MANUFACTURER	ALTERNATE	STAND-ALONE LOW-VOLTAGE POWER PACKS		
TAG	MODEL/SERIES	MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
	LEGRAND	ACUITY, COOPER	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (1) RELAY. MANUAL-	120/	1,10,120
BZ)	BZ-250	HUBBELL, LEVITON	AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V.	277	
			OUTPUT: 225mA AT 24V. PLENUM RATED.		
		10111711171			
B1)	LEGRAND	ACUITY, COOPER HUBBELL, LEVITON	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (2) RELAYS. MANUAL-AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V.	120/ 277	
	C SERIES	HOBBELL, LEVITON	OUTPUT: 225mA AT 24V, PLENUM RATED.	211	
			CONTRACTOR TO PROVIDE CORRECT VOLTAGE FOR APPLICATION.		
	LEGRAND	ACUITY, COOPER	ROOM CONTROLLER FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (2) RELAY.	120/	
D2C	LMRC-212	HUBBELL, LEVITON	MANUAL AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V.	277	
			OUTPUT: 225mA AT 24V. PLENUM RATED.		
			0-10V DIMMING CONTROL.		
/MBOL	MANUFACTURER	ALTERNATE	STAND-ALONE LOW-VOLTAGE SWITCHES		
TAG	MODEL/SERIES	MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
1.\/	LEGRAND	ACUITY, COOPER	MOMENTARY 1-BUTTON DECORATOR SWITCH FOR MANUAL ON/OFF CONTROL OF STAND-	24	
\$ ^{LV}	DCC2	HUBBELL, LEVITON	ALONE LOW-VOLTAGE OCCUPANCY SENSORS. INTEGRAL LED ILLUMINATES WHEN LOAD IS		
			ON.		
	LEGRAND	ACUITY, COOPER	4-BUTTON LOW VOLTAGE SWITCH FOR ON/OFF AND DIMMING CONTROL OF 2 RELAYS.	24	
\$ ^{LVD}	LMSW-104	HUBBELL, LEVITON	A BOTTON LOW VOLITION ON TOTAL ON THE BINNING CONTINUE OF ZINEBATO.	27	
			AUXILIARY NETWORK LIGHTING EQUIPMENT		
′MBOL	MANUFACTURER	ALTERNATE	AUVIEW HELMONY FIGURE EAGIL MEM.		
TAG	MODEL/SERIES	MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
	LEGRAND	ACUITY, CRESTRON	ZONE CONTROLLER, ASTRONOMIC TIMECLOCK. 99 LIGHTING GROUPS. BACNET MS/TP	120/	
ZC	LMCZ-301	ETC, HUBBELL	COMPATIBLE. (2) RJ45 PORTS. SURFACE MOUNTED. PLENUM RATED. PROVIDE DLM 24V	277	
			POWER BOOSTERS AS REQUIRED PER SYSTEM DESIGN.		
ERAL NO	TES:		1		1
CCUPANC	Y SENSOR LAYOUT DES	SIGNED FROM BASIS-OF-I	DESIGN COVERAGE PATTERNS. IF SUBMITTING ALTERNATE PER 'EQUIVALENT MANUFACTURER'		
OLUMN, A	DJUST SENSOR QUANT	ITIES AND LOCATIONS PE	R MANUFACTURER-SPECIFIC SPACING CRITERIA.		
ROVIDE SI	HOP DRAWINGS FOR EN	GINEER AND ARCHITECT	REVIEW THAT INCLUDE PRODUCT CUTSHEETS AND PROJECT-SPECIFIC LAYOUTS. LAYOUTS		
IUST INCL	UDE SENSOR LOCATION	IS, HEIGHTS, ORIENTATIO	ON, AND COVERAGE AREAS. SHOW COORDINATION WITH ALL OTHER CEILING DEVICES		
			N GRILLES, SPRINKLERS, LIGHT FIXTURES, AND OTHER OWNER-PROVIDED CEILING MOUNTED		
			CTORS, ETC. (SENSORS MAY BE ADVERSELY AFFECTED IF LOCATED TOO CLOSE TO OTHER		
	,		AND SCHEDULES WHEN APPLICABLE.		
GHTING C	ONTROLS PRICING SHA	LL BE COMPLETELY SEP	ARATE OF ANY LIGHT FIXTURE PRICING.		
EDIEV CO	OR(S) EOD ALL MALL AL	אום כבוו ואוס איסו ואיבבה הי	EVICES WITH THE ARCHITECT.		

		I			· · · · ·	E SC			
TYPE	MANUFACTURER	MODEL /1	ABRBQVED EQUIVALENTS	LAMPING / LIGHT SOURCE	DIMMING TYPE	VOLTAGE	INPUT WATTS	INPUT VA	DESCRIPTION NOT
A4	HE WILLIAMS	50-*CEILING*-2-4-L33-80-35-AF12125-DI M-UNV	COLUMBIA LIGHTING LLT24 SERIES LITHONIA LIGHTING GTL SERIES	LED 3500K 80CRI	0-10V	UNV	25	28	2'x4' RECESSED LED TROFFER. 3300 LUMEN. 3500K.
A4E	HE WILLIAMS	50-*CEILING*-2-4-L33-80-35-AF12125-EN /10W-DIM-UNV	-	LED 3500K 80CRI	0-10V	UNV	25	28	SAME AS A4 WITH INTEGRAL 10W BATTERY BACK UP TO OPERATE FOR A MINIMUM OF 90 MINUTES.
A5	HE WILLIAMS	50-G-2-4-L33-80-35-AF12125-DIM-UNV	COLUMBIA LIGHTING LLT24 SERIES LITHONIA LIGHTING GTL SERIES	LED 3500K 80CRI	0-10V	UNV	48	54	2'x4' RECESSED LED TROFFER. 5900 LUMEN. 3500K.
A5E	HE WILLIAMS	50-G-2-4-L33-80-35-AF12125-EM/10W-DM-UNV	-	LED 3500K	0-10V	UNV	48	54	SAME AS A3 WITH INTEGRAL 10W BATTERY BACK UP. TO OPERATE FOR A MINIMUM OF 90 MINUTES.
D1	COOPER LIGHTING	LDS4B-20-D010-EU4B-102035-4LBCS-1-INISH	CALIBER COMMERCIAL 4SFK/4SFL2X SERIES GOTHAM EVO SERIES ACUITY BRANDS INDY LLP4/LLPRM4 SERIES	LED 3500K 80CRI	0-10V	UNV	21	23	4" RECESSED DOWNLIGHT. 2000 LUMEN OUTPUT. WET LOCATION LISTED.
D1E	COOPER LIGHTING	LDS4B-20-D010-EU4B-102035-4LBCS-1-I INISH- EM DRIVER: ASSURANCE EM LIGHTING L16-C		LED 3500K 80CRI	0-10V	UNV	21	23	SAME AS D1 WITH INTEGRAL 7W BATTERY BACK UP. TO OPERATE A MINIMUM OF 90 MINUTES.
DW1	COOPER LIGHTING	LSR2B-15-WFL55-80-35-D010-CANOPY	HUBBELL LIGHTING PRESCOLITE LTC-3RDW GOTHAM 4" INCITO SERIES LITHONIA LIGHTING LDN4CYL SERIES	LED 3500K 80CRI	0-10V	UNV	26	29	4.5" SURFACE MOUNTED WET LOCATION LISTED DOWNLIGHT. 1500 LUMEN. 3500K. 54° BEAM.
DW1E	COOPER LIGHTING	LSR2B-15-WFL55-80-35-D010-CANOPY EM DRIVER: ASSURANCE EM LIGHTING L16-C		LED 3500K 80CRI	0-10V	UNV	26	29	SAME AS DW1 WITH REMOTE EMERGENCY DRIVER TO OPERATE A MINIMUM OF 90 MINUTES
EL	HE WILLIAMS	96-4-L62-80-35-HIAFR-EM/10W-WET/1-D RV-UNV	COLUMBIA LIGHTING LXEM LITHONIA LIGHTING FEM LED SERIES	LED 4000K 80CRI	0-10V	UNV	45	50	4' LINEAR. WET LOCATION LISTED. 6200 LUMEN. 4000K
F1E	HE WILLIAMS	75R SERIES	-	LED 3500K 80CRI	0-10V	UNV	32	36	SAME AS H4 WITH INTEGRAL OCCUPANCY SENSOR AND 10W BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES.
G1	LUMENWERX		LITECONTROL MOD 4 PENDANT LED 4L-P-D SERIES AXIS LIGHTING - WET BEAM 4 LED SURFACE SERIES	LED 3500K 80CRI	0-10V	UNV	30	33	4' VANDAL RESISTANT VAPORTITE LED. 5000 LUMEN. 3500K. GENERAL DISTRIBUTION.
H4	HE WILLIAMS	75L-4-L50-8-35-AF12125-DIM-UNV	COLUMBIA LIGHTING MPS SERIES LITHONIA LIGHTING ZL1D SERIES	LED 3500K 80CRI	0-10V	UNV	32	36	4' LINEAR SUSPENDED/WALL MOUNTED FIXTURE. 5000 LUMEN. 3500K.
H4E	HE WILLIAMS	75L-4-L50-8-35-AF12125-EM/10WLP-DIM UNV	-	LED 3500K 80CRI	0-10V	UNV	32	36	SAME AS H4 WITH INTEGRAL 10 W BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES.
H5E	HE WILLIAMS	75L-4-L50-8-35-AF12125-EM/10WLP-DIM UNV- OCCWS-FSP-211-L2-120/277	-	LED 3500K 80CRI	0-10V	UNV	0	0	SAME AS H4E WITH INTEGRAL OCCUPANCY SENSOR AND BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES.
L1	LUMINII	VWP-4-L60-7-30-TFT-FINISH-SDGL-DIM UNV (1) OUTPUT DRIVER: PS010V-96-24-LIN (3) OUTPUT DRIVER: PS010V-3X96-24-LIN	CALI LLED 8000 SERIES	80CRI	0-10V	UNV	9		WET LOCATION RATED 24V LED TAPE LIGHT WITH REMOTE DAMP LOCATION RATED 96WATT, 277 - 24V LED DRIVER. NARROW DISTRIBUTION. 3500K. 706 LUMEN/FT. 9 W/FT. PROVIDE CHANNEL AND ADDITIONAL WET LOCATION RATED FITTINGS FOR A FULLY FUNCTIONING TAPE LIGHTING SYSTEM.
L2	LUMENPULSE	LOGASHRAE-277-48-35K-WWRF-UMAS- DIM-ETE	KIM LIGHTING INT SERIES	LED 3500K 80CRI	0-10V				WET LOCATION RATED LINEAR GRADING FAÇADE FIXTURE WITH ASYMMETRICAL DISTRIBUTION AND ADJUSTABLE STANDOFF ARM MOUNT. 5W/FT. PROVIDE END-TO-END CONTINUOUS MOUNTING TO MATCH LENGTH OF SIGN.
WE	COPPER LIGHTING	IST-AF-600-LED-E1-T4FT-XX-8030-CBP	ELCAST LIGHTING 1495 SERIES LITHONIA LIGHTING WDGE2 LED SERIES FC LIGHTING FC1030 SERIES	LED 3000K 80CRI	0-10V	UNV	33	36	EXTERIOR WALL PACK WITH FIXTURE WITH 90 MINUTE BATTERY BACK-UP
Х	HE WILLIAMS	EXIT CA SERIES	DUAL-LITE LE SERIES LITHONIA LE SERIES ISOLITE RL SERIES LITHONIA LE SERIES HE WILLIAMS EXIT SERIES	LED	~~ <u>.</u> ~~	UNV	5	5	UNIVERSAL MOUNT EXIT SIGN

ANALOG

SENSOR

ANALOG

SENSOR

SWITCHES

AS REQ'D

LINE VOLTAGE WIRING

---- LOW VOLTAGE WIRING (CONFIRM

TYPE WITH MANUFACTURER)

OTHER SWITCHES

AS REQ'D

2. PROVIDE QUANTITY OF POWER PACKS AS REQUIRED BY MANUFACTURER TO SUPPORT QUANTITY OF SENSORS

ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM

REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULLY

3. DETAIL IS DIAGRAMMATIC AND IS BASED ON WATTSTOPPER. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND

FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING

4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN

THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING

LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR

MOMENTARY

SWITCH

REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.

CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.

MOMENTARY

SWITCH

LIGHT FIXTURE SCHEDULE GENERAL NOTES: 1. ALL LIGHT FIXTURES AND RELATED COMPONENTS SHALL BE

PROVIDED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.

2. ALL LIGHT FIXTURES AND RELATED COMPONENTS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID. UNLESS NOTED OTHERWISE.

3. THE PARTY SUPPLYING THE LIGHT FIXTURES IS RESPONSIBLE FOR SUPPLYING THE PROPER QUANTITY OF LIGHT FIXTURES.

LIGHT FIXTURE SCHEDULE SUPPLEMENTAL **SPECIFICATIONS:**

1. ANY PROPRIETARY, SOLE-SOURCED LIGHT FIXTURE LISTED IN THE LIGHT FIXTURE SCHEDULE SHALL BE UNIT PRICED ONLY. NO PACKAGING OR LOT PRICING OF THESE LIGHT FIXTURES SHALL BE ALLOWED. UNIT PRICES SHALL BE CLEARLY IDENTIFIED ON THE BID FORM.

2. PACKAGING OF LIGHT FIXTURES WILL NOT BE CONSIDERED OR APPROVED. REPRESENTATIVE AGENTS SHALL BE ALLOWED TO OFFER MINI-LOT PRICING (MLP) FOR LIGHT FIXTURES AS ALLOWED IN ELECTRICAL SPECIFICATIONS.

3. LIGHTING CONTROLS PRICING, INCLUDING BUT NOT LIMITED TO THOSE REFERENCED IN ELECTRICAL SPECIFICATIONS, SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING. ANY LIGHTING CONTROLS PRICING THAT IS SUBMITTED WITH LIGHT FIXTURE PRICING (UNIT OR MINI-LOT) WILL BE IMMEDIATELY REJECTED IN ITS ENTIRETY.

4. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBERS ONLY. FIRST READ THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS IN CONJUNCTION WITH THE CATALOG NUMBER TO DETERMINE THE MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

5. FOR SUBSTITUTIONS: PROVIDE PHOTOMETRIC CALCULATIONS AND OTHER NECESSARY INFORMATION FOR ENGINEER REVIEW. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

6. COORDINATE LIGHT FIXTURE MOUNTING HARDWARE AND TRIMS NEEDED TO SUIT CEILING CONDITIONS. LIGHT FIXTURES NEAR OR IN CONTACT WITH INSULATION SHALL COMPLY WITH CODE. MAINTAIN 3" MINIMUM WORKING CLEARANCE BETWEEN NON-IC RATED LIGHT FIXTURE HOUSINGS AND INSULATION ON ALL ADJACENT DUCTWORK, PIPING, WALLS, AND CEILINGS.

7. STRIP LIGHT FIXTURES SUBJECT TO DAMAGE, INCLUDING THOSE MOUNTED ON EQUIPMENT MEZZANINES, STORAGE, RECEIVING AND STOCKROOM AREAS, SHALL BE PROVIDED WITH WIRE GUARDS, PROTECT-A-LAMP COVERS OR EQUIVALENT SHIELDED OR SHATTERPROOF LAMPS/LIGHT SOURCES. COORDINATE REQUIREMENTS AND AFFECTED LIGHT FIXTURES WITH OWNER.

LIGHTING ONLY CONTROLLER TO OTHER ROOM LIGHTING LOAD - CONTROLLERS AS REQ'D SUPPLY ROOM CONTROLLER --- SENSORS AS SENSOR 0-10V WIRING AS NEEDED. r--- SWITCHES AS LINE VOLTAGE WIRING DIGITAL CONNECTED ---- LOW VOLTAGE WIRING (CONFIRM TYPE CONNECTED SWITCH WITH MANUFACTURER) LOAD LOAD — – – 0-10V DIMMING WIRING

FOR EXTERIOR

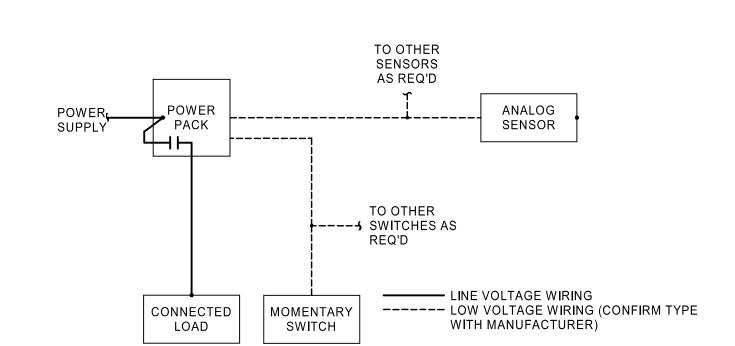
1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.

2. QUANTITY OF RELAYS SHOWN IS GENERIC. REFER TO PLANS, LIGHTING CONTROL DEVICE SCHEDULE, AND SHOP DRAWINGS FOR FINAL QUANTITY PER ROOM CONTROLLER.

3. DETAIL IS DIAGRAMMATIC AND IS BASED ON LEGRAND. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR INSTALLATION.

CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING

CONTROL PANEL SCHEDULES IN RECORD DRAWINGS. 5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.



INDICATED ON PLANS.

1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.

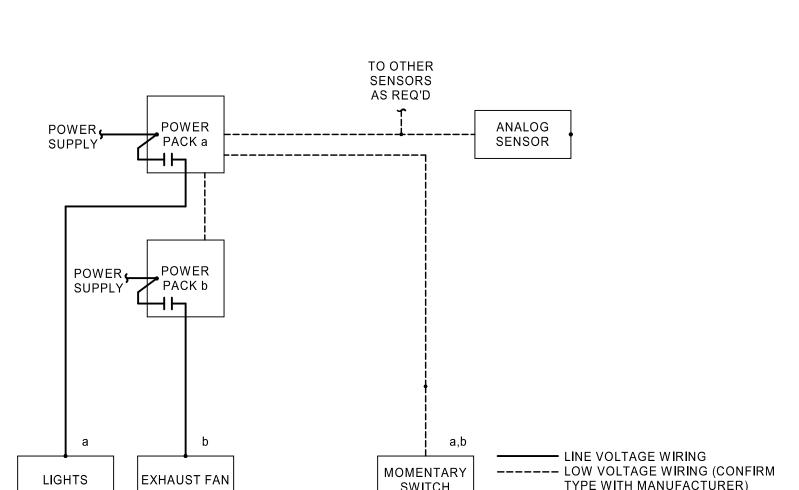
PROVIDE QUANTITY OF POWER PACKS AS REQUIRED BY MANUFACTURER TO SUPPORT QUANTITY OF SENSORS

3. DETAIL IS DIAGRAMMATIC AND IS BASED ON WATTSTOPPER. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER, PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR INSTALLATION.

4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.

5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.

OCCUPANCY SENSOR DETAIL - SINGLE POWER SUPPY AND SWITCH NTS

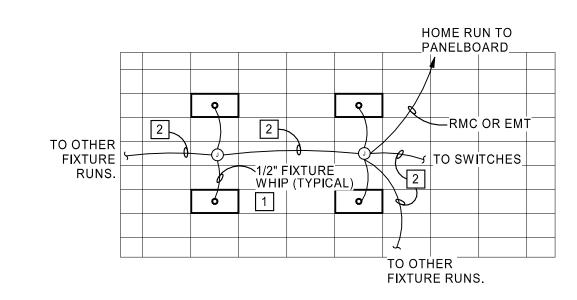


1 PROVIDE SUFFICIENT LENGTH TO MOVE CENTER OF LUMINAIRE IN A

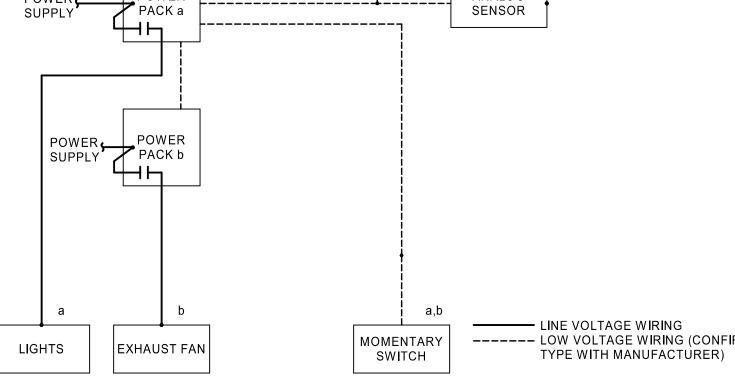
RADIUS OF THE LOCATION SHOWN ON THE PLANS. RMC OR EMT (UNLESS TYPE MC CABLE IS ALLOWED BY SPECIFICATIONS. IF MORE THAN 4 CURRENT CARRYING CONDUCTORS INCLUDING NEUTRALS, MC CABLE IS NOT ALLOWED).

G. PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL SWITCH LOCATIONS PER NEC REQUIREMENTS.

H. DO NOT SHARE NEUTRAL CONDUCTOR ON LOAD SIDE OF DIMMERS.



4 LIGHTING STANDARD LUMINAIRE WIRING NTS



1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.

2. PROVIDE QUANTITY OF POWER PACKS AS REQUIRED BY MANUFACTURER TO SUPPORT QUANTITY OF SENSORS

DIAGRAMS FOR INSTALLATION.

INDICATED ON PLANS. 3. DETAIL IS DIAGRAMMATIC AND IS BASED ON WATTSTOPPER. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULL' FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING

4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.

5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.

3 OCCUPANCY SENSOR DETAIL - MULTIPLE POWER SUPPLIES AND SWITCHES NTS

OCCUPANCY SENSOR DETAIL - MULTIPLE POWER SUPPLIES AND SWITCHES NTS

5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.

POWER PACK a

POWER POWER SUPPLY PACK c

RESTROOM

LIGHTS

DIAGRAMS FOR INSTALLATION.

RESTROOM

LIGHTS

POWER

PACK b

EXHAUST

FAN

Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

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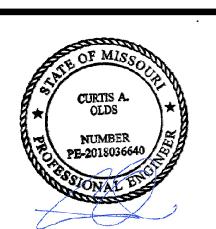
Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue Kansas City, MO 64111 816.531.4144

> civil engineer: **Kaw Valley Engineering** 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

> ENGINEERS 8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214 TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM



MO. CORPORATE NO: E-556D EXPIRES 12/31/2020

Nov 9 2020

REVISIONS DESCRIPTION Addendum 3



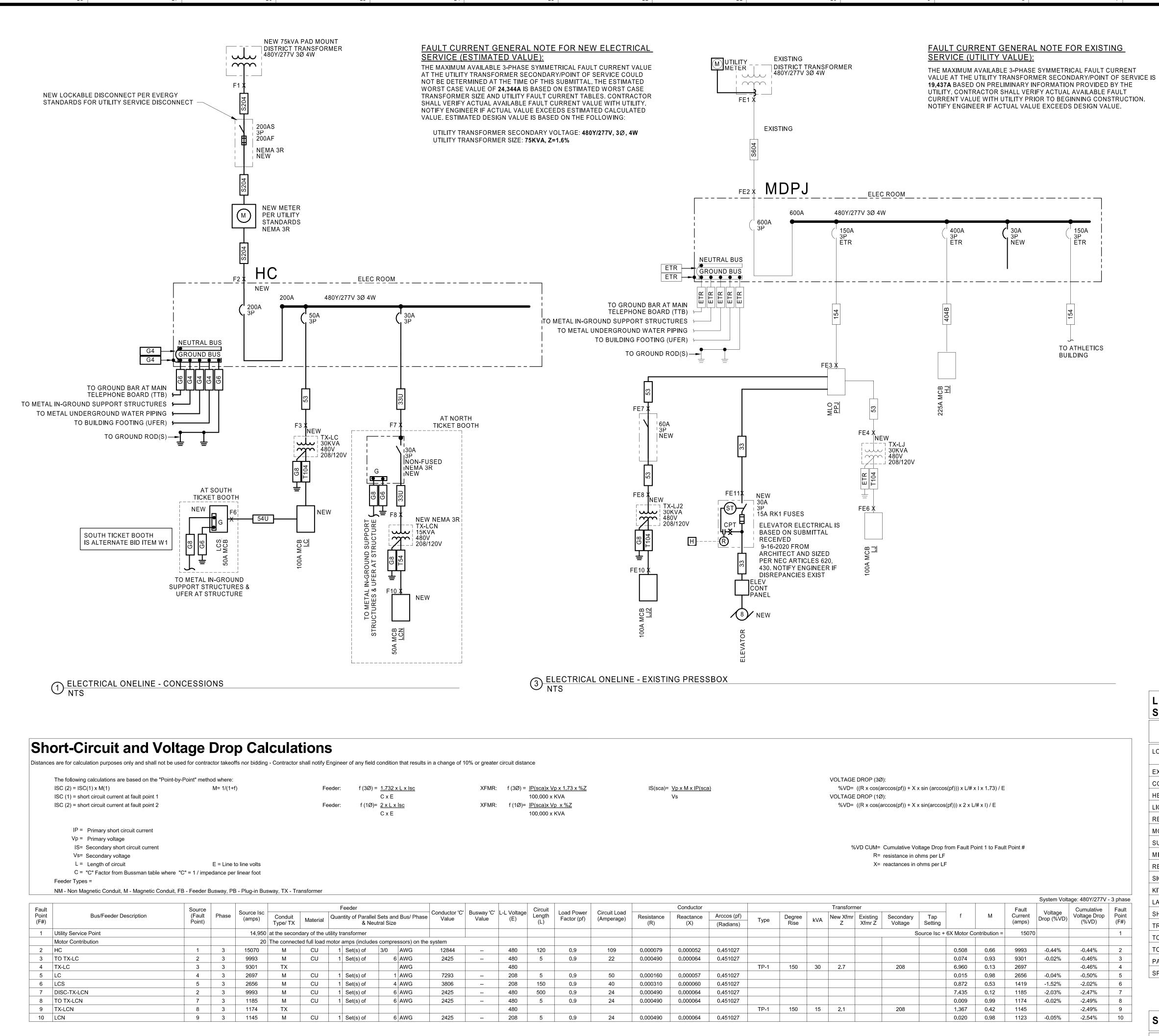
PROJECT NO: 0119-0101

September 28, 2020

LIGHTING SCHEDULES

BID SET

11/6/2020 2:49:08 PM



Conductor 'C' Busway 'C' L-L Voltage Length

0.9

Quantity of Parallel Sets and Bus/ Phase

1 Set(s) of 1/0 AWG

6 AWG

6 AWG

1 Set(s) of

1 Set(s) of

M CU 1 Set(s) of

 7
 3
 13397
 M
 CU
 1
 Set(s) of
 6
 AWG

 8
 3
 12183
 TX
 CU
 1
 1/0
 AWG

15341

13397

2804

14880

Resistance Reactance Arccos (pf)

0.000250 0.000059 0.451027

0.45102

0.451027

 2425
 - 480
 5
 0.9
 0.000490
 0.00064
 0.451027
 |
 |
 |
 |
 0.100
 0.91
 12183

 480
 0.9
 0.9
 0.451027
 TP-1
 150
 30
 2.7
 208
 9.115
 0.10
 2779

0.000039 0.000050

0.000120 0.000055

0.000490 0.000064

0.000490 0.000064

New Xfmr | Existing | Secondary |

Bus/Feeder Description

(FE#)

1 Utility Service Point

4 TO TX-LJ

5 TX-LJ

9 TX-LJ2

PRINT DATE/TIME: 9/25/2020 1:30:10 PM

Motor Contribution

7 TO 60A DISCONNECT

TO TX-LJ2

OVERCURRENT PROTECTIVE DEVICE OORDINATION STUDY GENERAL NOTE

1. CONTRACTOR SHALL PROVIDE AN OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY TO DETERMINE THE CORRECT SETTINGS FOR THE ADJUSTABLE TRIP CIRCUIT BREAKERS, TO ENSURE SELECTIVE COORDINATION AND TO DOCUMENT ARC-FLASH HAZARDS. CODE REQUIRED EMERGENCY AND LEGALLY REQUIRED STANDBY SYSTEMS SHALL BE SELECTIVELY COORDINATED WITH ALL SUPPLY-SIDE OVERCURRENT PROTECTIVE DEVICES (APPLIES TO BOTH THE NORMAI AND EMERGENCY POWER SOURCES). PROVIDE ALL NECESSARY AS-BUILT INFORMATION REQUIRED FOR COMPLETION OF THE STUDY TO THE ENGINEER DOING THE STUDY. PROVIDE SUBMITTALS INDICATED WITHIN THE SPECIFICATIONS TO OWNER AND ARCHITECT/ENGINEER TO CONFIRM STUDY HAS BEEN COMPLETED. CONTRACTOR SHALL INCLUDE THE COST FOR THIS WORK IN THEIR BID. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

THE OWNER SHALL FURNISH INDICATED PORTIONS OF THE ELECTRICAL DISTRIBUTION EQUIPMENT TO THE CONTRACTOR FOR INSTALLATION. THE OWNER WILL ALSO PROVIDE THE OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY TO THE CONTRACTOR. THE OWNER FURNISHED COORDINATION STUDY SHALL INCLUDE THE CORRECT SETTINGS FOR THE ADJUSTABLE TRIP CIRCUIT BREAKERS, ENSURE SELECTIVE COORDINATION AND DOCUMENT ARC-FLASH HAZARDS. CODE REQUIRED EMERGENCY AND LEGALLY REQUIRED STANDBY SYSTEMS SHALL BE SELECTIVELY COORDINATED WITH ALL SUPPLY-SIDE OVERCURRENT PROTECTIVE DEVICES, (APPLIES TO BOTH THE NORMAL AND EMERGENCY POWER SOURCES). THE CONTRACTOR SHALL PROVIDE NECESSARY AS-BUILT INFORMATION TO COMPLETE THE STUDY.

ONE-LINE DIAGRAM SUPPLEMENTAL SPECIFICATIONS:

- 1. GROUNDING ELECTRODE SYSTEM SHALL BE PER LOCAL REQUIREMENTS AND SHALL NOT BE LESS STRINGENT THAN THAT SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
- PROVIDE PROPERLY SIZED LUGS FOR ALL EQUIPMENT, CIRCUIT BREAKERS, AND OTHER ELECTRICAL DEVICES TO ACCOMMODATE INSTALLED CONDUCTORS. A LARGER FRAME, OVERSIZED LUGS OR NON-STANDARD PRODUCT MAY BE REQUIRED IN SOME INSTANCES. UTILIZE PIN ADAPTERS ONLY IF NECESSARY AND ONLY AS ALLOWED BY MANUFACTURER AND AHJ.
- 3. PROVIDE ANY AVAILABLE SPACE IN SWITCHBOARDS/PANELBOARDS WITH BUSSING.
- 4. PROVIDE (4) EMPTY 1" CONDUITS WITH PULL STRINGS FROM EACH RECESSED PANELBOARD UP TO ACCESSIBLE CEILING SPACE. CAP AND LABEL CONDUITS FOR FUTURE USE.
- PROVIDE TYPED FINAL CIRCUIT DIRECTORY FOR ALL PANELBOARDS TO REFLECT ACTUAL AS-BUILT CONDITIONS. COORDINATE FINAL ROOM NAMES, NUMBERS AND DESCRIPTIONS WITH OWNER PRIOR TO COMPLETION. CIRCUIT DESCRIPTIONS SHALL BE PER CODE AND SHALL BE DISTINGUISHABLE FROM ALL OTHERS.

FEEDER SCHEDULE:

SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNO. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNO. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNO. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS. IMC AND RMC: ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FEEDER TAG	FEEDER DESCRIPTION
33	(3)#10, (1)#10 G, 1/2" C
33U	(3)#6, (1)#8 G, 1" C
53	(3)#6, (1)#10 G, 1" C
54U	(4)#4, (1)#8 G, 1-1/4" C
154	(4)#1/0, (1)#6 G, 1-1/2" C
404B	(4)-600 kcmil, (1)#3 G, 3-1/2" C
ETR	EXISTING TO REMAIN
G2	#2 COPPER GROUND, 3/4" C
G4	#4 COPPER GROUND, 3/4" C
G6	#6 COPPER GROUND, 3/4" C
G8	#8 COPPER GROUND, 3/4" C
S204	(4)#3/0, 2" C
S604	(2) 3" C, EACH W/ (4)-350 kcmil
T54	(4)#8, (1)#8 SSBJ, 3/4" C
T104	(4)#3, (1)#8 SSBJ, 1-1/4" C

LOAD SUMMARY: CONCESSIONS ELECTRICAL

SERVICE						
PANEL DESCRIPTION: 480Y/277 V						
EXISTING LOAD (E)	0 VA	100%				
COOLING (C)	0 VA	0%	0 VA			
HEATING (H)	49066 VA	100%	49066 VA			
LIGHTING (L)	1860 VA	125%	2325 VA			
RECEPTACLES (R)	6660 VA	100%	6660 VA			
MOTORS (M)	3504 VA	100%	3504 VA			
SUPPLEMENTAL HEAT (U)	24000 VA	100% 100% 100%	24000 VA			
MISC EQUIP (Z)	605 VA		605 VA 0 VA			
REFRIGERATION (F)	0 VA					
SIGN/DISPLAY (D)	0 VA	125%	0 VA			
KITCHEN (K)	2000 VA	100%	2000 VA			
LARGEST MOTOR	1200 VA	125%	1500 VA			
SHOW WINDOW (W)	0 VA	125%	0 VA			
TRACK LIGHTING	0 VA	100%	0 VA			
TOTAL LOAD	88895	VA	89660			
TOTAL AMPACITY	107	AMPS	108			
PANEL AMPACITY		AMPS	200			
SPARE CAPACITY		AMPS	92			

Voltage Drop Point (%VD) (F#)

(F#)

Current

0.79

0.97

0.90

0.98

0.90

10.024 0.09

Source Isc + 6X Motor Contribution =

0.111

0.024

0.111

ELECTRICAL UTILITY CONTACT NOTE:

UTILITY COMPANY: EVERGY ENERGY UTILITY CONTACT: RON DEJARNETTE EMAIL: RON.DEJARNETTE@EVERGY.COM

ONE-LINE DIAGRAM GENERAL NOTES:

1. THE INFORMATION SHOWN IN THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATIONS SCHEDULE IS SHOWN FOR CALCULATION PURPOSES ONLY. CONTRACTOR SHALL NOT USE THE CONDUIT TYPES. CONDUCTOR TYPES. SIZES, QUANTITIES OR LENGTHS FOR TAKEOFFS OR BIDDING PURPOSES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THIS SCHEDULE AND OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL NOTIFY ENGINEER OF AS-BUILT CONDITIONS THAT CONSTITUTE A CHANGE FROM WHAT IS SHOWN BELOW: THIS INCLUDES CONDUCTOR LENGTHS DIFFERING BY MORE THAN 10%.

2. REFER TO THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATIONS TABLE AVAILABLE FAULT CURRENT INFORMATION IS LISTED UNDER THE "FAULT CURRENT" COLUMN. VOLTAGE DROP VALUES ARE LISTED UNDER THE "CUMULATIVE VOLTAGE DROP" COLUMN. THE AIC/SCCR RATING OF THE EQUIPMENT SHALL NOT BE LESS THAN THE AVAILABLE 3-PHASE SYMMETRICAL FAULT CURRENT. ALL SERIES RATED EQUIPMENT SHALL BE PROPERLY LISTED AND LABELED PER CODE.

- FEEDER NUMBER DESIGNATIONS PRECEDED BY "V" INDICATE THAT THE CONDUCTORS ARE UP-SIZED DUE TO VOLT-DROP CONSIDERATIONS. PROVIDE LUG ADAPTERS AS NEEDED IN ORDER TO PROPERLY LAND CONDUCTORS AT TERMINATION(S).
- 4. FEEDER SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION. UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNLESS NOTED OTHERWISE. AL WIRE MAY BE SUBSTITUTED FOR CU FEEDERS AS ALLOWED BY CODE, SPECIFICATIONS AND OWNER, UNLESS NOTED OTHERWISE. AT CONTRACTOR'S OPTION, CU WIRE MAY BE SUBSTITUTED FOR AL, UNLESS NOTED OTHERWISE. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- BRANCH CIRCUIT SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. ALL CONDUCTOR SIZES ARE BASED ON 60 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- INSTALL FEEDERS OVERHEAD AS HIGH AS PRACTICABLE AND ORTHOGONALLY ALONG BUILDING STRUCTURE, UNLESS NOTED OTHERWISE COORDINATE FINAL ROUTING WITH OTHER TRADES. 7. CIRCUIT BREAKERS RATED 1200A OR HIGHER SHALL HAVE APPROPRIATE DOCUMENTATION AND METHOD TO REDUCE CLEARING TIME IN ORDER TO REDUCE ARC FLASH ENERGY PER CODE. PROVIDE ELECTRONIC TRIP UNIT

WITH INSTANTANEOUS TRIP AND ENERGY-REDUCING MAINTENANCE SWITCH

WITH LOCAL STATUS INDICATOR FOR COMPLIANCE. PROVIDE PROVISIONS TO

8. PROVIDE A PERMANENT LABEL ON FRONT OF EQUIPMENT ENCLOSURE; REFER TO SPECIFICATIONS FOR LABEL REQUIREMENTS. LABEL SHALL READ AS FOLLOWS (INCLUDE RESPECTIVE NAMES IN BLANKS):

INTERFACE WITH OWNER ALARM/MONITORING SYSTEM TO INDICATE

EXAMPLE: 208Y/120V, 60HZ

MAINTENANCE SWITCH STATUS.

SERVICE EQUIPMENT LABEL

SCCR = 65,000A MAX AVAILABLE FAULT CURRENT = 58,815A CALCULATED: 01/01/2018

PANELBOARD/SWITCHBOARD LABEL: LINE 1: PANELBOARD " "SUPPLIED BY UPSTREAM LINE 2: PANELBOARD/SWITCHBOARD "_____"

LINE 3: LOCATED IN "_ LINE 4: PANELBOARD "_____" SUPPLIES DOWNSTREAM LINE 5: PANELBOARD(S) "_____"

TRANSFORMERS LABEL:

LINE 1: TRANSFORMER "_____" SUPPLIED BY UPSTREAM LINE 2: PANELBOARD/SWITCHBOARD "____ LINE 3: LOCATED IN " LINE 4: TRANSFORMER "_____ " SUPPLIES DOWNSTREAM

ONE-LINE DIAGRAM GENERAL NOTES:

LINE 5: PANELBOARD(S) "_____"

1. COORDINATE WORK WITH ARCHITECTURAL PHASING DRAWINGS TO PROPERLY STAGE TRANSITION TO PROVIDE POWER TO EXISTING, NEW AND TEMPORARY LOADS. MONITOR LOADS ON DISTRIBUTION SYSTEM TO MAKE

- SURE SHIFTING OF LOADS DOES NOT OVERLOAD ELECTRICAL EQUIPMENT. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING AIC/SCCR RATING OF EACH PANELBOARD/SWITCHBOARD. ALL NEW AND EXISTING OVER-CURRENT PROTECTION DEVICES (CIRCUIT BREAKERS AND FUSES) MUST HAVE AN AIC/SCCR RATING EXCEEDING THE AVAILABLE FAULT CURRENT AT THAT POINT IN THE SYSTEM. NOTIFY THE OWNER AND THE ENGINEER IF THE EXISTING EQUIPMENT DOES NOT COMPLY WITH THIS REQUIREMENT.
- 3. VERIFY THE INTEGRITY OF THE EXISTING GROUNDING ELECTRODE SYSTEM AND THAT THE NEUTRAL AND GROUND ARE PROPERLY BONDED TOGETHER AT THE POINT OF SERVICE ENTRANCE. NOTIFY THE OWNER AND THE ENGINEER OF ANY EXISTING DEFICIENCIES.
- 4. AS APPLICABLE, OBTAIN THE FOLLOWING INFORMATION IN REGARD TO THE EXISTING ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AND REPORT FINDINGS TO THE ENGINEER FOR ANALYSIS PRIOR TO BEGINNING CONSTRUCTION:
- A. AVAILABLE FAULT CURRENT DELIVERED BY THE UTILITY COMPANY AT THE POINT OF SERVICE.
- B. PROVIDE A PLAN SKETCH OF THE LANDLORD'S DISTRIBUTION EQUIPMENT LOCATION RELATIVE TO THE ENTIRE BUILDING. INCLUDE THE LOCATION. UTILITY METER AND SERVICE DISCONNECT, RELEVANT FEEDER ROUTING AND LENGTHS.
- C. PROVIDE A SKETCH OF THE ONE-LINE SHOWING THE PATH FROM THE UTILITY TRANSFORMER TO THE EQUIPMENT. INCLUDE FEEDER CONDUCTOR MATERIAL, (AL OR CU), NUMBER AND SIZE OF
- CONDUCTORS, GROUND, LENGTH, CONDUIT SIZE AND CONDUIT TYPE. D. TYPE OF SERVICE DISCONNECT OVER-CURRENT PROTECTION DEVICE, (FUSE OR CIRCUIT BREAKER), AMPERE RATING OF THE DEVICE AND AIC/SCCR RATING OF THE DEVICE.

E. AIC/SCCR RATING AT EACH EXISTING SWITCHBOARD/PANELBOARD.

SERVICE LOAD SUMMARY (MDPJ)					
SERVICE OCCUPANCY TYPE: STORE		SERVICE DESCRIPTION: 480Y/277 V			
SERVICE SQUARE FOOTAGE: 5000					
LOAD TYPE	CONNECTED LOAD KVA	DEMAND FACTOR	NEC DEMAND KVA		
EXISTING PEAK UTILITY (@ 0.9 pf)	N/A	125%	300.00		
COOLING (C)	1.06	0%	0.00		
HEATING (H)	6.00	100%	6.00		
LIGHTING (L) (PER NEC-220)	2.14	125%	2.67		
RECEPTACLES (R)	3.42	100%	3.42		
MOTORS (M)	1.18	100%	1.18		
SUPPLEMENTAL HEAT (U)	0.00	100%	0.00		
MISC EQUIP (Z)	1.62	100%	1.62		
REFRIGERATION (F)	0.00	100%	0.00		
SIGN/DISPLAY (D)	0.00	125%	0.00		
KITCHEN (K)	0.00	100%	0.00		
LARGEST MOTOR	9.98	125%	12.47		
SHOW WINDOW (W)	0.00	125%	0.00		
TRACK LIGHTING	0.00	100%	0.00		
EXISTING LOAD TO BE DELETED	0.00	100%	0.00		
TOTAL LOAD	25.39	KVA	327.35		
TOTAL AMPACITY	30.53	AMPS	393.75		
SERVICE AMPACITY		AMPS	600.00		
SPARE CAPACITY		AMPS	206.25		
*PER UTILITY COMPANY BILLING PEAK DEMAND OF:		216.00 KW	8-19-2019		

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Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School

Lee's Summit R-7 School District 301 NE Tudor Road

Lee's Summit, MO 64082

2600 SW Ward Road

Gould Evans 4200 Pennsylvania Avenue Kansas City, MO 64111 816.931.6655 voice www.gouldevans.com structural engineer: Bob D. Campbell & Company, Inc. 4338 Belleview Avenue

Lee's Summit, MO 64086

civil engineer: Kaw Valley Engineering 14700 West 114th Terrace Lenexa, KS 66215 913.485.0318

Kansas City, MO 64111

816.531.4144

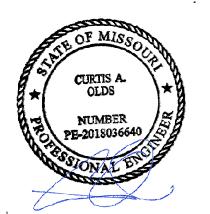
816.742.5000

mechanical/electrical engineer: Henderson Engineers 8345 Lenexa Drive | Suite 300 Lenexa, KS 66214

ENGINEERS 8345 LENEXA DRIVE, SUITE 300 TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM

MO. CORPORATE NO: E-556D

EXPIRES 12/31/2020



REVISIONS

DESCRIPTION

CONSTRUCTION AS NOTED ON PLANS REVIEW **DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI

PROJECT NO:

September 28, 2020

DIAGRAM

ELECTRICAL ONE-LINE

HIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBRITANDARD MOUNTING HEIGHTS	EVIATIONS ARE USED. PATHWAYS	TELECOMMUNICATIONS OUTLETS				GENERAL NEW WORK NOTES
ELECOM BACKBOARD (BOTTOM OF BACKBOARD) 4"	WIRE MESH CABLE TRAY (W"=WIDTH, "H"=HEIGHT)	TELEGOIVIIVIONIONIONIONIONIONIONIONIONIONIONIONIONI				READ THE SPECIFICATIONS AND REVIEW DRAWINGS OF ALL DIVIS
ADDER RACK IN TELECOM ROOMS (BOTTOM OF DEVICE) 90" ABLE TRAY / CONDUIT AFC (BOTTOM OF PATHWAY) 3"(MIN) IGHT FIXTURE IN TELECOM ROOMS (BOTTOM OF DEVICE) 108"(MIN)	VERTICAL CABLE TRAY	SYMBOL DESCRIPTION FLEY ELEVATOR PHONE OUTLET - ANALOG	CABLE(S) DETAIL 1 8/W-TN500			OF WORK. COORDINATE THIS WORK WITH ALL OTHER DIVISIONS (WORK AND ALL SUBCONTRACTORS.
ELEPHONE WALL OUTLET (CENTERLINE) ATA WALL OUTLET SAME AS ADJACENT DEVICE, UNO	UNDERGROUND CONDUIT (#) D" ("#"=QUANTITY, "D"=CONDUIT DIAMETER)	▼ ELEV ELEVATOR PHONE OUTLET - ANALOG DATA WALL OUTLET	1 2,4,6/W-TN500			2. ALL WORK SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS (DIVISION 26, DIVISION 27, DIVISION 28, ETC.) AND THE CUSTOMER
ELEVISION OUTLET REFER TO ARCH DRAWINGS MGB/TGB (CENTERLINE) 84" /ALL CLOCK (CENTERLINE) 84"	(#) D" (#=QOANTITY, D=GONDOIT DIAMETER)	DATA CEILING OUTLET - WIRELESS ACCESS POINT	2 3,4/W-TN500			PRE-ESTABLISHED STRUCTURED CABLING STANDARDS; SHOULD DIFFERENCES EXIST IN THE SPECIFICATIONS RELATING TO TECHNOLOGY AND THE CLIENT'S PRE-ESTABLISHED STANDARDS
TERCOM (CENTERLINE) 48"	CABLE SUPPORTS OR J-HOOKS	DATA WALL OUTLET - EXISTING TO REMAIN	2 2,4,6/W-TN500			CONTRACTOR SHALL CONTACT THE LOW VOLTAGE ENGINEER FO CLARIFICATION THROUGH THE RFI PROCESS.
SE THE DEFAULT MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE ONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ARE ABOVE NISHED FLOOR (AFF) OR ABOVE FINISHED GRADE (AFG) TO BOTTOM OF	CONDUIT SLEEVE	DATA CEILING OUTLET - EXISTING TO REMAIN TELECOMMUNICATIONS RESPONSIBILITY	1 3,4/W-TN500			3. FULLY COORDINATE ALL CABLE TRAY, FIRE STOP CONDUITS / SLEEVES, AND CONDUIT ROUTING WITH STRUCTURAL ELEMENTS
UTLET BOX. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH URRENT ADA AND LOCAL REQUIREMENTS.	(#) D" ("#"=QUANTITY, "D"=CONDUIT DIAMETER) FS UL FIRESTOP SYSTEM ASSEMBLY	TEEECOMMONICATIONS RESPONSIBILITY	Furnish	Install		COORDINATE CABLE TRAY AND CONDUIT INSTALLATIONS WITH ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTO
BBREVIATIONS	PB L"XW"XH" PULL BOX ("L"=LENGTH, "W"=WIDTH, "H"=HEIGHT)					AND GENERAL CONTRACTOR PRIOR TO INSTALLATION. ROUTING CONCRETE SLAB OR UNDER SLAB (WHERE CONDUIT WOULD BE CORADE) REQUIRES THE USE OF WET LOCATION RATED CABLES.
AMPERES LAN LOCAL AREA NETWORK A AMERICANS WITH LCC LIMITED COMBUSTIBLE CABLE DISABILITIES ACT LEC LOCAL EXCHANGE CARRIER	SC SPLICE	Description	Construction Team Owner	Construction Team Owner	Comments	4. ALL TELECOMMUNICATIONS CONTINUOUS PATHWAYS SHALL BE BONDED TO THE TELECOMMUNICATIONS BONDING BACKBONE; FO
C ABOVE FINISHED CEILING LED LIGHT-EMITTING DIODE F ABOVE FINISHED FLOOR LF LINEAR FEET	RISER DIAGRAMS FIBER OPTIC CROSS CONNECT - DETAIL 5/W-TN500					CONDUITS, INSULATION BUSHINGS SHALL BE USED AT THE END O THE CONDUIT THE FARTHEST AWAY FROM THE SERVING TR; A
G ABOVE FINISHED GRADE MAN METROPOLITAN AREA J AUTHORITY HAVING NETWORK JURISDICTION MATV MASTER ANTENNA		General Communications Grounding and Bonding	Y	Y		BONDING BUSHING SHALL BE USED AT THE END CLOSEST TO THE SERVING TR. CONTRACTOR TO REFER TO THE ANSI-STD-J 607 STANDARD FOR ADDITIONAL INFORMATION AS TO THE INSTALLAT
SI AMERICAN NATIONAL TELEVISION STANDARDS INSTITUTE MC MAIN CROSS-CONNECT	COPPER UTP CROSS CONNECT	Hangers and Supports Conduits and Backboxes	X	X		OF THE TELECOMMUNICATIONS BONDING BACKBONE.
ACCESS POINT MDF MAIN DISTRIBUTION FRAME AUDIO-VIDEO MFR MANUFACTURER AMERICAN MURICIPALITY MAINTENANCE HOLE	P 110-TYPE PROTECTOR BLOCK	Surface Raceways Underground pathways for utility entrance and floor boxes	X	X		5. ALL FIRE RATED WALL / FLOOR ASSEMBLIES PENETRATED FOR TELECOMMUNICATIONS CABLING PATHWAYS SHALL BE FIRE STO
/G AMERICAN WIRE GAUGE MH MAINTENANCE HOLE S BUILDING AUTOMATION MM MULTIMODE SYSTEM MPOE MAIN POINT OF ENTRANCE	PATCH PANEL PATCH PANEL - DETAIL 7/W-TN500	Firestops, Conduit Sleeves, and Sleeve Seals Structured Cabling	X	X		WITH THE APPROVED FIRE STOP SYSTEMS (F/S). ALL FIRESTOP SYSTEMS SHALL BE INSTALLED AS DIRECTED BY THE MANUFACTI AND AS SPECIFIED IN DIVISION 07 07 84 00 - "FIRESTOPPING". FIR
BUILDING DISTRIBUTOR MPOP MAIN POINT OF PRESENCE MTD MOUNTED	TGB TELECOM GROUND BAR (TGB) - DETAIL 9/W-TN500	Telecom Room Buildout (ex. backboard and ladder rack)	X	X		STOP ASSEMBLY LOCATIONS ARE TO BE COORDINATED WITH CAR TRAY PATHWAY TO TELECOMMUNICATIONS ROOM.
FRAME C BELOW FINISHED CEILING CONDUIT N/A NOT APPLICABLE NEC NATIONAL ELECTRICAL CODE NFPA NATIONAL FIRE PROTECTION		Optical Fiber Backbone Cable and Connectivity Copper Backbone Cable and Connectivity	X	X		6. BACK BOXES AND CONDUIT LOCATIONS IN PRECAST CONCRETE WALLS SHALL BE COORDINATED WITH ARCHITECT, STRUCTURAL
T CATEGORY ASSOCATION TV COMMUNITY ANTENNA NIC NOT IN CONTRACT	TMGB TELECOM MAIN GROUND BAR (TMGB)	Copper Backbone Cable and Connectivity Copper Horizontal Cable and Connectivity Data Communications	X	X		ENGINEER, AND GC PRIOR TO ORDERING THE PRECAST WALLS.
TELEVISION nm NANOMETER TV CLOSED CIRCUIT NRTL NATIONALLY RECOGNIZED TELEVISION TESTING LAB	———— TELECOMMUNICATIONS BACKBONE CABLING ————————————————————————————————————	Router / Firewall Core Switch / Edge Switch	X	X		7. ROUTING OF CABLES SHALL BE CONCEALED. CABLES SHALL BE ROUTED IN CONDUIT IN EXPOSED AREAS. MINIMIZE AMOUNT OF EXPOSED CONDUIT BY EMBEDDING CONDUIT IN SLAB WHEN
CAMPUS DISTRIBUTOR OC ON CENTER IP COMMUNICATIONS PLENUM OSHA OCCUPATIONAL SAFETY AND	TELECOMMUNICATIONS ROOM	Wireless Access Points Servers / Storage and Backup	X	X		POSSIBLE. EMBEDDED CONDUITS AND PENETRATIONS OF STRUCTURE SHALL FOLLOW DETAILS IN STRUCTURAL DRAWINGS
JACKET HEALTH ADMINISTRATION IR COMMUNICATIONS RISER OSP OUTSIDE PLANT	LADDER RACK	Laptops / Desktops / Copiers / Printers / Scanners Software	X	X		WHEN CONDUITS CAN ONLY BE INSTALLED EXPOSED, NOTIFY ARCHITECT PRIOR TO START OF INSTALLATION OF CONDUITS. CA
JACKET S DISTRIBUTED ANTENNA SYSTEM PBX PRIVATE BRANCH EXCHANGE POE POWER OVER ETHERNET PON PASSIVE OPTICAL NETWORK	TELECOM MAIN GROUND BAR (TMGB) - WALL ELEVATION VIEW	Voice Communications VoIP Gateway / Analog handsets	V	V		SHALL BE ROUTED IN CONDUIT WHEN ABOVE HARD CEILINGS. CONDUITS FOR ELEVATOR PHONES AND FIRE ALARM CONTROL PANEL SHALL BE CONTINUOUS (HOMERUN) FROM THE
DECIBELS POTS PLAIN OLD TELEPHONE SERVICE		VolP handset wall mount kit VolP handsets	X	X		TELECOMMUNICATIONS ROOM TO THE APPLICABLE BOX / CABINE CONTRACTOR SHALL SIZE AND PROVIDE CONDUITS TO MEET TIA-
EXISTING PSTN PUBLIC SWITCHED ELECTRICAL CONTRACTOR TELEPHONE NETWORK IA ELECTRONIC COMPONENTS QTY QUANTITY	TGB TELECOM GROUND BAR (TGB) - WALL ELEVATION VIEW	Voir halidsets Voir Network licensing	X	X		8. TELECOMMUNICATIONS ROOMS SHALL BE DEDICATED FOR INFORMATION TECHNOLOGY USE (I.E. NO SHARED SPACE WITH A
INDUSTRY ASSOCIATION RCDD REGISTERED COMMUNICATIONS	世 出 TMGB/TGB - PLAN VIEW					JANITOR, FIRE ALARM SYSTEM, ETC.) NO SERVICES SHALL PASS THROUGH THE SPACE UNLESS DEDICATED TO THE SPACE (NO
INTERFERENCE DISTRIBUTION DESIGNER SENERGY MANAGEMENT RMC RIGID METAL CONDUIT SYSTEM RU RACK UNIT	TELECOM BACKBOARD					PLUMBING, MECHANICAL, ELECTRICAL, FIRE, ETC.)
SYSTEM RU RACK UNIT T ELECTRICAL METALLIC SCS STRUCTURED CABLING TUBING SYSTEM	TWO-POST EQUIPMENT RACK					
EQUIPMENT ROOM SF SQUARE FEET R EXISTING TO REMAIN SM SINGLEMODE						
AP FIRE ALARM ANNUNCIATOR SPECS SPECIFICATIONS PANEL TBB TELECOMMUNICATIONS CP FIRE ALARM CONTROL BONDING BACKBONE	FOUR-POST EQUIPMENT RACK					GENERAL DEMOLITION NOTES
PANEL TBD TO BE DETERMINED FLOOR DISTRIBUTOR TIA TELECOMMUNICATIONS	EQUIPMENT CABINET (REFER TO PLAN NOTES ON					PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULL ACQUAINTED WITH THE EXISTING CONDITIONS OF THE FACILITY.
C FLEXIBLE METAL CONDUIT INDUSTRY ASSOCIATION FIRE STOP SYSTEM TGB TELECOMMUNICATIONS GROUND BUS BAR	ENLARGED PLANS FOR MORE INFORMATION)					INCLUDING PATHWAY LOCATIONS AND ELEVATIONS. REVIEW THE GENERAL NOTES AND ALL OTHER TRADE DRAWINGS FOR ADDITIONS.
ITP SCREEN TWISTED PAIR TMGB TELECOMMUNICATIONS MAIN (SHIELDED) GROUND BUS BAR						REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION THE CONSTRUCTION DOCUMENTS, INCLUDING ALL DEMOLITION A
GENERAL CONTRACTOR TR TELECOMMUNICATIONS ROOM GROUNDING EQUALIZER TYP TYPICAL						NEW WORK DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OW AS SPECIFIED, OF ANY CONFLICTS OR DISCREPANCIES.
P GYPSUM BOARD UNO UNLESS NOTED OTHERWISE UL UNDERWRITER LABORATORIES, INC.						2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITION
M HORIZONTAL CABLE UPS UNINTERRUPTIBLE POWER SUPPLY						FIELD VERIFY CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPL AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
HAND HOLE HERTZ U/UTP UNSHIELDED TWISTED PAIR V VOLT(S) VCM VERTICAL CABLE MANAGER						3. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMA
CONDUIT W WIRE INTERNET PROTOCOL WAN WIDE AREA NETWORK						FOR NEW INSTALLATION. REPAIR DAMAGE CAUSED DURING WOR NO EXTRA COST TO OWNER.
P INTERNET SERVICE WAO WORK AREA OUTLET WAP WIRELESS ACCESS POINT						4. REMOVE ALL PATHWAYS, CABLING AND ASSOCIATED DEVICES FO ALL ITEMS INTENDED TO BE REMOVED. ABANDONING UNUSED
P INSIDE PLANT CABLE WP WEATHER PROOF JUNCTION BOX WR WEATHER RESISTANT OX JUNCTION BOX WT WATERTIGHT						PORTIONS WILL NOT BE ACCEPTABLE.
XP EXPLOSION-PROOF						5. REMOVE EXISTING ITEMS AS REQUIRED TO ACCOMMODATE THE GENERAL DEMOLITION SCOPE. ANY SYSTEMS PASSING THROUGH SPACE INTENDED TO REMAIN IN SERVICE SHALL BE PROTECTED.
NOTATION TECHNOLOGY BLAN CALLOUT						RELOCATED AS REQUIRED TO MAINTAIN SERVICE AND ACCOMMODATE THE GENERAL DEMOLITION AND NEW SCOPE OF
1 TECHNOLOGY PLAN CALLOUT						WORK. 6. REFER TO ARCHITECTURAL PLANS FOR SCOPE OF AREAS THAT A
1 EQUIPMENT DESIGATION (OWNER FURNISHED, CONTRACTOR INSTALLED)						TO BE DEMOLISHED UNDER THIS PHASE OF CONSTRUCTION. NOT THAT IN SOME CASES, MEPFT DEMOLITION WORK EXTENDS BEYO
CONNECTION POINT OF NEW WORK TO EXISTING						SCOPE OF AREA IDENTIFIED DUE TO EXISTING SYSTEM DESIGN. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO STARTING WORK.
1 DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER. LOWER NUMBER INDICATES SHEET NUMBER						7. COORDINATE THE INTERMEDIATE STORAGE, REMOVAL AND FINAL
1 SECTION CUT DESIGNATION						DISPOSITION OF TELECOMMUNICATIONS SCS COMPONENTS (PATHWAYS, CABLE, TERMINATION COMPONENTS, ETC) AND THE
NETYPE LEGEND						REQUIRED PROTECTION OF EXISTING SPECIAL SYSTEMS EQUIPM WITH OWNER PRIOR TO IMPLEMENTATION THAT ARE TO BE REMOVAS A RESULT OF THE DEMOLITION / RENOVATION WORK.
IROUGHOUT THE DRAWINGS DIFFERENT LINE-TYPES ARE USED IN						8. EXISTING TELECOMMUNICATIONS CABLES AND COMPONENTS TH
OMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS KISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF THE NEW WORK ND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE.						PASS THROUGH THE CONSTRUCTION ZONE SHALL BE PROTECTE AND REMAIN IN PLACE SO AS TO MAINTAIN SERVICE WHILE ALSO ACCOMMODATING THE GENERAL DEMOLITION AND NEW SCOPE
HE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED						WORK. CONTRACTOR SHALL COORDINATE ALL SUCH EFFORTS WITHE CLIENT PRIOR TO IMPLEMENTATION. DAMAGE TO EXISTING A
FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS ETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES.						TO REMAIN IN PLACE TELECOMMUNICATIONS CABLES AND COMPONENTS CAUSED BY THE CONTRACTOR SHALL BE REPAIRE A TIMELY MANNER AND TO THE WRITTEN SATISFACTION OF THE
NY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE ENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON						CLIENT AND AT NO ADDITIONAL COST TO THE CLIENT. CONTRACT SHALL PROVIDE CABLE SUPPORTS FOR ANY EXISTING CABLES THE
NY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.						ARE NOT PROPERLY SUPPORTED.
ISTING — NEW — NEW						
MOLISH — — — FUTURE						

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Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road

owner:

Lee's Summit R-7 School District

301 NE Tudor Road

Lee's Summit, MO 64086

Lee's Summit, MO 64082

architect:
Gould Evans

4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
4338 Belleview Avenue
Kansas City, MO 64111

civil engineer:

Kaw Valley Engineering

14700 West 114th Terrace
Lenexa, KS 66215

816.531.4144

Lenexa, KS 66215 913.485.0318 mechanical/electrical engineer:

Henderson Engineers

8345 Lenexa Drive | Suite 300 Lenexa, KS 66214 816.742.5000

> HENDERSON ENGINEERS

8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214 TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM 2050003134 MO. CORPORATE NO: E-556D EXPIRES 12/31/2020

REVISIONS

DESCRIPTION

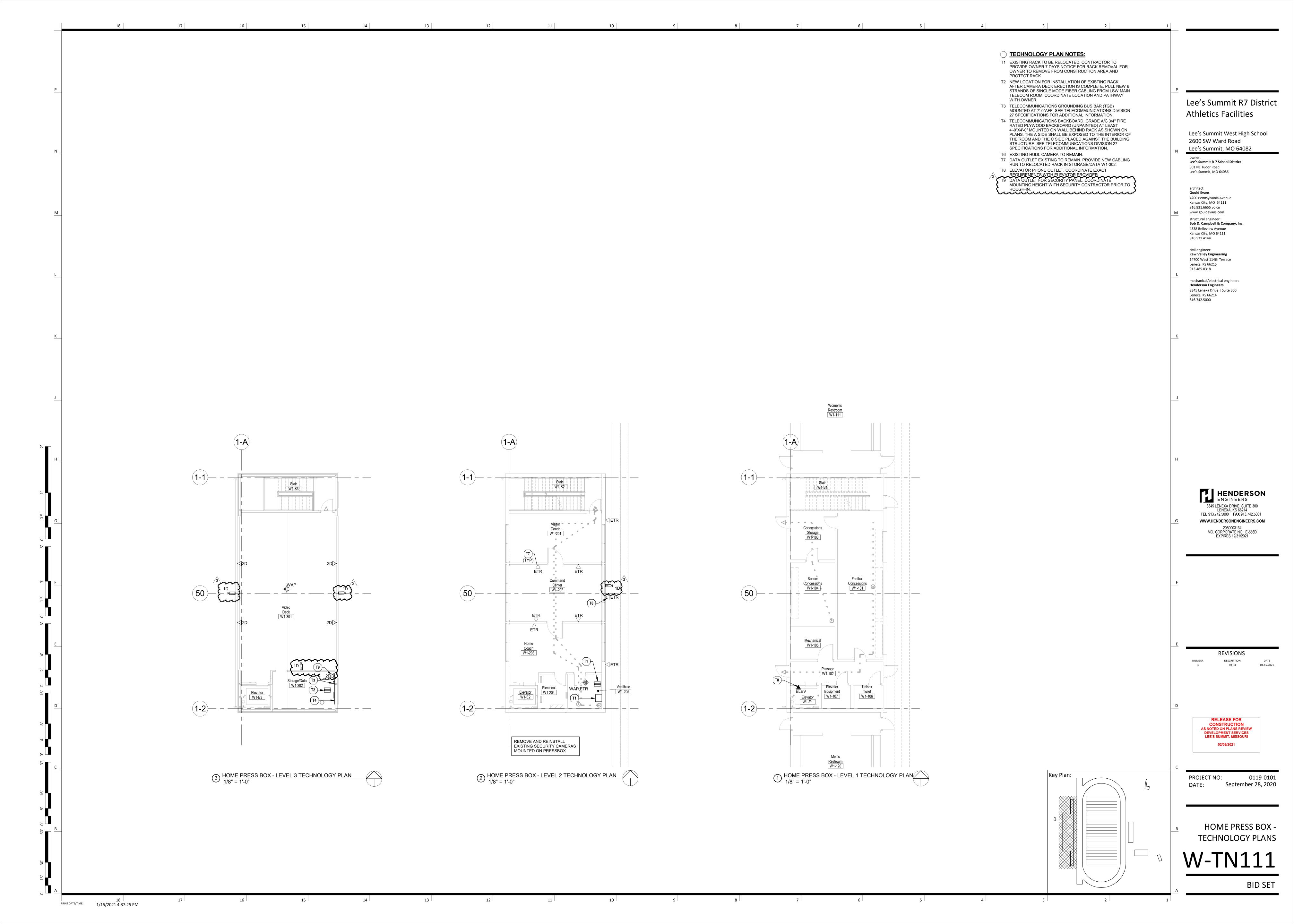
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

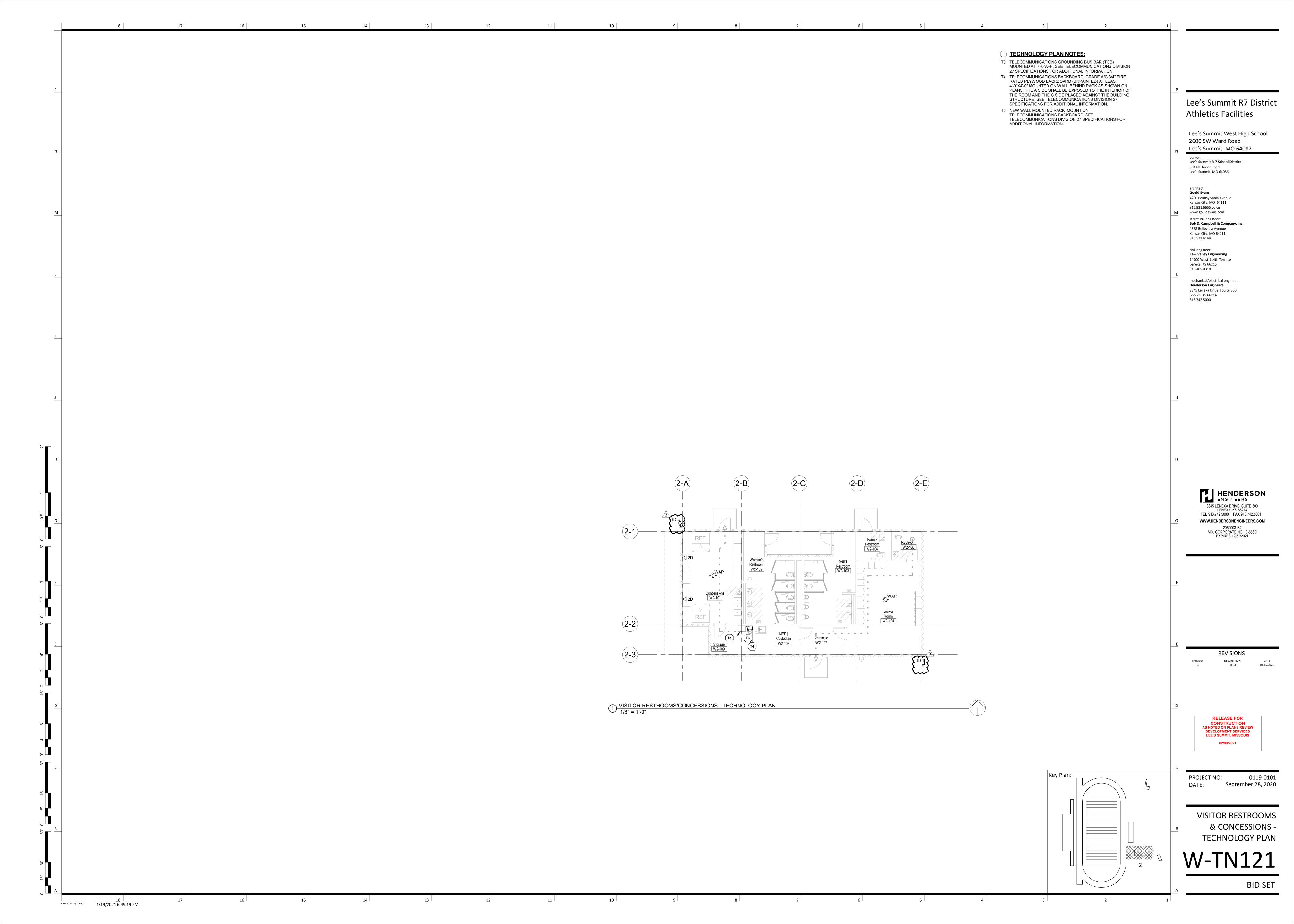
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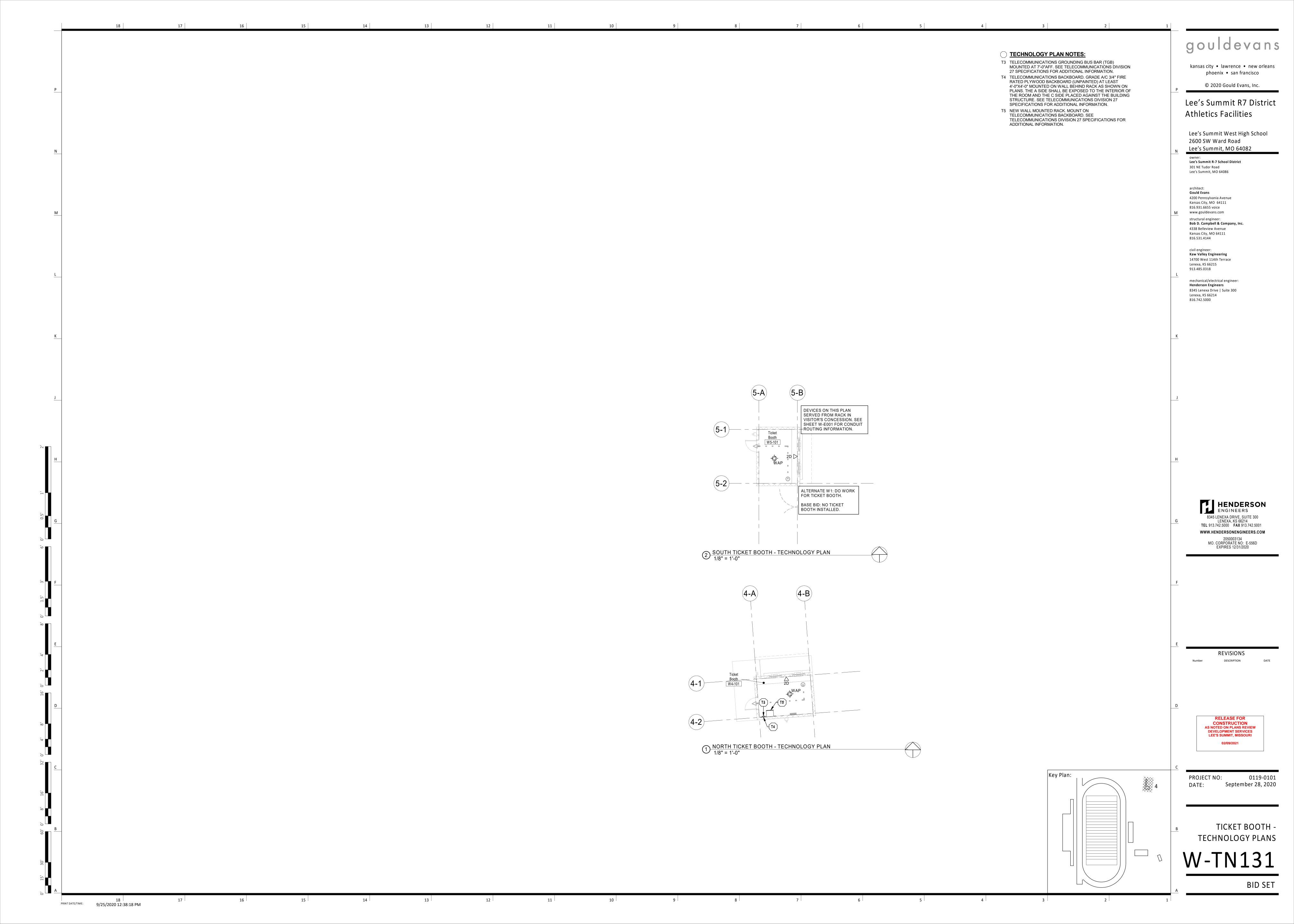
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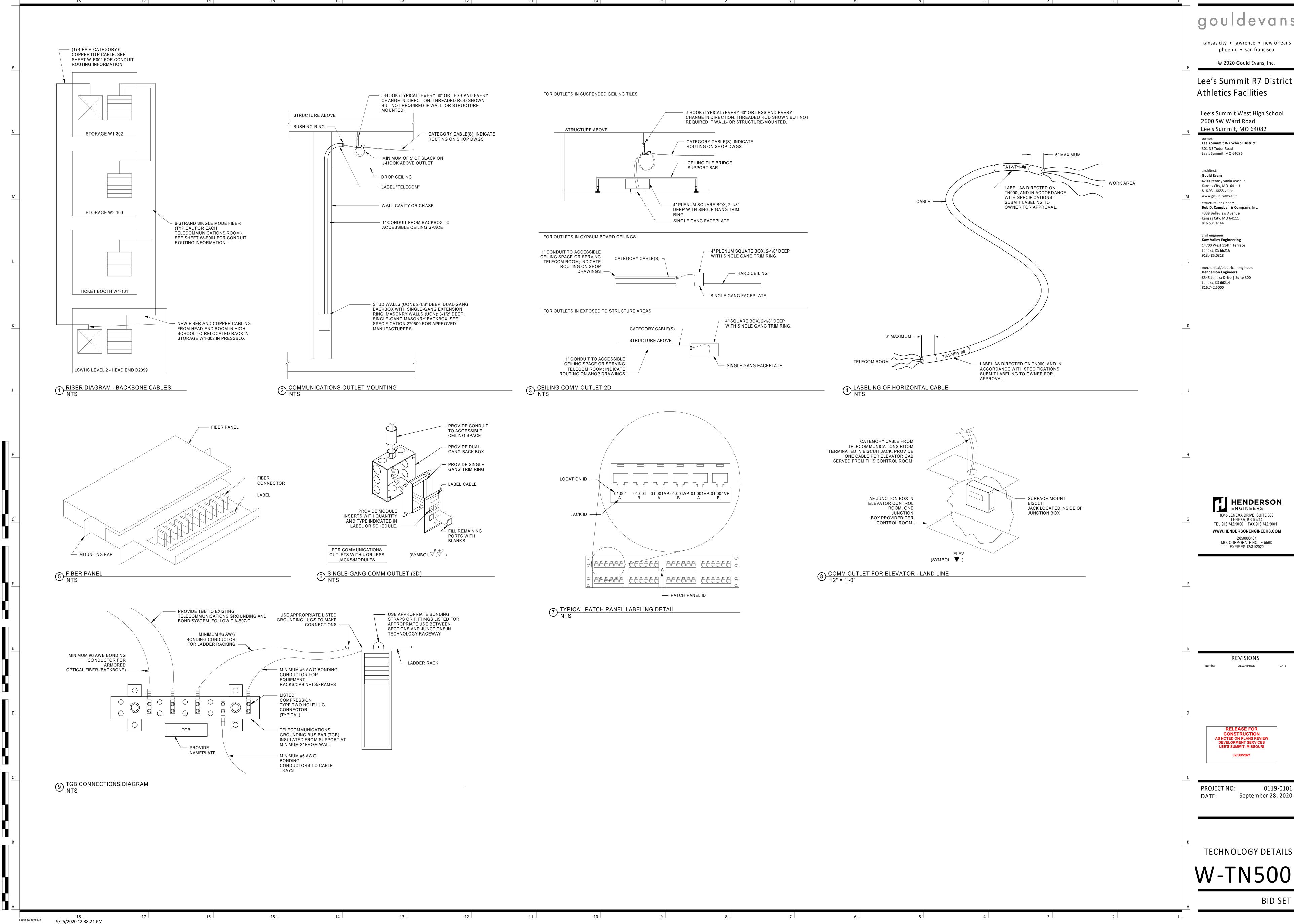
TECHNOLOGY LEGEND
AND NOTES

W-TN000









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Lee's Summit R7 District **Athletics Facilities**

Lee's Summit West High School 2600 SW Ward Road

Lee's Summit R-7 School District

4200 Pennsylvania Avenue

Bob D. Campbell & Company, Inc.

mechanical/electrical engineer: 8345 Lenexa Drive | Suite 300

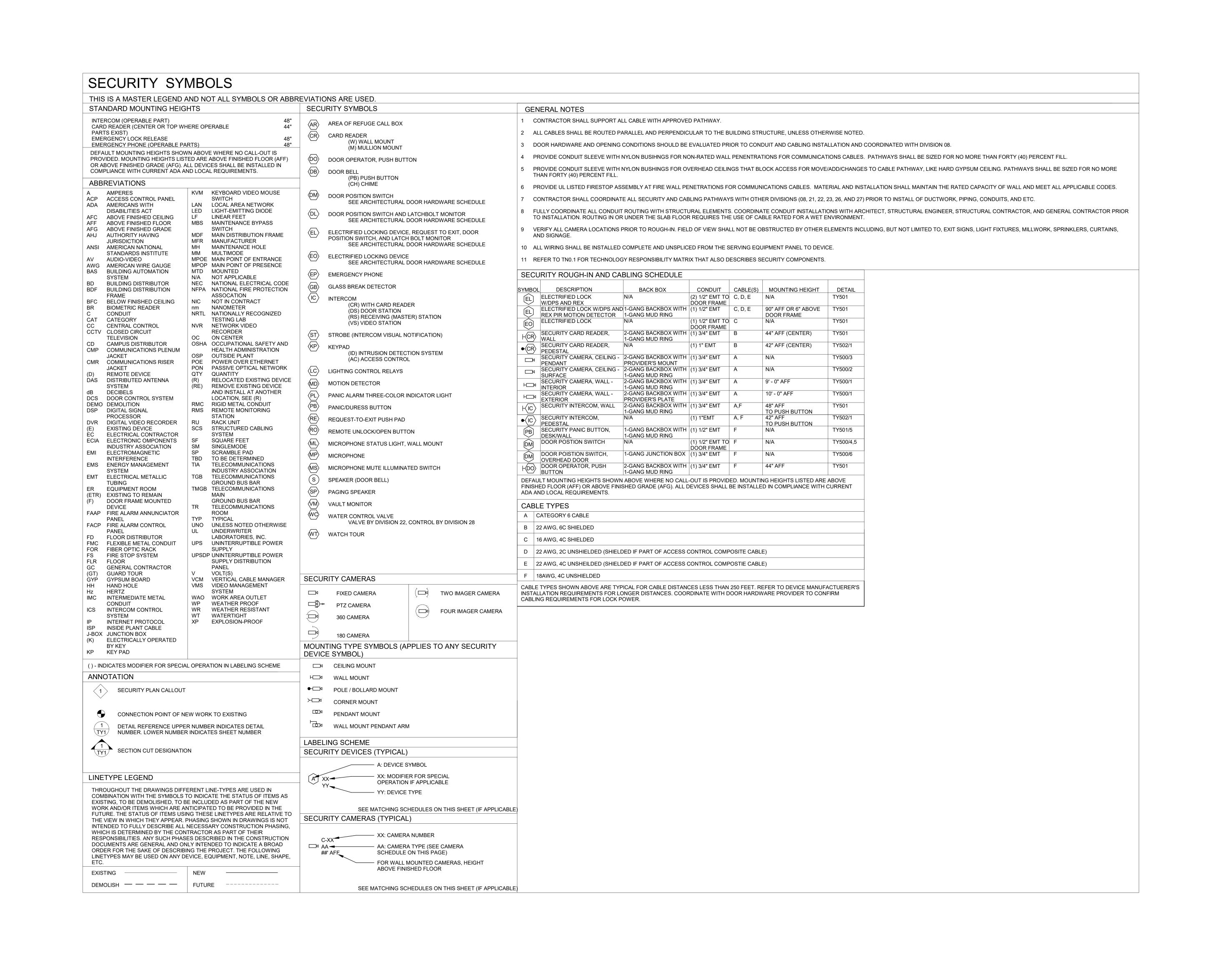
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REVISIONS

CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

September 28, 2020



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Lee's Summit R7 District Athletics Facilities

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Summit R-7 School District 301 NE Tudor Road Lee's Summit, MO 64086

architect:
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MO. CORPORATE NO: E-556D

EXPIRES 12/31/2021

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NUMBER DESCRIPTION

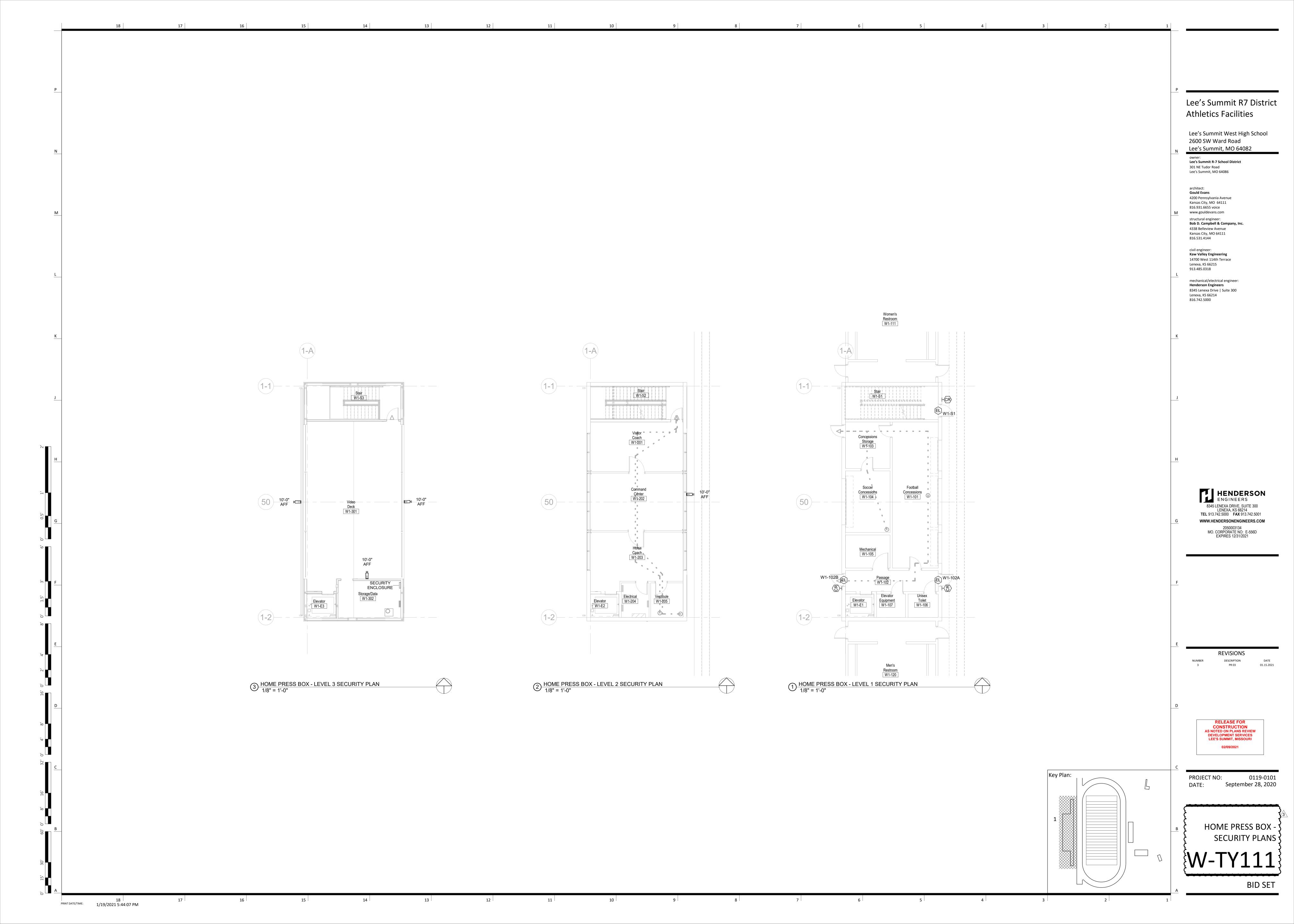
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

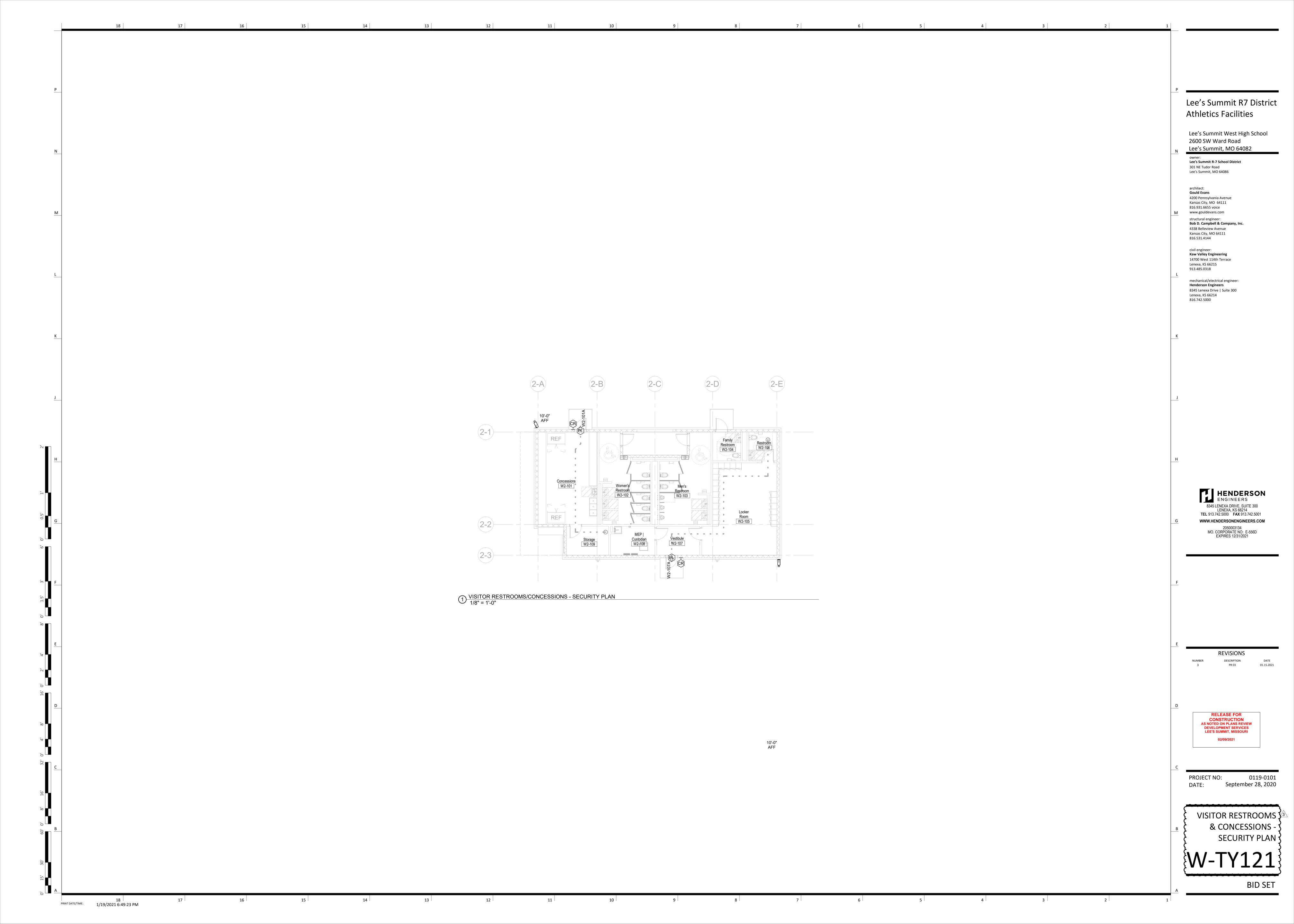
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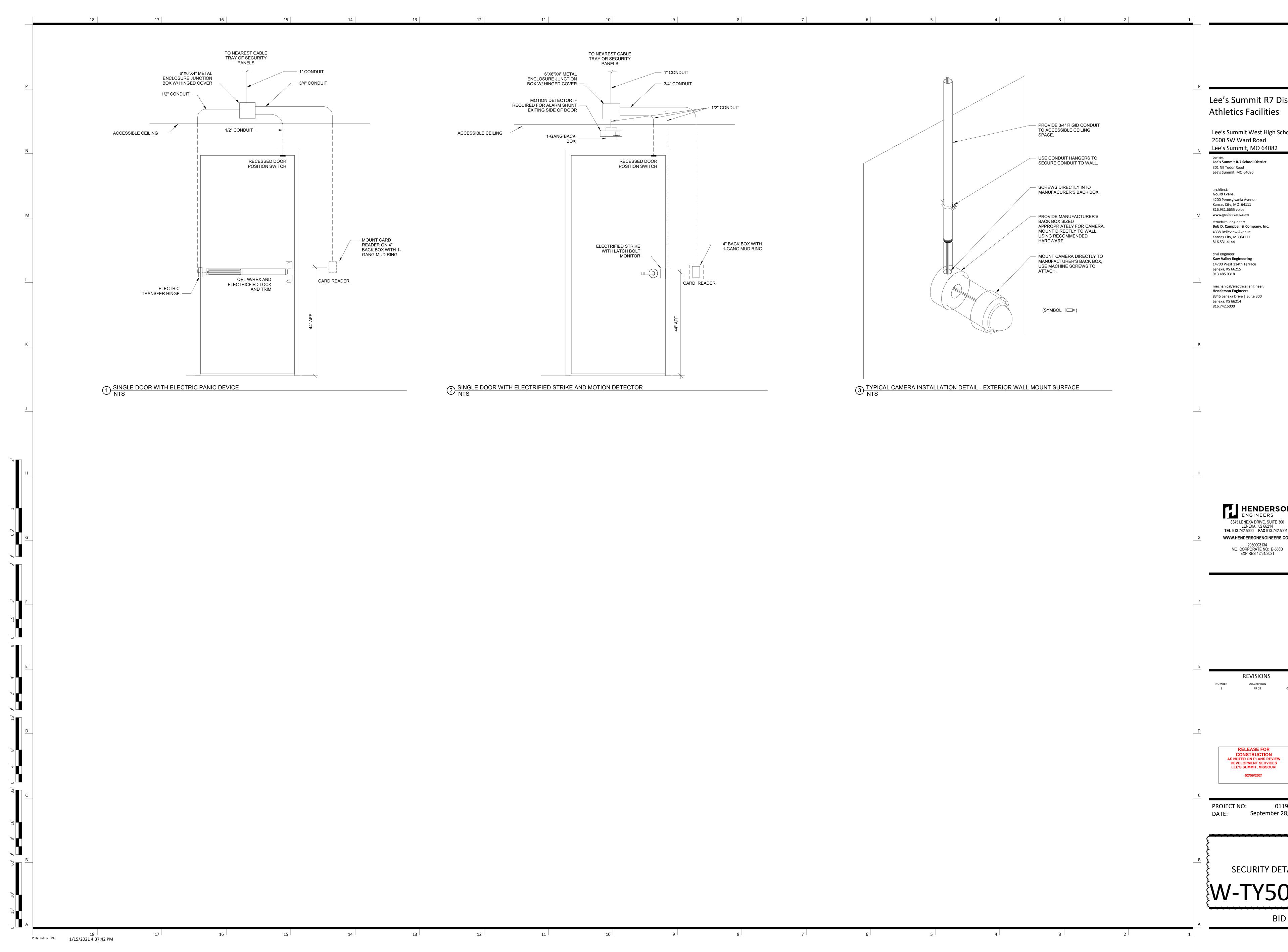
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SECURITY GENERAL NOTES AND LEGEND

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Lee's Summit R7 District

Lee's Summit West High School 2600 SW Ward Road Lee's Summit, MO 64082

Lee's Summit R-7 School District

Bob D. Campbell & Company, Inc.

mechanical/electrical engineer: 8345 Lenexa Drive | Suite 300

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