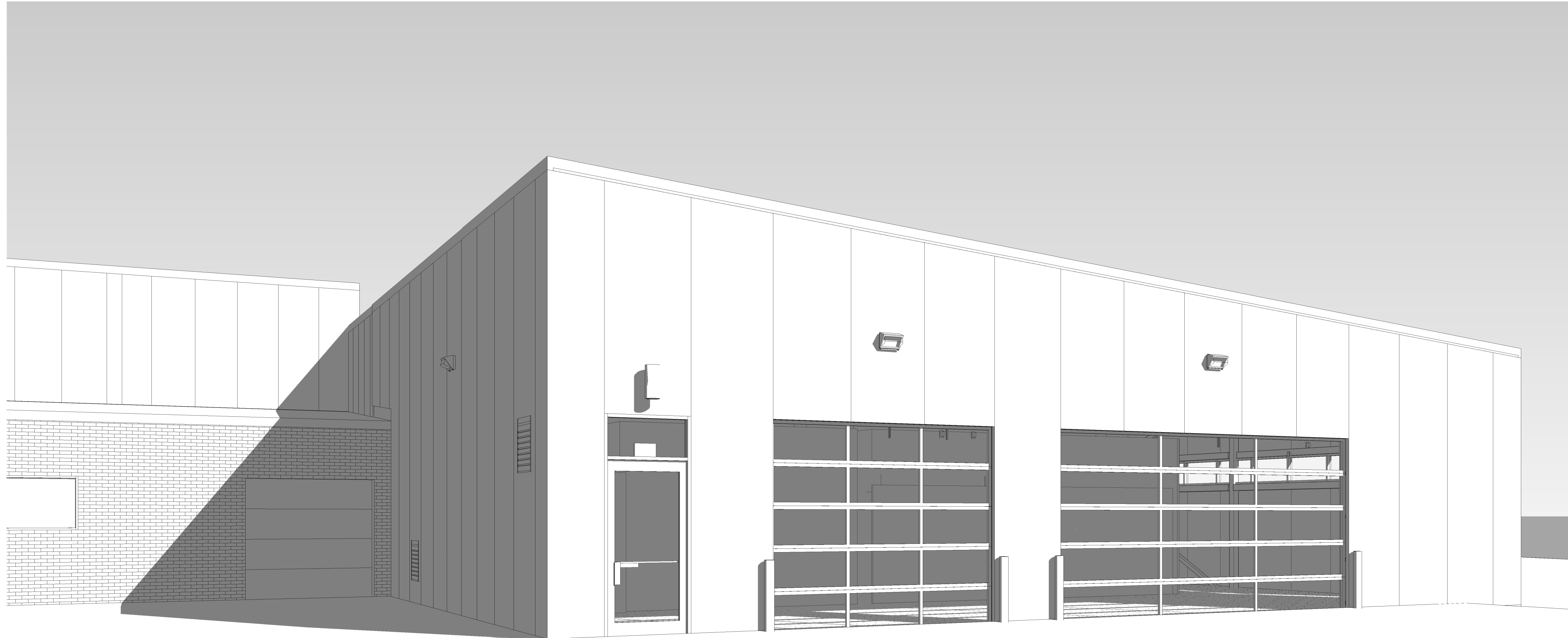


PERMIT/BID DOCUMENTS and FINAL DEVELOPMENT PLAN ¹



BNIM Architects 2460 East Pershing Road, Suite 100, Jackson County, Kansas City MO 64108 p.816.783.1500 1.816.783.1501 MO State Certificate of Authority # 00235006	Architect
KH Engineering Group 13426 West 99th Street, Johnson County, Lenexa, KS 66215 913-825-9381 Certificate of Authority	Structural Engineer
Tallafiero & Browne 1020 East 8th Street, Jackson County, Kansas City, MO 64106 816-283-2456	Civil Engineer
Lankford Fendler + Associates 1730 Walnut Street, Jackson County, Kansas City, MO 64108 816-221-1211	MEPF Engineer

500 SW Longview Road
Lee's Summit, MO 64081 Project No: 20008.00

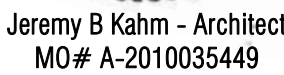
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 Profession Name: Architectural Corp.
 Licensee Number: 000377

G001

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#	Sheet Name
GENERAL	
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G001	SHEET INDEX, PROJECT INFORMATION & GENERAL NOTES
G101	CODE REVIEW DATA, LIFE SAFETY PLANS
Civil	
C001	SITE LAYOUT PLAN
C002	SITE GRADING PLAN
TS001	SITE SURVEY
ARCHITECTURAL DEMOLITION	
D100	ARCHITECTURAL DEMOLITION PLANS
D101	DEMOLITION PHOTOGRAPHS
ARCHITECTURAL	
A000	ARCHITECTURAL MATERIALS, GRAPHIC SYMBOLS, & ABBREVIATIONS
A001	ADA & INSTALLATION STANDARDS
A002	ADA & INSTALLATION STANDARDS
A010	DOORS, HORIZONTAL AND VERTICAL ASSEMBLIES
A050	ARCHITECTURAL SITE PLAN & BID ALTERNATES
A051	ALTERNATE #6 ELEVATION
A100	FLOOR PLAN
A101	FLOOR PLAN
A110	ROOF PLAN
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A300	EXTERIOR WALL SECTIONS
A500	INTERIOR ELEVATIONS AND DETAILS
A501	INTERIOR ELEVATIONS AND DETAILS
A650	INTERIOR SIGNAGE
A800	VOCATIONAL SHOP EQUIPMENT (FOR REFERENCE ONLY)
STRUCTURAL	
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S003	CONCRETE TYPICAL DETAILS
S005	STRUCTURAL STEEL TYPICAL DETAILS
S006	BRACE FRAMING PLAN
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MEP	
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P200	PLUMBING DETAILS, SCHEDULES, GENERAL NOTES, AND SYMBOLS
FIRE PROTECTION	
FP100	PHASE 0 - FLOOR PLAN - LEVEL 1 - FIRE PROTECTION
FP101	PHASE 0 - FLOOR PLAN - LEVEL 2 - FIRE PROTECTION
ELECTRICAL	
DE100	DEMOLITION - FLOOR PLAN - LEVEL 1 & 2 ELECTRICAL
E100	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - POWER
E200	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - LIGHTING
F300	PHASE 0 - FLOOR PLAN - LEVEL 1 & 2 - SYSTEMS
E400	ELECTRICAL DETAILS
E500	ELECTRICAL SCHEDULES
E501	ELECTRICAL SCHEDULES, GEN NOTES & SYMBOLS

Facility Information:
Name: MCC Longview HT Renovation/Addition
County: Jackson
City: Lee's Summit, Missouri
Local Fire Department (responding fire service): Lee's Summit Fire Department
Building Inspection Department: Lee's Summit Development Services

Owner:
Metropolitan Community College of Kansas City
3200 Broadway
Kansas City, Missouri 64111
p/ 816.604.1000

AHJ:
City of Lee's Summit, Missouri

Architect:
BNIM
2460 East Pershing Road, Suite 100
Kansas City, Missouri 64108
p/ 816.783.1500
f/ 816.783.1501

Project Description:
The Project consists of two parts. The first is a renovation of one large classroom on the second level of the HT building into two smaller classrooms. The second is a small high-bay addition on the west side of the building to support MCC's Collision program.

Applicable Building Codes:

- 2018 International Building Code (IBC)
- 2018 International Existing Building Code (IEBC)
- 2018 International Fire Code (IFC)
- 2017 National Electrical Code (NEC)
- 2018 International Mechanical Code (IMC)
- 2018 International Plumbing Code (IPC)
- 2018 International Fuel Gas Code (IFGC)

NFPA Standards:

- 2010 NFPA 10 – Portable Fire Extinguishers
- 2010 NFPA 13 – Installation of Sprinkler Systems
- 2010 NFPA 14 – Installation of Standpipes and Hose Systems
- 2010 NFPA 72 – National Fire Alarm Code
- 2010 NFPA 110 – Emergency and Standby Power Systems


2009 A117.1 Accessible & Usable Buildings & Facilities

Construction Type:
Existing Building: Type II-B
Addition: Type II-B

Existing Building is fully Sprinklered; Addition to be fully Sprinklered.

Occupancy Types: B, S

Fire Resistive Elements:
 Floor Assembly: 0 hr
 Primary Columns and Beams: 0 hr
 Exit Stairways and Passageways: 0 hr
 Mechanical Shafts: 0 hr
 Elevator Hoistway: 0 hr
 Roof: 0 hr
 Mechanical Rooms: 0 hr
 Corridors: 0 hr

Allowable Building Height	
Allowable building height:	75'-0"
Actual building height:	27'-6" (average grade plane to highest portion of roof)
Allowable Number of Stories:	3 Stories
Actual number of stories:	2 stories

Allowable Building Area

Base Allowable:	23,000 sf
Frontage Increase:	$(1 - 0.25)$
	$23,000 \times 0.75$
Actual Building Area:	29,442 sf

Occupancy Load Factors:

Offices	100 sf/person
Classrooms	20 sf/person
Workshops	50 sf/person
Storage/Mechanical	300 sf/person

Net Occupant Load Increase:
 +49 Persons in Level 1 Addition
 No Net Increase in Existing Level 1 Spaces
 No Net Increase on Level 2

Exit Access Travel Distance
300 ft Maximum

Common Path of Egress Travel
100 ft Maximum, B Occupancy, Sprinklered

Building and Occupancy Separation
The building is classified as Occupancy Type B, with accessory S occupancies. Occupancy separation is not required.

Active Fire Safety Features (CONFIRM WITH LANKFORD)
Automatic Wet Sprinkler System - per NFPA 13
Manual Dry Standpipe System - per NFPA 14 (exterior only)
Fire Alarm System (Emergency Voice Alarm Communication) - per NFPA 72
Fire Extinguishers - per NFPA 10
Exit Signs - along means of egress except at main exterior exit doors and where only one exit is required (per IBC)
Emergency lighting - along means of egress (per IBC)

Floor Area Ratio (ref: Jackson County GIS Parcel Viewer)

Total Constructed Area	20,990 sf
Total Land Area	4,744,043 sf
Floor Area Ratio	0.004

Classrooms in Building	
Existing	Proposed
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
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100	100



Life Safety Symbols

Diagram illustrating various symbols used in fire alarm plans:

- A-3**: OCCUPANCY TYPE
- 300 150 2**: SQUARE FOOTAGE
- 300 150 2**: OCCUPANT LOAD FACTOR
- 300 150 2**: NUMBER OF OCCUPANTS
- 1**: OCCUPANT LOAD
- X' Y'**: EXIT WIDTH PROVIDED / REQUIRED
- 1**: OCCUPANT LOAD
- : EGRESS PATH
- : FIRE EXTINGUISHER CABINET

Seal



The seal is circular with a rope-like border. Inside the border, the words "STATE OF MISSOURI" are at the top and "ARCHITECT" is at the bottom, separated by two stars. The center of the seal contains the text: "JEREMY BOYD KAHH", "7-23-21", "NUMBER", and "A-2010035449". A signature is written across the seal.

Jeremy B Kahlm - Architect
#A-2010035449

License Name: Berkebile Nelson Immenschuh McDowell Incorporated
Profession Name: Architectural Engineer
License Number: 000377

CODE REVIEW DATA, LIFE SAFETY PLANS

G101



500 SW Longview Road
Lee's Summit, MO 64081

PERMIT/BID DOCUMENTS[illegible]

11/29/21
HAGOS E. ANDEBRHAN - PROFESSIONAL ENGINEER
MO# E-2004011822

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 Profession Name: Architectural Corp.
 Licensee Number: 000377

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MCC Longview HT
Addition/Renovation

500 SW Longview Road
Lee's Summit, MO 64081
Project No: 20008.0

PERMIT/BID DOCUMENTS

Issued: August 23, 2021

Rev. #	Description	Date Issued
1	ADDENDUM 3	25 OCT 2021

Key Plan

Seal



HAGOS E. ANDEBRHAN - PROFESSIONAL ENGINEER
MO# E-2004011822

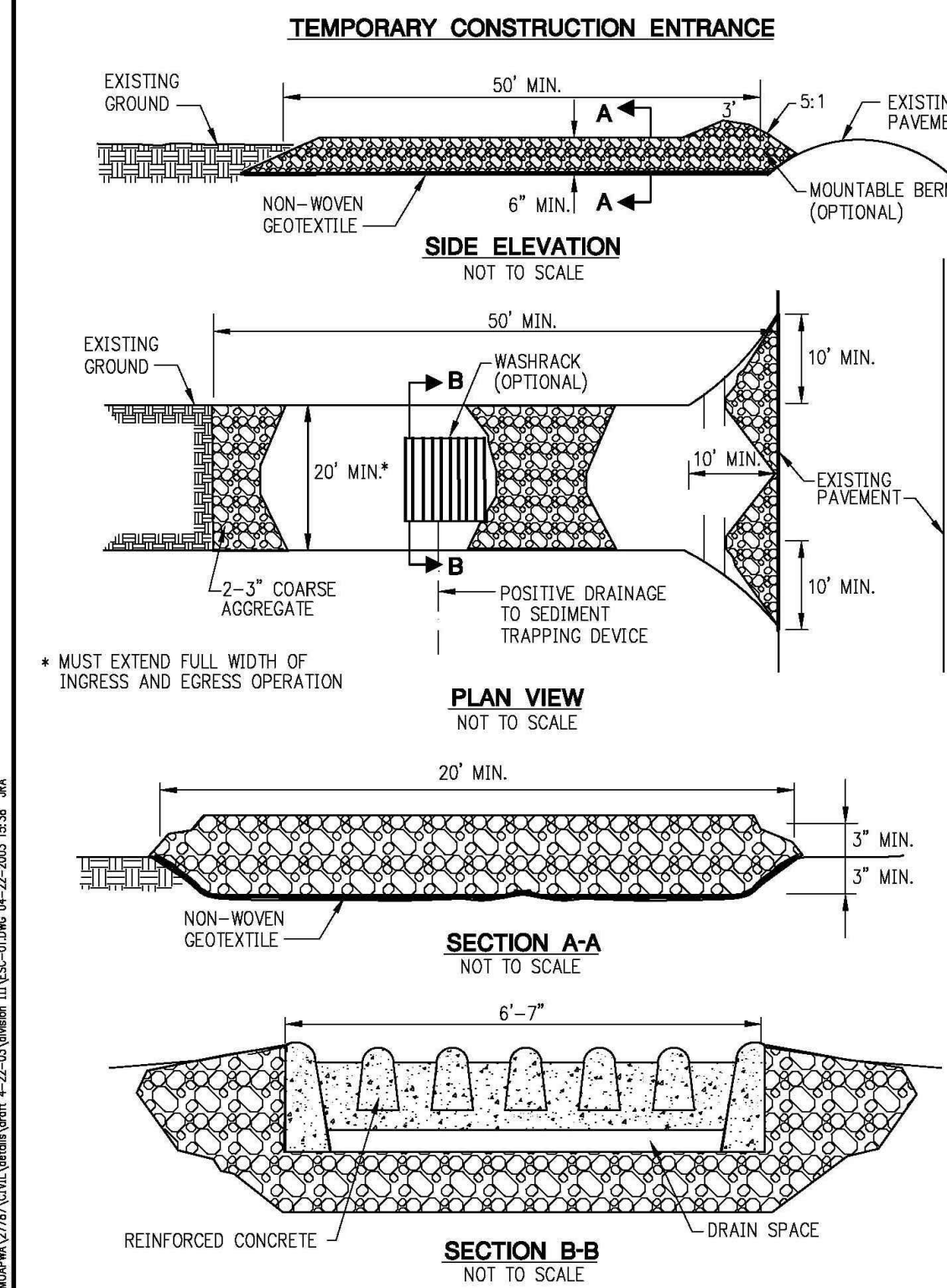
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EROSION CONTROL
DETAILS

C003

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TEMPORARY CONSTRUCTION ENTRANCE PAD NOTES:

A) INSTALLATION:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2%, CONSTRUCT A 6-TO 8-INCH HIGH RIDGE WITH 3:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY FROM IT.
4. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS.
5. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
6. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
7. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.

B) TROUBLESHOOTING:

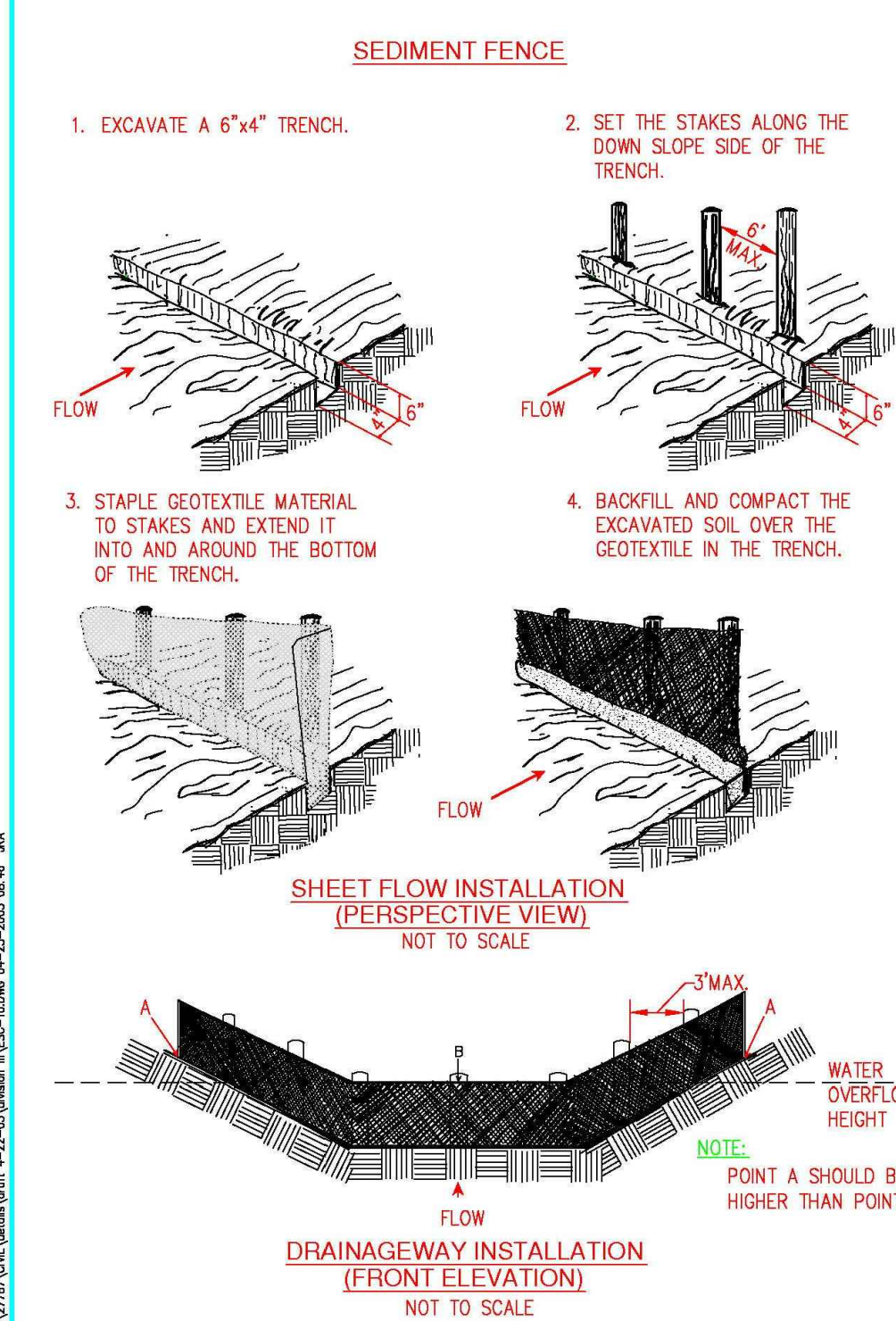
1. CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:

- a. INADEQUATE RUNOFF CONTROL TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROAD - INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES.
- b. SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL - INCREASE STONE SIZE OR PAD THICKNESS OR ADD GEOTEXTILE FABRIC.
- c. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC - EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

C) INSPECTION AND MAINTENANCE:

1. INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER 1/2-INCH OR GREATER STORM EVENTS.
2. RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN 2-AND 3-INCH STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.
5. REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METROPOLITAN CHAPTER
APWA	STANDARD DRAWING NUMBER ESC-01
TEMPORARY CONSTRUCTION ENTRANCE	ADOPTED



SEDIMENT FENCE NOTES:

A) INSTALLATION:

1. THE HEIGHT OF SEDIMENT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES ABOVE THE GROUND SURFACE.
2. THE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SECURELY SPLICED TOGETHER ONLY AT SUPPORT POSTS, WITH A MAX 6-INCH OVERLAP.
3. DIG A TRENCH AT LEAST 6 INCHES DEEP AND 4 INCHES WIDE ALONG THE FENCE ALIGNMENT.
4. DRIVE POSTS AT LEAST 24 INCHES INTO THE GROUND ON THE DOWNSLOPE SIDE OF THE TRENCH. SPACE POSTS A MAXIMUM OF 6 FEET APART.
5. EXTRA-STRENGTH SEDIMENT FENCE FABRIC SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE SEDIMENT FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING A MINIMUM OF ONE INCH LONG, HEAVY-DUTY WIRE STAPLES OR TIE-WIRES, AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

6. PLACE THE BOTTOM 1 FOOT OF FABRIC IN THE MINIMUM-OF-6-INCH DEEP TRENCH, LAPPING TOWARD THE UPSLOPE SIDE. BACKFILL WITH COMPACTED EARTH OR GRAVEL.
7. IF A SEDIMENT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, IT MUST BE OF SUFFICIENT LENGTH TO ELIMINATE ENDFLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE, PLACED ON A CONTOUR, WITH THE ENDS ORIENTED UPSLOPE. EXTRA-STRENGTH SEDIMENT FABRIC SHALL BE USED WITH A MAXIMUM 3-FOOT SPACING OF POSTS.
8. TO REDUCE MAINTENANCE, EXCAVATE A SHALLOW SEDIMENT STORAGE AREA IN THE UPSLOPE SIDE OF THE FENCE. PROVIDE GOOD ACCESS IN AREAS OF HEAVY SEDIMENTATION FOR CLEAN OUT AND MAINTENANCE.
9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

B) TROUBLESHOOTING:

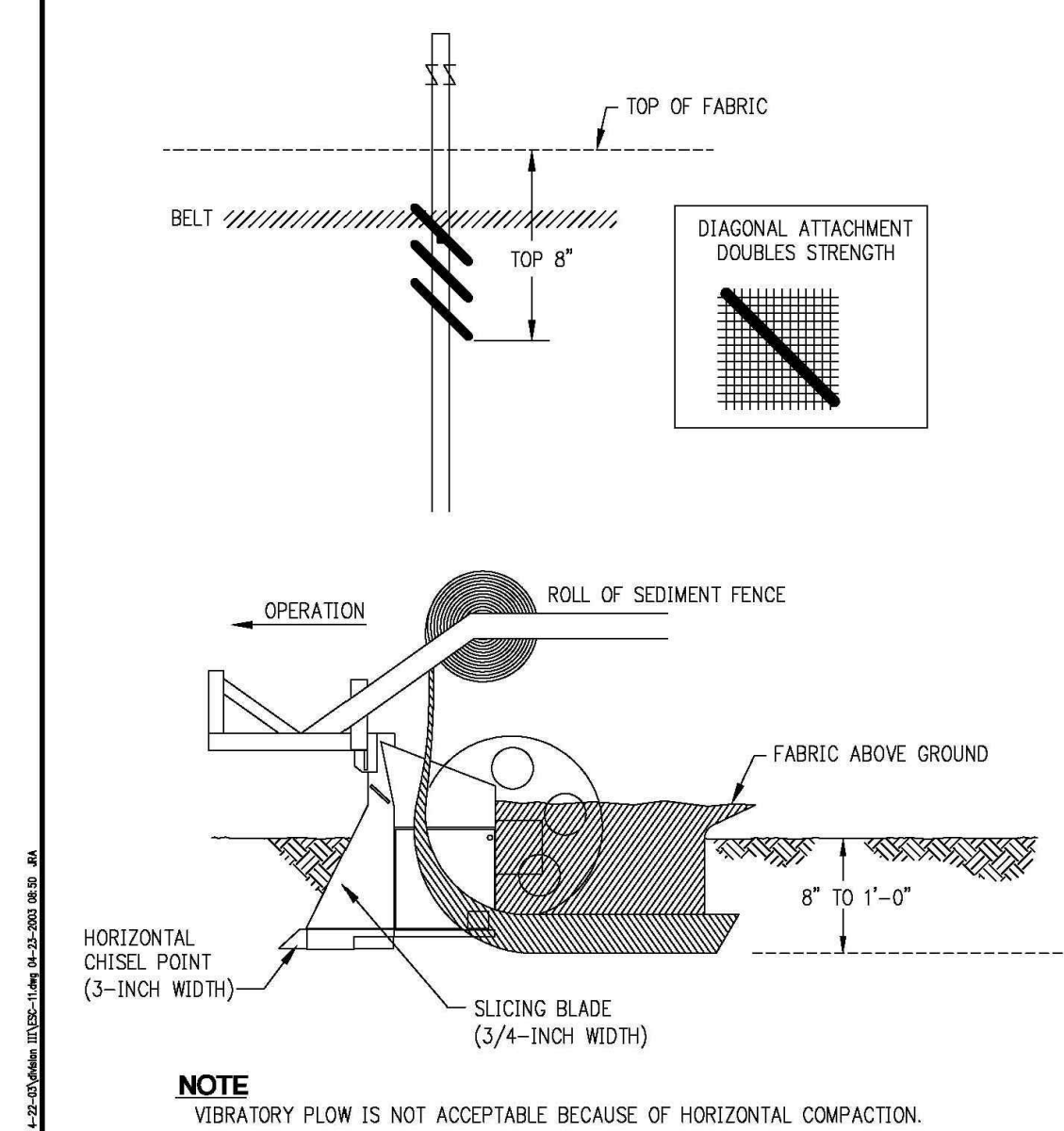
1. DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES, BEFORE FENCE INSTALLATION SO UTILITIES ARE NOT DISTURBED.
2. GRADE ALIGNMENT OF FENCE AS NEEDED TO PROVIDE A BROAD, NEARLY LEVEL AREA UPSLOPE OF FENCE TO ALLOW SEDIMENT COLLECTION AREA.

C) INSPECTION MAINTENANCE:

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. AVOID DAMAGING OR UNDERMINING THE FENCE DURING CLEANOUT. SEDIMENT ACCUMULATION SHOULD NOT EXCEED 1/2 THE HEIGHT OF THE FENCE.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY AND COMPLETELY STABILIZED.

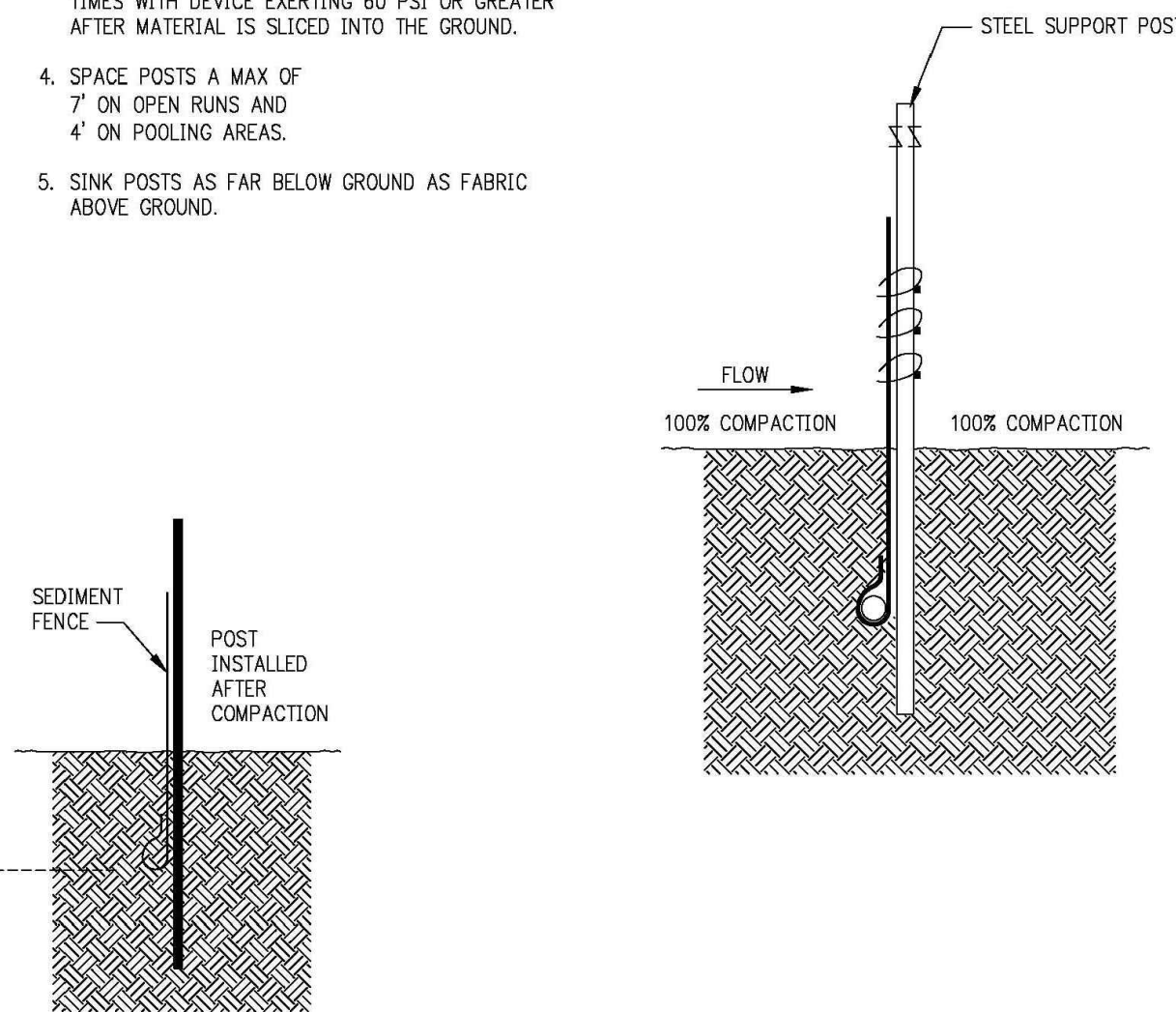
AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METROPOLITAN CHAPTER
APWA	STANDARD DRAWING NUMBER ESC-16
SEDIMENT FENCE	ADOPTED

SEDIMENT FENCE INSTALLATION
SLICING METHOD

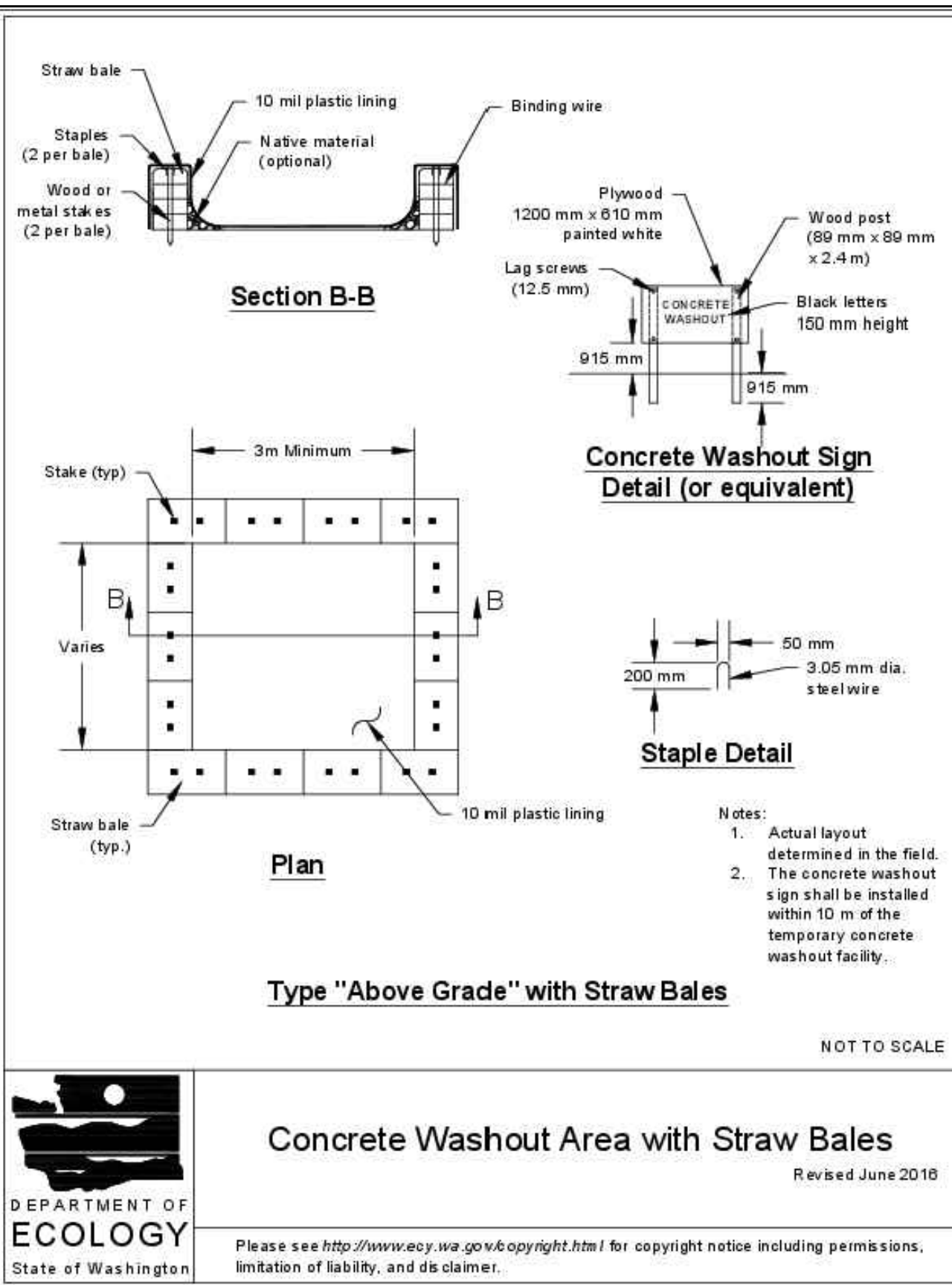


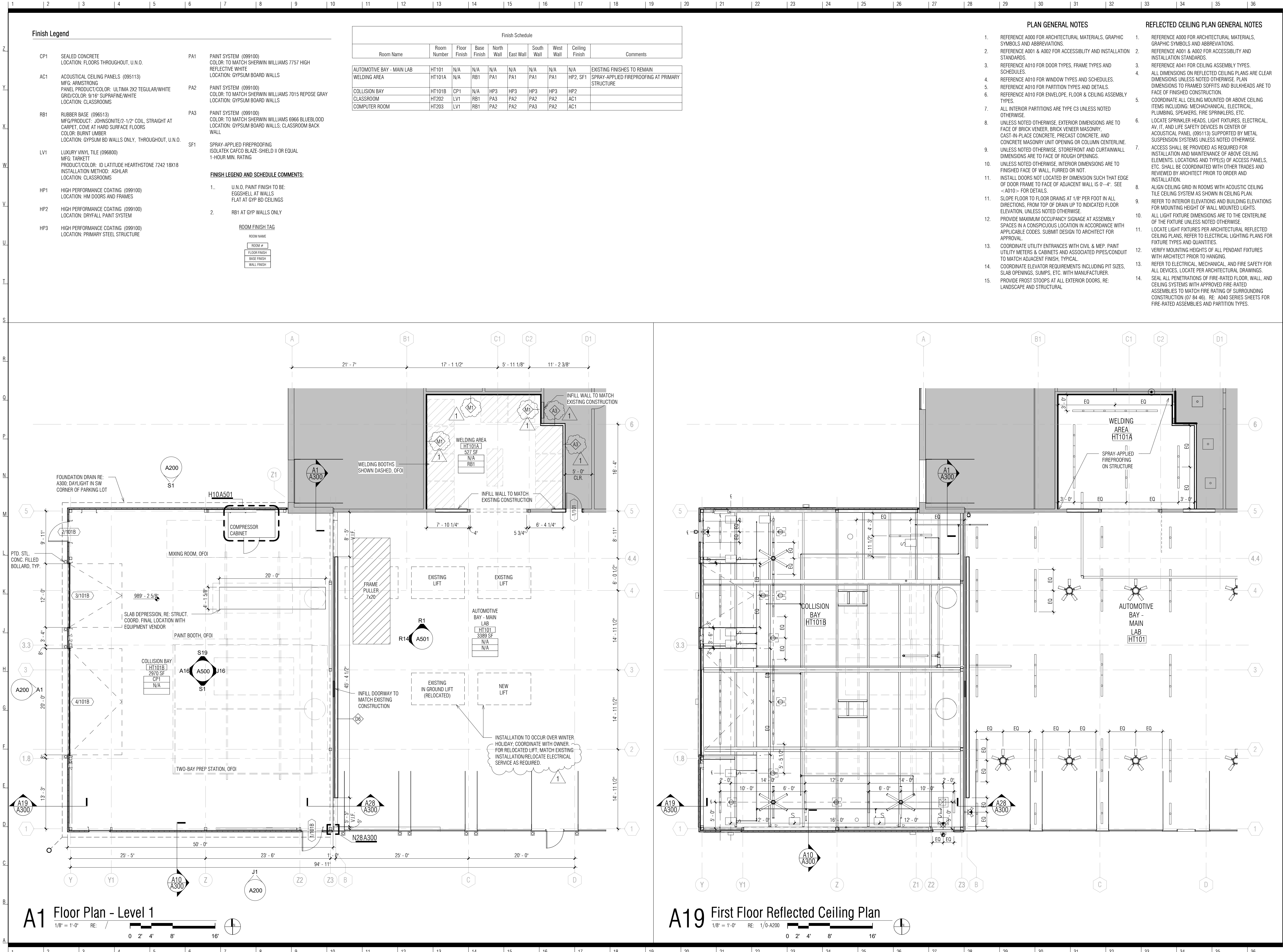
SEDIMENT FENCE INSTALLATION SLICING METHOD NOTES:

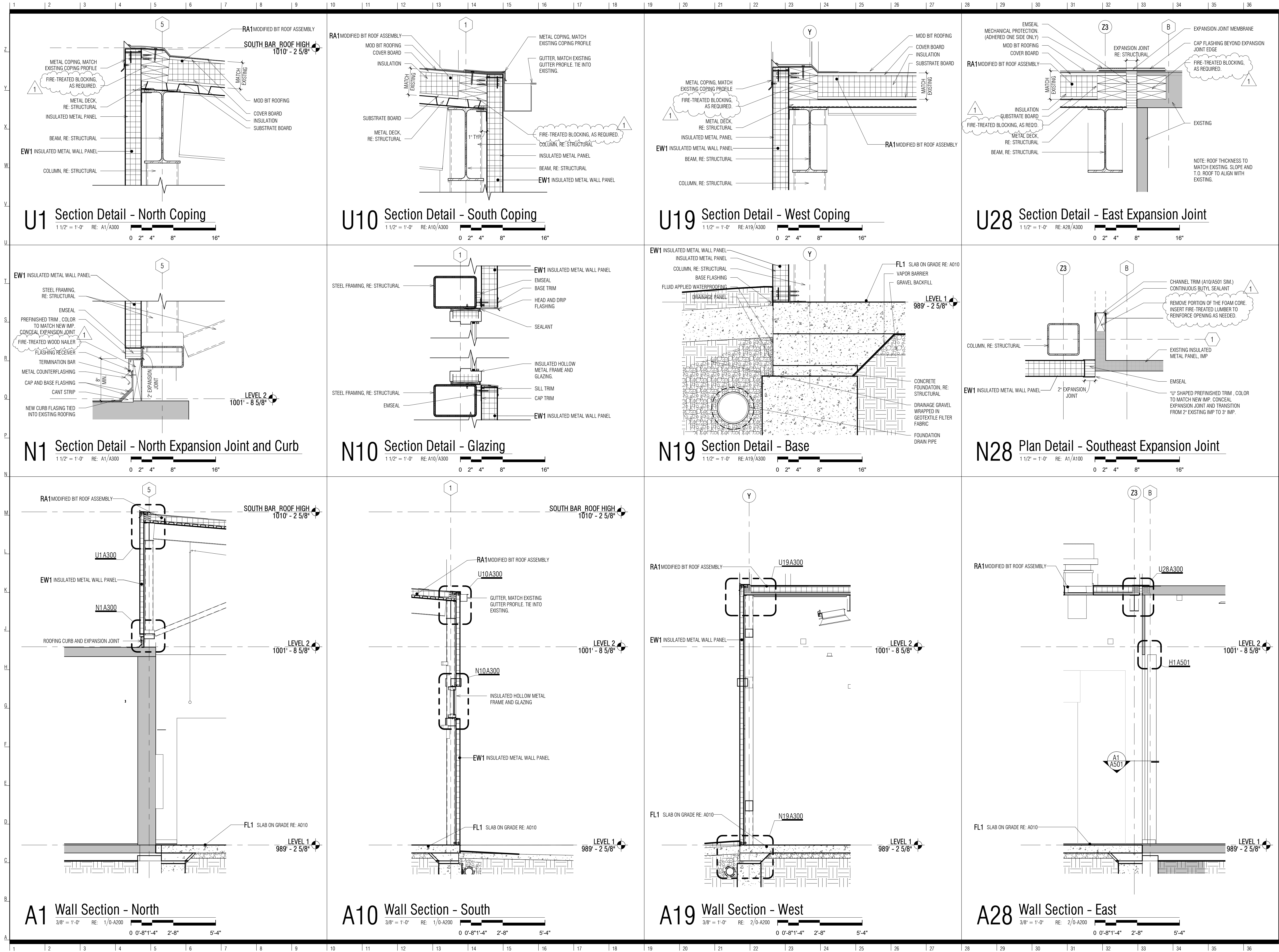
1. LIMIT PONDING HEIGHT TO 24"
2. ATTACH FABRIC TO UPSLOPE SIDE OF POST.
3. DRIVE OVER EACH SIDE OF SEDIMENT FENCE 2 TO 4 TIMES WITH DEVICE EXERTING 60 PSI OR GREATER AFTER MATERIAL IS SLICED INTO THE GROUND.
4. SPACE POSTS A MAX OF 7' ON OPEN RUNS AND 4' ON POOLING AREAS.
5. SINK POSTS AS FAR BELOW GROUND AS FABRIC ABOVE GROUND.



AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METROPOLITAN CHAPTER
APWA	STANDARD DRAWING NUMBER ESC-11
SEDIMENT FENCE INSTALLATION SLICING METHOD	ADOPTED







BNIM Architects
2460 East Pershing Road, Suite 100, Jackson County, Kansas City MO 64108
p.816.783.1500 f.816.783.1501
MO State Certificate of Authority #00235006

Architect

KH Engineering Group
13426 West 99th Street, Johnson County, Lenexa, KS 66215
913-825-9381
Certificate of Authority

Structural Engineer

Talialero & Browne
1020 East 8th Street, Jackson County, Kansas City, MO 64106
816-283-2466

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Project No: 20008.00

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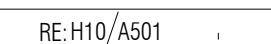
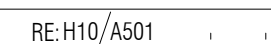
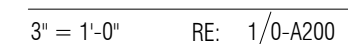
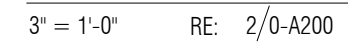
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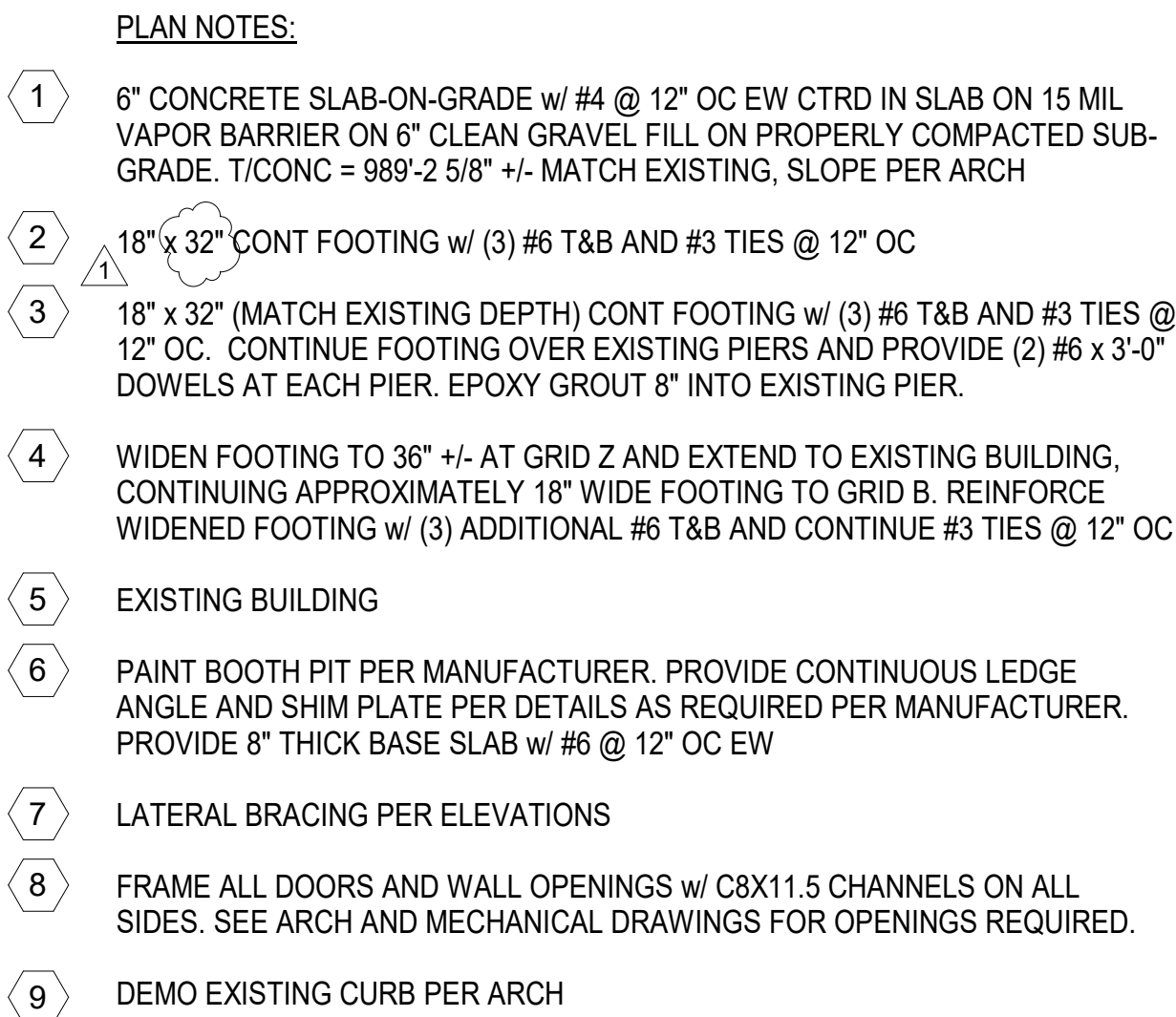
Rev. #	Description	Date Issued
1	Addendum #3	10/27/21



EXTERIOR WALL SECTIONS

A300





500 SW Longview Road
Lee's Summit, MO 64081 Project No: 20008.00

Addendum #3

[illegible]

STRUCTURAL COLUMN SCHEDULE			
MARK	COLUMN SIZE	BASE PLATE	ANCHOR BOLTS
C1	HSS6x6x1/4	3/4" x 12" x 1'-0"	(4) 3/4" DIA x 1'-6" EMBED
C2	HSS6x6x1/4	3/4" x 10" x 1'-0"	(4) 3/4" DIA x 1'-6" EMBED
C3	HSS6x4x1/4	3/4" x 10" x 1'-0"	(4) 3/4" DIA x 1'-6" EMBED
C4	EXISTING COLUMN		

STRUCTURAL FOUNDATION SCHEDULE			
MARK	FOOTING SIZE	DEPTH	REINFORCEMENT
F1	EXISTING PIER	FIELD VERIFY	
2-HP	2'-6" x 5'-6"	2'-8"	(6) #5 EACH WAY, HOOK EACH END, T&B
3-HP	5'-2" x 5'-6"	2'-8"	(6) #5 X 3 WAYS, HOOK EACH END, T&B



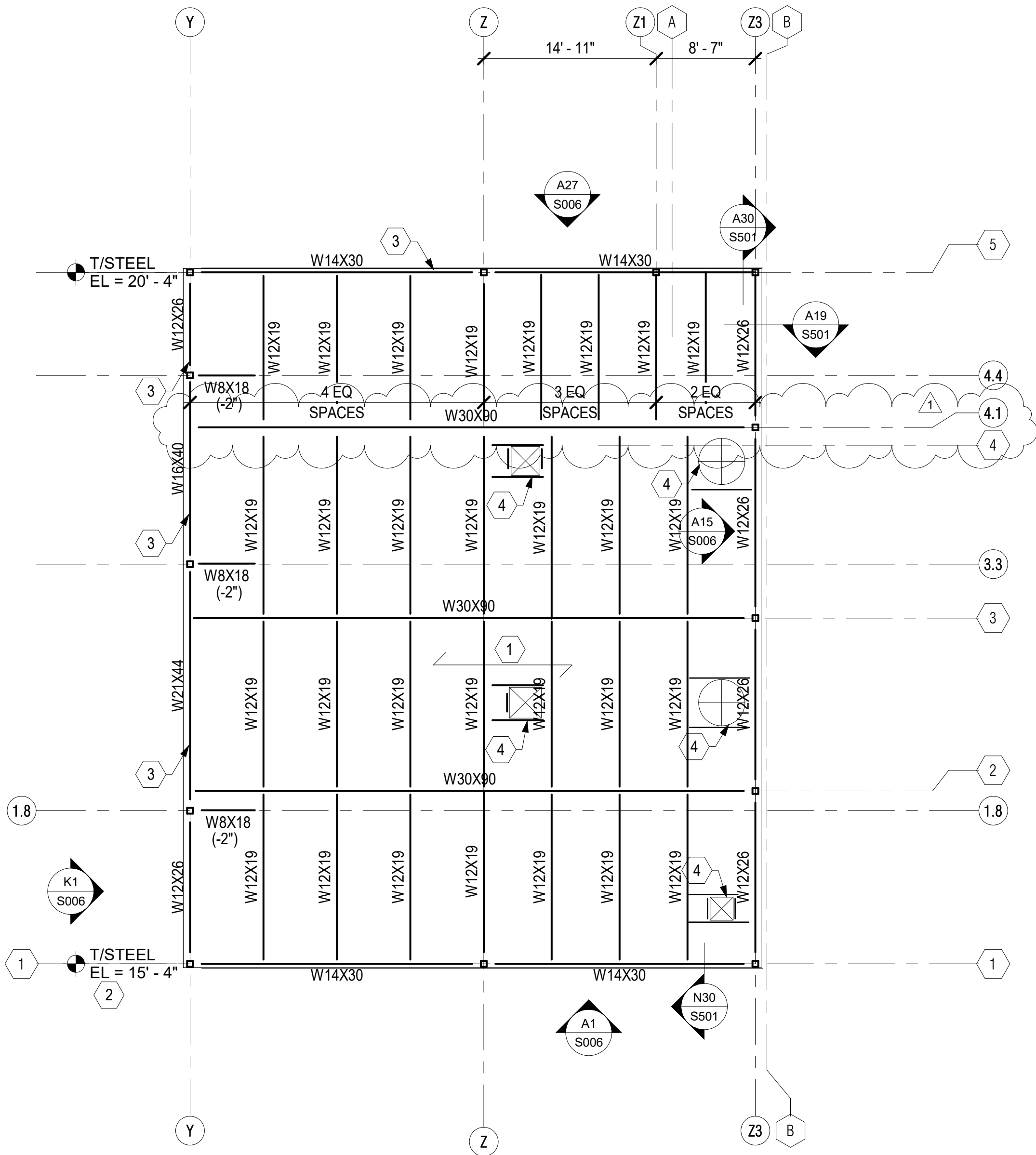
PLAN NOTES:

- 1 1/2", 22 GAUGE WIDE RIB GALVANIZED ROOF DECK ATTACHED IN A 36/7 PATTERN w/ #12 TEK SCREWS AND (8) #10 TEK SCREWS FOR SIDE LAP FASTENERS. T/STEEL = SLOPE TO MATCH ARCH.
- GC TO VERIFY TOP OF STEEL AND ADJUST TO MATCH EXIST PER ARCH.
- HSS8X6X1/4 T/STEEL = 10' - 6" (8" HORIZONTAL)
- ROOF PENETRATIONS PER ARCH & MECH. FRAME PER N29/S004

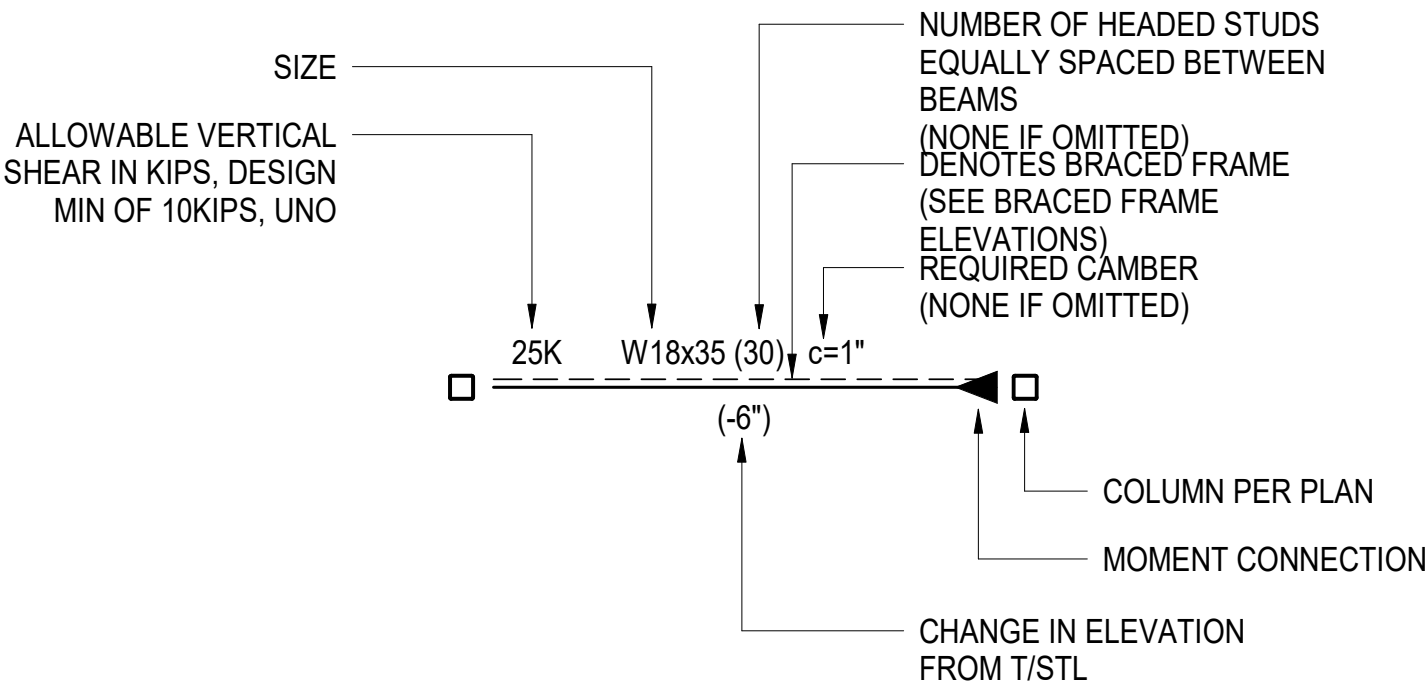
NOTES:

THE EXISTING CONDITIONS INDICATED ON THE DRAWINGS ARE BASED ON SURVEYS MADE BY THE CONSULTANT(S) AS WELL AS MATERIAL PROVIDED BY THE OWNER AND NO CLAIM IS MADE TO ITS ABSOLUTE COMPLETENESS AND/OR ACCURACY.

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND SITE CONDITIONS PRIOR TO FABRICATION/CONSTRUCTION. CONTRACTOR SHALL REPORT AN INCONSISTENCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.



STEEL FRAMING LEGEND:



A1 FRAMING PLAN

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

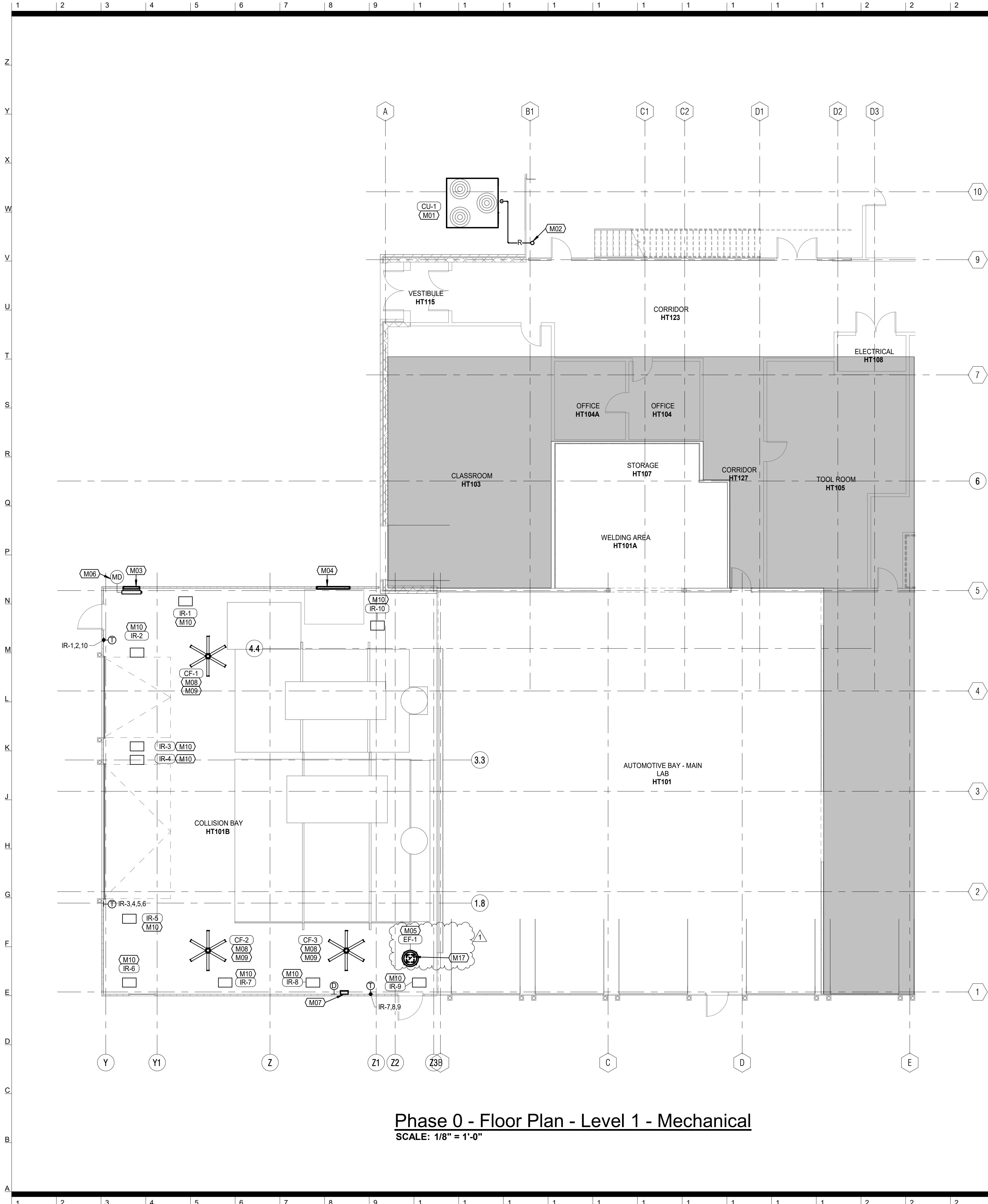


Kathleen J. Hagen
MO# E-2000155328

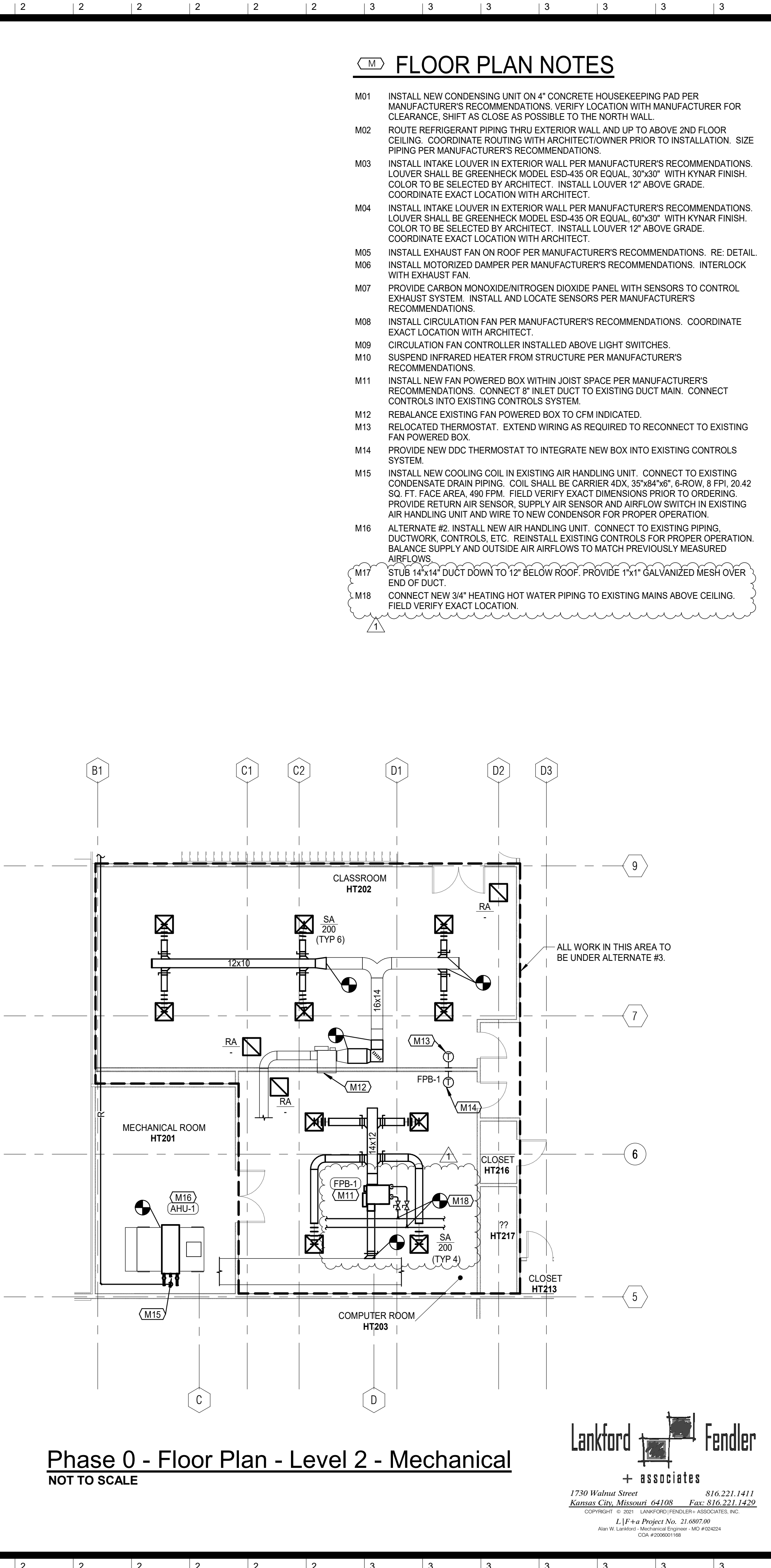
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Profession Name: Architectural Corp.
Licensee Number: 000377

FRAMING PLAN

S101



Phase 0 - Floor Plan - Level 1 - Mechanical
SCALE: 1/8" = 1'-0"



Phase 0 - Floor Plan - Level 2 - Mechanical
NOT TO SCALE

Lankford + associates
Fendler
1730 Walnut Street
Kansas City, Missouri 64108
816.221.1411
Fax: 816.221.1429
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L/F-a Project No. 21-6807-00
Alan W. Lankford - Mechanical Engineer - MO #02424
CDA #000001188

FLOOR PLAN NOTES

- M01 INSTALL NEW CONDENSING UNIT ON 4" CONCRETE HOUSEKEEPING PAD PER MANUFACTURER'S RECOMMENDATIONS. VERIFY LOCATION WITH MANUFACTURER FOR CLEARANCE. SHIFT AS CLOSE AS POSSIBLE TO THE NORTH WALL.
- M02 ROUTE REFRIGERANT PIPING THRU EXTERIOR WALL AND UP TO ABOVE 2ND FLOOR CEILING. COORDINATE ROUTING WITH ARCHITECT/OWNER PRIOR TO INSTALLATION. SIZE PIPING PER MANUFACTURER'S RECOMMENDATIONS.
- M03 INSTALL INTAKE LOUVER IN EXTERIOR WALL PER MANUFACTURER'S RECOMMENDATIONS. LOUVER SHALL BE GREENHECK MODEL ESD-435 OR EQUAL, 30"x30" WITH KYNAR FINISH. COLOR TO BE SELECTED BY ARCHITECT. INSTALL LOUVER 12" ABOVE GRADE. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M04 INSTALL INTAKE LOUVER IN EXTERIOR WALL PER MANUFACTURER'S RECOMMENDATIONS. LOUVER SHALL BE GREENHECK MODEL ESD-435 OR EQUAL, 60"x30" WITH KYNAR FINISH. COLOR TO BE SELECTED BY ARCHITECT. INSTALL LOUVER 12" ABOVE GRADE. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M05 INSTALL EXHAUST FAN ON ROOF PER MANUFACTURER'S RECOMMENDATIONS. RE- DETAIL.
- M06 INSTALL MOTORIZED DAMPER PER MANUFACTURER'S RECOMMENDATIONS. INTERLOCK WITH EXHAUST FAN.
- M07 PROVIDE CARBON MONOXIDE/NITROGEN DIOXIDE PANEL WITH SENSORS TO CONTROL EXHAUST SYSTEM. INSTALL AND LOCATE SENSORS PER MANUFACTURER'S RECOMMENDATIONS.
- M08 INSTALL CIRCULATION FAN PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH ARCHITECT.
- M09 CIRCULATION FAN CONTROLLER INSTALLED ABOVE LIGHT SWITCHES.
- M10 SUSPEND INFRARED HEATER FROM STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS.
- M11 INSTALL NEW FAN POWERED BOX WITHIN JOIST SPACE PER MANUFACTURER'S RECOMMENDATIONS. CONNECT 8" INLET DUCT TO EXISTING DUCT MAIN. CONNECT CONTROLS INTO EXISTING CONTROLS SYSTEM.
- M12 REBALANCE EXISTING FAN POWERED BOX TO CFM INDICATED.
- M13 RELOCATED THERMOSTAT. EXTEND WIRING AS REQUIRED TO RECONNECT TO EXISTING FAN POWERED BOX.
- M14 PROVIDE NEW DDC THERMOSTAT TO INTEGRATE NEW BOX INTO EXISTING CONTROLS SYSTEM.
- M15 INSTALL NEW COOLING COIL IN EXISTING AIR HANDLING UNIT. CONNECT TO EXISTING CONDENSATE DRAIN PIPING. COIL SHALL BE CARRIER 4DX, 35"x84"x6", 6-ROW, 8 FPI, 20.42 SQ. FT. FACE AREA, 490 FPM. FIELD VERIFY EXACT DIMENSIONS PRIOR TO ORDERING. PROVIDE RETURN AIR SENSOR, SUPPLY AIR SENSOR AND AIRFLOW SWITCH IN EXISTING AIR HANDLING UNIT AND WIRE TO NEW CONDENSOR FOR PROPER OPERATION.
- M16 ALTERNATE #2. INSTALL NEW AIR HANDLING UNIT. CONNECT TO EXISTING PIPING, DUCTWORK, CONTROLS, ETC. REINSTALL EXISTING CONTROLS FOR PROPER OPERATION. BALANCE SUPPLY AND OUTSIDE AIR AIRFLOWS TO MATCH PREVIOUSLY MEASURED AIRFLOWS.
- M17 STUB 14"x14" DUCT DOWN TO 12" BELOW ROOF. PROVIDE 1"x1" GALVANIZED MESH OVER END OF DUCT.
- M18 CONNECT NEW 3/4" HEATING HOT WATER PIPING TO EXISTING MAINS ABOVE CEILING. FIELD VERIFY EXACT LOCATION.

MCC Longview HT
Addition/Renovation

500 SW Longview Road
Lee's Summit, MO 64081
Project 20008.00
No:

PERMIT/BID DOCUMENTS

Issue: September 23, 2021

Rev. #	Description	Date Issued
1	Addendum #3	10/25/2021

License Name: Gregory J. Fendler
Profession Name: MEP Consulting Engineers
License Number: PE-2006037230

Phase 0 - Floor Plan - Level 1 & 2 - Mechanical

M100

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BNIM
2460 East Pershing Road, Suite 100, Jackson County,
Kansas City MO 64108
p.816.783.1500 f.816.783.1501
MCC Longview HT Addition/Renovation
13426 West 99th Street, Johnson County, Lenexa, KS 66215
913-825-9381
Certificate of Authority #00238900
Civil Engineer
Taliaferro & Browne
1020 East 8th Street, Jackson County, Kansas City, MO 64106
816-283-2466
MEP Engineer
Lankford Fendler + Associates
1730 Walnut Street, Jackson County, Kansas City, MO 64108
816-221-1411

**MCC Longview HT
Addition/Renovation**

500 SW Longview Road
Lee's Summit, MO 64081
Project 2008.00
No:

PERMIT/BID DOCUMENTS

Issued September 23, 2021

Rev. #	Description	Date Issued
1	Addendum #3	10/25/2021

Seal

License Name: Gregory J. Fendler
Profession Name: MEP Consulting Engineers
License Number: PE-2006037230

Lighting Photometrics

E201

Lumark

Catalog #	Type
Project	Date
Comments	
Prepared by	

DESCRIPTION

The patented Lumark Crosstour™ MAXX LED wall pack series of luminaries provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall/ surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

SPECIFICATION FEATURES

Construction

Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 8W, 81W and 102W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens

assembly designed for maximum forward throw. Solid state LED Crosstour MAXX luminaires are thermally optimized with eight lumen packages in cool 5000K, neutral 4000K, or warm 3000K LED color temperature (CCT).

Electrical
LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 8W, 81W and 102W models operate in -40°C to 60°C (-40°F to 140°F). High ambient 50°C (122°F) models available in 8W and 81W models only. Crosstour MAXX luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Four half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz, 480V 60Hz, or 347V 60Hz electrical operation. 480V is compatible for use with 480V Wye systems only.

Emergency Egress

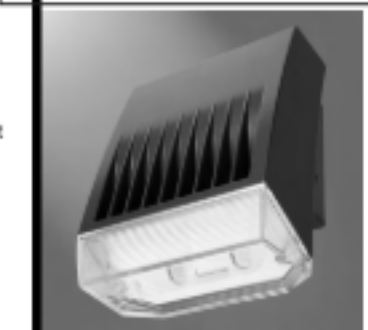
Optional integral cold weather battery emergency egress includes emergency operation test switch (available in 8W and 81W models only), an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

Finish

Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

Five-year warranty.



**XTOR
CROSSTOUR
MAXX LED**

APPLICATION:
WALL / SURFACE
INVERTED
SITE LIGHTING



CERTIFICATION DATA

UL/cUL Wet Location Listed
Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
DesignLights Consortium® "Qualified"
LM79 (LM80 Compliant)
ROHS Compliant
NEMA Compliant Models
3G Vibration Tested
UL954 Listed (CBP Models)
IP66 Rated

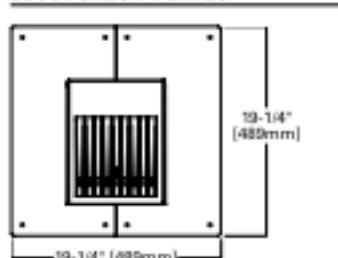
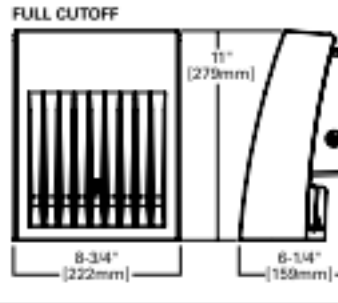
TECHNICAL DATA
40°C Ambient Temperature
External Supply Wiring 90°C Minimum

EPA
Effective Projected Area (Sq. Ft.):
XTOR8B, XTOR8B, XTOR12B=0.54

SHIPPING DATA:
Approximate Net Weight:
12.15 lbs. (3.44 kg.)

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DIMENSIONS



COOPER
Lighting Solutions

page 2

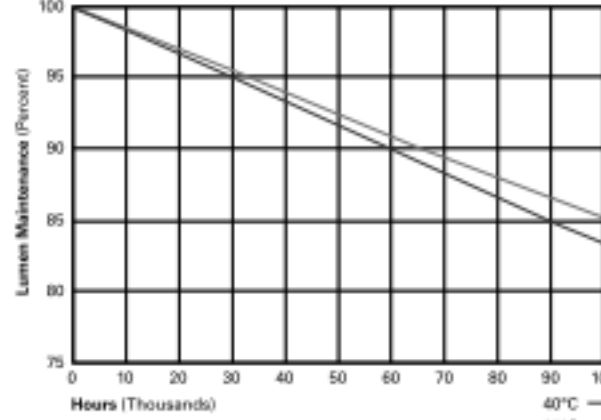
XTOR CROSSTOUR MAXX LED

POWER AND LUMENS BY FIXTURE MODEL

	8W Series					
	XTOR8B	XTOR8BRL	XTOR8B-W	XTOR8BRL-W	XTOR8B-Y	XTOR8BRL-Y
LED Information						
Delivered Lumens	6,129	6,225	6,038	6,133	5,611	5,826
S.U.G. Rating	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	8W	8W	8W	8W	8W	8W
	81W Series					
	XTOR81B	XTOR81BRL	XTOR81B-W	XTOR81BRL-W	XTOR81B-Y	XTOR81BRL-Y
LED Information						
Delivered Lumens	8,502	8,635	8,372	8,504	7,748	8,079
S.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	81W	81W	81W	81W	81W	81W
	102W Series					
	XTOR102B	XTOR102BRL	XTOR102B-W	XTOR102BRL-W	XTOR102B-Y	XTOR102BRL-Y
LED Information						
Delivered Lumens	12,728	13,458	12,539	13,254	11,861	12,595
S.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K	3000K	3000K
CRI (Color Rendering Index)	70	70	70	70	70	70
Power Consumption (Watts)	102W	102W	102W	102W	102W	102W
EGRESS Information	XTOR8B and XTOR8B Full Cutoff CBP Egress LED			XTOR8B and XTOR8B Refractive Lens CBP Egress LED		
Delivered Lumens	509			468		
S.U.G. Rating	N.A.			N.A.		
CCT (Kelvin)	4000K			4000K		
CRI (Color Rendering Index)	65			65		
Power Consumption (Watts)	1.8W			1.8W		

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR8B Model		
25°C	> 90%	246,000
40°C	> 88%	213,000
50°C	> 86%	201,000
XTOR8B Model		
25°C	> 89%	219,000
40°C	> 87%	195,000
50°C	> 86%	181,000
XTOR102B Model		
25°C	> 89%	222,000
40°C	> 87%	198,000



CURRENT DRAW

Voltage	Model Series				
	XTOR8B	XTOR8B	XTOR12B	XTOR8B CBP (Fixture/Battery)	XTOR8B CBP (Fixture/Battery)
120V	0.51	0.71	0.84	0.60/0.25	0.92/0.25
208V	0.25	0.39	0.52	--	--
240V	0.25	0.35	0.45	--	--
277V	0.22	0.31	0.39	0.36/0.21	0.50/0.21
347V	0.19	0.25	0.33	--	--
480V	0.14	0.19	0.24	--	--



Cooper Lighting Solutions
1151 Highway 70 South
Pawnee, CO 80659
P: 770-486-4000
www.cooperlighting.com

Specifications and
drawings subject to
change without notice.

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PHOTOMETRIC PLAN-PAVED AREA

SCALE: 1" = 20'-0"

Luminaire Schedule					
Symbol	Description	Tag	LLF	Luminaire Lumens	Luminaire Watts
☞	COOPER LIGHTING SOLUTIONS - LUMARK - XTOR8B	C	0.950	8502	81
				Total Watts	729

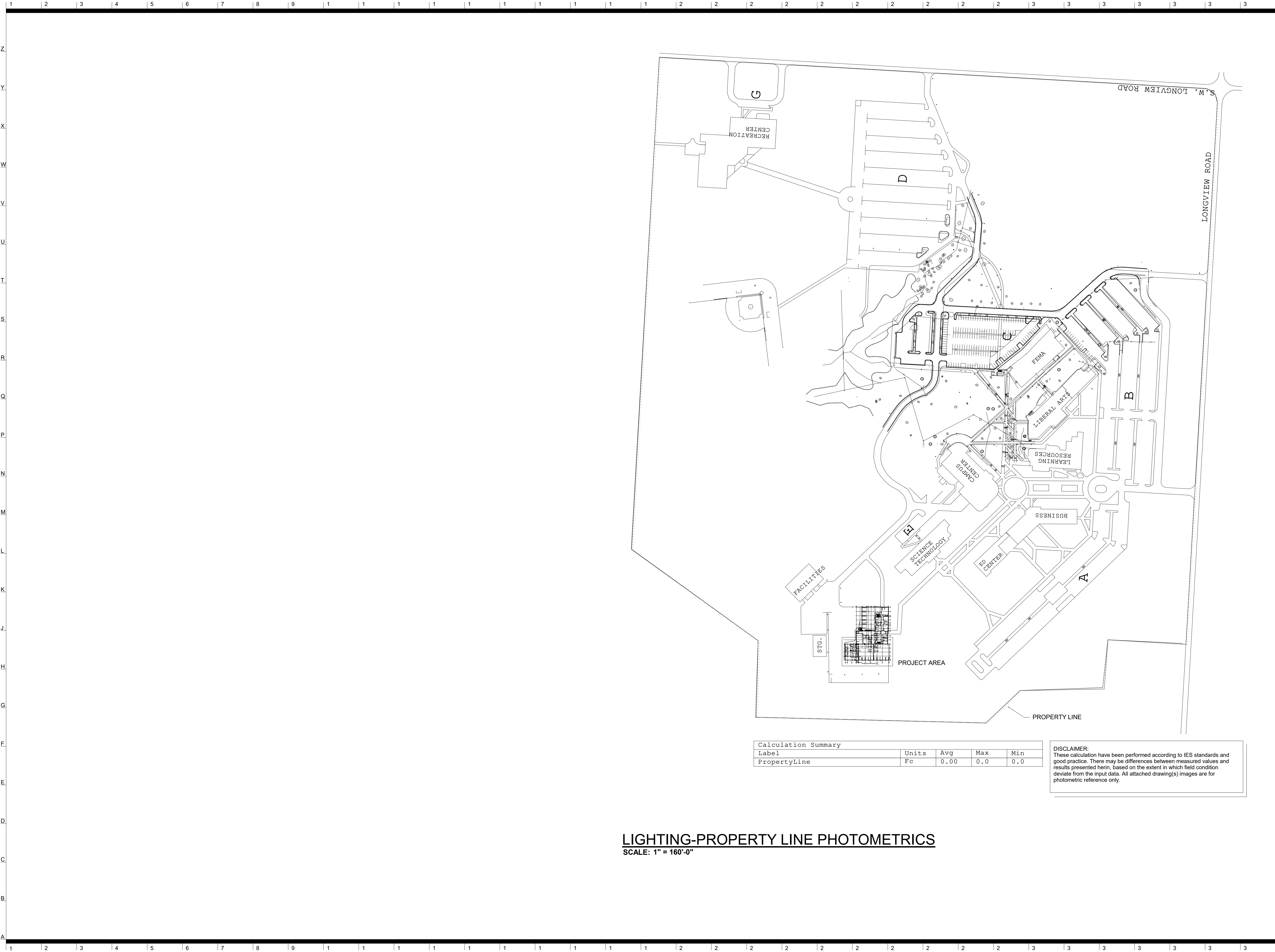
Calculation Summary				
Label	Units	Avg	Max	Min
Paved Area	Fc	2.25	17.3	0.0
PropertyLine	Fc	0.00	0.0	0.0

DISCLAIMER:

These calculation have been performed according to IES standards and good practice. There may be differences between measured values and results presented herin, based on the extent in which field condition deviate from the input data. All attached drawing(s) images are for photometric reference only.

HIGH
TECHNOLOGY

STG.



Calculation Summary				
Label	Units	Avg	Max	Min
PropertyLine	Fc	0.00	0.0	0.0

DISCLAIMER:
These calculation have been performed according to IES standards and good practice. There may be differences between measured values and results presented herein, based on the extent in which field condition deviate from the input data. All attached drawing(s) images are for photometric reference only.

LIGHTING-PROPERTY LINE PHOTOMETRICS
SCALE: 1" = 160'-0"



BNIM **Archit**
797 J Street, San Diego CA 92101
p.619.795.9920 f.816.783.1501

KH Engineering Group **Structural Engineer**
13426 West 90th Street, Johnson County, Lenexa, KS 66215
913-825-9381
Certificate of Authority

Taliaferro & Browne **Civil Engineer**
1020 East 8th Street, Jackson County, Kansas City, MO 64106
816-283-2466

Lankford Fendler + Associates **MEPF Engineer**
1730 Walnut Street, Jackson County, Kansas City, MO 64108
816-221-1411

MCC Longview HT Addition/Renovation

500 SW Longview Road
Lee's Summit, MO 64081
Project 20008.00
No:

PERMIT/BID DOCUMENTS

Issued September 23, 2021

Rev. #	Description	Date Issued
1	Addendum #3	10/25/2021

Seal

LIGHTING PHOTOMETRIC

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Branch Panel: HPC															
Location: COLLISION BAY HT101B						Volts: 277/480 Wye						A.I.C. Rating:			
Supply From:						Phases: 3						Mains Type:			
Mounting: Surface						Wires: 4						Mains Rating: 100 A			
Enclosure: Type 1															
Notes:															
Notes	CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT	Notes
1	1	IDD DOWN DRAFT BOOTH	20 A	3	2.1			0.578			1	20 A	LTG; COLLISION BAY	2	
					2.1			0	1	20 A	SPARE	4	--		
						2.1			0	1	20 A	SPARE	6	--	
1	7	IDD DOWN DRAFT BOOTH	30 A	3	5.8			0			--	--	PROVISION	8	--
					5.8			0		--	--	PROVISION	10	--	
						5.8		0		--	--	PROVISION	12	--	
1	13	MCD CROSS DRAFT BOOTH	30 A	3	7.5			0			--	--	PROVISION	14	--
					7.5			0		--	--	PROVISION	16	--	
						7.5		0		--	--	PROVISION	18	--	
1	15	MCD CROSS DRAFT BOOTH	30 A	3			7.5			0	--	--	PROVISION	20	--
						7.5		0		--	--	PROVISION	22	--	
							7.5		0		--	--	PROVISION	24	--
1	17	MCD CROSS DRAFT BOOTH	30 A	3	5.5			0			--	--	PROVISION	26	--
					5.5			0		--	--	PROVISION	28	--	
						5.5		0		--	--	PROVISION	30	--	
--	25	PROVISION	--	--	0			0			--	--	PROVISION	32	--
--	27	PROVISION	--	--		0			0		--	--	PROVISION	34	--
--	29	PROVISION	--	--			0			0	--	--	PROVISION	36	--
--	31	PROVISION	--	--	0			0			--	--	PROVISION	38	--
--	33	PROVISION	--	--		0			0		--	--	PROVISION	40	--
--	35	PROVISION	--	--			0			0	--	--	PROVISION	42	--
--	37	PROVISION	--	--	0			0			--	--	PROVISION		
--	39	PROVISION	--	--		0			0		--	--	PROVISION		
--	41	PROVISION	--	--			0			0	--	--	PROVISION		
					Total Load:	21.478 kVA		20.900 kVA							
					Total Amps:	77.5 A		75.5 A							
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals						
Heating Resistance			62700 VA		125.00%		78375 VA								
Lighting			572 VA		125.00%		716 VA		Total Conn. Load: 63278 VA						
Other			6 VA		100.00%		6 VA		Total Conn. Current: 76 A						
Power			0 VA		0.00%		0 VA		Total Demand Load: 79097 VA						
									Power Factor %: 95						
									Total Demand Current: 100 A						
NOTES:															
1. PROVIDE SHUNT-TRIP TYPE CIRCUIT BREAKER, TIE INTO FA SYSTEM FOR UNIT SHUT-DOWN.															
2.															
3.															
4.															
5.															
GENERAL NOTES:															