LEE'S SUMMIT JOINT OPERATIONS FACILITY

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HOEFER WELKER

HW PROJECT NO: 138191

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PACKAGE 2: CONSTRUCTION SET

NOVEMBER 1, 2024

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LANDSCAPE PLAN

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ACCESSIBILITY GUIDELINES

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HOEFER WELKER

GENERAL INFORMATION NOTES:

2. ALL WORK SHALL CONFORM WITH APPLICABLE BUILDING CODES, REGULATIONS AND

CONTRACTOR SHALL OBTAIN ALL REQUIRED BUILDING AND OCCUPANCY PERMITS.

ANDSUPPLEMENTARY CONDITIONS TO THE CONTRACT.

ORDINANCES.

THE CONTRACTOR.

ISOLATION MATERIAL.

FOR CLARIFICATIONS, IF REQUIRED.

ALL CONTRACTORS AND THEIR SUPERVISORY PERSONNEL SHALL REVIEW THE GENERAL

CONTRACTOR SHALL BECOME FULLY ACQUAINTED WITH CONDITIONS RELATED TO THE WORK.

5. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCES

OF CONSTRUCTION AND THE SAFETY OF ALL CONSTRUCTION PERSONNEL AND VISITORS.

DRAWINGS CONTAINED IN THIS SET SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS. COPIES

. EACH INSTALLER MUST EXAMINE SUBSTRATE AND/OR CONDITIONS UNDER WHICH THE WORK

DETRIMENTAL TO THE PROPER AND TIMELY EXECUTION OF THAT INSTALLERS WORK. DO NOT

WILL BE INSTALLED AND REPORT TO THE CONTRACTOR IN WRITING ANY CONDITIONS

PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED. COMMENCING WITH

9. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.

OF GYP. BOARD/ WALL (FOG), UNLESS NOTED OR SHOWN OTHERWISE.

REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL GOVERN.

THE ARCHITECT, AT NO ADDITIONAL COST TO THE OWNER.

REPRESENTATIVE OF, OR THE SAME, FOR SIMILAR CONDITIONS THROUGHOUT.

11. NOTE: ALL WALL THICKNESSES ARE ACTUAL DIMENSIONS.

INSTALLATION SHALL CONSTITUTE ACCEPTANCE OF THE SUBSTRATE AND/OR CONDITIONS

8. DO NOT SCALE DRAWINGS: FOLLOW WRITTEN DIMENSIONS AND NOTES. CONTACT ARCHITECT

10. FOR METAL STUD CONSTRUCTION DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE

12. "TYPICAL". AS USED IN THESE DOCUMENTS. SHALL MEAN THAT THE CONDITION OR DIMENSION IS

SECTION, & DETAIL DRAWINGS, ETC.) - CONTACT ARCHITECT FOR CLARIFICATION. FOR BIDDING

PURPOSES: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL GOVERN. FOR

14. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS - CONTACT ARCHITECT

FOR CLARIFICATION. FOR BIDDING PURPOSES: THE MOST EXPENSIVE AND/OR STRICTEST

REQUIREMENTS SHALL GOVERN. FOR CLARIFICATIONS DURING CONSTRUCTION: THE MOST

EXPENSIVE AND/OR STRICTEST REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL

15. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE REPORTED

TO THE ARCHITECT IN WRITING FOR RESOLUTION, PRIOR TO PROCEEDING WITH THE WORK.

ORDERS OR EXTENSIONS OF TIME WILL BE ALLOWED OR ACCEPTED FOR PROCEEDING WITH

CONTRACTOR MUST REPAIR AND/OR REPLACE ANY UNAUTHORIZED WORK, AS INDICATED BY

FOUNDATIONS, BETWEEN WALL PANELS, AND AT PENETRATIONS OF UTILITIES THROUGH THE

19. PROVIDE SEALANT AND/OR CAULKING BETWEEN DISSIMILAR ADJOINING INTERIOR MATERIALS.

20. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR

MINIMUM OF 18" FROM THE PULL SIDE OF THE DOOR TO THE INTERSECTING WALL.

LOCATED 4 INCHES FROM FINISH WALL TO EDGE OF DOOR FRAME, ALWAYS ALLOWING A

21. CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES AND

22. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE FINAL SIZE AND DEPTH OF THE ELEVATOR

23. CONTRACTOR SHALL COORDINATE SIZE, LOCATIONS AND NUMBER OF ALL ROOF OPENINGS AND

COORDINATED BY THE MECHANICAL AND ELECTRICAL CONTRACTORS, WITH THE SELECTED

25. EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE

26. AT ALL TELECOMMUNICATION ROOMS: PROVIDE 3/4" X 8'-0" HIGH FIRE-RETARDANT-TREATED

28. ALL CEILING HEIGHTS AS SHOWN ON PLANS AND DETAILS ARE FROM SLAB OR TILE FLOOR

29. PROVIDE INDEPENDENT FRAMING & ATTACHMENTS TO THE STRUCTURE - ADEQUATE TO

BE LOCATED AT 4" A.F.F. VERIFY LENGTHS AND LOCATIONS WITH ELECTRICAL DRAWINGS.

27. GLASS DOORS, ADJACENT PANELS AND ALL GLAZED OPENINGS WITHIN 1'-6" OF THE FLOOR, AND

EQUIPMENT MANUFACTURER/SUPPLIER; AND ARE TO BE APPROVED BY THE ARCHITECT PRIOR

WOOD SHEATHING OR PROVIDE PLYWOOD OVER NON-COMBUSTIBLE SHEATHING; BOTTOM TO

WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF A DOOR, ETC., SHALL BE SAFETY GLAZING

AS APPROVED FOR IMPACT BY APPLICABLE BUILDING CODES, AND SHALL BE LABELED AS SUCH

SUPPORT THE CEILING SYSTEM, LIGHT FIXTURES, DUCTS, DIFFUSERS, SPRINKLER PIPING AND

30. ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME

OF ALL TOILET ACCESSORIES, MILLWORK/ CASEWORK, AV EQUIPMENT, AND MEP ITEMS ETC.

33. ANY/ ALL PROPRIETARY PRODUCTS DESCRIBED AND/OR DRAWN IN THE DOCUMENTS (BUT NOT

THE FOLLOWING: PERFORMANCE REQUIREMENTS, QUALITY ASSURANCE REQUIREMENTS,

APPLICABLE CODES AND INDUSTRY STANDARDS, FABRICATION, ASSEMBLY, HANDLING.

MANUFACTURER'S STANDARD WARRANTY AND STANDARD FINISH WARRANTY, PROVIDE

DIVISION 01 SPEC, SECTIONS WHICH ALSO APPLY - SUCH AS SUBSTITUTION PROCEDURES.

DELIVERY, STORAGE, INSTALLATION, OPERATION, ADJUSTMENTS, ETC. PROVIDE THE

SPECIFIED) ARE TO MEET THE MANUFACTURER'S STANDARD CRITERIA WHICH IS NOT LIMITED TO -

PRODUCT DATA, SHOP DRAWINGS, SAMPLES, AND MAINTENANCE DATA AS REQUIRED. REFER TO

SUBMITTAL PROCEDURES, QUALITY REQUIREMENTS, REFERENCES, EXECUTION, AND CLOSEOUT

PROCEDURES. NOTE: ANY SUBSTITUTIONS MUST MEET THE DESIGN INTENT, AS WELL AS THE

31. CONTRACTOR TO INSTALL WOOD BLOCKING AND PLYWOOD AS REQUIRED FOR THE MOUNTING

24. LOCATIONS AND SIZES OF ALL CONCRETE MECHANICAL AND ELECTRICAL PADS SHALL BE

HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS DETAILED OR NOTED OTHERWISE.

ROOF ACCESSORIES WITH ALL OTHER TRADES. REFER TO THE ARCHITECTURAL, STRUCTURAL,

PIT, SHAFT, RAIL SUPPORT, HOIST SUPPORT, OVERRUN AND MISC. ELEVATOR REQUIREMENTS

BUILDING ENVELOPE, ETC. - SHALL BE SEALED, CAULKED, FLASHED OR WEATHER-STRIPPED AS

REQUIRED FOR COMPATIBILITY WITH ADJACENT MATERIALS & TO ELIMINATE AIR LEAKAGE AND

16. ANY AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING FOR RESOLUTION, PRIOR TO PROCEEDING WITH THE WORK. IN THESE INSTANCES: NO CHANGE

THE WORK WITHOUT THE ARCHITECT'S WRITTEN DIRECTION AND APPROVAL. ALSO -

17. ALL DISSIMILAR METAL MATERIALS SHALL BE ISOLATED WITH AN APPROVED NONMETAL

18. OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALLS AND

(I.E. WINDOW SILLS TO GYP. BD., ACT CEILINGS TO MASONRY WALLS, ETC.)

THEIR SERVICE CONNECTIONS WITH THE PROPER UTILITY COMPANY.

WITH THE SELECTED ELEVATOR MANUFACTURER/ SUPPLIER.

32. RE: SPECIFICATIONS FOR ALL REQUIRED TESTING AND INSPECTIONS.

PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS.

TO PROCEEDING WITH THE WORK.

(FINISHED FLOOR) TO FINISH CEILING.

FINISHES AS ADJOINING SPACES.

CRITERIA DESCRIBED ABOVE.

13. IF THERE IS A DISCREPANCY BETWEEN SMALL SCALE AND LARGE SCALE DRAWINGS, (PLAN,

CLARIFICATIONS DURING CONSTRUCTION: THE MOST EXPENSIVE AND/OR STRICTEST

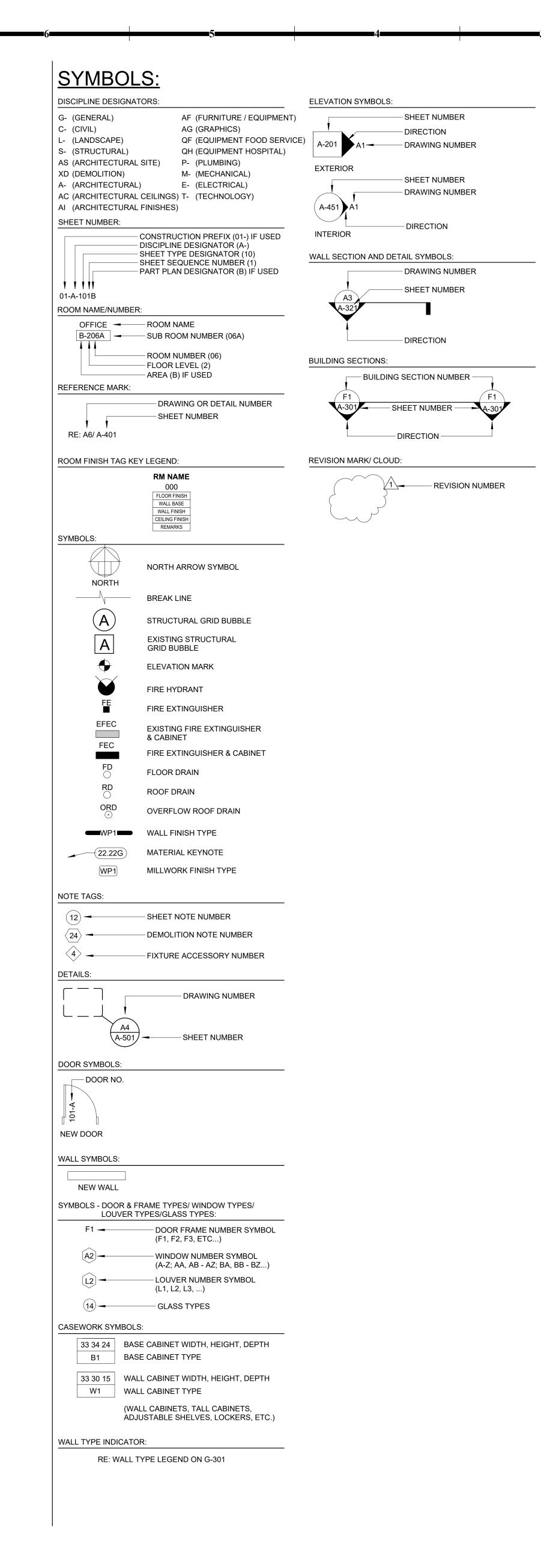
OF THESE DRAWINGS SUBMITTED AS SHOP DRAWINGS WILL BE REJECTED AND RETURNED TO

PROFESSIONAL SEAL

MUMBER A-2016011211

ISSUE DATE: NOVEMBER 1, 2024 HOEFER WELKER #: 138191

GENERAL INFORMATION



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ABBREVIATIONS

ACOUSTICAL CEILING PANEL

AUTHORITIES HAVING JURISDICTION

ADJUSTABLE / ADJACENT

ARCH PRECAST CONCRETE

ARCHITECT / ARCHITECTURAL

ABOVE FINISH FLOOR

AIR HANDLING UNIT

AIR CONDITIONING

AUDIO VISUAL

AREA DRAIN

ADDENDUM

ALTERNATE

ALUMINUM

ANODIZED

APPROX APPROXIMATE

ACCESS PANEL

ATTENUATION

AUTOMATIC

AVERAGE

BOARD

BLOCK

BITUMINOUS

BUILDING

BLOCKING

BOTTOM OF

BOTTOM

BEARING

BRACKET

BASEMENT

TILE BASE

BETWEEN

BOTH WAYS

CABINET

CAPACITY

CATCH BASIN

CUBIC FEET

CAST IRON

CENTERLINE

CENTIMETER

CLEAN OUT

CONCRETE

CORRIDOR

CONCRETE PIPE

COUNTERSINK

COLD WATER

DEPARTMENT

DOUBLE HUNG

DIAMETER

DIAGONAL

DIMENSION

DISPENSER

DOWNSPOU^{*}

DOOR

DETAIL

EAST

EACH

EXHAUST FAN

ELEVATION

ELECTRICAL

EMERGENCY

EQUIPMENT

ESCALATOR

EXISTING TO REMAIN

ELECTRIC WATER COOLER

EXPANSION / EXPANDED

FURNISHED BY OWNER

VINYL COMPOSITION TILE

FIRE DEPARTMENT VALVE

FINISH FLOOR ELEVATION

FIRE EXTINGUISHER AND BRACKET

FIXTURES / FURNITURE / EQUIPMENT

ESTIMATE

EXHAUST

EXISTING

EXTERIOR

FIRE ALARM

FABRICATE

CARPET

FACE BRICK

FLOOR DRAIN

FOUNDATION

FINISH FLOOR

FIRE HYDRANT

FIRE HOSE CABINET

FINISH / FINISHED

ELECTRICAL PANELBOARD

ELEVATOR

EQUAL

ELASTOMERIO

EXPANSION JOINT

DRAWING

DEMOUNTABLE

CASEMENT

COUNTER

CUBIC

DOUBLE

PAINTED GYP CEILING

DEMOLISH / DEMOLITION

DRINKING FOUNTAIN

CONT CONTINUOUS

CONTR CONTRACTOR

COORD COORDINATE

CONNECTION

CONST CONSTRUCT / CONSTRUCTION

COMBINATION

COLUMN

CEILING

CLOSET

CORNER GUARD

CAST IN PLACE

CONTROL JOINT

CLEAR / CLEARANCE

CORRUGATED METAL PIPE

CONCRETE MANSONRY UNIT (S)

CLOSED CIRCUIT TV

CUBIC FEET PER MINUTE

INTEGRAL COVED BASE

ACOUSTICAL CEILING TILE

PAINTED GYP CEILING - EPOXY

BRICK

BACK OF CURB

RESILIENT BASE

BENCHMARK / BEAM

ACOUST ACOUSTICAL

ACP

ADD

ALT

ANOD

ARCH

ATTEN

AUTO

AVG

BLDG

BLKG

BLK

BOT

BRG

BRK

BRKT

BSMT

BTWN

CAB

CAP

CCTV

CFM

CLG

CO

COL

COMB

CONN

CORR

CSMT

CTR

DEMO

DEPT

DMT

DTL

ELEV

EQ

ESC

EWC

EXH

EXIST

FAB

FBO

FCT

EQUIP

EMERG

ABBREVIATIONS

FACE OF GYPSUM BOARD / WALL

FLASHING

FLUORESCENT

FACE OF FINISH

FACE OF CONCRETE

FACE OF MASONRY

FACE OF STUDS

FIRE RESISTANT

FRAME (D), (ING)

FLOOR SINK

FLOOR TILE

FOOT / FEET

FOOTING

FURRING

FUTURE

VINYL TILE

TERRAZZO

GAUGE

GALVANIZED

GRAB BAR

FIELD VERIFY

FIRE VALVE CABINET

FINISHED CONCRETE

GENERAL CONTRACTOR

GLASS FIBER REINF CONC

GLASS / GLAZING

GALLON PER MINUTE

GOVERNMENT

GYPSUM

HEAD

HOOK

HOUR

HEIGHT

HEATING

HEATER

INCH

INCAND INCANDESCENT

HOSE BIBB

HARDBOARD

HEADER

HARDWARE

HARDWOOD

HORIZONTAI

HIGH POINT

HOLLOW METAL

HIGH STRENGTH

CONDITIONING

HOT WATER

HEATING VENTING AIR

HOT WATER HEATER

INSIDE DIAMETER

INCLUDE (D), (ING)

INSTALL / INSTALLATION

INSULATE / INSULATION

INFORMATION

INTERIOR

JANITOR

JOIST

JOINT

KITCHEN

KICK PLATE

LONG / LENGTH

LINEAR FOOT (FEET)

LONG LEG VERTICAL

LONG LEG HORIZONTAL

LABORATORY

LAVATORY

LEFT HAND

LOW POINT

LIGHT(ING)

LWC LIGHTWEIGHT CONCRETE

LOUVER

METER (S)

MASONRY

MAXIMUM

MEMBER

MECHANICAL MEDIUM

MEMBRANE

MANHOLE

MINIMUM

MODULAR

MOUNTED

MOUNTING

METAL

MULLION

NORTH

NUMBER

NOMINAL

NOT TO SCALE

ON CENTER

OPENING

OPPOSITE

OUTSIDE DIAMETER

PUBLIC ACCESS

PRECAST CONCRETE

PANEL BOARD

PERFORATE (D)

PERM PERMANENT

NOT APPLICABLE

NOT IN CONTRACT

MANUFACTURING

MISCELLANEOUS

MASONRY OPENING

PLASTIC LAMINATE MILLWORK

NATURAL STONE COUNTERTOPS

SOLID SURFACE COUNTERTOPS

NOISE REDUCTION COEFFICIENT

OVERHEAD / OPPOSITE HAND

OVERFLOW ROOF DRAIN

MANUFACTURER

LARGE

POUNDS

JUNCTION BOX

JANITOR CLOSET

INVERT

HOLLOW CORE

FLOOR

FLG

FLR

FS

FTG

FVT

FX

GB

GYP

HTG

HTR

INFO

INSUL

INT

INV

JST

LH

LLV

LPT

LT(G)

MEMB

MFR

MTG

OPNG

ORD

PERF

MTL

ABBREVIATIONS

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

PAINT; PRESSURE TREATED

RISER / RADIUS / REVERSED

REFLECTED CEILING PLAN

REFERENCE / REFER TO

POLYVINYL CHLORIDE

PLATE / PROPERTY LINE

PERPENDICULAR

PLAS PLASTER

PLUMB PLUMBING

PLYWD PLYWOOD

PANEL

PREFIN PREFINISHED

PRELIM PRELIMINARY

PREP PREPARE (D)

PSF

PTD

PVC

RCP

REQMT

REV

RFG

RO

RTU

SCH

SCN

SECT

SHT

SOG

SP

SPEC

SPKR

STD

STG

STOR

SYM

SYS

T&G

TO

TOC

TOD

TOM

TOP

TOS

TOW

STL

RD

PVMT

POLY POLYETHYLENE

PREFAB PREFABRICATE (D)

PROJECT

PAINTED

PAVEMENT

QUANTITY

RIGHT OF WAY

RETURN AIR

ROOF DRAIN

REFRIGERATOR

REQUIREMENT

REVISED / REVISION

REINF REINFORCE (D), (ING)

ROOFING

ROOM

SOUTH

RIGHT HAND

ROUGH OPENING

SANITARY SEWER

SOLID CORE

SCHEDULE

SCREEN

SECTION

SHEET

SIMILAR

SP HD SPRINKLER HEAD

SPEAKER

SQUARE

STANDARD

SEATING

STORAGE

STEEL

SUBFLR SUBFLOOR

SUSP SUSPENDED

SWGR SWITCH GEAR

SYSTEM

TREAD

SYMMETRICAL

TOP & BOTTOM

TELEPHONE

THICK (NESS)

TACKBOARD

TOP OF DECK

TOP OF MANSONRY

TOP OF PARAPET

TOP OF STEEL

TOP OF WALL

TELEVISION

UNIT HEATER

VERTICAL

VESTIBULE

WITH

WITHIN

WITHOUT

WOOD

WINDOW

WALL PAINT

WATER CLOSE

WALL HYDRANT

WALL PAINT - EPOXY

WATER RESISTENT

WALL TILE, WEIGHT

WALL COVERING

W/O

VERIFY IN FIELD

TRANSF TRANSFORMER

TRANSM TRANSMISSION

TYPICAL

UNFIN UNFINISHED

THROUGH

TOP OF

TONGUE & GROOVE

TEMPORARY / TEMPERED

TOP OF CURB / CONCRETE

UNLESS NOTED OTHERWISE

VAPOR BARRIER (VPR BR)

VENT THROUGH ROOF

WEST, WIDTH, WIDE, WATER

SLAB ON GRADE

TOILET PARTITION

SPECIFICATION (S)

STAINLESS STEEL

STRUCT STRUCTURE / STRUCTURAL

WINDOW TREATMENTS

SQUARE YARD (SQ YD)

ACOUSTICAL WALL PANEL

SQUARE FOOT (SQ FT)

SECURITY HOLLOW META

SPRAY-ON FIREPROOFING

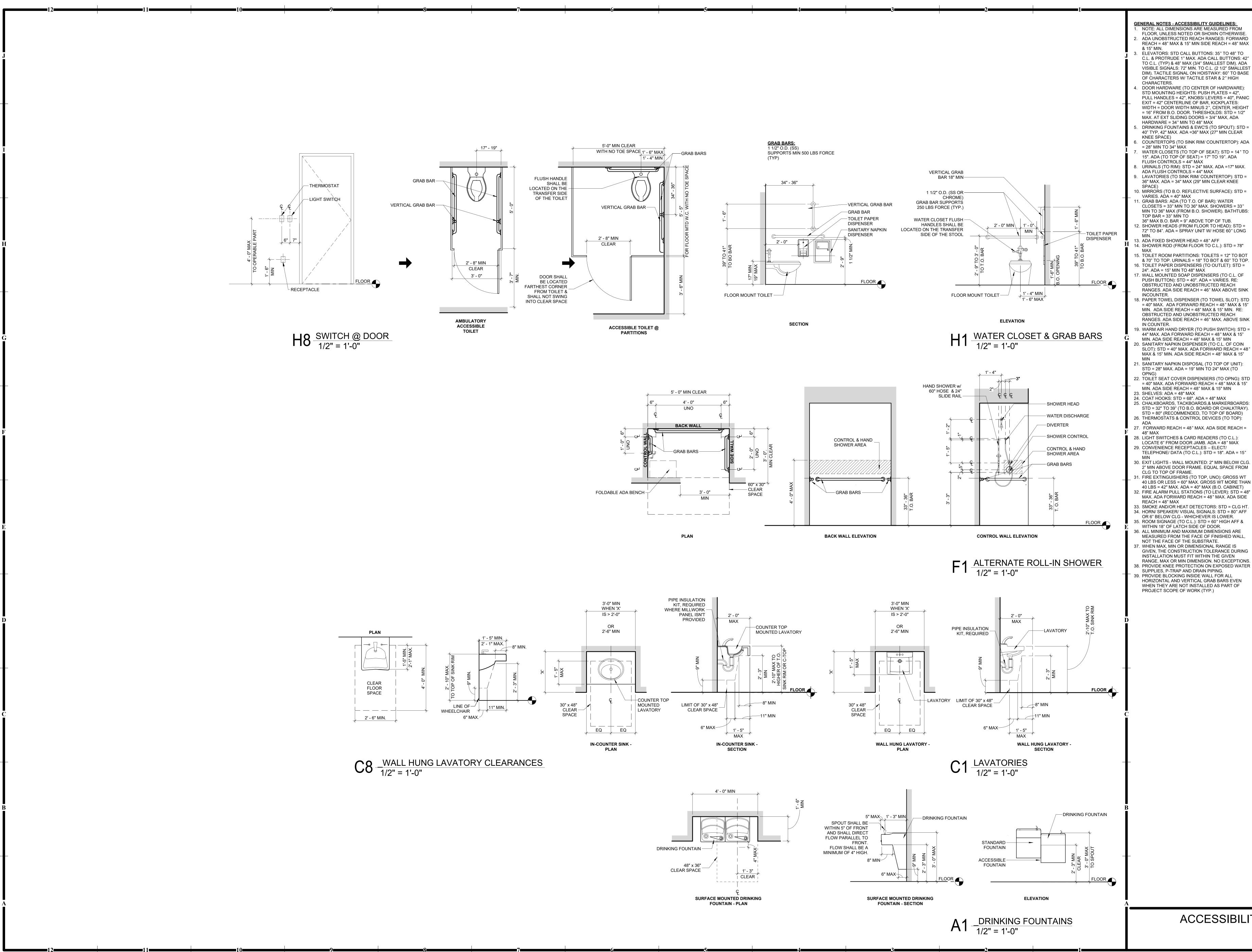
SOUND TRANSM COEFFICIENT

ROOF TOP UNIT

REC (D) RECEIVE (D)

REQD REQUIRED

Autodesk Docs://138191-LeesSummitJointOpsCtr/138191 A23 LeesSummitJointOpsCtr.rvt



GENERAL NOTES - ACCESSIBILITY GUIDELINES: . NOTE: ALL DIMENSIONS ARE MEASURED FROM FLOOR, UNLESS NOTED OR SHOWN OTHERWISE.

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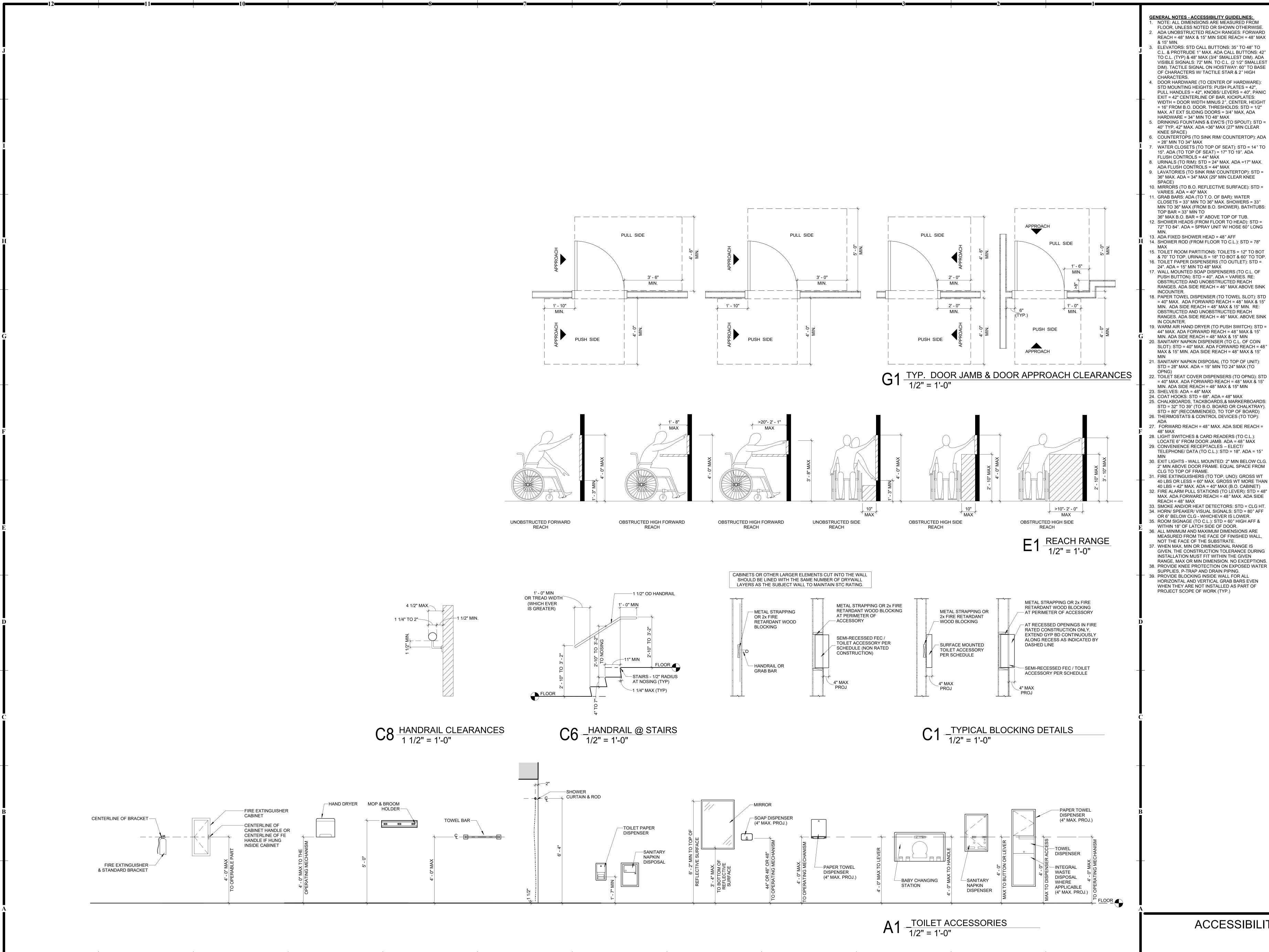
NUMBER A-2016011211

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ACCESSIBILITY GUIDELINES

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GENERAL NOTES - ACCESSIBILITY GUIDELINES: HOEFER WELKER NOTE: ALL DIMENSIONS ARE MEASURED FROM

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ACCESSIBILITY GUIDELINES

HOEFER WELKER

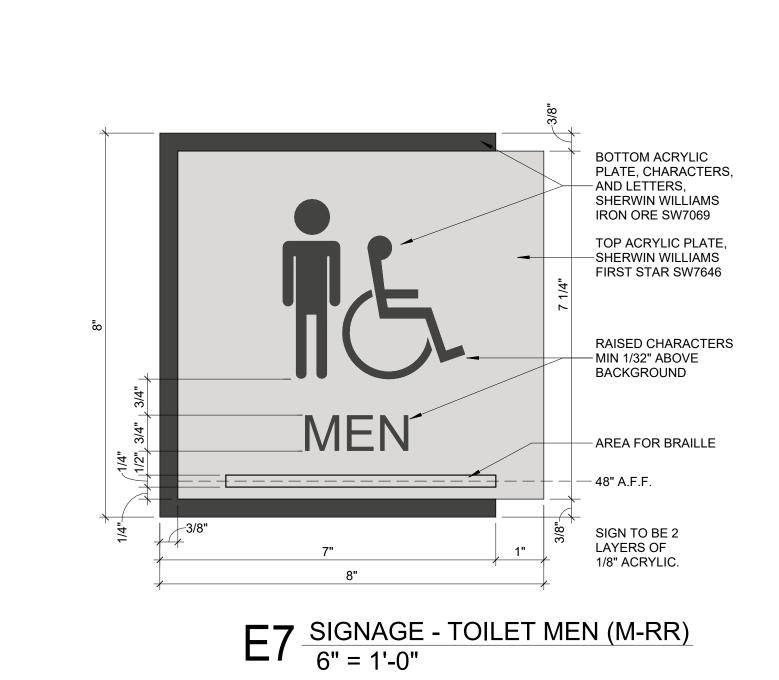
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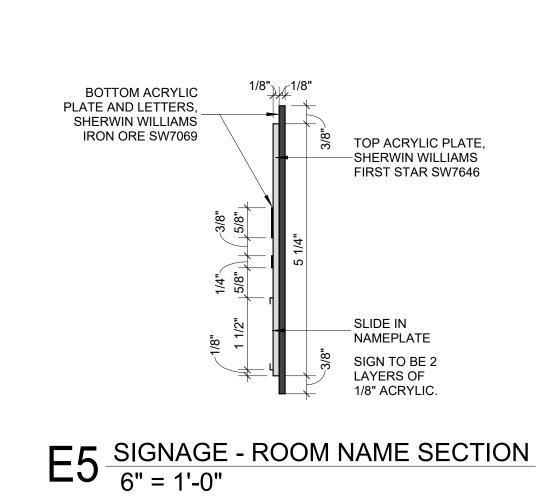
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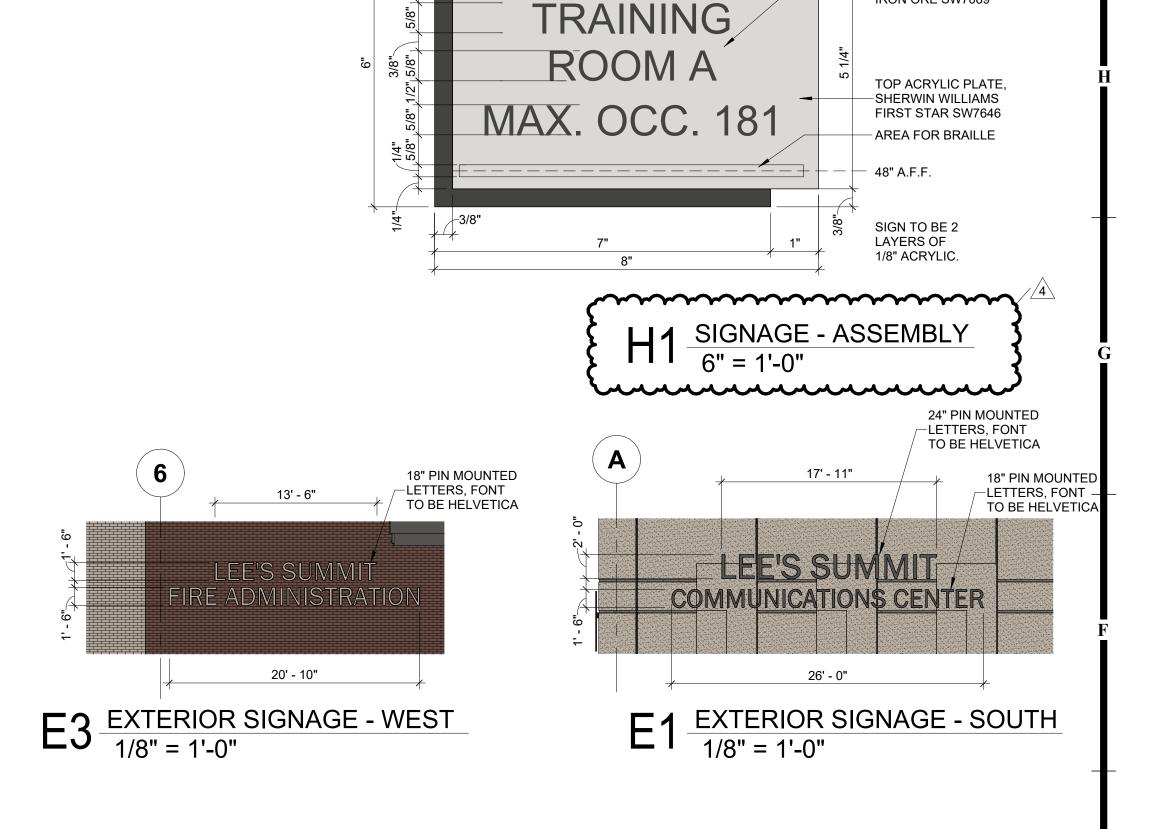
SIGNAGE AND GRAPHIC **ELEVATIONS**



-ACRYLIC ETCHED DEDICATION PLAQUE, ARCHITECT TO

PROVIDE ARTWORK

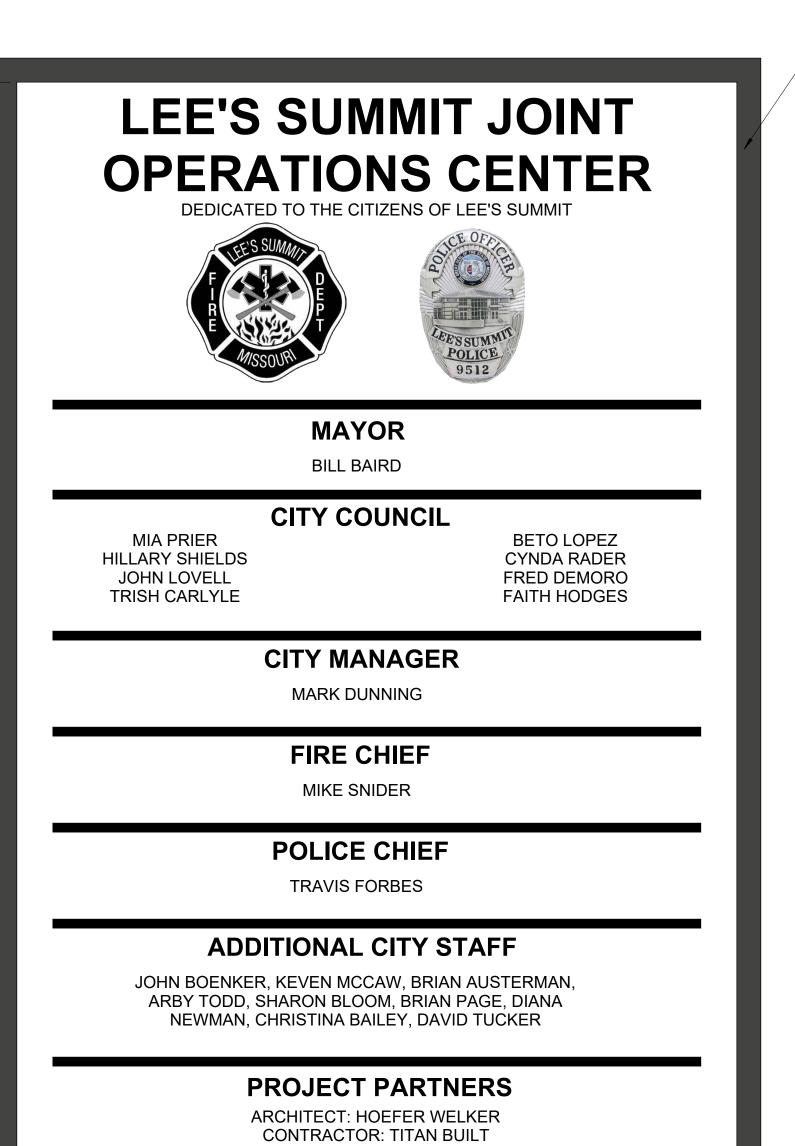




155A

BOTTOM ACRYLIC

PLATE AND LETTERS, SHERWIN WILLIAMS IRON ORE SW7069



WOMEN

E10 SIGNAGE - TOILET WOMEN (W-RR) 6" = 1'-0"

BOTTOM ACRYLIC

- AND LETTERS,

PLATE, CHARACTERS,

SHERWIN WILLIAMS

TOP ACRYLIC PLATE,

-SHERWIN WILLIAMS

FIRST STAR SW7646

RAISED CHARACTERS

- MIN 1/32" ABOVE

BACKGROUND

– 48" A.F.F.

SIGN TO BE 2

1/8" ACRYLIC.

LAYERS OF

IRON ORE SW7069



WARNING

THIS SPACE IS PROTECTED BY A

CLEAN AGENT EXTINGUISHING

SYSTEM. DO NOT ENTER WITHOUT

AUTHORIZATION DURING OR AFTER

DISCHARGE.

DISCHARGE. THIS STROBE INDICATES -

PLATE AND LETTERS,
SHERWIN WILLIAMS

TOP ACRYLIC PLATE,

-SHERWIN WILLIAMS

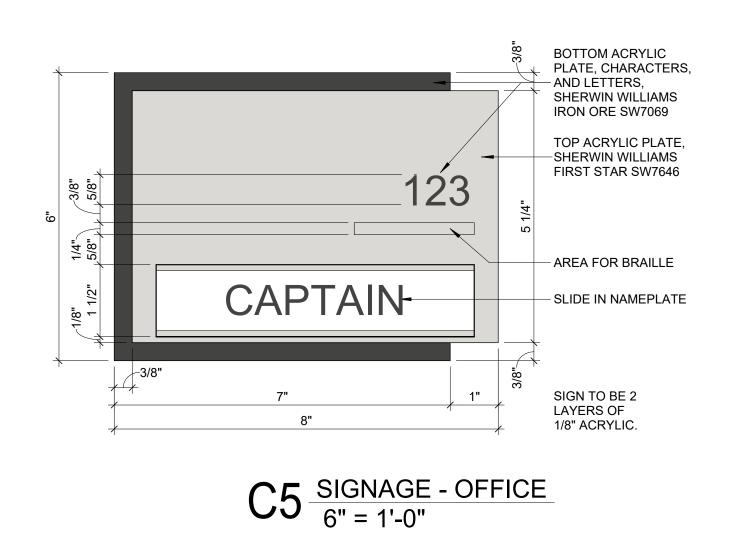
SIGN TO BE 2

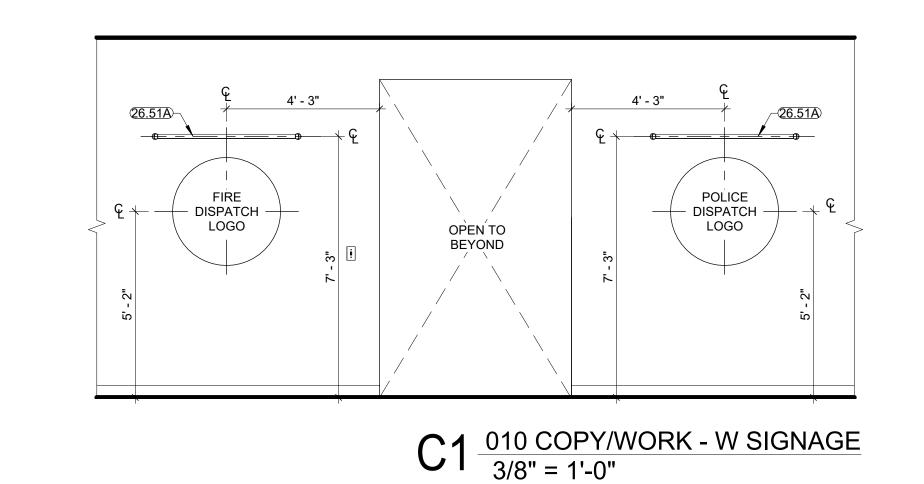
LAYERS OF 1/8" ACRYLIC.

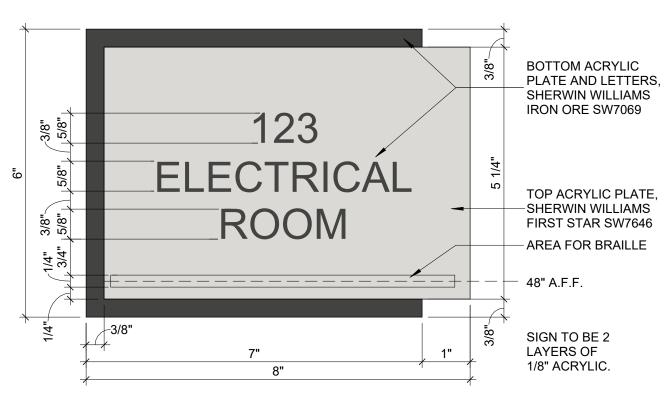
A7 SIGNAGE - FM200 6" = 1'-0"

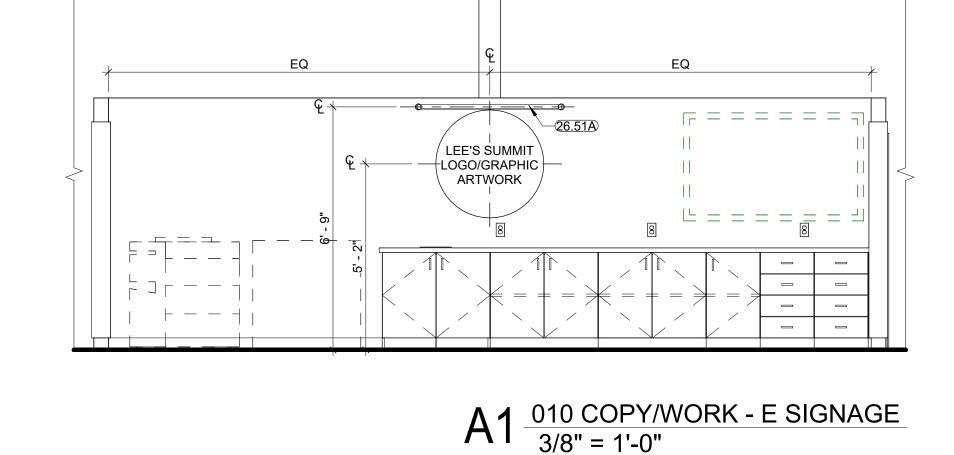
FIRST STAR SW7646

IRON ORE SW7069





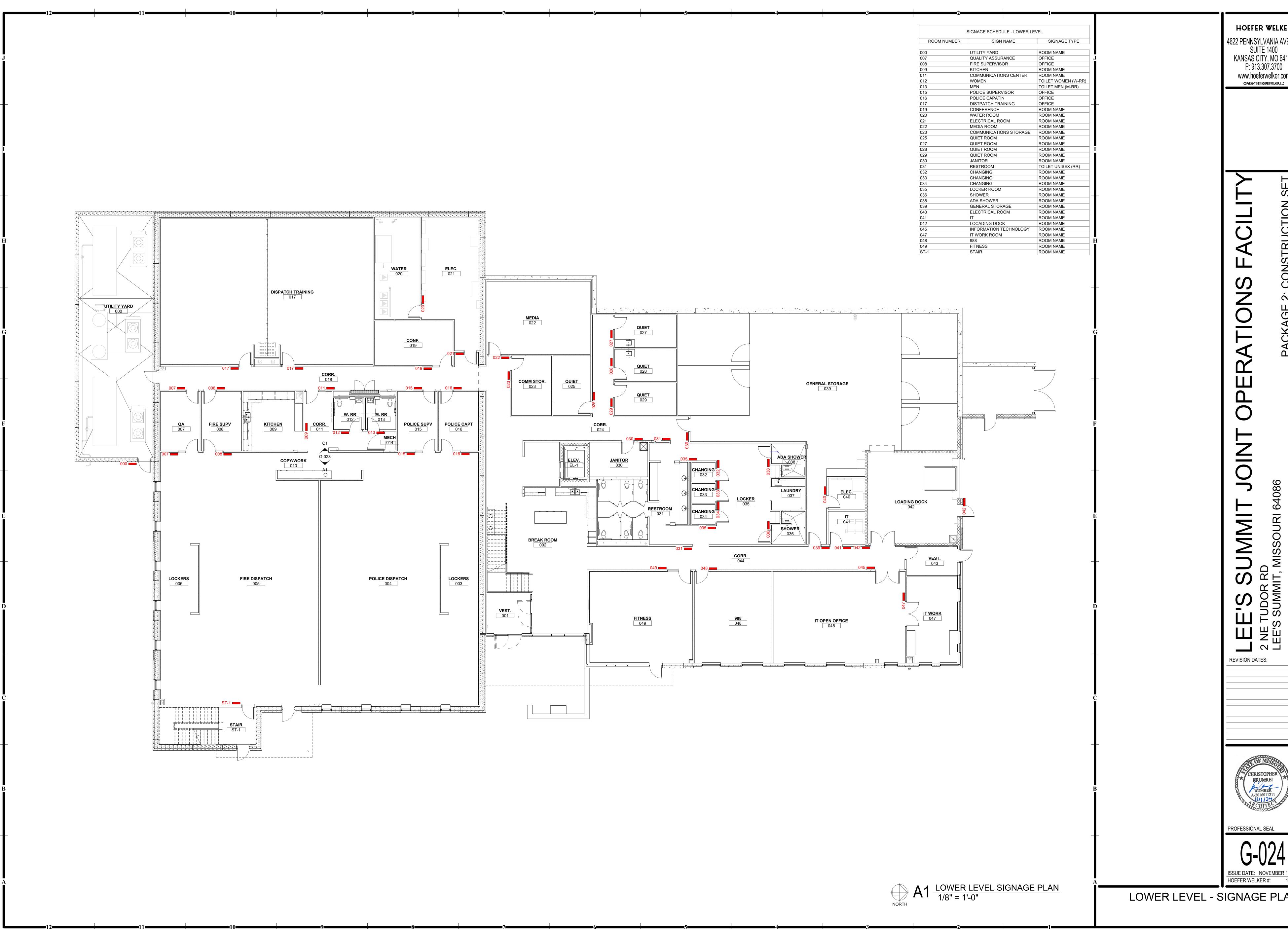




A10 SIGNAGE - DEDICATION 6" = 1'-0"

1' - 3"

1' - 4"



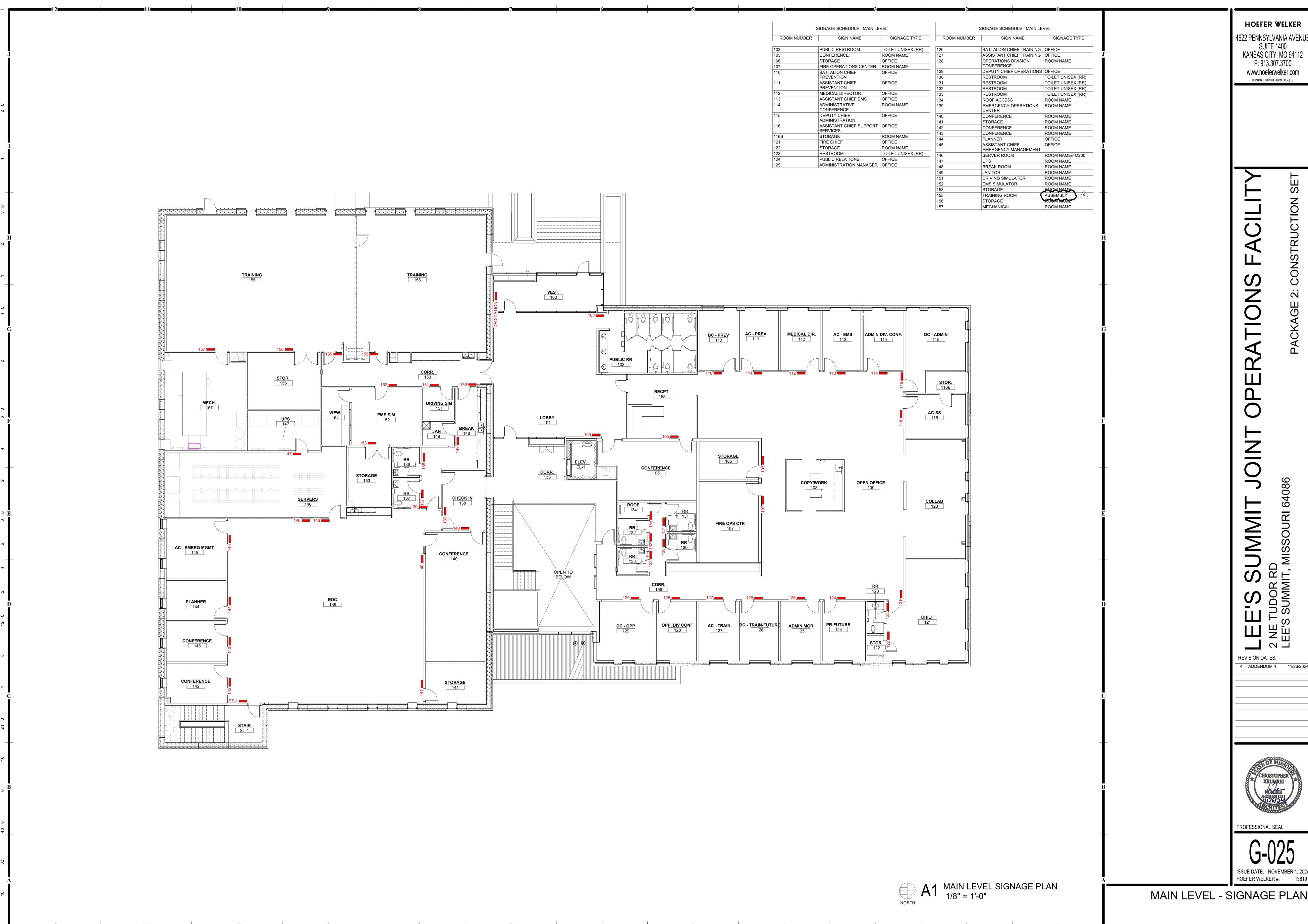
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LOWER LEVEL - SIGNAGE PLAN



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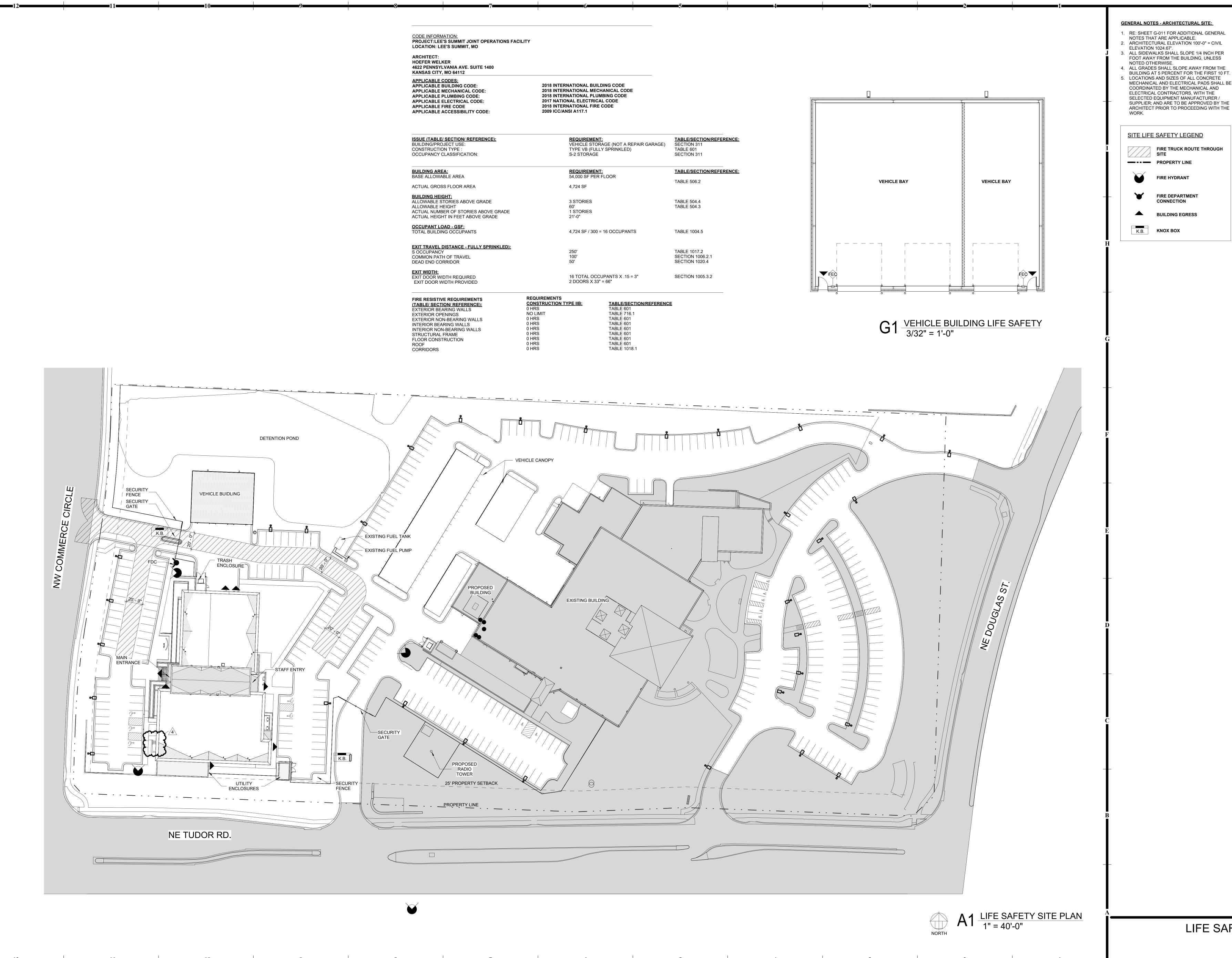
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MAIN LEVEL - SIGNAGE PLAN



GENERAL NOTES - ARCHITECTURAL SITE:

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4 ADDENDUM 4 11/26/2024

ISSUE DATE: NOVEMBER 1, 2024 HOEFER WELKER #: 138191

LIFE SAFETY SITE PLAN

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LIFE SAFETY PLANS



ARCHITECT: **HOEFER WELKER** 4622 PENNSYLVANIA AVE. SUITE 1400 KANSAS CITY, MO 64112

> **APPLICABLE CODES:** APPLICABLE BUILDING CODE: APPLICABLE MECHANICAL CODE: **APPLICABLE PLUMBING CODE:** APPLICABLE ELECTRICAL CODE: APPLICABLE FIRE CODE APPLICABLE ACCESSIBILITY CODE: **APPLICABLE STORM SHELTER CODE:**

2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL MECHANICAL CODE 2018 INTERNATIONAL PLUMBING CODE 2017 NATIONAL ELECTRICAL CODE 2018 INTERNATIONAL FIRE CODE 2009 ICC/ANSI A117.1 2014 ICC 500

ISSUE (TABLE/ SECTION/ REFERENCE):	REQUIREMENT:	TABLE/SECTION/REFE
BUILDING/PROJECT USE:	BUSINESS	SECTION 304
CONSTRUCTION TYPE :	TYPE IIB (FULLY SPRINKLED)	TABLE 601
OCCUPANCY CLASSIFICATION:	A-3 - ASSEMBLY	SECTION 303.4
USE CLASSIFICATION	B - BUSINESS	SECTION 304
BUILDING AREA:	REQUIREMENT:	TABLE/SECTION/REFE
BASE ALLOWABLE AREA - NON SEPARATED MIXED USE		
A OCCUPANCY ALLOWABLE:	28,500 SF PER FLOOR	TABLE 506.2
ACTUAL GROSS FLOOR AREA		
LOWER LEVEL	21,817 SF	
MAIN LEVEL	21,822 SF	
TOTAL	43,639 SF	
BUILDING HEIGHT:		
ALLOWABLE STORIES ABOVE GRADE	3 STORIES	TABLE 504.4
ALLOWABLE HEIGHT	75'	TABLE 504.3
ACTUAL NUMBER OF STORIES ABOVE GRADE	2 STORIES	
ACTUAL HEIGHT IN FEET ABOVE GRADE	40'-8"	
OCCUPANT LOAD - GSF:		
LOWER LEVEL	40 550 05 / 450	TABLE 4004 5
B OCCUPANCY	18,550 SF / 150 = 124 OCCUPANTS	TABLE 1004.5
B OCCUPANCY - EXERCISE/LOCKER ROOMS	935 SF / 50 = 19 OCCUPANTS	TABLE 1004.5
S-2 OCCUPANCY	2,332 SF / 300 = 8 OCCUPANTS	TABLE 1004.5
LOWER LEVEL TOTAL OCCUPANTS	151 TOTAL LOWER LEVEL OCCUPANTS	
MAIN LEVEL	40 444 OF /450 400 OOOLIDANTO	TABLE 4004 5
B OCCUPANCY	19,111 SF / 150 = 128 OCCUPANTS	TABLE 1004.5
A-3 OCCUPANCY	2,711 SF / 15 = 181 OCCUPANTS	TABLE 1004.5
MAIN LEVEL TOTAL OCCUPANTS	309 TOTAL MAIN LEVEL OCCUPANTS	
TOTAL BUILDING OCCUPANTS	460 TOTAL BUILDING OCCUPANTS	
EXIT TRAVEL DISTANCE - FULLY SPRINKLED):		
A OCCUPANCY	250'	TABLE 1017.2
COMMON PATH OF TRAVEL	75'	SECTION 1006.2.1
DEAD END CORRIDOR	20'	SECTION 1020.4
DEAD END CONTIDOR		
B OCCUPANCY	300'	TABLE 1017.2
COMMON PATH OF TRAVEL	100'	SECTION 1006.2.1
DEAD END CORRIDOR	50'	SECTION 1020.4
EXIT WIDTH:		
LOWER LEVEL EXIT DOOR WIDTH REQUIRED	151TOTAL OCCUPANTS X .15 = 23"	SECTION 1005.3.2
EXIT DOOR WIDTH PROVIDED	4 DOORS X 33" = 132"	05051011 / 225 2 2
MAIN LEVEL EXIT DOOR WIDTH REQUIRED	309 TOTAL OCCUPANTS X .15 = 47"	SECTION 1005.3.2
EXIT DOOR WIDTH PROVIDED	2 DOORS X 33" = 66"	
EXIT STAIR WIDTH REQUIRED	309/4 OCCUPANTS X .20 = 16" @ EACH STAIR	SECTION 1005.3.1
	0 6 1 6 1 3 1 3 6 7 1 6 6 7 4 7 1 6 6 7 4 7 9 7	

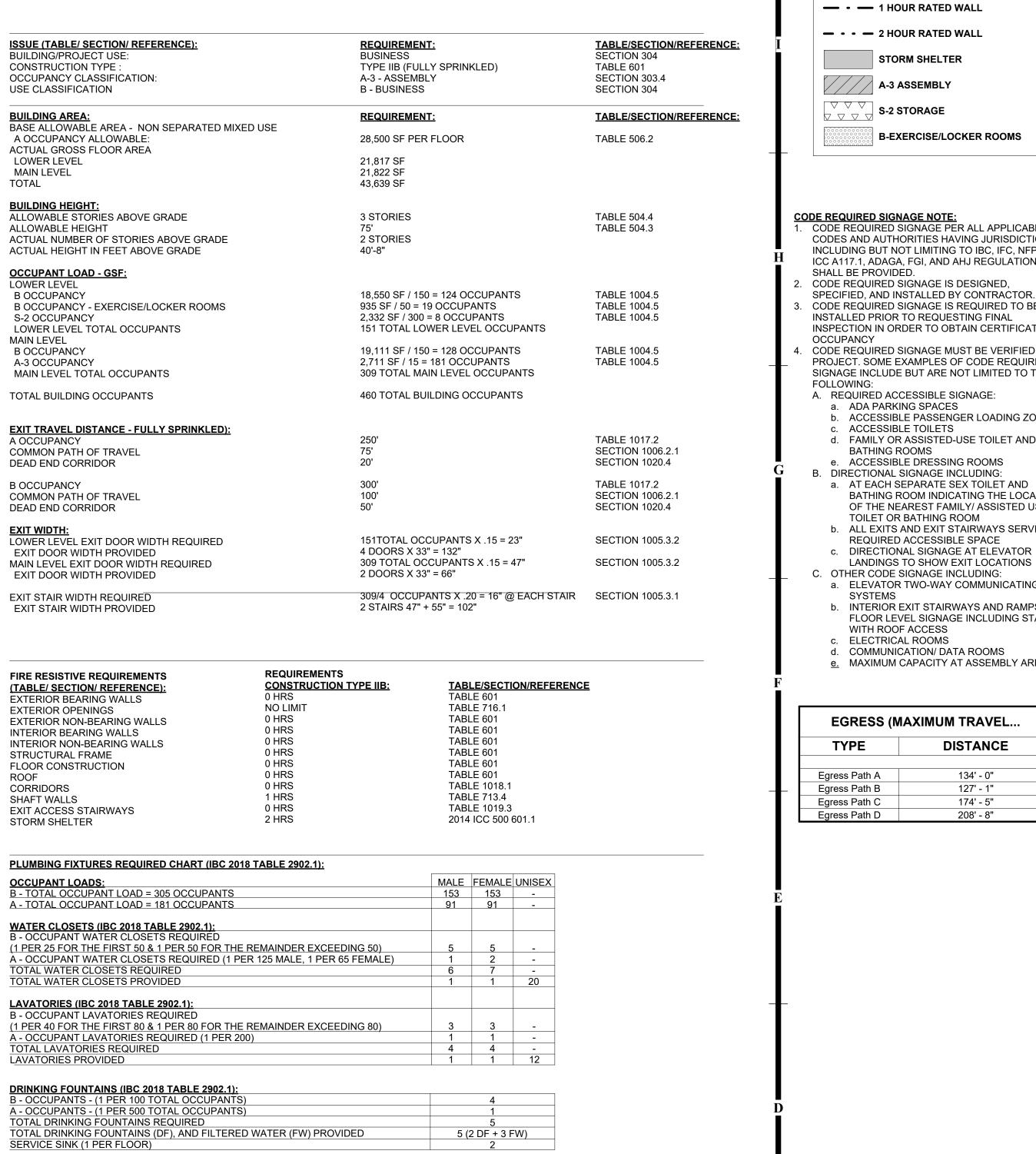
FIRE RESISTIVE REQUIREMENTS (TABLE/ SECTION/ REFERENCE):	REQUIREMENTS CONSTRUCTION TYPE IIB:	TABLE/SECTION/REFERENCE
EXTERIOR BEARING WALLS	0 HRS	TABLE 601
EXTERIOR OPENINGS	NO LIMIT	TABLE 716.1
EXTERIOR NON-BEARING WALLS	0 HRS	TABLE 601
INTERIOR BEARING WALLS	0 HRS	TABLE 601
NTERIOR NON-BEARING WALLS	0 HRS	TABLE 601
STRUCTURAL FRAME	0 HRS	TABLE 601
FLOOR CONSTRUCTION	0 HRS	TABLE 601
ROOF	0 HRS	TABLE 601
CORRIDORS	0 HRS	TABLE 1018.1
SHAFT WALLS	1 HRS	TABLE 713.4
EXIT ACCESS STAIRWAYS	0 HRS	TABLE 1019.3
STORM SHELTER	2 HRS	2014 ICC 500 601.1

DCCUPANT LOADS:	MALE	FEMALE	UNISE
3 - TOTAL OCCUPANT LOAD = 305 OCCUPANTS	153	153	-
A - TOTAL OCCUPANT LOAD = 181 OCCUPANTS	91	91	-
NATER CLOSETS (IBC 2018 TABLE 2902.1):			
B - OCCUPANT WATER CLOSETS REQUIRED			
1 PER 25 FOR THE FIRST 50 & 1 PER 50 FOR THE REMAINDER EXCEEDING 50)	5	5	-
A - OCCUPANT WATER CLOSETS REQUIRED (1 PER 125 MALE, 1 PER 65 FEMALE)	1	2	-
TOTAL WATER CLOSETS REQUIRED	6	7	-
TOTAL WATER CLOSETS PROVIDED	1	1	20
AVATORIES (IBC 2018 TABLE 2902.1):			
B - OCCUPANT LAVATORIES REQUIRED			
1 PER 40 FOR THE FIRST 80 & 1 PER 80 FOR THE REMAINDER EXCEEDING 80)	3	3	_
11 21 10 1 0 1 11 12 1 11 10 1 00 00 1 1 1 2 1 00 1 0 1	1	1	-
A - OCCUPANT LAVATORIES REQUIRED (1 PER 200)		1	_
A - OCCUPANT LAVATORIES REQUIRED (1 PER 200) TOTAL LAVATORIES REQUIRED	4	4	



COLLAB





LIFE SAFETY LEGEND DIRECTION OF EGRESS TRAVEL REMOTE FIRE ALARM ANNUNCIATOR PANEL

FIRE EXTINGUISHER CABINET RFAAP

FIRE ALARM CONTROL PANEL

FIRE DEPARTMENT CONNECTION

KNOX BOX — • — 1 HOUR RATED WALL

- - - 2 HOUR RATED WALL STORM SHELTER

A-3 ASSEMBLY S-2 STORAGE **B-EXERCISE/LOCKER ROOMS**

CODE REQUIRED SIGNAGE NOTE: . CODE REQUIRED SIGNAGE PER ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION INCLUDING BUT NOT LIMITING TO IBC, IFC, NFPA, ICC A117.1, ADAGA, FGI, AND AHJ REGULATIONS SHALL BE PROVIDED.

CODE REQUIRED SIGNAGE IS REQUIRED TO BE INSTALLED PRIOR TO REQUESTING FINAL INSPECTION IN ORDER TO OBTAIN CERTIFICATE OF OCCUPANCY CODE REQUIRED SIGNAGE MUST BE VERIFIED PER PROJECT. SOME EXAMPLES OF CODE REQUIRED SIGNAGE INCLUDE BUT ARE NOT LIMITED TO THE

A. REQUIRED ACCESSIBLE SIGNAGE: a. ADA PARKING SPACES b. ACCESSIBLE PASSENGER LOADING ZONES c. ACCESSIBLE TOILETS d. FAMILY OR ASSISTED-USE TOILET AND

BATHING ROOMS e. ACCESSIBLE DRESSING ROOMS B. DIRECTIONAL SIGNAGE INCLUDING: a. AT EACH SEPARATE SEX TOILET AND BATHING ROOM INDICATING THE LOCATION

OF THE NEAREST FAMILY/ ASSISTED USE TOILET OR BATHING ROOM b. ALL EXITS AND EXIT STAIRWAYS SERVING A REQUIRED ACCESSIBLE SPACE c. DIRECTIONAL SIGNAGE AT ELEVATOR LANDINGS TO SHOW EXIT LOCATIONS

C. OTHER CODE SIGNAGE INCLUDING: a. ELEVATOR TWO-WAY COMMUNICATING SYSTEMS b. INTERIOR EXIT STAIRWAYS AND RAMPS,
FLOOR LEVEL SIGNAGE INCLUDING STAIR
WITH ROOF ACCESS
c. ELECTRICAL ROOMS

d. COMMUNICATION/ DATA ROOMS e. MAXIMUM CAPACITY AT ASSEMBLY AREAS

EGRESS (MAXIMUM TRAVEL		
TYPE	DISTANCE	
Egress Path A	134' - 0"	
Egress Path B	127' - 1"	
Egress Path C	174' - 5"	
Egress Path D	208' - 8"	

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MARKANAN MARKANAN

SERVERS

AC - EMERG MGMT

PLANNER

A-3 ASSEMBLY 2,711 SF

EMS SIM

STORAGE

-2 HOUR RATED

RECPT.

CONFERENCE

FIRE OPS CTR

OPP. DIV CONF BC - TRAIN-FUTURE

AC - PREV || MEDICAL DIR.||

COPY/WORK

ADMIN MGRI PR-FUTURE

OPEN OFFICE

AC - EMS

WALL RE: IBC

2018 722.2.1.1

-STORM DOOR

EGRESS, ALWAYS
OPEN DURING NON

STORM EVENTS) CORR.

CURTAIN (NO

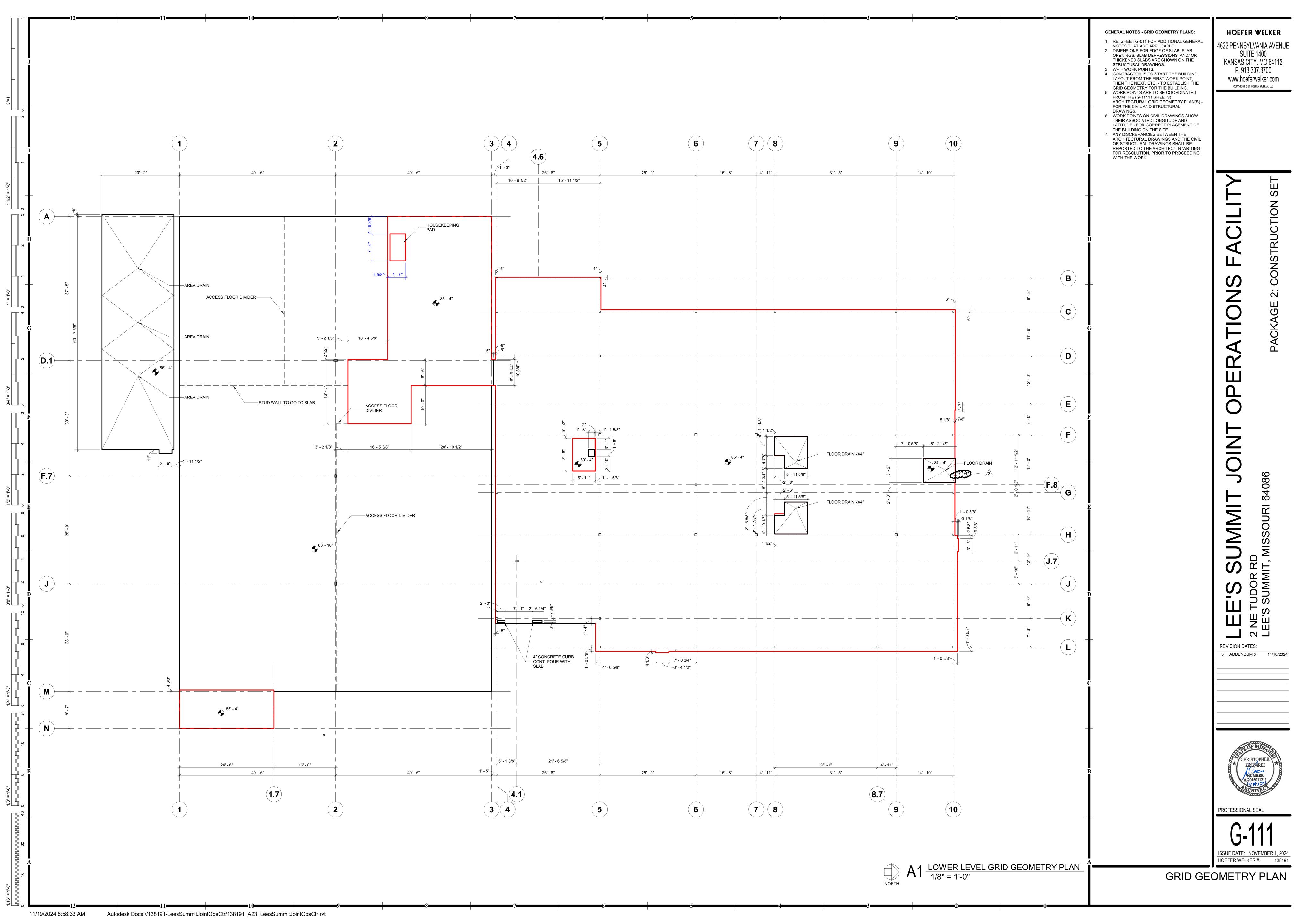
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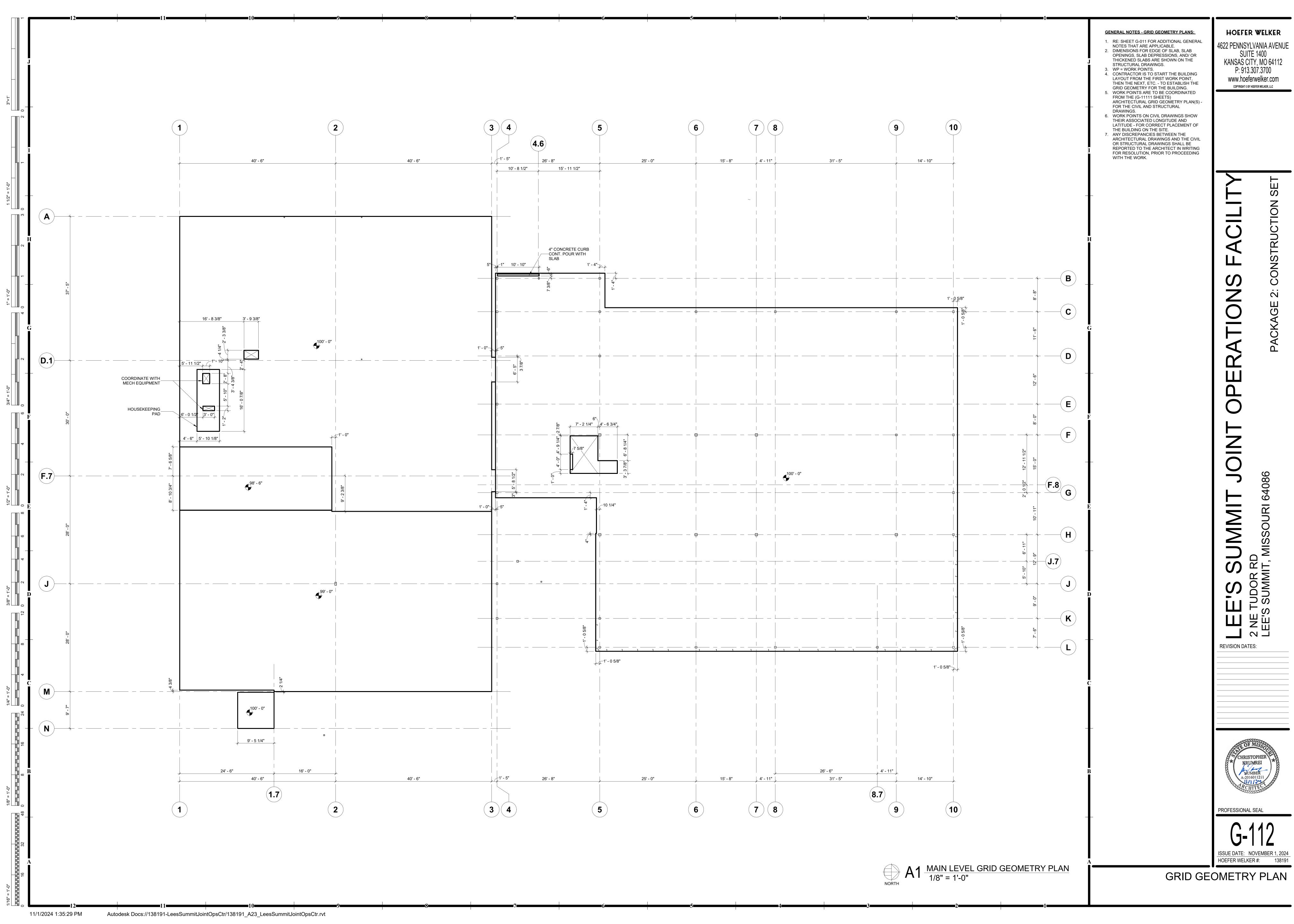
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STORM SHELTER COMPLIANCE





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7

- MODIFIER w = 2 LAYERS GYPSUM BOARD ON BOTH SIDES FIRE RATING/WALL FIRE RATING (ONE-DIGIT CODE) WILL ONLY SHOW IN THE TAG, IF A RATING IS REQUIRED. 1 = 1-HR RATING a = WALL EXTENDS 6" p = PARTIAL HEIGHT WALL (RE: ELEVATIONS) -STUD SIZE 3 = 3 5/8" METAL STUD

MATERIAL KEYNOTES

NOTES THAT ARE APPLICABLE.

RE: WALL TYPE DETAIL SHEET FOR TYPICAL

ADDITIONAL WALL TYPE INFORMATION. 4. COORDINATE METAL STUD GAUGE WITH PRE-

APPROVED EQUIPMENT ANCHORAGE. WHERE A DISCREPANCY OCCURS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

WALL TYPES: PROVIDE ACOUSTIC (SOUND) SEALANT ABOVE TOP TRACK, UNDER BOTTOM TRACK, AND AT ALL PENETRATIONS (BOTH

6. WHERE "FIRE CAULK" IS INDICATED ON WALL TYPES: PROVIDE FIRE-RATED SEALANT ABOVE TOP TRACK, UNDER BOTTOM TRACK, AT ALL PENETRATIONS (BOTH SIDES), AND AS

. EXTEND FIRE-RATED WALL CONSTRUCTION BEHIND NON-RATED RECESSED OR BUILT-IN EQUIPMENT; SUCH AS FIRE EXTINGUISHER CABINETS (FEC), ELECTRICAL WATER COOLERS (EWC), ELECTRICAL PANELS, ETC., UNLESS NOTED OTHERWISE. REFER TO THE 5-SIDED BOX DETAIL ON THE WALL TYPE DETAILS

BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK AND OF ALL FLOOR MOUNTED OR SUSPENDED MECHANICAL

9. WHERE HVAC OR OTHER MECHANICAL, ELECTRICAL AND PLUMBING ITEMS PENETRATE PARTITIONS: STUDS SHALL BE BRACED AND FRAMED TO STRUCTURE AS REQUIRED TO PROVIDE ADEQUATE SUPPORT. ALL PENETRATIONS THROUGH ACOUSTICAL AND FIRE RATED WALLS SHALL BE SEALED TO PROVIDE FIRE, SMOKE, AND/OR ACOUSTICAL ISOLATION OF SPACES WITH APPROPRIATE ACOUSTICAL/ FIRESTOP MATERIAL.

ELECTRICAL, TELEPHONE, OR OTHER OUTLETS, EXCEPT WHERE SPECIFICALLY SHOWN. 11. WALL BASE IS NOT SHOWN ON ALL WALL TYPES FOR CLARITY. REFER TO FINISH

12. PROVIDE MOISTURE AND MOLD RESISTANT

13. EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS NOTED OR SHOWN OTHERWISE. 14. PROVIDE MOISTURE AND MOLD RESISTANT

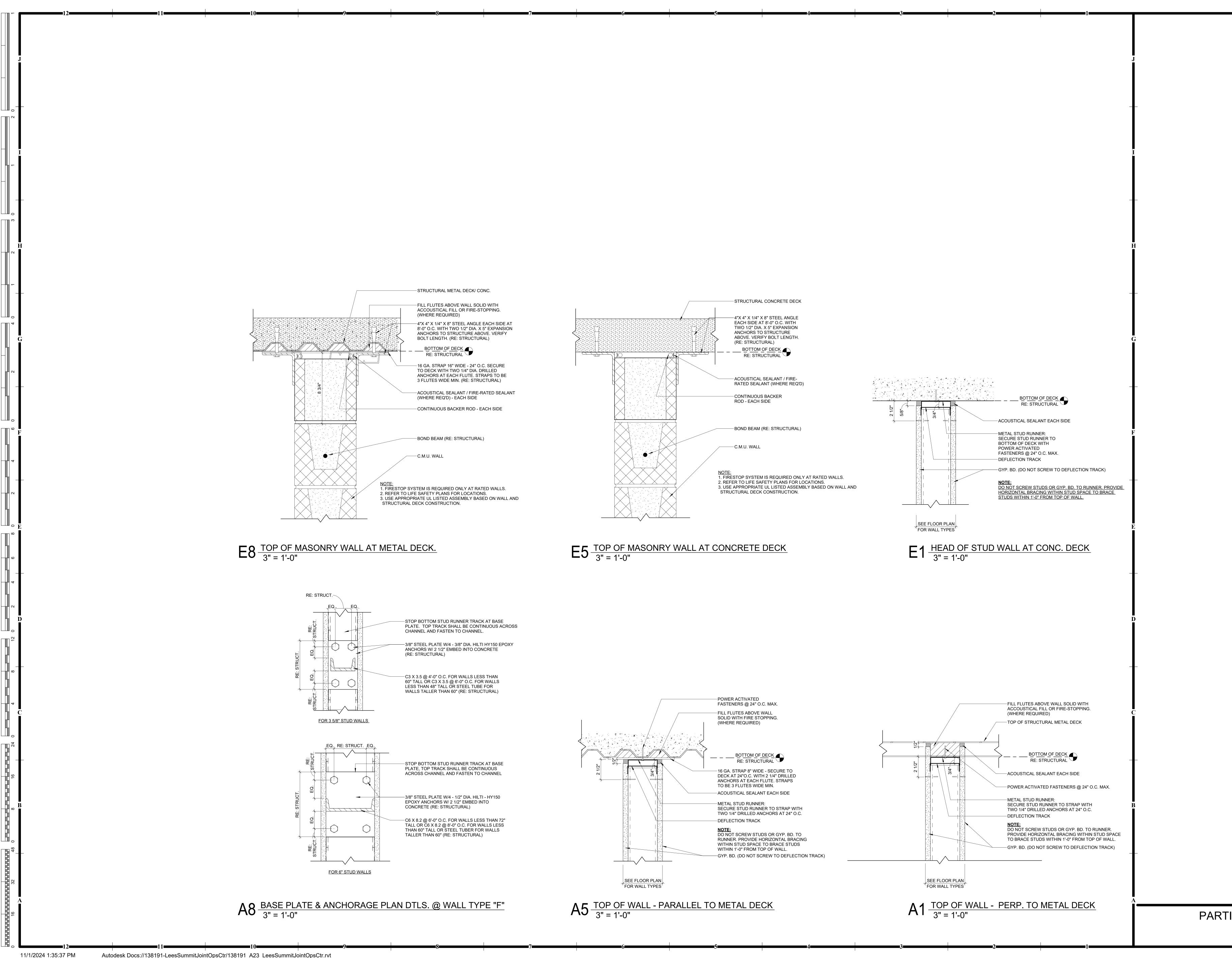
GYPSUM BOARD AT THE INTERIOR SIDE OF ALL 15. STC AND STC TEST NUMBERS ASSUME 20 GA STUDS AT 16" O.C. AT COLD FORMED METAL FRAMING. WOOD FRAMING IS ALSO ASSUMED TO BE AT 16"O.C. CMU TEST REPORTS ASSUME A-2016011211

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PARTITION TYPES



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PARTITION TYPE DETAILS

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UL LISTINGS

Design No. U905

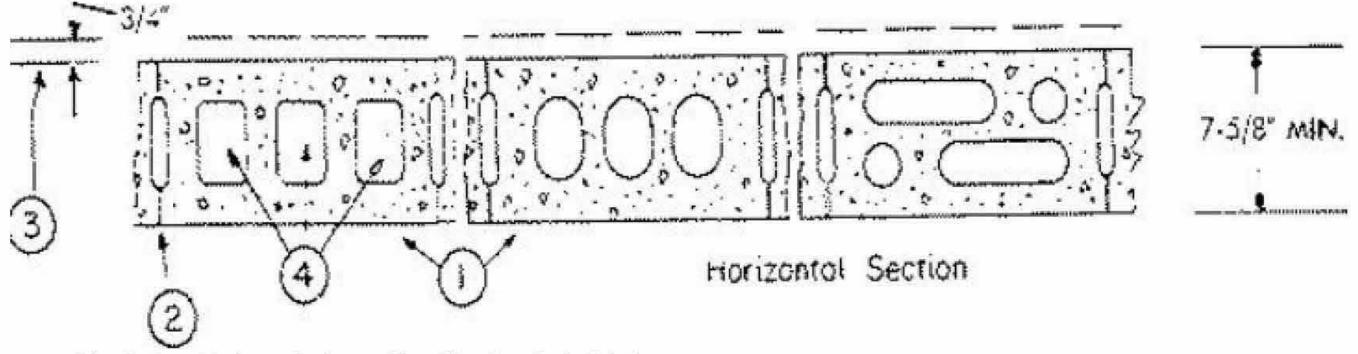
Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR

November 09, 2020

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide <u>BXUV</u> or <u>BXUV7</u>

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



- Concrete Blocks* Various designs. Classification D-2 (2 hr).
 See Concrete Blocks category for list of eligible manufacturers.
- 2. Mortar Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
- 3. **Portland Cement Stucco or Gypsum Plaster** Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).
- 4. Loose Masonry Fill If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.
- 5. Foamed Plastic* (Optional-Not Shown) 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

 ATLAS ROOFING CORP "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

5A. **Building Units*** — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci NB", "Xci Ply"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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HOEFER WELKER

UL LISTINGS

D902 CONTINUED

(a) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 22 MSG fluted and 20/20 MSG cellular with clear spans not more than 9 ft, 6 in. (b) 2 and 3 in. deep, 24 or 36 in. wide, 20 MSG fluted and 20/20 MSG cellular with clear spans not more than 10 ft, 0 in.

(c) 3 in. deep, 24 in. wide, 20 MSG fluted and 20/20 MSG cellular with clear spans not more than 13 ft, 2 in.

4A. Steel Floor and Form Units* — As an alternate to Item 4. Nom 8 or 9 in. deep composite, galv steel units. Min thickness 0.0375 inch (20 MSG). Side joints of adjacent units fully overlapping, fastened together by using 1-1/4 in. long self-drilling, self-tapping steel screws driven through Shear-Bond Clips (not shown) at 13-3/4 in. OC. Steel end closures flashings (not shown) made of min 0.056 inch thick (16 MSG) galv steel, fixed to the steel work before decking is placed. In addition to the Steel Floor and Form Units, the following components are required:

(a) Welded Wire Fabric — 6 X 6 - Min wire thickness W2.9 X W2.9 slab reinforcement. As an alternate, max # 4 bars spaced 12-in. OC in both directions shall be used. When re-bars are used, the concrete slab thickness shall be increased a minimum 5/16 in.

The flute areas above the beam/joist are to be: (1) filled with concrete, (2) filled with Spray-Applied Fire Resistive Material or (3) the beam/joist coated with Spray-Applied Fire Resistive Material installed as described in the design to thickness required when all cellular Steel Floor and Form Units are used.

(b) Rib Reinforcement —Min. #4 rebar. Min concrete cover below the steel reinforcement shall be 1-9/16 in. Reinforcement support chairs spaced at max 41-1/2 inches

See Design No. D989 for a typical illustration of the components. Consult the deck manufacturer for comprehensive load tables and design parameters referencing UL Design D989. BAILEY METAL PRODUCTS LTD — Type COMSLAB™ 210 and COMSLAB™ 225, Steel End Closure Flashing

5, Joint Cover — (Use with fluted units optional — Not Shown) — 2 in. wide cloth adhesive tape applied following the contour of the units.

6. Spray-Applied Fire Resistive Materials* — Applied by spraying with water to the final thicknesses shown below. When fluted steel deck is used and the fire protection thickness selected is based on all fluted deck, the area between the steel deck and the top flange of the steel beam shall be filled. When fluted steel deck is used and the steel beam is sprayed with the thicknesses applicable to cellular of blended units, the area between the steel deck and the top flange of the steel beam shall be plugged. Beam surfaces must be clean and free of dirt, loose scale, and oil. Min average density of 13 pcf with min. individual density of 11 pcf for Types II, II HS, or DC/F. Min average and min individual densities of 22 pcf and 19 pcf, respectively, for type HP. For method of density determination, refer to Design Information

Restrained Assembly	Unrestrained Beam	Concrete Type		Min	Thkns Spray	Applied Resisti	ve Mtl, In	
Rating Hr	Rating Hr		W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular	Joist Item 1A When Deck Is Fluted Cellular or Blend	Joist Item 1B When Dec Is Fluted Cellular or Blend
1	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	1+	-
1-1/2	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	1-9/16	_
2	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	2-1/16	_
2	2	NW	1-1/8	1-3/16	3/4	13/16	2-1/16	
2	3	NW	1-3/4	1-7/8	1-3/16	1-5/16	-	3-1/4
3	1-1/2	NW	3/4	3/4	1/2	1/2	_	3-1/4
3	2	NW	1-1/8	1-3/16	3/4	13/16	_	3-1/4
3	3	NW	1-3/4	1-7/8	1-3/16	1-5/16	-	3-1/4
1	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	1-1/8+	_
1-1/2	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	1-3/4	_
2	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	2-1/4	_
2	2	LW	1-7/16	1-7/16	1	1	2-1/4	-
2	3	LW	2-1/4	2-5/16	1-9/16	1-5/8	-	3-1/4
3	1-1/2	LW	15/16	1	5/8	11/16	_	3-1/4
3	2	LW	1-7/16	1-7/16	1	1	_	3-1/4
3	3	ĹW	2-1/4	2-5/16	1-9/16	1-5/8	_	3-1/4

* This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping.

+ When bottom chords consist of 1 by 1 by 0.125 in. thick steel angles, the thickness of spray-applied fire resistive material shall be increased by 1/4 in. on the bottom chord only.

Restrained	Unrestrained		Min Thkns Appl	ied Resistive Mtl,	In
Assembly Rating Hr	Beam Rating Hr	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular
1, 1-1/2, 2	1	1/2, 5/8*	1/2, 5/8*	5/16, 7/16*	5/16, 7/16*
2	2	1	1-3/16	11/16	13/16
2	3	1-9/16	1-7/8	1-1/16	1-5/16
3	1-1/2	3/4	13/16	1/2	9/16
3	2	1	1-3/16	11/16	13/16
3	3	1-9/16	1-7/8	1-1/16	1-5/16

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular	Joist (Item 1C) When Deck Is Fluted Cellular or Blend
1	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	9/16+
1-1/2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1
2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1-3/8
2	2	1	1-3/16	11/16	13/16	1-3/8
2	3	1-9/16	1-7/8	1-1/16	1-5/16	2-1/4
3	1-1/2	3/4	13/16	1/2	9/16	2-1/4
3	2	1	1-3/16	11/16	13/16	2-1/4
2	,	1.0/16	1.7/0	1.1/16	1.5/16	5.1/4

+ When bottom chords consist of 1 in. by 1 in. by 0.125 in. thick steel angles, the thickness of spray-applied fire resistive material shall be increased by 1/4 in. on the bottom chord only.

GREENTECH ASIA PACIFIC SDN BDH — Types 300, 300ES, 300HS, or 400; Type M-II, or M-II/P

WB4. Investigated for Exterior Use with top coat as described in Item 6E

Purpose. Type SprayFilm-WB 4 and Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

flange tip on both sides of the beam. Mineral wool insulation optional above top surface of the beam.

Thickness mils Thickness mm

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Types 300, 300AC, 400, or 400AC; Type M-II, TG and M-II/P

ISOLATEK INTERNATIONAL — Types 300, 300AC 300ES, 300HS, 300N, SB, 400, 400AC, 400ES, 3000 or 3000ES; Type M-II, TG and M-II/P

No. 12 x 14 self-drilling, self-tapping steel screws 36 in. OC

EPIC METALS CORP — 24 in. wide Types EC150, EC150 inverted, EC300, EC366, ECP150, ECP300, ECP366, ECA; 30 in. wide Types ECB150, ECBR150; 36 in. wide Types EC156, EC266,

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 or 36 in. wide Types 2.0CD, 3.0CD, 2.0CFD, 3.0CFD, 3.0CFDES; 24, 30 or 36 in. wide Types 1.5CD, 1.5CDR, 1.5CFD. Fluted

ROOF DECK INC - 36 in. wide Types LOK-1-1/2, LOK-1-1/2R; 24 in. wide Types LOK-2, LOK-3

STEEL MASTERS INTERNATIONAL DEPENDABLE STEEL — 36 in, wide Types 2WH-36, 3WH-36. Units may be phos/painted or galvanized.

VALLEY JOIST+DECK — 24 or 36 in. wide Types WVC 1-1/2 or WVC 2

finish. Units may be cellular or acoustical cellular, with the suffix "CD" or "CD-AC" added to the product name, respectively. All non-cellular deck may be vented or non-vented. 12 in.

units may be phos/ptd. 24 or 36 in. wide Types 2VLJ, 3VLJ units ++ may be used for max 2 hr Restrained Assembly Rating. 36 in. wide Types 1.5 SB, 1.5 SBR; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBI, 36 in. wide Type High Strength 1.5 SBN: Units may be phos/ptd

specified otherwise for specific units types, adjacent units button-punched or welded together 36 in. OC along side joints. For 3 Hr Rating, units with overlapping type side joints welded together 24 in. OC max.

When a superimposed load of 250 PSF is desired the spacing of welds or button-punches shall not exceed 24 in. OC along side joints.

Alternate Construction — Non-composite units of the same type listed above may be used provided allowable loading is calculated on the basis of non-composite design. The Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating (See Item 6) for a max 3 Hr and is limited to the following units and limitations:

(c) 1-1/2 and 2 in, deep, 24 or 36 in, wide, 16 MSG or thicker fluted and 18/18 MSG or thicker cellular with clear spans not more than 9 ft, 11 in.

For assemblies utilizing 3-1/4 in. light weight concrete topping with a max Restrained Assembly Rating of 2 Hr, the Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating (See Item 6) and is limited to the following floor units and spans:

Minimum Dry Steel Floor Unrestrained Beam

Units

Fluted or Cellular 1-1/2

BERLIN CO LTD — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Exterior Use with top coat as

GREENTECH ASIA PACIFIC SDN BDH — Type WB 3, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Exterior Use with top coat as described in Item 6E

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB 3, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. WB 4, Investigated for Exterior Use with top coat as described in Item 6E

D902 CONTINUED ISOLATEK INTERNATIONAL — Type SprayFilm-WB 3 and Type WB 3. Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Interior General

NEWKEM PRODUCTS CORP — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with

6E. Top Coat — Type SprayFilm — TOPSEAL and Type TOPSEAL required for Exterior Use, applied at a minimum dry thickness of 14 mils (0.34 mm) over the intumescent

See Classification information in the Mastic and Intumescent Coating (CDWZ) category, Isolatek International, for mixing requirements.

6F. Intumescent Fire-resistive Materials * — As an alternate to Items 6 through 6D. For use with normal weight or light weight concrete and fluted steel floor and form units only. Min size W8x24 beams shall be primed with a phenolic modified alkyd primer at a thickness of 2 mils or a epoxy primer at a nominal thickness of 1 mil. Coating spray or brush applied in accordance with the manufacturer's instructions at the thicknesses shown below. The thickness includes the thickness of primer. The top surface of the top flange where fluted units are used must be protected with the coating material at the same min dry thickness or filled with nominal 4 pcf mineral

Minimum Dry Thickness mils	Minimum Dry Thickness mm	Beam Size	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
35	0.88	W8x24	1	2
66	1.68	W8x24	1-1/2	3

GREENTECH ASIA PACIFIC SDN BDH — Type WB-5. Investigated for Interior General Purpose, Investigated for Exterior Use with top coat as described in Item 6G.

Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Exterior Use with top coat as described in Item 6E

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB-5. Investigated for Interior General Purpose, Investigated for Exterior Use with top coat as described in

ISOLATEK INTERNATIONAL — Type WB-5. Investigated for Interior General Purpose, Investigated for Exterior Use with top coat as described in Item 6G.

6G. Top Coat — (Not Shown) — Type TNEMEC 740 required for Exterior Use with Type SprayFilm WB5, applied at a minimum dry thickness of 7 mils over the intumescent material. See Classification information in the Mastic and Intumescent Coating (CDWZ) category, Isolatek International, for mixing requirements.

NEWKEM PRODUCTS CORP — Type WB 5, Investigated for Interior Conditioned Space and Interior General Purpose, Investigated for Exterior Use with top coat as described in Item

6H. Sprayed Fiber Insulation* — (Optional, Not Shown) — Spray applied fiber insulation, Classified to Surface Burning Characteristics (BNST), having a maximum applied density of 3.5 pcf, applied over Spray-Applied Fire Resistive Material (Item 6) on both steel floor and form units (Item 4) and supports (Item 1). Sprayed fiber insulation may be over Spray-Applied Fire Resistive Material (Item 6) according to the following tables:

Allowable Spray-Applied Fiber Insulation Thickness Over Beam

Installed SFRM Thickness (in.) on Beam		SFRM Density (pcf)							
	13	15	17.5	22	22 (Type HP)	44	47		
/8	6-3/4	4	4-11/16	5-7/8	8	8	8		
/16	6-1/2	3-3/4	4-3/8	5-1/2	8	8	8		
/2	6-1/4	3-1/2	4-1/16	5-1/8	8	8	8		
/16	6-1/16	3-3/16	3-3/4	4-11/16	8	8	8		
/8	5-13/16	2-15/16	3-7/16	4-5/16	8	8	8		
1/16	5-9/16	2-11/16	3-1/8	3-15/16	8	8	8		
/4	5-5/16	2-7/16	2-13/16	3-9/16	8	8	8		
3/16	5-1/8	2-1/8	2-1/2	3-1/8	8	8	8		
	4-7/16	1-5/16	1-9/16	1-15/16	7-7/16	6-5/16	6-11/16		
-1/16	4-3/16	1-1/16	1-1/4	1-9/16	7-1/16	5-1/2	5-7/8		

Installed SFRM Thickness (in.)	on Joist	2000	SFRM De	nsity (pcf)		
	13	15	22	22 (Type HP)	44	47
9/16	8	8	8	8	8	8
13/16	8	8	8	8	8	8
1	8	8	8	8	8	8
1-1/8	7-7/8	7-1/2	8	8	8	8
1-1/4	7-7/16	6-15/16	8	8	8	8
1-3/8	6-15/16	6-7/16	8	8	8	8
1-9/16	6-1/4	5-5/8	8	8	8	8
1-3/4	5-9/16	4-13/16	7-1/16	8	8	8
2-1/16	4-7/16	3-1/2	5-1/8	7-7/16	8	8
		7	Ť	7	7	

INTERNATIONAL CELLULOSE CORP — Type K13, URE-K, or Sonospray FC

61. Sprayed Fiber Insulation* — (Optional, Not Shown) — Spray applied fiber insulation, Classified for Noncombustible Building Materials (BICW), having a maximum applied density of 5 pcf, applied over Spray-Applied Fire Resistive Material (Item 6) on both steel floor and form units (Item 4) and supports (Item 1). Sprayed fiber insulation may be over Spray-Applied

Allowable Spray-Applied Fiber Insulation Thickness Over Beam

nstalled SFRM Thickness (in.) on Beam				SFRM Density	y (pcf)		
	13	15	17.5	22	22 (Type HP)	44	47
5/16	5	5	5	5	5	5	.5
3/8	5	5	5	5	5	5	5
7/16	5	5	5	5	5	.5	5
1/2	5	5	5	5	5	5	5
9/16	5	5	5	5	5	5	5
5/8	5	5	5	5	5	5	-5
11/16	5	5	5	5	5	5	5
3/4	5	4-13/16	5	5	5	5	5
13/16	5	4-9/16	5	5	5	5	5
15/16	5	4	4-11/16	5	5	5	5
1	4-7/8	3-3/4	4-3/8	5	5	5	5
1-1/16	4-5/8	3-1/2	4-1/16	5	5	5	5
1-1/8	4-7/16	3-3/16	3-3/4	4-11/16	5	5	5
1-3/16	4-3/16	2-15/16	3-7/16	4-5/16	5	5	5
1-5/16	3-11/16	2-7/16	2-13/16	3-9/16	5	5	5
1-7/16	3-1/4	1-7/8	2-3/16	2-3/4	5	5	.5
1-9/16	2-13/16	1-5/16	1-9/16	1-15/16	4-11/16	3-15/16	4-3/16
1-5/8	2-9/16	1-1/16	0	1-9/16	4-5/16	3-1/8	3-3/8
1-3/4	2-1/16	9/16	0	13/16	3 9/16	1-9/16	1-11/16
1-7/8	1-5/8	0	0	0	2 3/4	0	0
2-1/4	1/4	0	0	0	3/8	0	0
2-5/16	0	0	0	0	0	0	0

Allowable Spray-Applied Fiber Insulation Thickness Over Joist

Installed SFRM Thickness (in.) on Joist			SFRM	Density (pcf)		
	13	15	22	22 (Type HP)	44	47
9/16	5	5	5	5.	5	5
13/16	5	5	5	5	5	5
1	5	5	5	5	5	5
1-1/8	5	4-13/16	5	5	5	5
1-1/4	5	4-5/16	5	5	5	5
1-3/8	5	3-3/4	5	5	5	5
1-9/16	5	2-15/16	4-5/16	5	5	5
1-3/4	5	2-1/8	3-1/8	5	5	5
2-1/16	5	13/16	1-3/16	5	5	5
2-1/4	5	0	0	5	5	5
3-1/4	0	0	0	0	0	0

THERMACOUSTICS IND - Type TC-417

6J. Sprayed Fiber Insulation* — (Optional, Not Shown) — Spray applied fiber insulation, Classified to Surface Burning Characteristics (BNST), having a maximum applied density of 2.8 pcf, applied over Spray-Applied Fire Resistive Material (Item 6) on both steel floor and form units (Item 4) and supports (Item 1). Sprayed fiber insulation may be over Spray-Applied Fire Resistive Material (Item 6) according to the following tables:

3/8	5	5	5	5	5	5	5	
7/16	5	5	5	5	5	5	5	
1/2	5	5	5	5	5	5	5	
9/16	5	5	5	5	5	5	5	
5/8	5	5	5	5	5	5	5	
11/16	5	5	5	5	5	5	5	
3/4	5	5	5	5	5	5	5	
13/16	5	5	5	5	5	5	5	
15/16	5	5	5	5	5	5	5	
1	5	4-11/16	5	5	5	5	5	
1-1/16	5	4-3/8	5	5	5	5	5	
1-1/8	5	4	4-11/16	5	5	5	5	
1-3/16	5	3 11/16	4- 5/16	5	5	5	5	
1-5/16	4-5/8	3	3-1/2	4-7/16	5	5	5	
1-7/16	4-1/16	2-3/8	2-3/4	3-7/16	5	5	5	
1-9/16	3-1/2	1-11/16	1-15/16	2-7/16	5	4-15/16	5	
1-5/8	3-3/16	1-5/16	1-9/16	1-15/16	5	3-15/16	4-3/16	
1-3/4	2-5/8	11/16	13/16	1	4-7/16	1-15/16	2-1/8	
1-7/8	2-1/16	0	0	0	3-7/16	0	0	
2-1/4	5/16	0	О	0	1/2	0	0	
2-5/16	0	0	0	0	o	o	0	

D902 CONTINUED

22 (Type HP)

Allowable Spray-Applied Fiber Insulation Thickness Over Beam

Allowable Spray-Applied Fiber Insulation Thickness Over Joist

	13	15	22	22 (Type HP)	44	47
9/16	5	5	5	5	5	5
13/16	5	5	5	5	5	5
1	5	5	5	5	5	5
1-1/8	5	5	5	5	5	5

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Installed SFRM Thickness (in.) on Joist SFRM Density (pcf)

nstalled SFRM Thickness SFRM Density (pcf)

16 5 1 1-1/2 5 5 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5							
16 5 1 1-1/2 5 5 5 4 4 5 0 0 5 5 5 5	*-		6-11/10	3-13/10	3	· .	-
4 5 0 0 5 5 5	16	5	1	1-1/2	5	5	5
	4	5	0	0	5	5	5
4 2-1/16 0 0 3-7/16 0 0	4	2-1/16	0	0	3-7/16	0	0

MONOGLASS INC - Type Monoglass

7. Shear Connector Studs — (Optional) — Studs, 3/4 in. diam by 3 in. long, for 1-1/2 in. deep form units to 5-1/4 in. long for 3 in. deep form units, headed type or equivalent per AISC specifications. Welded to the top flange of the beam through the steel form units.

8. Lath Hanger — (Optional, Not Shown) For use in caged beams with Items 6, 6A or 6B Galv steel 6 SWG min diam spaced 27 in. O. C.

10. Metal Lath — (Optional, Not Shown) — For use in caged beams with Items 6, 6A or 6B 3/8 in. diamond mesh or rib lath, 3.4 lbs per sq yd expanded steel attached to

12. Mineral and Fiberboards* — (Optional, Not Shown, Not for use with Item 4A) — Applied over concrete floor with no restriction on board thickness, When mineral

9. Clips — (Optional, Not Shown) For use in caged beams with Items 6, 6A or 6B No. 24 MSG spring steel pushed on to top and bottom flanges of beam spaced 6 in. O.

11. Electrical Inserts* — (Not Shown) — Classified as "Outlet Boxes and Fittings Classified for Fire Resistance".

beam with clips spaced 6 in. OC max; or tied to lath hangers with 18 SWG galv steel wire spaced 6 in. OC max.

and fiber boards are used, the unrestrained beam rating shall be increased by a minimum of 1/2 hr. See Mineral and Fiber Board (CERZ) category for names of manufacturers. 13. Foamed Plastic* — (Optional, Not Shown. Not for use with Item 4A) — Consisting of polyisocyanurate or urethane roof insulations. Applied over concrete floor with

See Foamed Plastic (CCVW) for list of manufacturers. 14, Insulating Concrete — (Optional, Not Shown) — Various types of insulating concrete prepared and applied as follows: A. Vermiculite Concrete - Blend 6 to 8 cu ft of Vermiculite Aggregate* to 94 lb Portland cement and air entraining agent. Min thickness of 2 in, as measured to the top surface of the

no restrictions on thickness. When polyisocyanurate or urethane insulation is used, the unrestrained beam rating shall be increased by a minimum of 1/2 hr.

structural concrete or foamed plastic (Item 15) when it is used. See Vermiculite Aggregate (CJZZ) category for names of Classified companies. B. Cellular Concrete-Roof Topping Mixture* - Concentrate mixed with water and Portland cement per manufacturer's specifications. Min. thickness of 2-in. as measured to the top surface of the structural concrete or foamed plastic (Item 15 and 15A) when used. Cast dry density and 28-day min compressive strength of 190 psi as determined with ASTM C495-66. AERIX INDUSTRIES — Cast dry density of 37 (+ or -) 3.0 pcf

CELCORE INC — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf

ELASTIZELL CORP OF AMERICA — Type II, with a cast dry density of 39 (+ or - 3.0) pcf

SIPLAST INC - Mix #1, Cast dry density of 32 (+ or -) 3 pcf

SIPLAST INC -- Mix #2, Cast dry density of 36 (+ or -) 3 pcf

C. Cellular Concrete-Roof Topping Mixture* - Foam concentrate mixed with water, Portland cement and UL Classified Vermiculite Aggregate per manufacture's application instructions. Cast dry density of 33 (+ or -) 3 pcf and 28 day compressive strength of min 250 psi as determined in accordance with ASTM C495-86.

ELASTIZELL CORP OF AMERICA — Type II. Mix #1 of cast dry density 39 (+ or -) 3.0 pcf, Mix #2 of cast dry density 40 (+ or -) 3.0 pcf, Mix #3 of cast dry density 47 (+ or -) 3.0 pcf SIPLAST INC — Mix #3

D. Perlite Concrete - 6 cu ft of Perlite Aggregate* to 94 lb of Portland Cement and 1-1/2 pt air entraining agent. Min thickness 2 in. as measured to the top surface of structural concrete or foamed plastic (Item 15A) when it is used.

See Perlite Aggregate (CFFX) in Fire Resistance Directory for names of Classified companies. 11/12 https://iq.ulprospector.com/en/profile?e=13878

See Foamed Plastic* (BRYX) category in Building Materials Directory or Foamed Plastic* (CCVW) Category in Fire Resistance Directory for list of Classified companies.

15A. Foamed Plastic* — (Not Shown) — For use only with cellular or perlite concrete. Nominal 24 by 48 in. polystyrene foamed plastic insulation boards having a density of 1.0 (+ or - 0.1) pcf, encapsulated within concrete topping. Each insulation board shall contain six nominal 3 in. diameter holes oriented in two rows of three holes each with the holes spaced 12 in. OC transversely and 16 in. OC longitudinally. See Foamed Plastic* (BRYX) category in Building Materials Directory or Foamed Plastic* (CCYW) category in Fire Resistance Directory for list of Classified companies.

17. Insulated Concrete — (Optional, Not Shown) — various types of insulated concrete prepared and applied in the thickness indicated.

16. Roof Covering Materials* — (Optional, Not Shown) — Consisting of materials compatible with insulations described herein which provide Class A, B or C coverings.

A. Vermiculite Concrete — Mix consists of 6 cu ft of Vermiculite Aggregate*, 94 lbs of Portland cement and 6 ox of air entraining agent. Thickness to be 2 in min from the top plane of steel roof deck ELASTIZELL CORP OF AMERICA — Types MS16-U, MSV 200. B. Perlite Concrete — Mix consists of 6.2 cu ft Perlite Aggregate* to 94 lbs of Portland cement and 1-1/2 pt air entraining agent. Compressive strength 80 psi min.

18. Wall and Partition Facings and Accessories — (Optional, Not Shown) Sound barrier for use with Items 19, 20 or 21: Acoustic Sleeper Pads stapled or adhered to the underside of the subflooring panels spaced 24 in. OC.

STC ARCHITECTURAL PRODUCTS L L C DBA STC SOUND CONTROL — Acoustic Sleeper 19. Structural Cement Fiber Units* — (Optional, Not Shown) - (For use with item 18) - Min 3/4 in. thick tongue and groove structural cement fiber board loosely laid CORNERSTONE INNOVATIVE SPECIALTIES, LLC — Versaroc

ECTEK INTERNATIONAL INC — Armoroc Panel

UNITED STATES GYPSUM CO — Types STRUCTO-CRETE, USGSP

See Perlite Aggregate (CFFX) category for names of Classified companies

20. Building Units* — (Optional, Not Shown) - (For use with item 18) - Panels loosely laid over concrete. DRAGONBOARD USA L L C — Type DragonBoard, DragonBoard Flooring

21. Wood Structural Panels — (Optional, Not Shown) - (For use with Item 18) - Min 23/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor," loosely laid over concrete, as one layer or as two layers.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

HOEFER WELKER #: 138191

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CANAM STEEL CORP — 12 or 24 in. wide, Types 1-1/2, 2, or 3 in. LOK-Floor and LOK-Floor Cell; 36 in. wide, Types 2 or 3 in. LOK-Floor and LOK-Floor Cell; 24, 30 or 36 in. wide, Type 1-1/2 in. B-LOK and B-LOK Cell; 24 in. wide, Types N-LOK and N-LOK Cell CENTRIA, A DIVISION OF NCI GROUP, INC — QL Types, 24 in, wide, 3 or 3 inverted, UKX, 21 or 21 inverted, 2 in. 99, 121, AKX, NKX, TKX; 24 or 30 in. wide GKX, GKXH, GKX-A; 36 in. wide 2 in. 99, AKX, WKX; 12 in. wide NKC, TKC; 12 in. wide non-composite Sec 12. Side joints of 99, 121, TKC, TKX, WKX may be welded together 60 in. OC. Side joints of 99, AKX, WKX. GKX, GKX-A, TKX may be fastened together with min 1 in, long No. 12x14 self-drilling, self-tapping steel screws 36 in. OC CHIA TEH CONSTRUCTION MATERIAL CO LTD — 24 or 36 in. wide Mac-Lok 3; 24 in. wide CFD-3

DECK WEST INC — 36 in. wide Type B-DW, Inverted B-DW, BA-DW, Inverted BA-DW, 2-DW or 3-DW. Side joints of Type 2-DW and 3-DW may be fastened together with min 1 in. long DESIGN ASSISTANCE CONSTRUCTION SYSTEMS INC — 36 in, wide Type DACS1.5CD, or 24 in, wide Type DACS2.0CD, or DACS3.0CD

November 2, 202

Restrained Assembly Ratings — 1, 1-1/2, 2 and 3 Hr.

Unrestrained Beam Ratings — 1, 1-1/2, 2 and 3 Hr.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions

employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide <u>BXUV</u> or <u>BXUV7</u>

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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SEE ITEM (

SEE ITEM 6

1A. Steel Joists — (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 8k1 or min depth and weight shall be 8 in. and 4.9 lb/ft respectively. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. The top chords shall consist of two angles measuring 1-1/4 by 1-1/4 by 0.127 in. thick. Bottom chords shall consist of two round bars measuring 0.566 in. in diam. or two angles measuring 1 by 1 by 0.125 in. thick. Bearing plates shall consist of two angles measuring 1-1/2 by 2 by 0.188 in. thick and 5-1/16 in. long. Web

1B. Steel Joists — (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 12k5 or min depth and weight shall be 12 in, and 7.1 lb/ft respectively. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. Top chords shall consist of two angles measuring 1-1/2 by 1-1/2 by 0.156 in, thick. Bottom chords shall consist of two round bars measuring 0.675 in, in diam, or two angles measuring 1 by 1 by 0.125 in, thick, Bearing plates shall consist of two angles measuring 2 by 2 by 0.192 in, thick and shall be min 4-15/16 in long. The second web member at each end shall consist of 0.654 in. diam round bar. All remaining web members, including the end web members, shall consist of 0.774 in. diam

1C. Steel Joists — (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 12k5 or min depth and weight shall be 12 in. and 7.1 lb/ft respectively. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. Top chords shall consist of two angles measuring 1-1/2 by 1-1/2 by 0.156 in. thick. Bottom chord shall consist of two round bars measuring 0.675 in, in diam. or two nangles measuring 1 by 1 by 0.125 in, thick. The second web member at each end shall consist of 0.654 in, diam round bar, All remaining web members, including

Note: Additional beams or joists from the N series designs may be substituted for the listed beam (item 1) or joist (item 1A) respectively. When joists are substituted, the restrained rating of the joist must be equal to or greater than the restrained rating of the assembly. Additional beam and joist substitution requirements are in the front of the Fire Resistance

2. Normal Weight or Light Weight Concrete — Normal weight concrete, carbonate or siliceous aggregate, 3500 psi compressive strength, vibrated. Light weight

concrete, expanded shale or slate aggregate by rotary-kiln method or expanded clay aggregate by rotary-kiln or sintered-grate method, or pelletized expanded blast

the end web members, shall consist of 0.774 in. diam round bars. Bridging per S.J.I. specifications is required when non-composite joists are used.

Normal Weight

Normal Weight Normal Weight

Normal Weight

Light Weight

Light Weight

Light Weight

Light Weight

beams. Deformed bars designed to resist the support moments of the concrete slab in accordance with the latest ACI Building Code Specifications.

phos/ptd. Min gauges are 22 MSG for fluted and 20/20 for cellular and partial cellular units. The following combinations of units may be used:

3A. Negative Reinforcement — (Optional, Not Shown) Used in lieu of Item 3 and with Items 3B or 3C. For floor spans with concrete cast continuous over the supporting

3B. Fiber Reinforcement* — (Not Shown) — Required with Item 3A. Engineered synthetic fibers added to concrete mix to control shrinkage cracks in concrete. Fibers

3C. Fiber Reinforcement* — (Not Shown) — Required with Item 3A. Any fiber reinforcement bearing the UL Classification Marking for Fire Resistance, Classified for use

4. Steel Floor and Form Units* — Composite or non-composite, 1-1/2, 1-5/8, 2 or 3 in. deep galv units or 4-1/2 in. deep non-composite galv units. Fluted units may be

(5) Corrugated, nom 1-5/16 or 2 in. deep, 30 in. wide, 24 MSG min galv units with shear wires factory welded to deck corrugations. Welded to supports 12 in. OC through welding

washers. For shear wire spacing of 8 in, or less the steel deck stress shall not exceed 20 KSI. For shear wire spacing greater than 8 in. OC but less than or equal to 12 in. OC steel deck

ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide, Types BH-36, BHN-36, BHN-35-1/4, BHF-36, BHF-36A, 2WH-36, 2WHS-36,

CANAM STEEL CORP — 24 in. wide Type P-2432 composite or 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite, Type P-3606 and P-3615 non-composite

2WHF-36, 2WHF-36A, 3WxH-36, 3WxHF-36A, 3WHF-36A, 3WHF-36A, 3WHF-36A, 3WF-36, DG3WF-36, DG3WF-36, All units may be galvanized or Prime Shield. Noncellular decks may be vented designated with a "V" suffix to the product name. Cellular deck top and bottom sections may be riveted together (designated with "Fr") vs. arc spot welded,

CANAM GROUP INC — 24 in. wide Type P-2432 composite or 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite, Type P-3606 and P-3615 non-

1. Beam — W8X28, W8x24, W6x12 or W6x9, min size, see Items 6 through 6F.

round bars. Bridging per S.J.I. specifications is required when non-composite joists are used.

furnace slag aggregate, 3000 psi compressive strength, vibrated, 4 to 7 per cent entrained air.

Directory - III, FLOOR-CEILINGS AND ROOF-CEILING, item 7 -Steel Joist or IV, BEAMS.

Assembly Rating Hr

* With 2 and 3 in. deep steel floor units only.

in lieu of welded wire fabric.

stress shall not exceed 12 KSI.

3. Welded Wire Fabric — 6x6 - W1.4xW1.4.

added to concrete mix at rate of 1 lb of fiber for each cubic yard of concrete.

(3) One or two 3 in. deep, 12 in. wide, 18/18 MSG min cellular alternating with 3 in. deep fluted or other cellular.

composite; 24 or 36 in. wide Type 3 in. LOK-Floor; 36 in. wide Types 1.5B, 1.5Bl, 1.5BL and 1.5BL.

PROPEX OPERATING COMPANY L L C — Fibermesh 150 and Fibermesh 300.

See Fiber Reinforcement (CBXQ) Category for names of manufacturers.

(4) Any blend of fluted and 24, 26, 28 or 36 in. wide cellular or partial cellular.

(1) All 24, 26, 28 or 36 in. wide cellular or partial cellular.

SECTION B-B

Weight pcf

147-153

107-113

107-113

107-113

114-120

Thkns In.

SEE ITEM (2)-

Unrestrained Assembly Ratings — 0, 1, 1-1/2, 2 or 3 Hr. (See Items 4 & 6)

KAM INDUSTRIES LTD, DBA CORDECK — 24 in. wide, Types 2 or 3 in. WDR

MARLYN STEEL DECKS INC - Type 1.5 CF, 2.0 CF or 3.0 CF

VERCO DECKING INC - A NUCOR CO — FORMLOK™ deck types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, W3. Units are min 24 in. wide and may be galvanized, phos,/ptd., or mill

wide PLW2, W2, PLW3 or W3 units may be blended with 24 or 36 in, wide PLW2, W2, PLW3 or W3 units, respectively; or Types PLN3-CD, N3-CD, PLN3, N3, VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide Types 1.5VL, 1.5VLI, 1.5VLI, 1.5VLP, 1.5 VLR, 1.5PLVLP; 24 or 36 in. wide Types 1.5VLPA, 1.5PLVLPA, 2VLI, 2.0PLVLI, 2VLI, 3VLI, 3.0PLVLI, 3VLJ, 2VLP, 2.0PLVLP, 3VLP, 3.0PLVLP, 2VLPA, 2.0PLVLPA, 3VLPA, 3.0PLVLPA, Types 1.5VL, 1.5VLI, 1.5VLI, 1.5 VLR, 1.5VLPA, 1.5PLVLPA, 2VLI, 2.0PLVLPA, 2VLI, 3.VLI, 3.0PLVLI, 3VLI, 3.0PLVLI, 3VLI, 3.0PLVLI, 3.VLI, 3.VLI, 3.0PLVLI, 3.VLI, 3.VLI,

Spacing of welds attaching units to supports shall be 12 in. OC for 12, 24, 36 in. wide units, four welds per sheet for 30 in. wide units. 6 in. OC for 18 in. wide and Sec. 12 units. Unless

++ Side joints of Types 2VL) or 3VL) units may be fastened together with No. 8-3/4 in. long self-drilling Tek screws driven diagonally from the top side through the joint of the units at 36 in. O. C. max.

(a) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 22 MSG or thicker fluted with clear spans not more than 7 ft, 8 in.

(b) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 20 MSG or thicker fluted with clear spans not more than 8 ft, 8 in.

(d) 3 in. deep, 36 in. wide, 18 MSG or thicker fluted and 24 in. wide, 20/18 MSG or thicker cellular with clear spans not more than 13 ft, 2 in.

** This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping. ISOLATEK INTERNATIONAL — Type D-C/F, HP, II or Type II HS. Investigated for exterior use. Type EBS or Type X adhesive/surface sealer optional.

6A. Spray-Applied	Fire Resistive	Materials* — Alte	ernate to Item 6. See t	table below for appropria	te thicknesses. When flut	ed steel deck is used and the	fire prote
thickness selected	s based on all	fluted deck, the ar	ea between the steel	deck and the top flange o	of the steel beam shall be	filled. When fluted steel deck	is used a
steel beam is spray	ed with the thi	icknesses applicabl	e to cellular or blende	ed units, the area between	n the steel deck and the t	op flange of the steel beam s	hall be pl
Prepared by mixing	with water an	nd spray-applied in	one or more coats to	beam surfaces which mu	ist be clean and free of d	irt, loose scale and oil. Min av	erage dei
17.5 pcf with min in	ndividual value	of 17.0 pcf. For me	ethod of density deter	rmination, see Design Inf	ormation Section, Spraye	d Material.	
	Restrained	Unrestrained		Min Thkns Ap	plied Resistive Mtl, In		
	Assembly	Beam	W6x9	W6x9	W8x28	W8x28	
	Pating	Pating	When Dock	When Dock	When Dock	When Dock	

Restrained	Unrestrained		Min Thkns Appli	ied Resistive Mtl,	In
Assembly Rating Hr	Beam Rating Hr	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular
1, 1-1/2, 2	1	1/2, 5/8*	1/2, 5/8*	5/16, 7/16*	5/16, 7/16*

10.000	02.00	15.7111.1.1112.11	15 -12 11 - 11 - 11 - 11 - 11 - 11 - 11		
1, 1-1/2, 2	1	1/2, 5/8*	1/2, 5/8*	5/16, 7/16*	5/16, 7/16*
2	2	1	1-3/16	11/16	13/16
2	3	1-9/16	1-7/8	1-1/16	1-5/16
3	1-1/2	3/4	13/16	1/2	9/16
		1	T	T	

* This thickness applies when optional Items 12, 13 are used over 3-1/4 in. light weight concrete topping. ISOLATEK INTERNATIONAL — Type 280

6B. Spray-Applied Fire Resistive Materials* — Alternate to Items 6 and 6A. Prepared by mixing with water. Spray-applied in one or more coats to beam surfaces to a min final thickness as shown in the tables below. Beam surfaces must be clean and free of dirt, loose scale and oil. When fluted steel deck is used and the fire protection thickness selected is based on all fluted deck, the area between the steel deck and the top flange of the steel beam shall be filled. When fluted steel deck is used and the steel beam is sprayed with the thicknesses applicable to cellular or blended units, the area between the steel deck and the top flange of the steel beam shall be plugged. Min average and min individual density of 15 pcf and 14 pcf respectively for Types 300, 300AC, 300 ES, 300 HS, 300 N, 3000, 3000ES, and SB. For Types 400, 400 AC and 400 ES min average and min individual density of 22 pcf and 19 pcf respectively. Min avg density of 44 pcf with min ind value of 40 pcf for Types M-II and TG. Min avg density of 47 pcf, with min

individual value of 43 pcf for Type M-II/P. The thickness of the material on the Structural Members (Item 1 and 1C) shall be as follows: Min Thkns Spray Applied Resistive Mtl, In

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	Deck Is Blend or All Cellular	When Deck Is Fluted Cellular or Blend
1	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	9/16+
1-1/2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1
2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1-3/8
2	2	1	1-3/16	11/16	13/16	1-3/8
2	3	1-9/16	1-7/8	1-1/16	1-5/16	2-1/4
3	1-1/2	3/4	13/16	1/2	9/16	2-1/4
3	2	1	1-3/16	11/16	13/16	2-1/4
	I o	T .	Y'	T	1	Ÿ

* This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping.

BERLIN CO LTD — Types 300, 300ES, 300N, SB, or 400; Type M-II, TG and M-II/P

beams shall be primed with a phenolic modified alkyd primer, a metal alkyd primer, an acrylic primer or an epoxy primer at a nominal thickness of 2 mil. Coating spray or

brush applied in accordance with the manufacturer's instructions at the min dry thickness as shown in the table below. The thickness shown below includes the primer

BERLIN CO LTD — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Exterior Use with top coat as

GREENTECH ASIA PACIFIC SDN BDH — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose.

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose.

ISOLATEK INTERNATIONAL — Type SprayFilm-WB 3 and Type WB 3. Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Interior General

NEWKEM PRODUCTS CORP — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose.

6D. Intumescent Fire-resistive Materials * — As an alternate to Items 6 through 6C, For use with normal weight concrete. Min. size W8x28 beams shall be primed with

a phenolic modified alkyd primer a metal alkyd primer, an acrylic primer or an epoxy primer at a nominal thickness of 2 mil. Coating spray or brush applied in accordance with the manufacturer's instructions at the min dry thickness as shown in the table below. The thickness shown below includes the primer thickness. The top surface of

the top flange where fluted units are used must be protected with the coating material at the same min dry thickness at a min distance of 1 in. (25 mm) inward from the

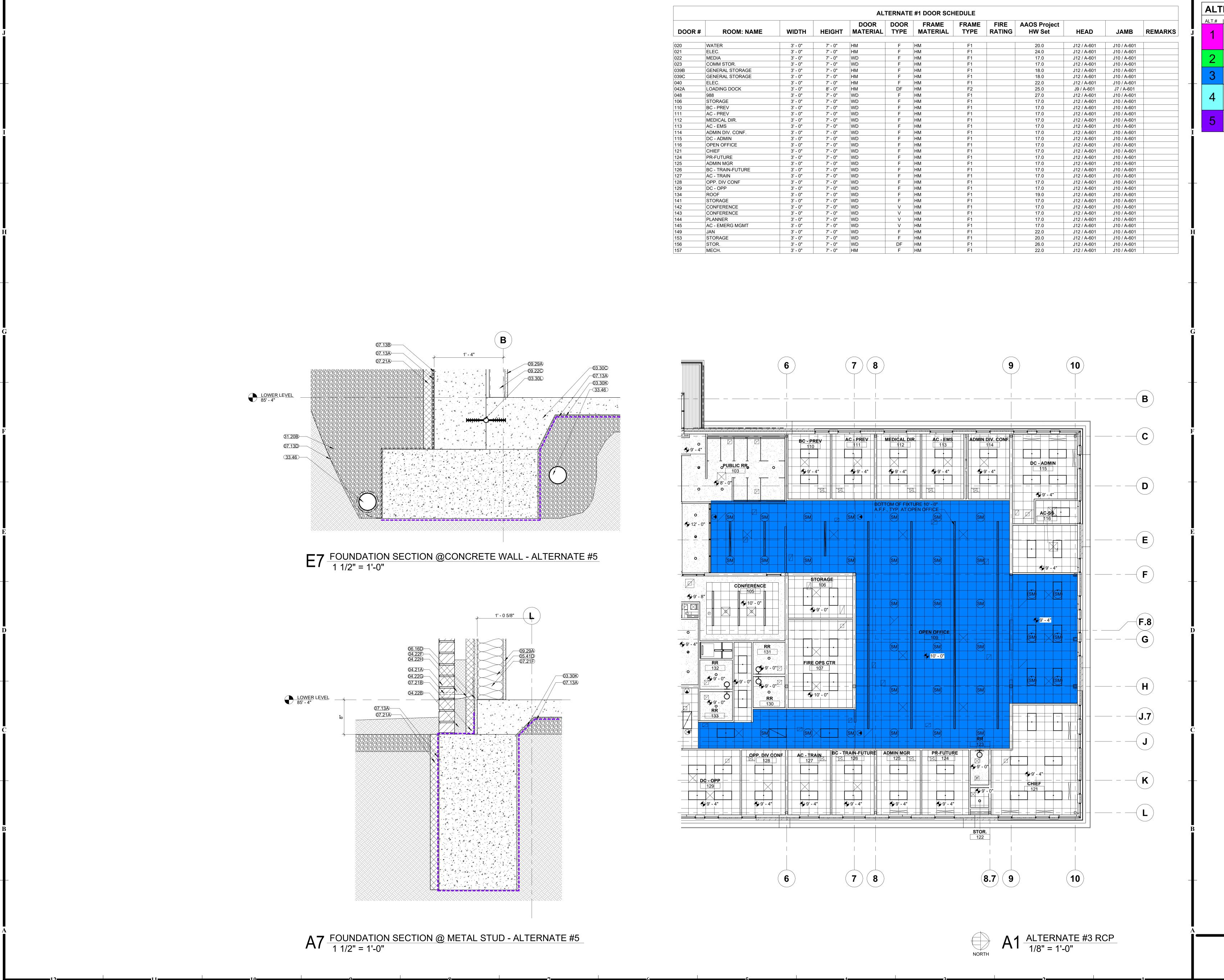
Rating Hr

Restrained Assembly

Rating Hr

NEWKEM PRODUCTS CORP — Types 300, 300ES, 300N, 400, or SB; Type M-II, TG and M-II/P 6C. Intumescent Fire-resistive Materials * — As an alternate to Items 6 through 6B. For use with fluted steel floor and form units only. Min. size W8x24 or W6x12

s above beam to be com quired on the beam.	pletely filled with minim	um 6 pcf mineral v	wool insulation, or the top flang	e of the beam to be protected with the
Minimum Dry Thickness mils	Minimum Dry Thickness mm	Beam Size	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
53	1.34	W8x24	1	2
95	2.41	W8x24	1-1/2	3
73	1.83	W6x12	1	2



ALTERNATES LEGEND

ALT.# | DESCRIPTION

REFERENCE NOTES FOR ADDED CARD READER IN HARDWARE SETS 17.0, 18.0, 19.0, 20.0, 22.0, 24.0, 25.0, 26.0, 27.0 FOR DOORS SHOWN IN ALTERNATE #1 DOOR SCHEDULE

PROVIDE VEHICLE BUILDING RE-SHEETS
A-104 AND A-105

PROVIDE SOUND MASKING IN OPEN
OFFICE 109. RE A1/G-411 FOR LOCATIONS.

ADD PRINT #51777, COLOR V908 ON SURFACE #2 TO ALL GLASS IN WINDOW TYPES A1, A2, B1, B2, C1, C2, C3, C4, C5, C6, C7, AND C8

ADD UNDER SLAB WATERPROOFING TO LOWER LEVEL FOUNDATIONS AND SLAB ON GRADE. RE A7/G-411 AND E7/G-411.

4622 PENNSYLVANIA AVENUE
SUITE 1400
KANSAS CITY, MO 64112
P: 913.307.3700
www.hoeferwelker.com

HOEFER WELKER

'S SUMMIT JOINT OPERATIONS FA

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REVISION DATES:

PROFESSIONAL SEAL

ISSUE DATE: NOVEMBER 1, 2024
HOEFER WELKER #: 138191

ALTERNATES

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REVISION DATES:

Not to be used for regulatory construction. Architect Of Record:

Hoefer Welker

PROFESSIONAL SEAL

ISSUE DATE: NOVEMBER 1, 2024 HOEFER WELKER #: 138191

BOUNDARY AND TOPGRAPHIC

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HOEFER WELKER

LEGEND

Proposed Line Types and Symbols shown. Existing Line Types and Symbols shall be the same, but screened, unless designated otherwise by the inclusion of a survey by others.

Set Survey Monument Set Survey Monument (in concrete) Found Survey Monument Found Survey Monument in Box Origin Unknown Found Right-of-Way Marker Control Point Benchmark Set Hub — − − oнc — Overhead Utility Line(s) Underground Electric Line Marker —— UGE — Underground Electric Line —— KCP&L — Underground KCP&L Line (e.g.) - Utility Pole Utility Pole with Transformer Guy Anchor Utility Pole w/Light & arm Street Light Pole w/ arm

Street Light Pole (14') Electric Pedestal (above ground) Electric Meter Electric Access Vault (underground) Electric Access Box (mounted) Electric Manhole Electric Pull Box (underground) Transformer (pad mounted) Yard Light Air Conditioner Unit

-----w ----- Water Line ——— ws ——— Water Service Line Underground Water Line Marker Water Valve Fire Hydrant Fire Hydrant Assembly Water Meter Water Manhole Water Vault (underground) Sprinkler Control Box Sprinkler Head Yard Hydrant Backflow Valve (BFV) Backflow Preventer (BFP) Blow-Off Assembly ——— GAS ——— Gas Line

——— GS ——— Gas Service Line ——— SPIRE — Underground Spire Line (e.g.) Underground Gas Line Marker Gas Manhole or Access Lid Gas Valve Regulator Unit Gas Meter Casing Vent Underground Pipe Line (High Capacity) Underground Pipe Line Marker

—— ugt —— Underground Telephone Line — — — ATT — Underground AT&T Line (e.g) Underground Telephone Line Marker Telephone Pedestal (above ground) Telephone Manhole Telephone Access Vault (underground) Telephone Access Box (mounted) ——— FO ——— Underground Fiber Optic Line Underground Fiber Optic Line Marker Fiber Optic Pedestal Fiber Optic Manhole Fiber Optic Vault (underground) Fiber Optic Pedestal on top of Vault Traffic Signal Post w/ Mast Arm

Pedestrian Signal Pole Traffic Control Manhole Traffic Control Cabinet Traffic Control Vault (underground) —— истv — Underground Cable TV Line —— — — Underground Spectrum Line (e.g.) Underground Cable TV Marker Cable TV Pedestal (above ground)

Manhole-Unknown Purpose Grease Trap Access Lid Monitoring Well Bore Hole Fill Lid (for Underground Tank) —— San —— Sanitary Sewer Line ——— ss ——— Sanitary Sewer Service Line Sanitary Sewer Manhole Clean-out Vitrified Clay Pipe Ductile Iron Pipe Polyvinyl Chloride Pipe Cast Iron Pipe

Underground Utility Line Marker Metal Guard Rail or Handrail Flag Pole Satellite Dish Mailbox Concrete or Metal Bollard Wood Bollard or Wood Post

——— STM ——— Storm Sewer Line Storm Sewer Manhole Curb Inlet Field Inlet Junction Box Grate Inlet Grate Inlet (Round/Domed) End Section Headwall Down Spout —— RD —— Roof Drain Corrugated Metal Pipe

Corrugated Metal Arch Pipe Corrugated Plastic Pipe High Density Polyethylene Pipe Reinforced Concrete Pipe Reinforced Concrete Arch Pipe Reinforced Concrete Box Flared End Section Pipe Continues-Outlet or Source Not Found or Not Surveyed

- Wood Fence -o--o--o-- Chain Link Fence ----- Wire Fence (with or without barb) -x x x x Barbed Wire Fence H H H Plastic Fence → → → Iron or Metal Fence Gate Post Retaining Wall

Single Pole Sign Single Pole Sign Double Pole Sign Railroad Crossing Gate 000 Railroad Switch Machine

Wheel Stop

ADA Parking Stall

ADA Detection Warning Pad

Bush Deciduous Tree and Size (Scaled for Size)

□□□□□□ Hedge

Coniferous Tree and Size (Scaled for Size) Tree Stump · Foliage Drip Line/Edge of Timber

> Center Line Property Line R/W Right-of-Way Line Radius Arc Length Chord Bearing Chord Distance Interior Angle (Delta) I.T.B. Initial Tangent Bearing Right-of-Way Monumented Measured Deeded (P) Platted (C) Calculated (CR)

Calculated from Record Dimensions (CM) Calculated from Found Monuments (PR) Proportioned Page DOC. Document Number Instrument Number VOL. Volume ESMT. Easement Building Setback Line

U/E Utility Easement D/E Drainage Easement ST/E Storm Sewer Easement Sanitary Sewer Easement IE/E Ingress/Egress Easement TC/E Temporary Construction Easement SQ. FT. Square Feet Acres Cubic Yard Linear Feet Company L/S Landscaping (Bushes, Trees, Flowers, Border, Mulch, any or all of them) ASPH CONC Concrete COR Corner

Retaining Wall

Point of Intersection

Point of Curve

Not To Scale Not To Scale

Point of Tangent

Station

Right

R.WALL

STA.

LEGAL DESCRIPTION

Lot 1-A, NEW LEE'S POLICE AND COURT FACIMTY, a subdivision in Lee's Summit, Jackson County, Missouri

All that part of the Southeast Quarter of Section 31, Township 48, Range 31, described as follows: Beginning at a point 1450 feet west of the northeast corner of the southeast quarter of said Section 31; thence west 75 feet, more or less to the northeast corner of Lot 1, SUMMIT PARK, a subdivision in Lee's Summit, as recorded in Plat Book 6, at Page 38, at the Recorder's Office of said County; thence south along the east line of said Lot

1, 230 feet more or less to the intersection with the westerly right of way line of County Highway 10-E, aka N.

Douglas Street; thence northeasterly along said westerly right of way line to the Point of Beginning.

OIL AND GAS WELLS

According to the "Oil and Gas Permits" database published by the Missouri Department of Natural Resources, as of November 13, 2024, no oil or gas wells (of any status) are listed within subject property site.

GENERAL NOTES

- All work in public easement and Right-of-Way shall be installed per the requirements and specifications of the City of Lee's Summit, Missouri.
- All existing topographic, survey, and utility information shown was provided to BHC in the form of an Topographic Survey prepared by BHC and dated April 2, 2024. BHC makes no guarantees as to the accuracy of the existing information shown hereon. Contractors shall satisfy themselves as to the existing conditions of the site and have all utilities located prior to commencing construction.
- The Contractor shall be required to obtain all Federal, State, and Local permits required for this project prior to commencing construction.
- Any work adjacent to or crossing existing streets requires proper traffic control devices. Traffic control devices shall be placed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD).
- The contractor shall be required to demolish, remove and dispose of all existing structures, pavements, and features necessary to construct the improvements shown hereon. Any waste materials generated during construction shall be removed from the site by the Contractor and disposed of in accordance with all local, State, and Federal regulations governing such disposal.
- The contractor shall prevent any trash, debris, or liquid wastes from being disposed of in sanitary sewers, storm sewers, or open drainage systems.
- 7. The Contractor shall be solely responsible to protect adjacent property, structures, and other improvements from damage during construction. In the event of damage to adjacent property, structures, or improvements, the contractor shall repair or replace such damage to the Owners's satisfaction at the Contractor's expense.
- 8. Contractors at the site shall be solely responsible for jobsite safety for all aspects of work shown hereon.
- 9. All work and materials used in the construction of the improvements shown hereon shall comply with all referenced standards, specifications, and plan notes.
- 10. All buildings are shown as a reference only. All buildings shall be located and constructed per the Architectural drawings prepared by others.
- 11. Contractor shall be responsible for contacting all utility companies for field locations of underground utilities affected by the contract. All existing utilities indicated on these plans are according to the best information available to the engineer; however, all utilities actually existing may not be shown. Utilities damaged through the negligence of the contractor to obtain the location of same shall be repaired or replaced at the expense of the contractor.
- 12. Coordinate with facility representative as to when construction activities may be performed to work with the operations of the facility.
- 13. Any and all hazards shall be properly identified and barricaded from access during all non-construction periods.
- 14. Unless specified otherwise, all construction shall meet the requirements of the Missouri Department of Transportation (MoDOT) Standard Specifications, except as modified by these plans.
- 15. Third party inspection of the storm sewer is required, after inspection, provide documentation to the City of Lee's
- 16. Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit, Missouri with reports and documentation.
- 17. A Right-of-Way permit is required from the City of Lee's Summit, Missouri Public Works Department for any work within the public right-of-way.



		ROJECT CONTROL TABLE ATE PLANE, WEST ZONE,	US SURVEY FOOT)	
POINT NO.	CONTROL POINT/ BENCHMARK DESCRIPTION	NORTHING COORDINATE	EASTING COORDINATE	ELEV.
1	CP1 /IB4 WITH CP CAP	1006378.56	2822886.48	1029.44
2	CP2 /CUT PLUS BACK OF WALK	1006378.62	2821916.33	1011.43'
3	CP3 /CHISEL PLUS ON W. EDGE OF WALK	1006849.13	2821878.06	1010.62'
4	CP4 /IB4 WITH CP CAP	1006865.95	2823140.23	1023.26
5	CP5 /IB4 W CP CAP	1006971.51	2822049.11	1009.85
10	CPO /IB4 WITH CP CAP	1006274.88	2823059.46	1031.60'

BENCHMARKS (NAVD88 Datum)

BM1 Chiseled square on the North face of a grate inlet, located on the South side of Tudor Road, approximately 425 feet East of the intersection of Tudor Road and Sloan Street.

Elevation: 1015.01

BM2 Chiseled square on the Northwest corner of a pedestrian crossing signal, located on the Southwest corner of the intersection of Tudor Road and Douglas Street.

Elevation: 1031.01

GENERAL INFORMATION

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10 L **REVISION DATES:**

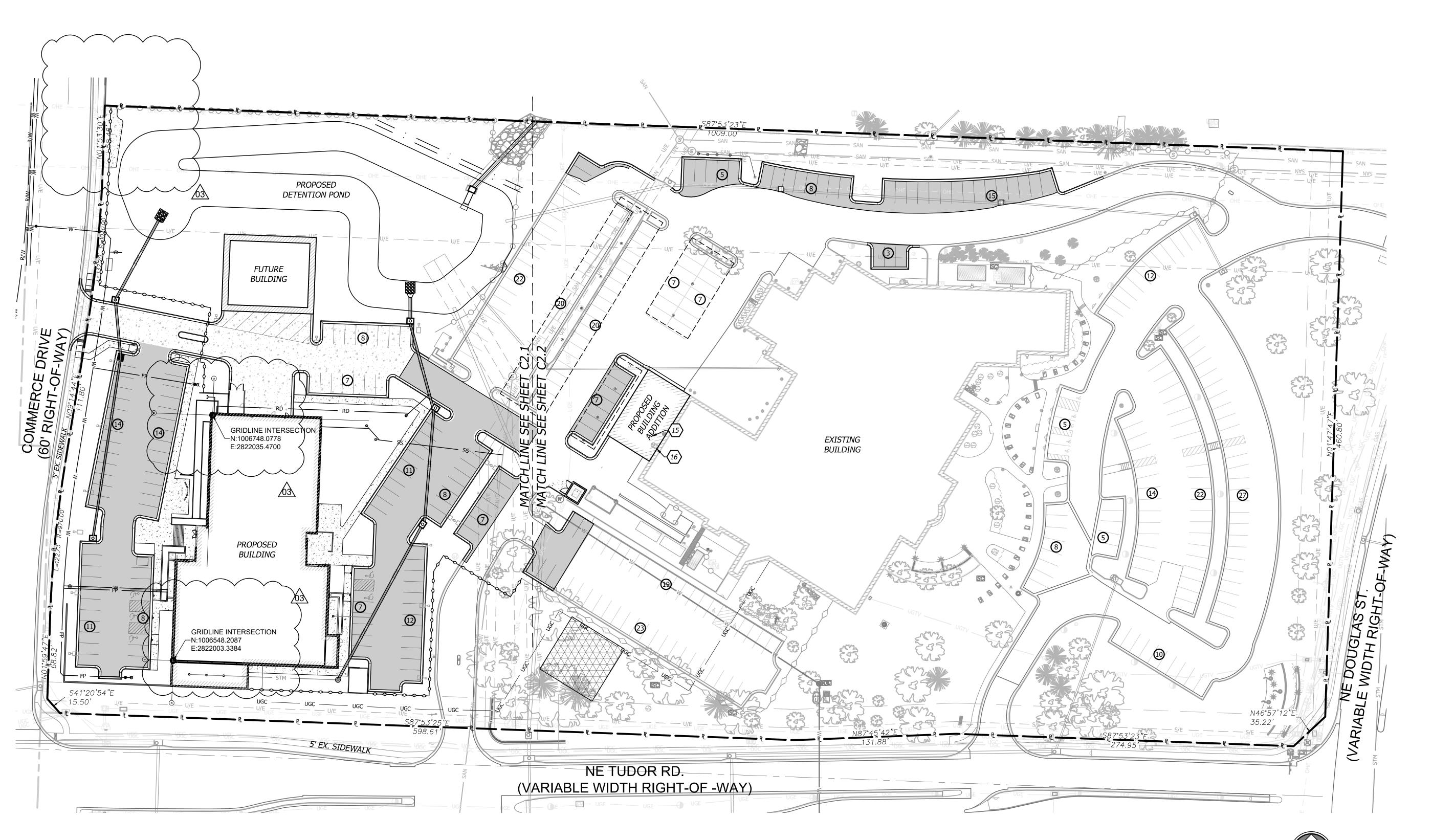


MD PE-2021035286

ISSUE DATE: AUGUST 30, 2024 HOEFER WELKER #: 138161

MICHAEL T. MAKRIS, PE

DEMOLITION PLAN



SITE DATA		
<u>SITE</u>		
SITE AREA:	11.58	AC
504	4,417	SF
IMPERVIOUS AREA:		
	Q Q1Q	SF (45.4%)
	•	SF (58.7%)
r NOFOSED.	0,220	31 (30.7 70)
BUILDING		
EXISTING BUILDING (INCLUDING ADDITION) AREA: 93	3,507	SF (18.5)
·	•	, ,
PROPOSED BUILDING AREA: 43	3,639	SF (8.7%)
PROPOSED FUTURE BUILDING AREA:	4,724	SF (0.9%)
FLOOR AREA RATIO (FAR): 0.	.28:1	
PARKING PROVIDED	266	CTANDADD.
PARKING PROVIDED:		STANDARD
ADA PARKING SPACES:	13	HANDICAP (6 VAN)

ZONING

PO (PLANNED OFFICE)

OWNERSHIP:

PARCEL NO. 52-900-04-237-00-0-000 CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT POLICE AND COURT FACILITY INSTRUMENT NO. 199710020462, BOOK 60, PAGE 53

DIMENSIONAL STANDARDS:

BUILDING SET-BACKS	FRONT YARD REAR YARD	15 FT 20 FT
PARKING SET-BACKS	RIGHT OF WAY RESIDENTIAL DISTRICT SIDE AND REAR P/L	20 FT 20 FT 6 FT
DRIVEWAY AISLE MINIMUM		24 FT
PARKING SPACE DIMENSIONS	LENGTH WIDTH	19 FT 9 FT

GENERAL NOTES:

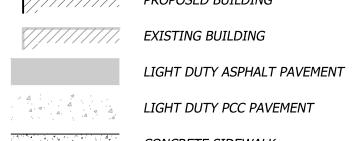
MINIMUM CURB RADIUS OF 3 FEET (UNLESS OTHERWISE SPECIFIED).

PROVIDED BY HOEFER WELKER. REFERENCE DRAWING DATED 2024-10-08.

- ALL NEW ON-SITE WIRING AND CABLES SHALL BE INSTALLED UNDERGROUND. ALL ABOVE GROUND ELECTRICAL AND/ OR TELEPHONE CABINETS MUST BE PLACED WITHIN THE
- ALL CONCRETE MATERIALS (ASPHALTIC AND PORTLAND) SHALL BE MEET KANSAS CITY
- ALL EXTERIOR GROUND OR BUILDING MOUNTED EQUIPMENT, INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT, UTILITY METER BANKS AND COOLERS, SHALL BE SCREENED FROM PUBLIC VIEW WITH LANDSCAPING OR ARCHITECTURAL TREATMENT COMPATIBLE WITH THE BUILDING
- ALL EXERIOR -MOUNTED AND ROOFTOP BUILDING HVAC AND MECHANICAL EQUIPMENT, VENTS, OTHERWISE SCREENED FROM PUBLIC VIW FROM ALL ADJACENT STREETS AND RESIDENTIALLY ZONED OR DEVELOPED PROPERTIES. SCREENING MUST BE ACCOMPLISHED WITH LANDSCAPING,
- SCREEN WALLS, BUILDING ELEMENTS, OR A COMBINATION OF THESE METHODS. 7. BUILDING FOOTPRINT AS SHOWN REPRESENTS THE MOST EXTERIOR LINE WORK FOR BUILDING AS

SITE LEGEND

#	PARKING STALL COUNT
<u>/////////////////////////////////////</u>	PROPOSED BUILDING
777777777	EXISTING BUILDING



CONCRETE SIDEWALK STRAIGHT BACK CURB & GUTTER (TYPE CG-1)

STRAIGHT BACK DRY CURB & GUTTER (TYPE CG-1 DRY) ZERO HEIGHT CURB

TRANSITION CURB

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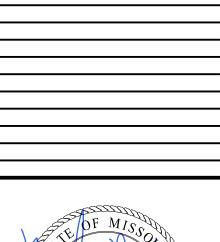
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SUITE 1400 KANSAS CITY, MO 64112

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ISSUE DATE: AUGUST 30, 2024 HOEFER WELKER #: 138161

MICHAEL T. MAKRIS, PE MD PE-2021035286

OVERALL SITE PLAN

PO (PLANNED OFFICE)

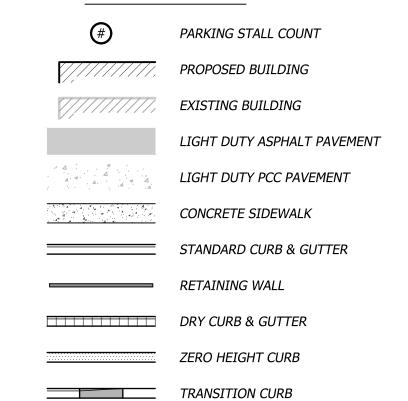
GENERAL NOTES:

- 1. MINIMUM CURB RADIUS OF 3 FEET (UNLESS OTHERWISE SPECIFIED). 2. ALL NEW ON-SITE WIRING AND CABLES SHALL BE INSTALLED
- 3. ALL ABOVE GROUND ELECTRICAL AND/ OR TELEPHONE CABINETS MUST BE PLACED WITHIN THE INTERIOR SIDE OR REAR BUILDING SETBACK
- 4. ALL EXTERIOR GROUND OR BUILDING MOUNTED EQUIPMENT, INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT, UTILITY METER BANKS AND COOLERS, SHALL BE SCREENED FROM PUBLIC VIEW WITH LANDSCAPING OR ARCHITECTURAL TREATMENT COMPATIBLE WITH THE BUILDING ARCHITECTURE.
- ALL EXERIOR -MOUNTED AND ROOFTOP BUILDING HVAC AND MECHANICAL EQUIPMENT, VENTS, PIPING, ROOF ACCESS LADDERS AND UTILITY METERS MUST BE LOCATED OUT OF VIEW OR OTHERWISE SCREENED FROM PUBLIC VIW FROM ALL ADJACENT STREETS AND RESIDENTIALLY ZONED OR DEVELOPED PROPERTIES. SCREENING MUST BE ACCOMPLISHED WITH LANDSCAPING, SCREEN WALLS, BUILDING ELEMENTS, OR A COMBINATION OF THESE METHODS.
- BUILDING FOOTPRINT AS SHOWN REPRESENTS THE MOST EXTERIOR LINE WORK FOR BUILDING AS PROVIDED BY HOEFER WELKER.

CONSTRUCTION NOTES

- LEAD FREE, WATER-BORNE EMULSION BASED TRAFFIC PAINT FOR PARKING LOT STRIPING (WHITE ON ASPHALT & YELLOW ON CONCRETE).
- 02 PROPOSED NO PARKING STRIPING
- PROPOSED STORM SEWER SYSTEM PROPOSED FIRE PROTECTION SYSTEM
- PROPOSED TRASH ENCLOSURE. (REF. TO ARCHITECTURAL PLANS) 06 PROPOSED WATER SERVICE SYSTEM
- PROPOSED GENERATOR 08 PROPOSED TRANSFORMER PAD LOCATION
- PROPOSED SANITARY SEWER SYSTEM
- CITY OF LEE'S SUMMIT COMMERCIAL DRIVE ENTRANCE (GEN-1) 11 PROPOSED COMMUNICATIONS TOWER LOCATION. PENDING FURTHER
- 12 SITE RETAINING WALLS ARE DELEGATED DESIGN. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENGINEER/ARCHITECT REVIEW. PRODUCT - VERSA-LOK MOSAIC, COLOR BY ARCHITECT.
- 13 PLANTER WALLS SPECIFIED BY ARCHITECT. 14 HANDRAILS REQUIRED FOR ADA RAMP SPECIFIED BY ARCHITECT.
- 15 PROPOSED FENCE TO CONNECT TO EXISTING FENCE ALONG NORTHERN PROPERTY LINE.

SITE LEGEND

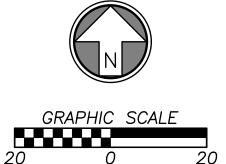


DETAILS

SEE CONSTRUCTION DETAILS - SHEETS C7.0 - C7.3

GEN-1 CONCRETE DRIVEWAY DETAIL GEN-4 CONCRETE CURB & GUTTER 004 MEDIUM DUTY ASPHALT PAVEMENT MEDIUM DUTY PCC PAVEMENT 014 CONCRETE SIDEWALK SECTION ADA PARKING SIGNAGE

040 AMERISTAR FENCE DETAIL 041 AMERISTAR GATE DETAIL



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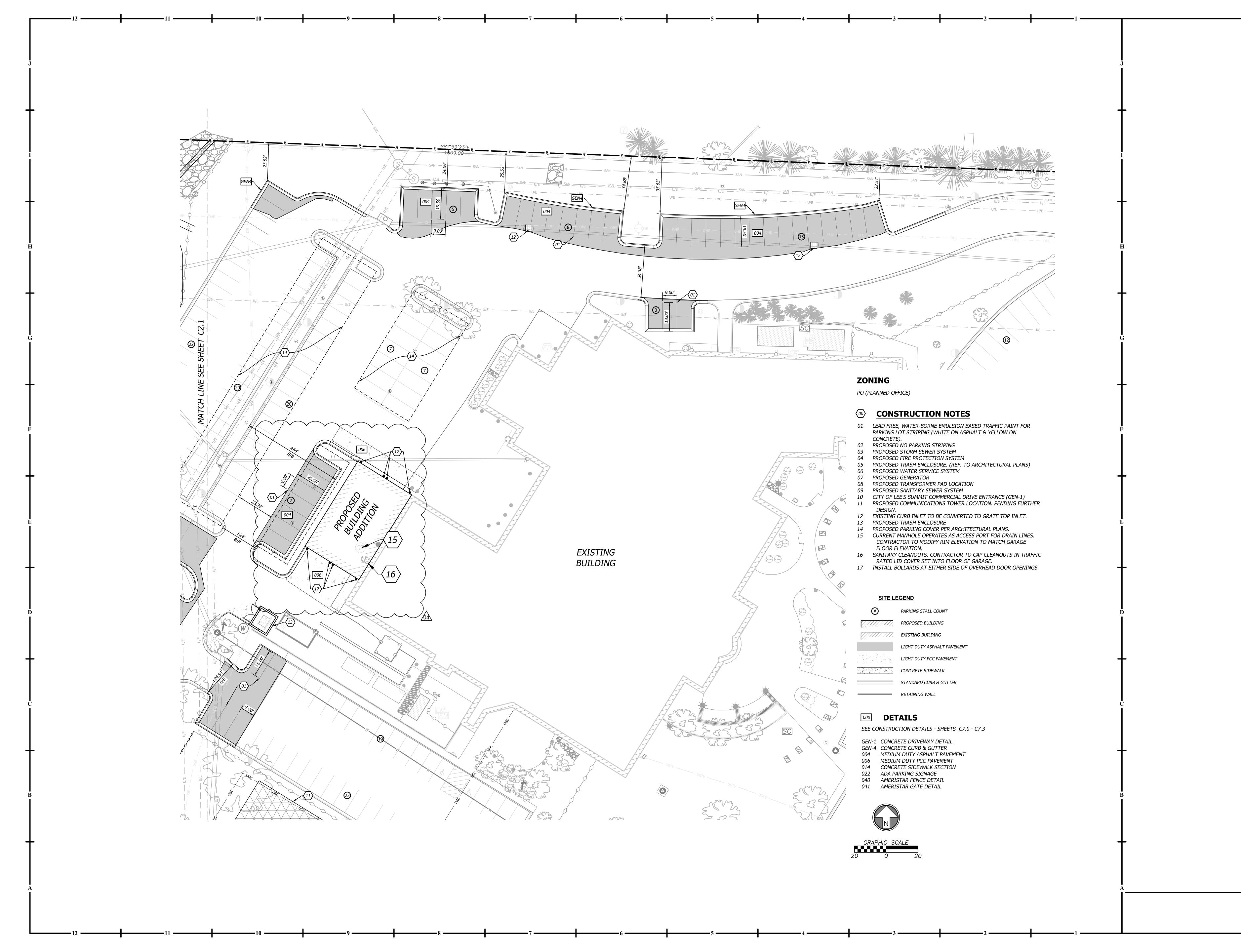
10 L **REVISION DATES:**

NUMBER PE-2021035286

MICHAEL T. MAKRIS, PE MD PE-2021035286

ISSUE DATE: AUGUST 30, 2024 HOEFER WELKER #: 138161

SITE PLAN



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 01
 ADDENDUM 01
 2024-09-20

 02
 ADDENDUM 02
 2024-10-30

 03
 ADDENDUM 03
 2024-11-18

 04
 ADDENDUM 04
 2024-11-26



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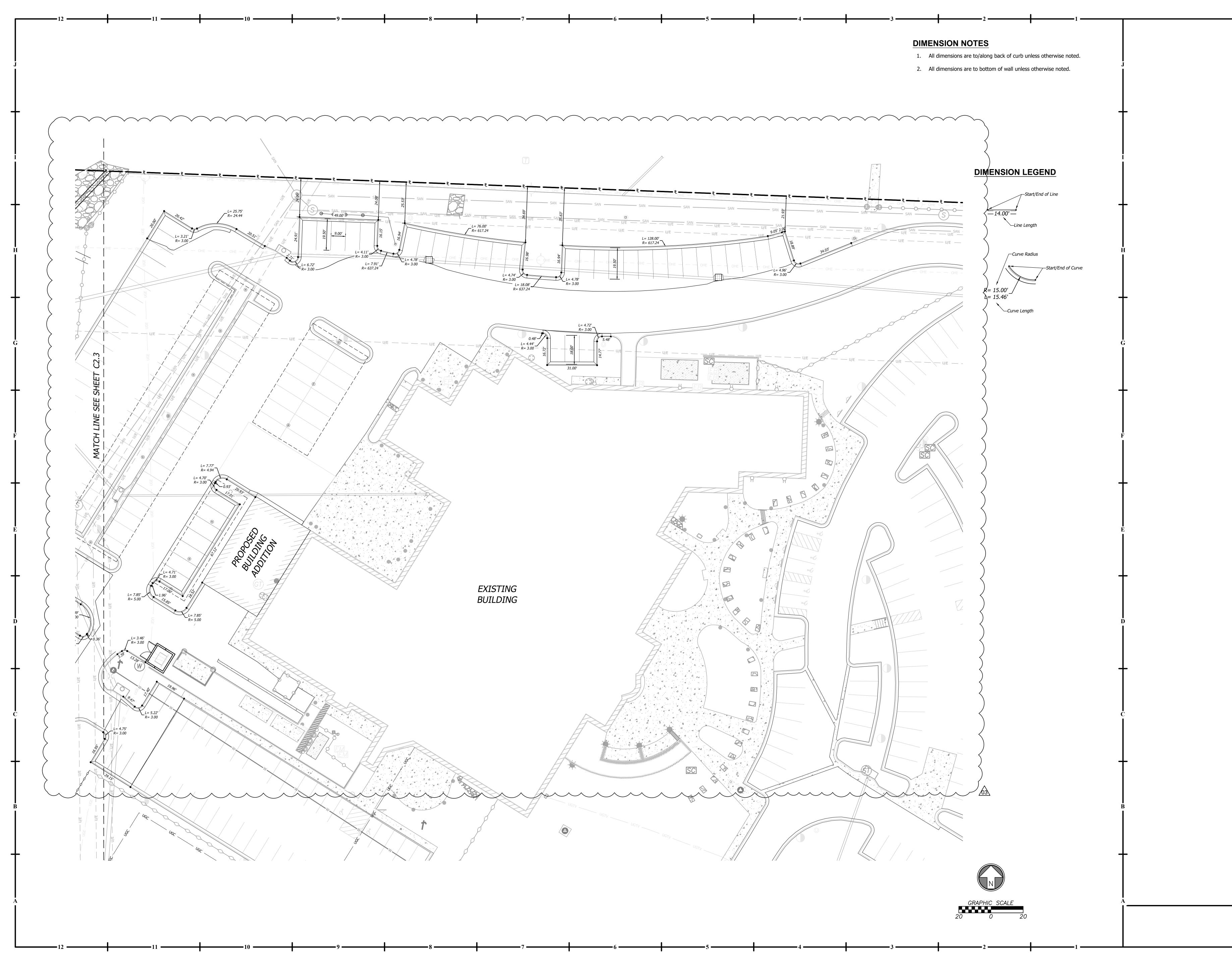
REVISION DATES:

NUMBER PE-2021035286

MICHAEL T. MAKRIS, PE MD PE-2021035286

ISSUE DATE: AUGUST 30, 2024
HOEFER WELKER #: 138161

DIMENSION PLAN



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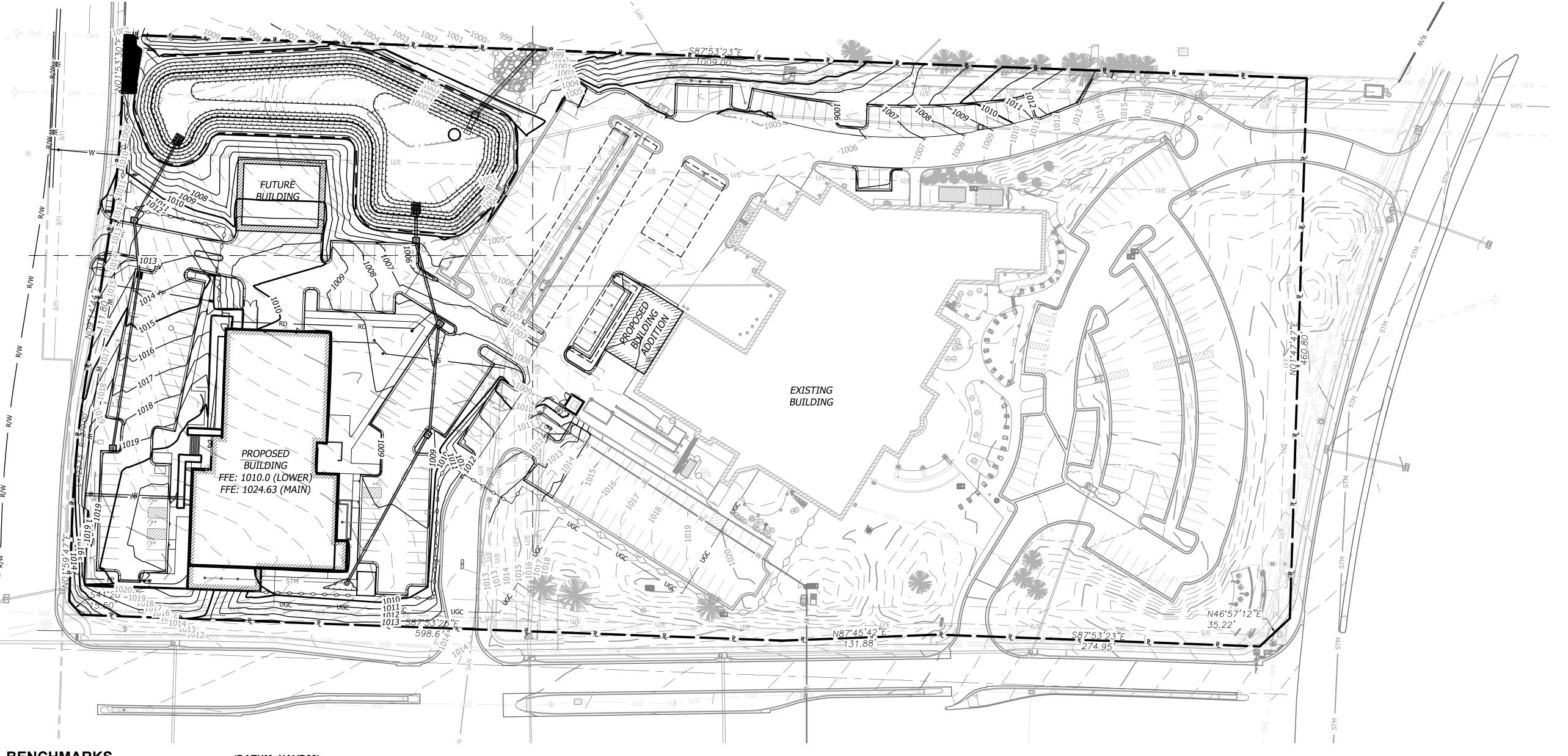
DIMENSION PLAN

MICHAEL T. MAKRIS, PE

ISSUE DATE: AUGUST 30, 2024 HOEFER WELKER #: 138161

GRADING GENERAL NOTES

- 1. Contractor shall obtain a copy of the <u>Geotechnical Services Report</u>, prepared for the project and satisfy himself as to the existing conditions and recommendations contained in the report.
- 2. As discussed in the Geotechnical Report, over excavation of existing unsuitable soils will be required under building and pavement areas. Contractor shall perform over excavation of unsuitable soils as a part of this work.
- 3. Contractor shall obtain soils suitable as structural fill from off-site sources. All borrow materials must be tested and approved by the Geotechnical Engineer prior to importing the soils to the project site.
- 4. Contractor shall operate under the terms and permits included in the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project and permitted through the State of Missouri. Contractor shall employ a qualified person to conduct regular inspections of the site erosion control measures and document such inspections in the SWPPP document maintained by the Contractor.
- 5. All topsoil, vegetation, root structures, and deleterious materials shall be stripped from the ground surface prior to the placement of embankments. Contractor shall obtain the on-site geotechnical representative's acceptance of the existing ground surface materials and the proposed fill material prior to the placement of fill.
- 6. All proposed contour lines and spot elevations shown are finish ground elevations. Contractor shall account for pavement depths, building pads, topsoil, etc when grading the site.
- 7. All disturbed areas that are not to be paved (green spaces) shall be finish graded with a minimum of six inches of
- 8. All excavation and embankments shall comply with the recommendations provided by the geotechnical engineer.
- Prior to placing any concrete or asphalt pavement the contractor shall perform a proof roll of the pavement sub-grade with a fully loaded tandem axle dump truck. The proof roll shall be conducted in the presence of the Engineer and the on-site geotechnical representative. Areas that display rutting or pumping that are unsatisfactory to the engineer shall be re-worked and a follow-up proof roll shall be conducted prior to acceptance of the sub-grade for paving. The contractor may, at its own expense, stabilize the sub-grade using Class C fly ash or quicklime.
- 10. Finished grades shall not be steeper than 3:1.
- 11. All grading work shall be considered unclassified. No additional payments shall be made for rock excavation. Contractor shall satisfy himself as to any rock excavation required to accomplish the improvements shown hereon.
- 12. A 2.0% maximum cross slope shall be maintained on all pedestrian sidewalks and paths.



BENCHMARKS (DATUM: NAVD88)

BENCHMARK NUMBER: 1 ELEVATION= 1015.01

CHISELED SQUARE ON THE NORTH FACE OF A GRATE INLET, LOCATED ON THE SOUTH SIDE OF TUDOR ROAD, APPROXIMATELY 425 FEET EAST OF THE INTERSECTION OF TUDOR ROAD AND SLOAN STREET.

BENCHMARK NUMBER: 2 ELEVATION= 1031.01

CHISELED SQUARE ON THE NORTHWEST CORNER OF A PEDESTRIAN CROSSING SIGNAL, LOCATED ON THE SOUTHWEST CORNER OF THE

INTERSECTION OF TUDOR ROAD AND DOUGLAS STREET.

FLOOD STATEMENT

The subject property lies within Flood Zone "X" (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain.), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).

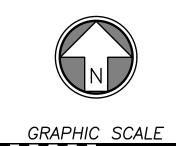
Map Number: 29095C0417G Panel No: 417 of 625

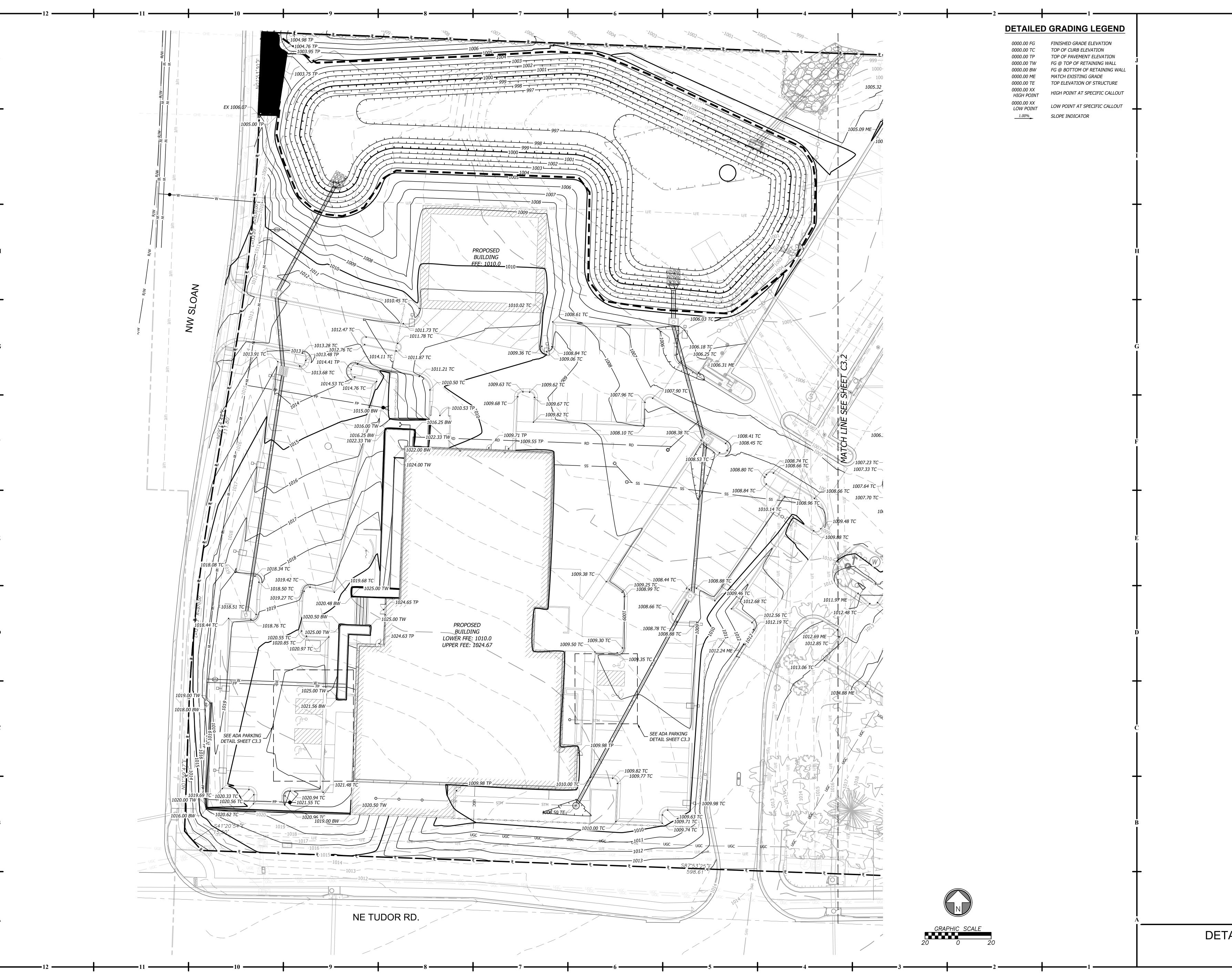
Map Revised Date: January 20, 2017 **NOTE:** This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.

GRADING LEGEND

FINISH GRADE MAJOR CONTOURS FINISH GRADE MINOR CONTOURS — 980 — EXISTING GRADE MAJOR CONTOURS — — 982 — — EXISTING GRADE MINOR CONTOURS RIGHT-OF-WAY LINE STANDARD CURB & GUTTER DRY CURB & GUTTER ZERO HEIGHT CURB TRANSITION CURB

RETAINING WALL





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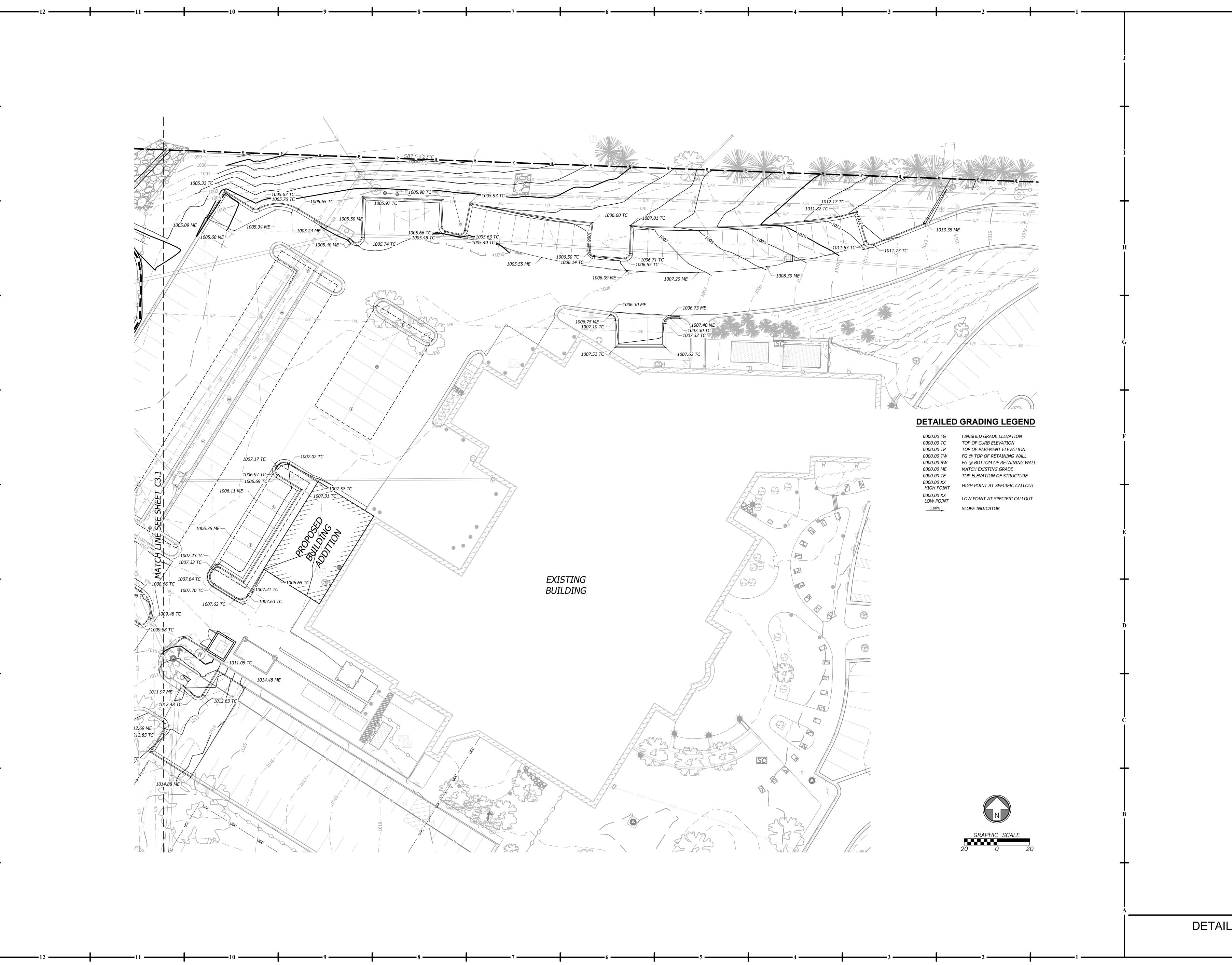
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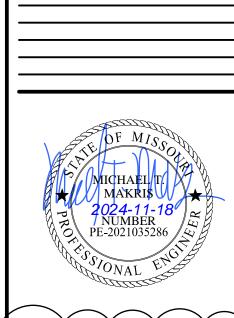
DETAILED GRADING PLAN



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DETAILED GRADING PLAN

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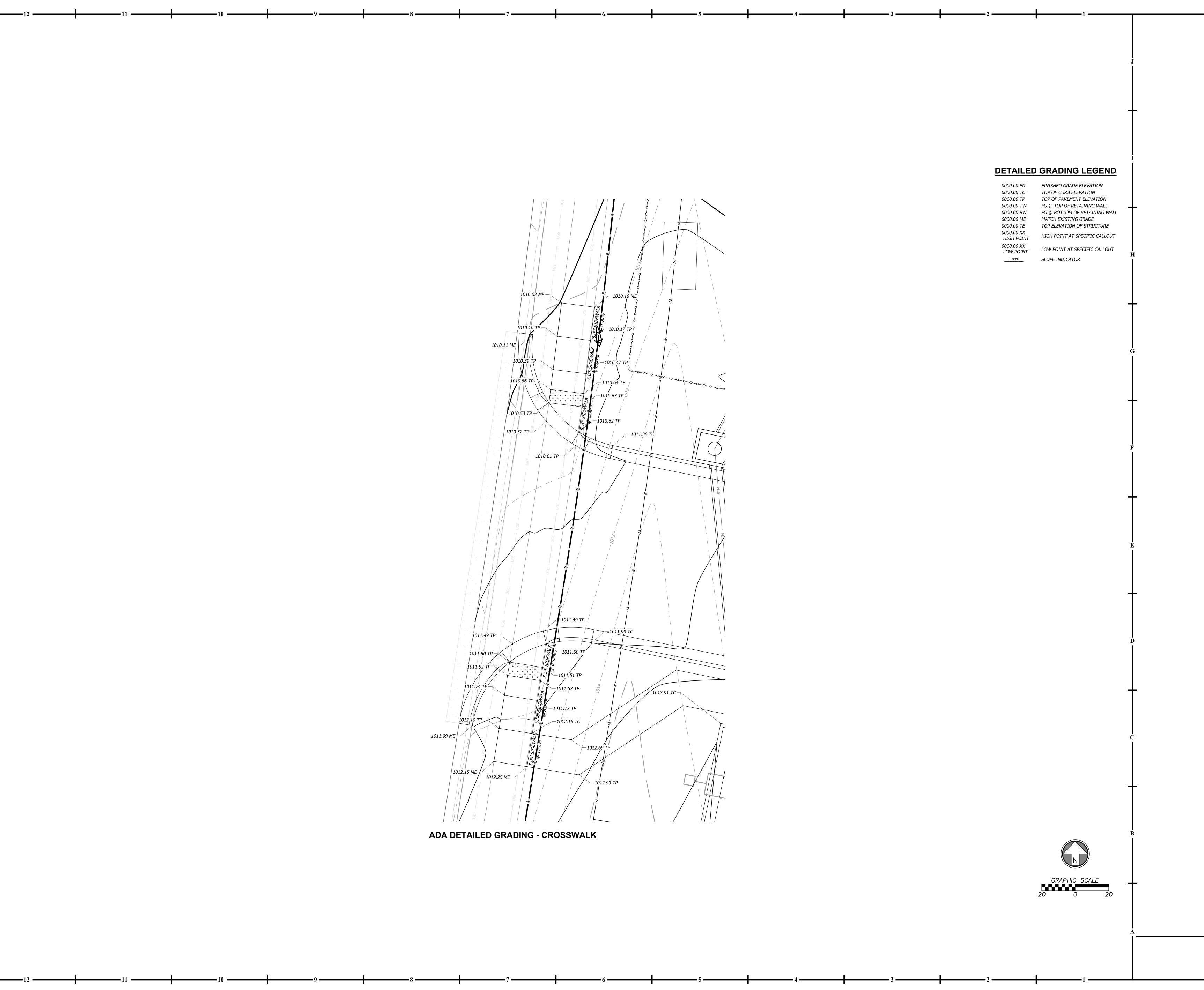
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ADA DETAILED GRADING



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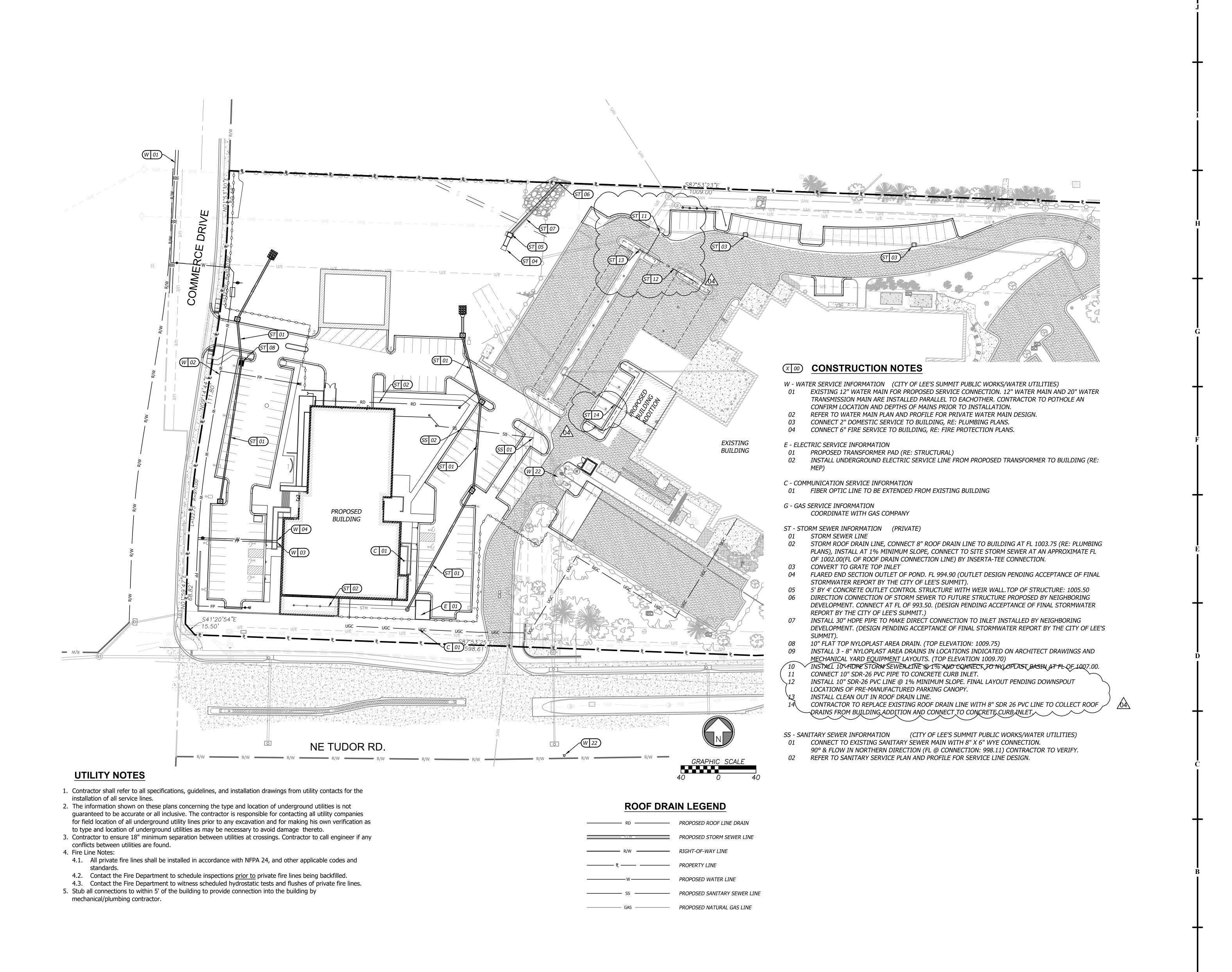
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ADA DETAILED GRADING



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AGE 1: SITE AND STRUCTURE

10 NE TUDOR ROAD LEES SUMMIT, MO 64086

REVISION DATES:

01 ADDENDUM 01 2024-09-20
02 ADDENDUM 02 2024-10-30
03 ADDENDUM 03 2024-11-18
04 ADDENDUM 04 2024-11-26

MICHAELT.

MAKRIS

2024-11-26

NUMBER

PE-2021035286

PE-2021035286

MICHAEL T. MAKRIS, PE MD PE-2021035286

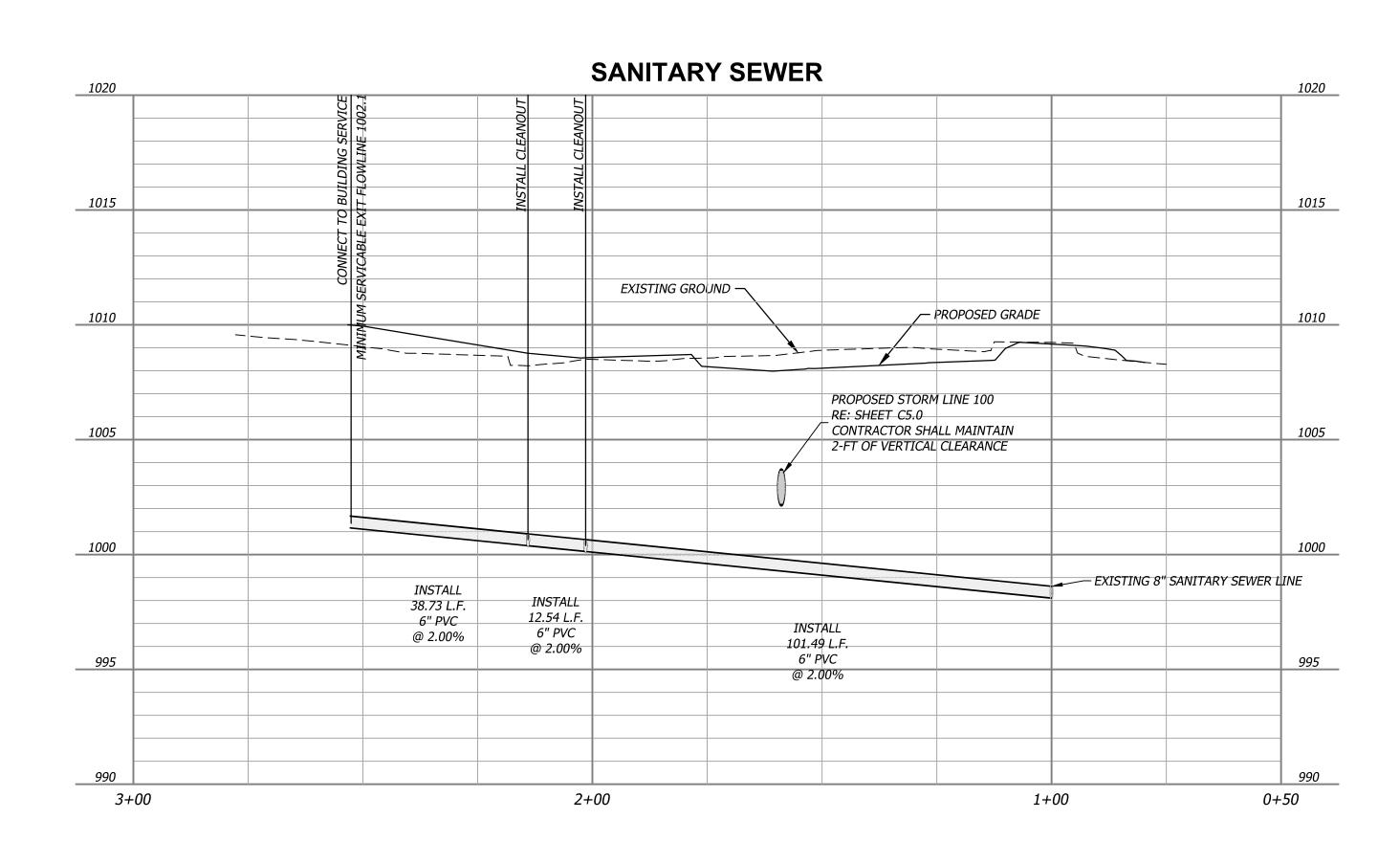
ISSUE DATE: AUGUST 30, 2024
HOEFER WELKER #: 138161

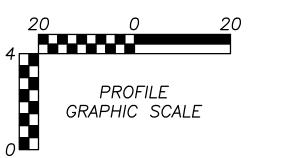
UTILITY PLAN



All Northings, Eastings, and alignment stationing for storm structures are to center of structure unless stated otherwise.







SANITARY PROFILE NOTE

SANITARY PROFILE IS BASED ON MINIMUM SERVICEABLE ELEVATION FOR EXIT OF BUILDING SERVICE. CONTRACTOR SHALL MAINTAIN FIELD REDLINES OF CONSTRUCTED ELEVATIONS.

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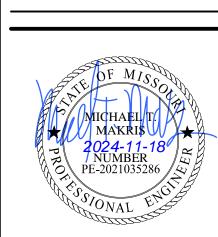
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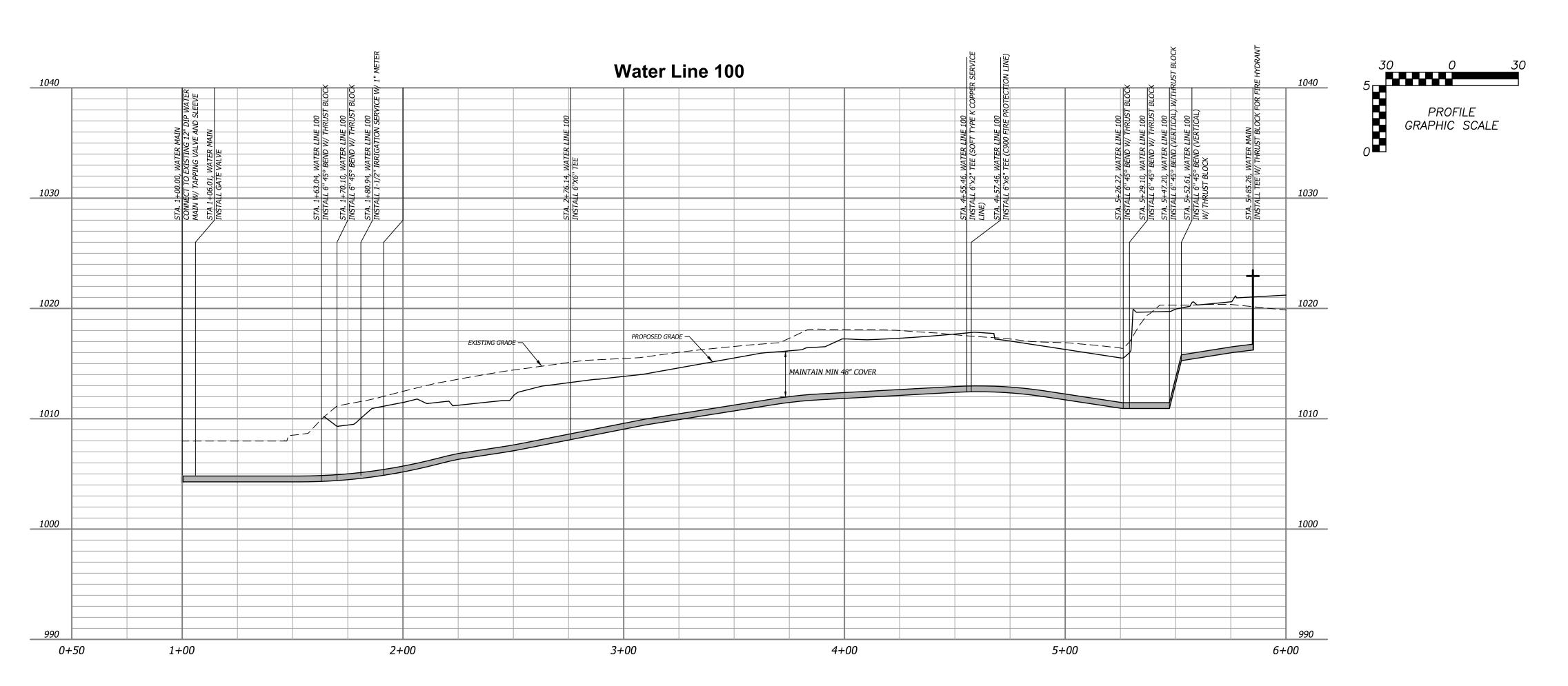
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SANITARY SEWER PLAN & PROFILE



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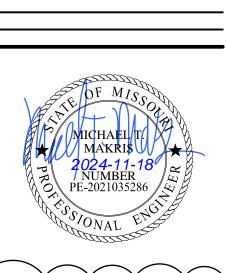
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 01
 ADDENDUM 01
 2024-09-20

 02
 ADDENDUM 02
 2024-10-30

 03
 ADDENDUM 03
 2024-11-18



MICHAEL T. MAKRIS, PE

WATER PLAN & PROFILE

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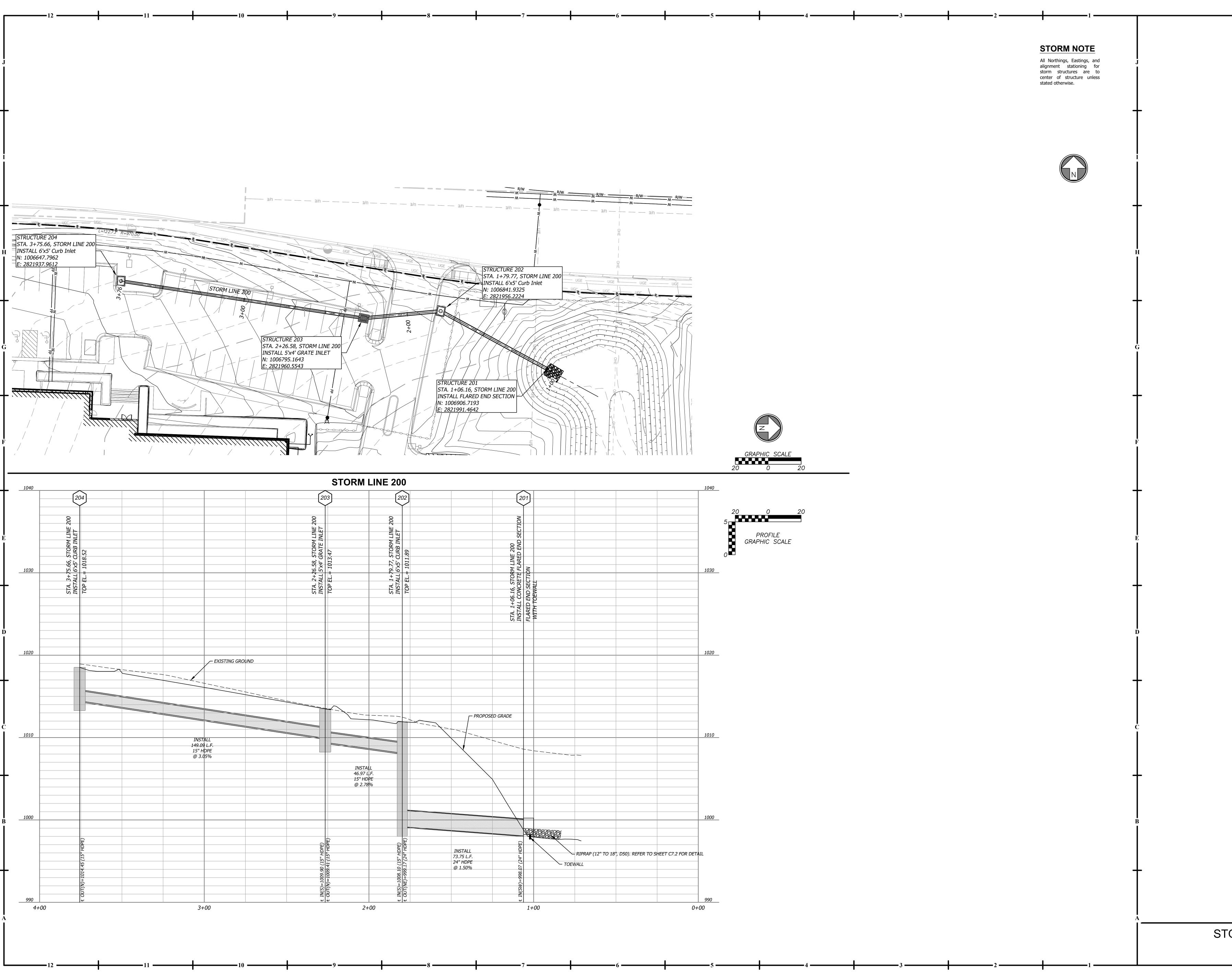
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MICHAEL T. MAKRIS, PE

ISSUE DATE: AUGUST 30, 2024
HOEFER WELKER #: 138161

STORM PLAN & PROFILE



HOEFER WELKER 4622 PENNSYLVANIA AVENUE SUITE 1400 KANSAS CITY, MO 64112 P: 913.307.3700 www.hoeferwelker.com



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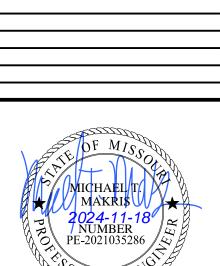
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10 LE **REVISION DATES:**
 01
 ADDENDUM 01
 2024-09-20

 02
 ADDENDUM 02
 2024-10-30

 03
 ADDENDUM 03
 2024-11-18



MICHAEL T. MAKRIS, PE HOEFER WELKER #: 138161

PROPOSED DRAINAGE MAP

MICHAEL T. MAKRIS, PE MD PE-2021035286

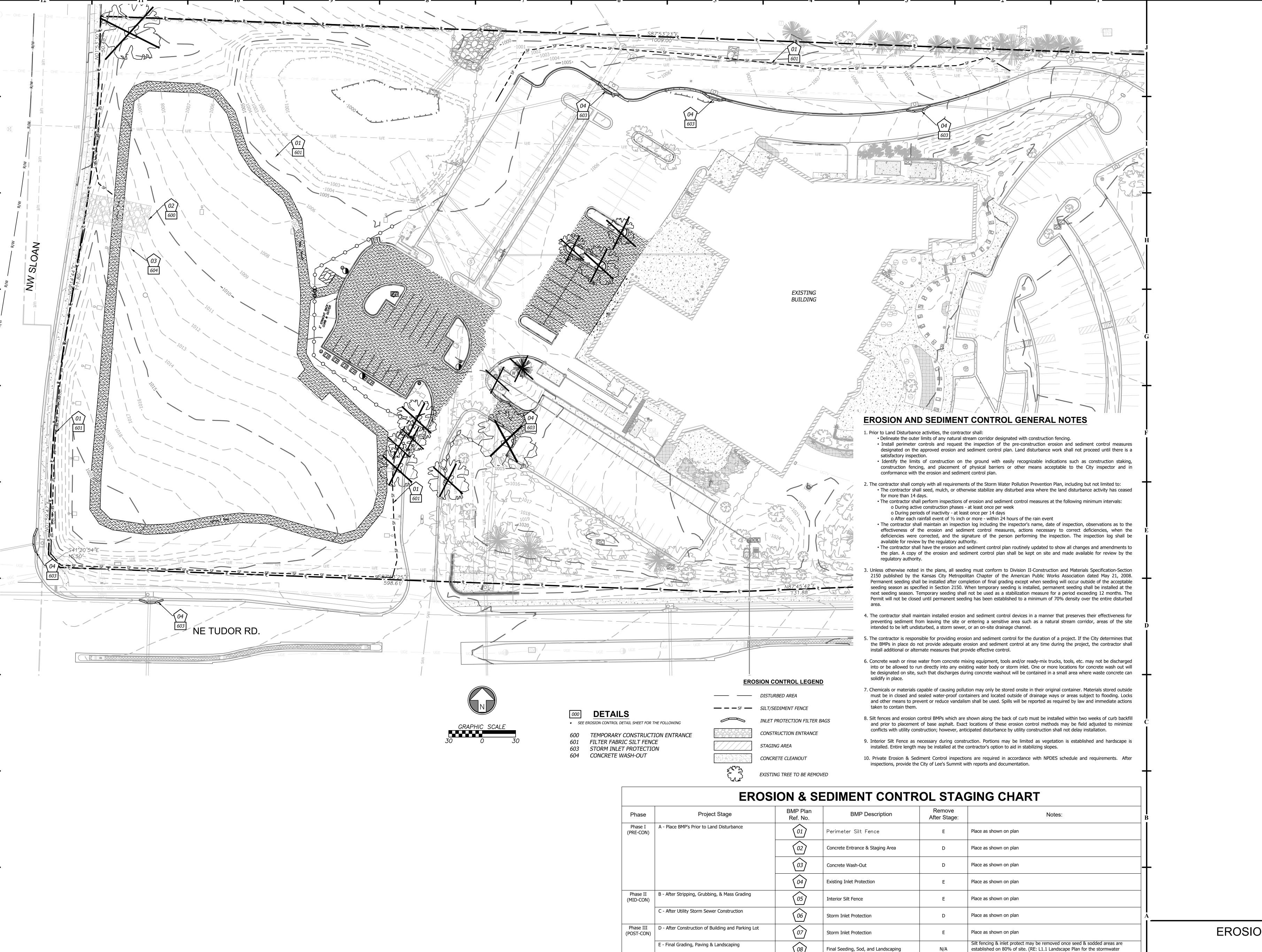
STORM CALCULATIONS

10-YEAR STORM CALCULATIONS

Desig	n Storm:		10																									
	K" Value:		1.00																									
"F	" Factor:		1.00																									
Runoff Calculations														Pipe Properties												Design Ch	ecks	
		(Cumul.			Runoff				Up	Up	Up									Drop					Pipe	Head-	
Inlet	Area	"C"	Area	Cumul.		To	Cumul	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	ln			Inlet	HGL	Depth	Water	
#	(acres)	Value (acres)	CxA	Tc Intensi	ty Inlet	Runof	f Cap.	Vel.	Inlets	Inlets	(acres)	CxA	Inlet	Inlet	Туре	Value	Size	Length	%	Inlet	FL Up	FL Down	Тор	Elev.	Check	Check	Station
INE 100																								DS TAILWATER @ STR#	1002.75			
101	1.05	0.81	1.65	1.26	5.1 7.33	6.23	9.24	21.22	6.76			0.00	0.00	101		PEP	0.012	24	19.22	0.75	0.50	999.89	999.75	1005.71	1002.85	3.57	Ok	19.22
102	0.21	0.84	0.60	0.41	5.1 7.34	1.29	3.01	13.94	7.89			0.00	0.00	102	101	PEP	0.012	18	10.00	1.50	0.50	1000.54	1000.39	1008.37	1002.88	5.58	Ok	29.22
103	0.20	0.60	0.39	0.23	5.0 7.34	0.88	1.72	13.94	7.89			0.00	0.00	103	102	PEP	0.012	18	10.00	1.50	0.50	1001.19	1001.04	1008.53	1002.89	5.34	Ok	39.22
104	0.19	0.60	0.19	0.11	5.0 7.35	0.84	0.84	7.00	5.70			0.00	0.00	104	103	PEP	0.012	15	10.00	1.00	N/A	1001.79	1001.69	1008.99	1002.89	5.70	Ok	49.22
INE 200																								DS TAILWATER @ STR#	1002.75			
201	0.04	0.82	0.54	0.43	5.6 7.18	0.24	3.12	30.02	9.55			0.00	0.00	201		PEP	0.012	24	73.75	1.50	0.75	999.18	998.07	1011.89	1002.77	10.46	Ok	73.75
202	0.33	0.77	0.50	0.40	5.4 7.22	1.83	2.90	7.00	5.70			0.00	0.00	202	201	PEP	0.012	15	46.97	1.00	0.50	1000.40	999.93	1013.47	1002.90	11.07	Ok	120.72
203	0.17	0.87	0.17	0.15	5.0 7.35	1.09	1.09	7.00	5.70			0.00	0.00	203	202	PEP	0.012	15	149.09	1.00	N/A	1002.39	1000.90	1018.52	1002.94	14.63	Ok	269.81

100-YEAR STORM CALCULATIONS

Desi	ign Storm:		100																						
	"K" Value:		1.25																						
	F" Factor:		1.00																						
unoff Calculations														Pipe Properties											
			Cumul.			Runoff				Up	Up	Up									Drop				
Inlet	Area	"C"	Area	Cumul.		To	Cumul.	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	ln			Inlet	HGL
#	(acres)	Value	(acres)	CxA	Tc Intensity	Inlet	Runoff	Cap.	Vel.	Inlets	Inlets	(acres)	CxA	Inlet	Inlet	Туре	Value	Size	Length	%	Inlet	FL Up	FL Down	Тор	Elev.
INE 100																								DS TAILWATER @ STR #	1002.75
101	1.05	0.81	1.65	1.26	5.1 10.29	10.94	16.22	21.22	6.76			0.00	0.00	101		PEP	0.012	24	19.22	0.75	0.50	999.89	999.75	1005.71	1003.05
102	0.21	0.84	0.60	0.41	5.1 10.30	2.27	5.28	13.94	7.89			0.00	0.00	102	101	PEP	0.012	18	10.00	1.50	0.50	1000.54	1000.39	1008.37	1003.14
103	0.20	0.60	0.39	0.23	5.0 10.31	1.55	3.02	13.94	7.89			0.00	0.00	103	102	PEP	0.012	18	10.00	1.50	0.50	1001.19	1001.04	1008.53	1003.17
104	0.19	0.60	0.19	0.11	5.0 10.32	1.47	1.47	7.00	5.70			0.00	0.00	104	103	PEP	0.012	15	10.00	1.00	N/A	1001.79	1001.69	1008.99	1003.18
INE 200																								DS TAILWATER @ STR #	1002.75
201	0.04	0.82	0.54	0.43	5.6 10.09	0.41	5.48	30.02	9.55			0.00	0.00	201		PEP	0.012	24	73.75	1.50	0.75	999.18	998.07	1011.89	1002.81
202	0.33	0.77	0.50	0.40	5.4 10.14	3.22	5.10	7.00	5.70			0.00	0.00	202	201	PEP	0.012	15	46.97	1.00	0.50	1000.40	999.93	1013.47	1003.20
203	0.17	0.87	0.17	0.15	5.0 10.32	1.91	1.91	7.00	5.70			0.00	0.00	203	202	PEP	0.012	15	149.09	1.00	N/A	1002.39	1000.90	1018.52	1003.32



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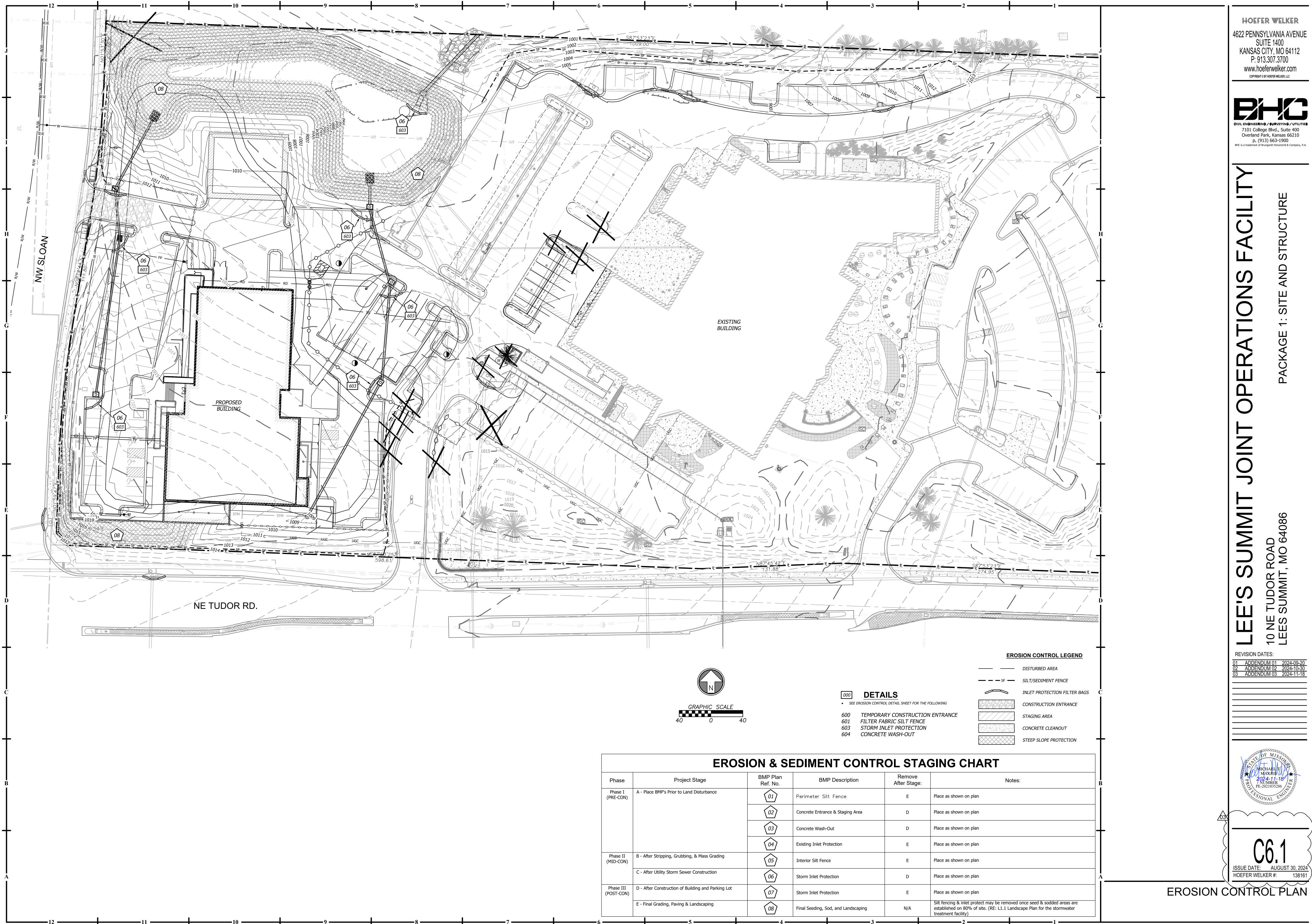
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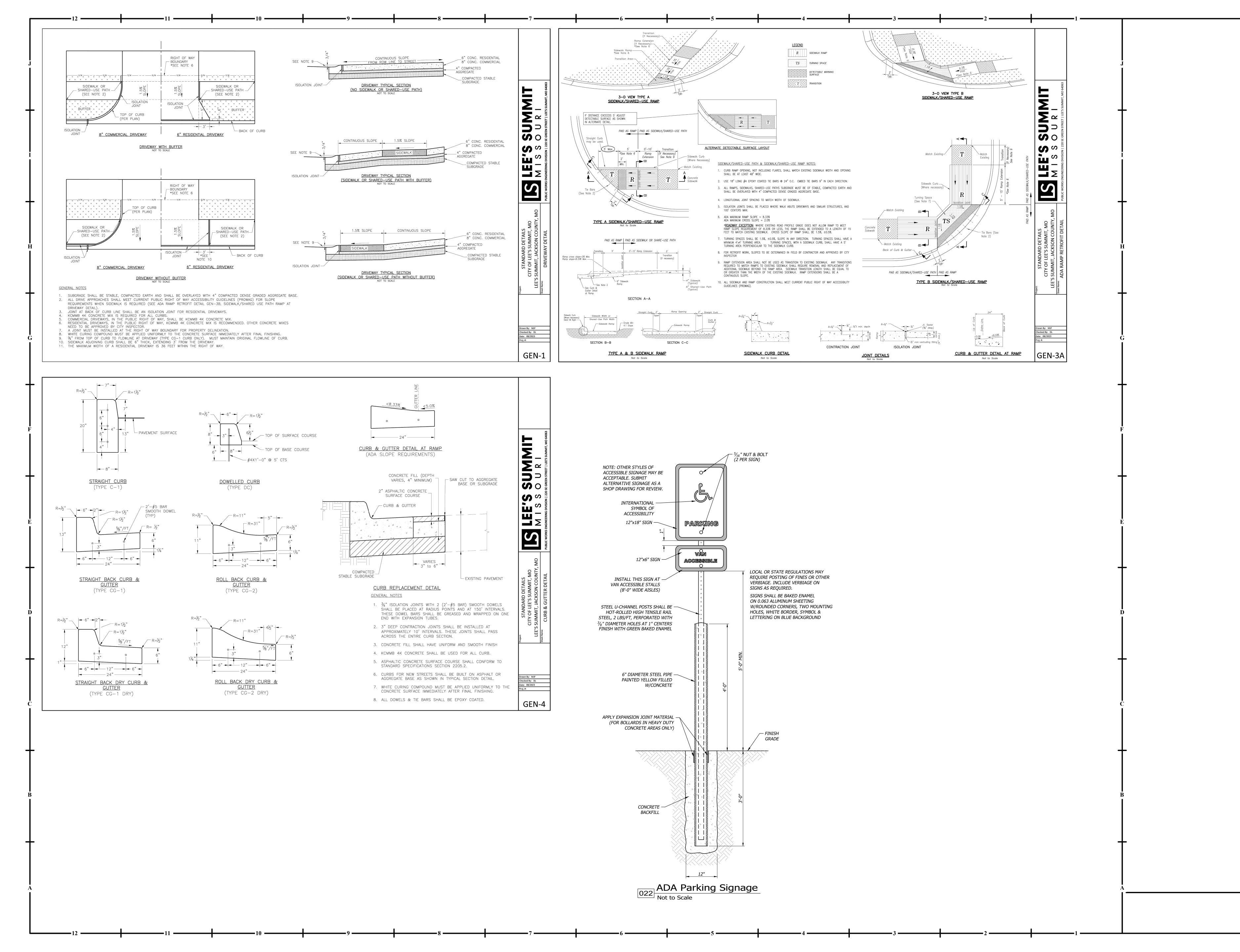
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EROSION CONTROL PLAN



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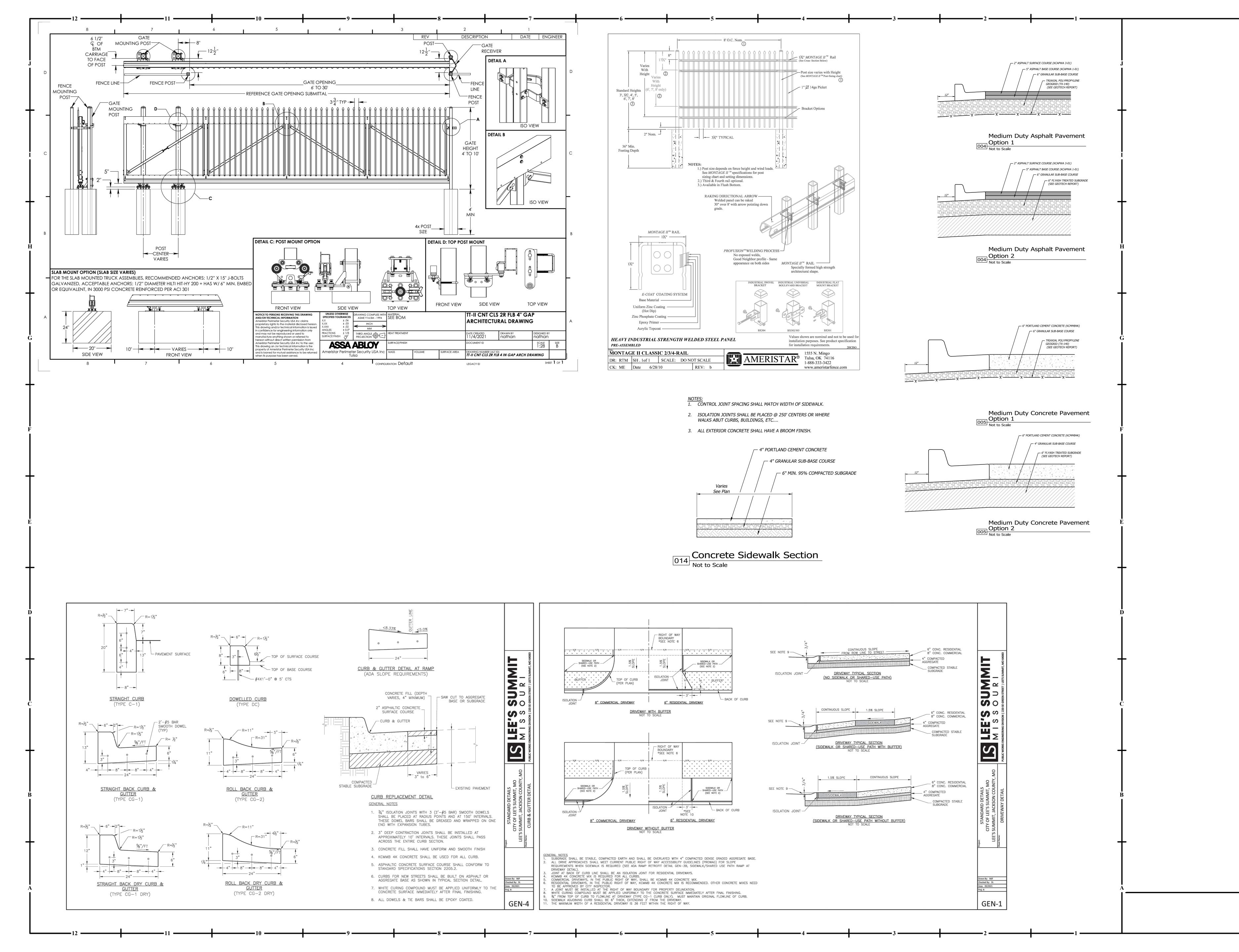
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PROFESSIONAL SEAL

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CIVIL DETAILS 1



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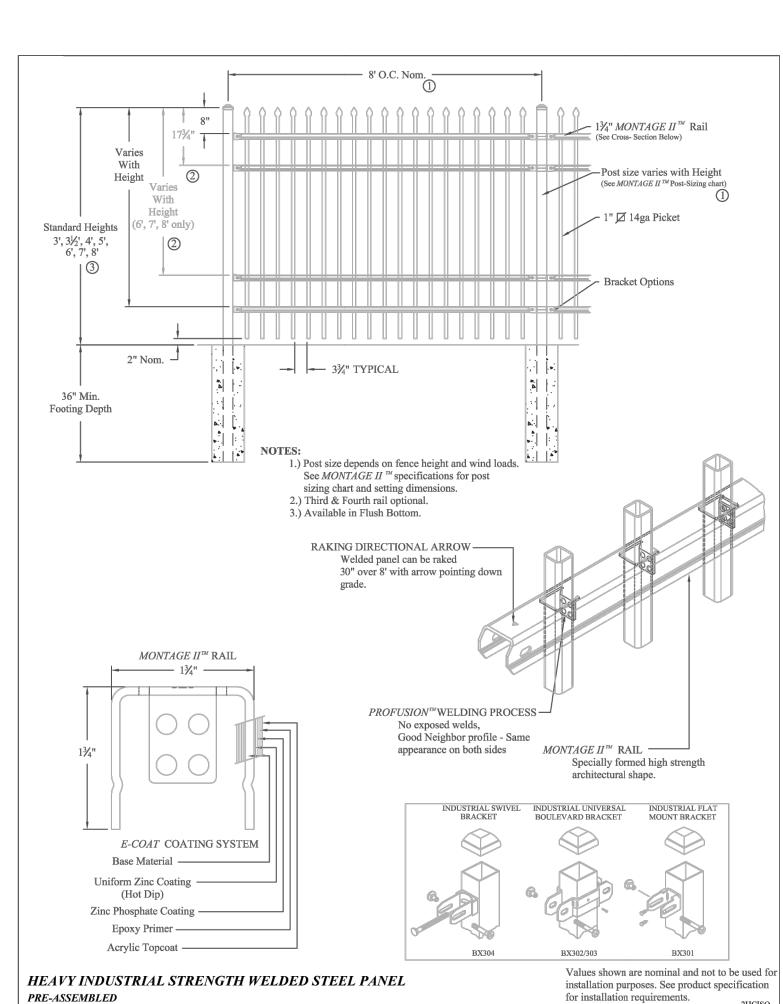
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NUMBER PE-2021035286 2024-10-30

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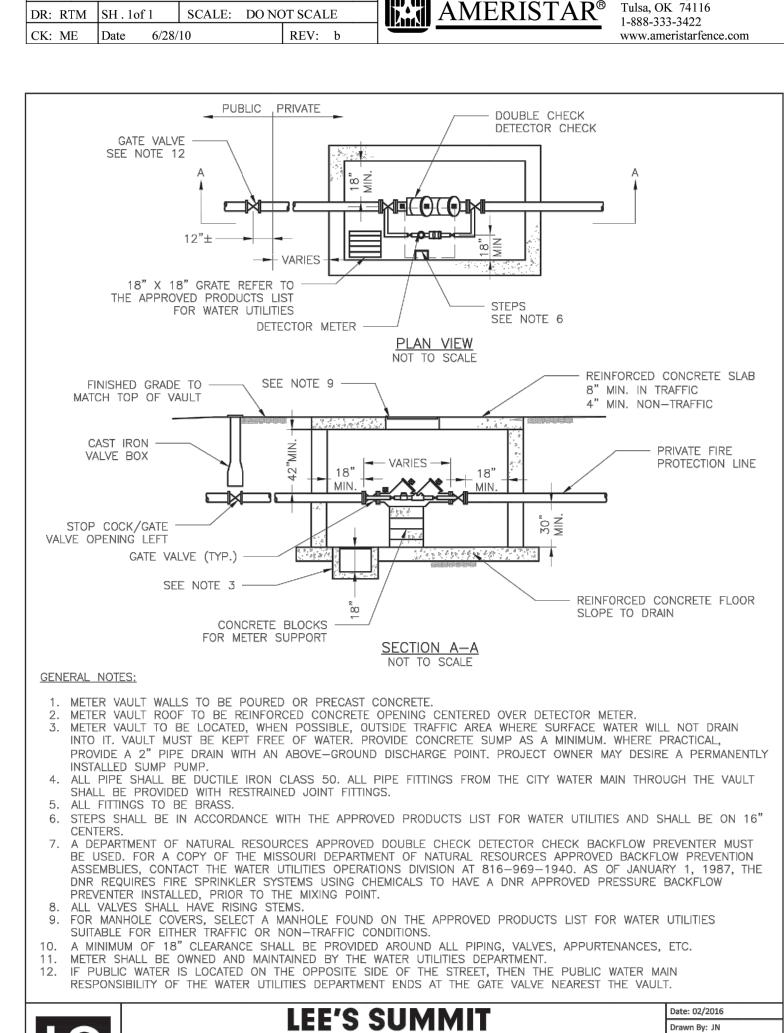
CIVIL DETAILS 2



1555 N. Mingo

Checked By: DL

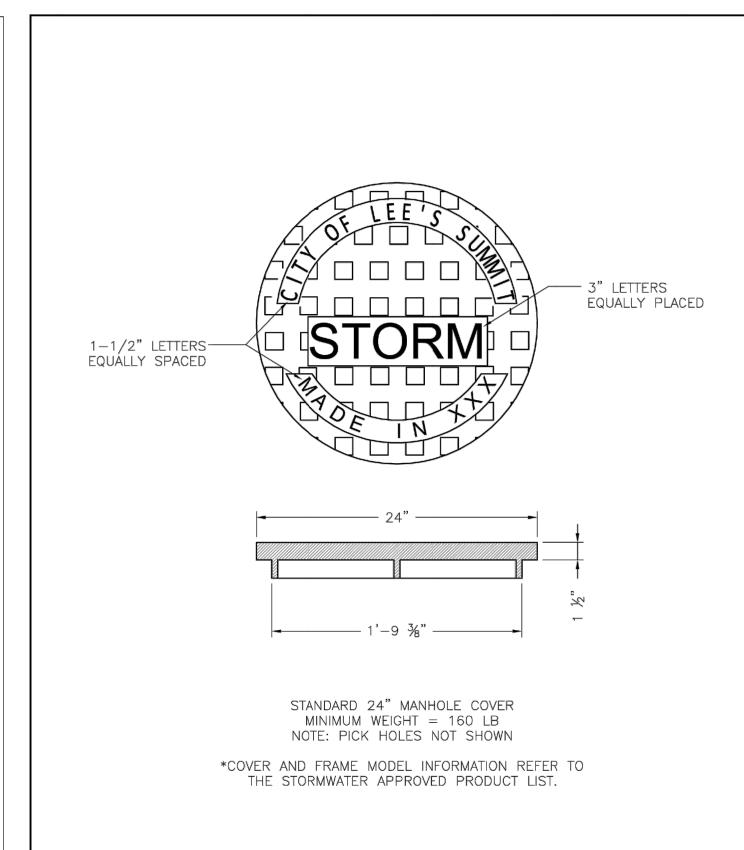
WAT-12



MISSOURI

VAULT FOR DOUBLE CHECK DETECTOR CHECK

MONTAGE II CLASSIC 2/3/4-RAIL

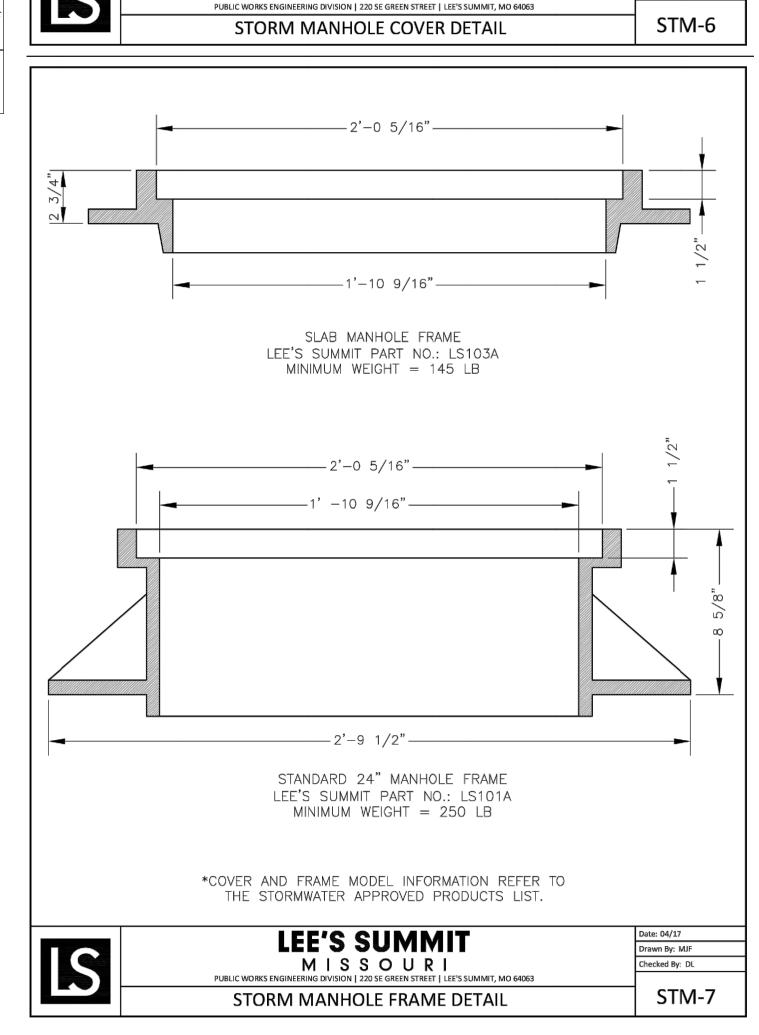


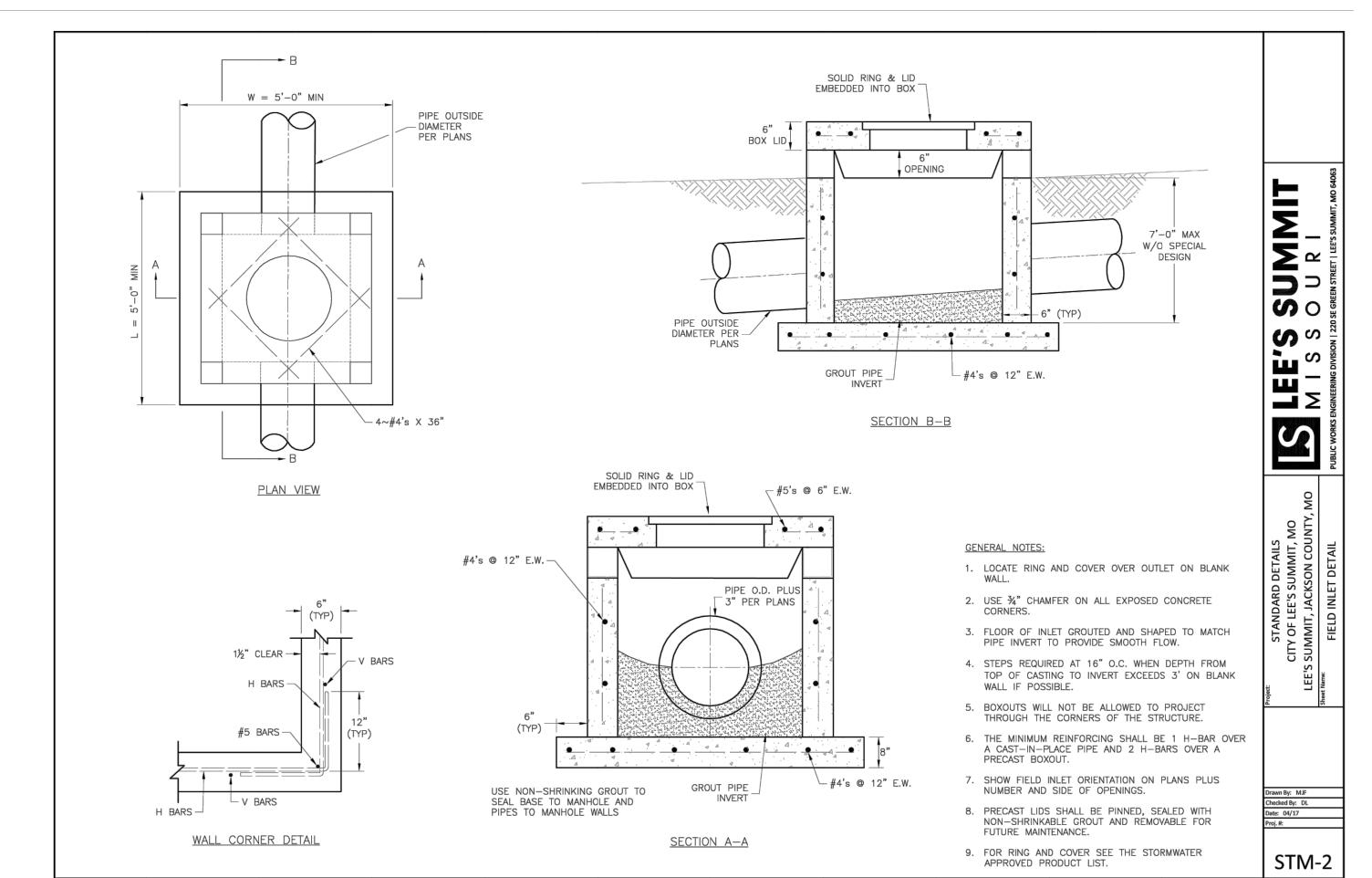
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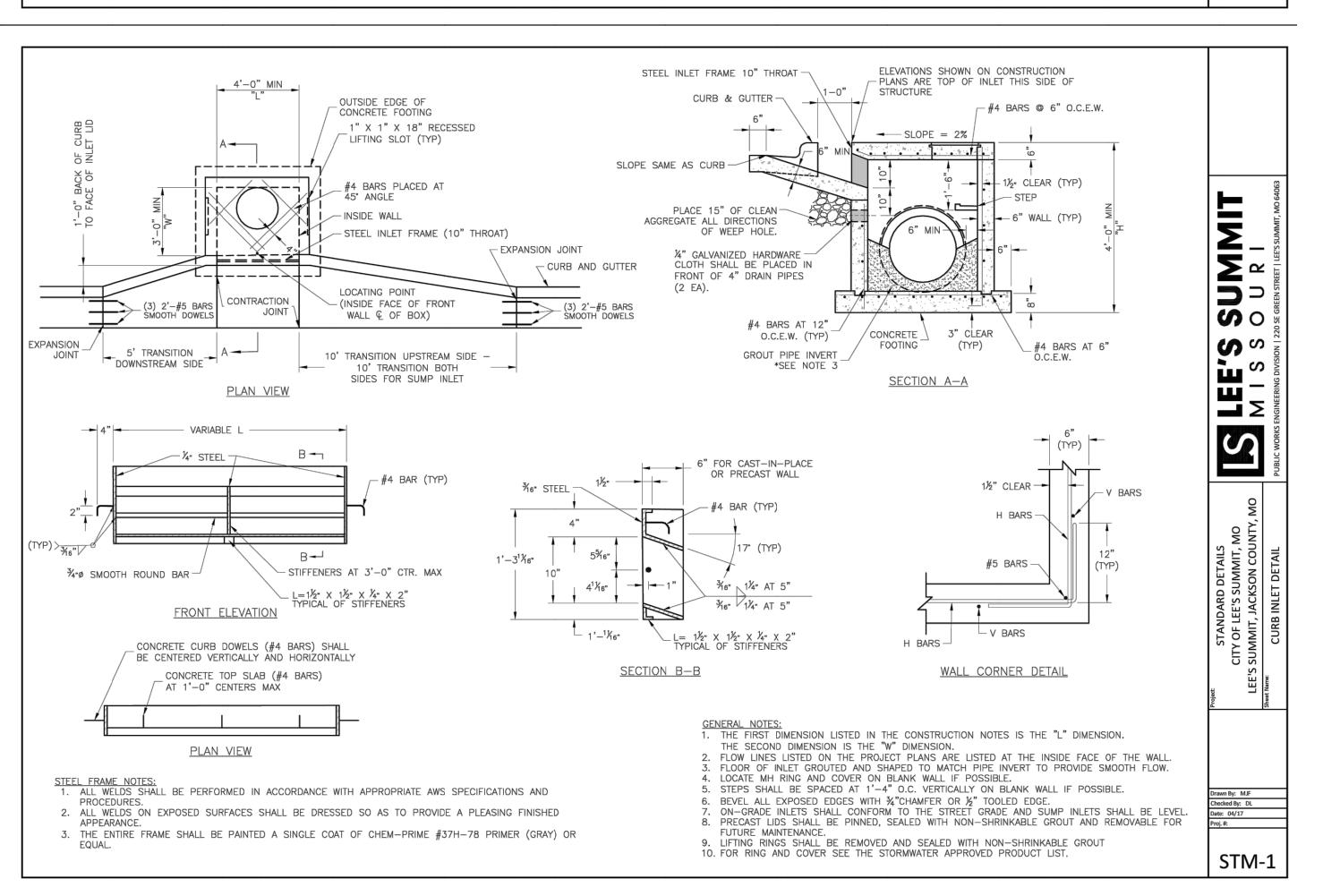
MISSOURI

Date: 04/17 Drawn By: MJF

Checked By: DL







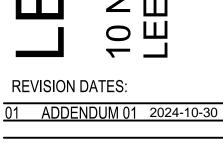
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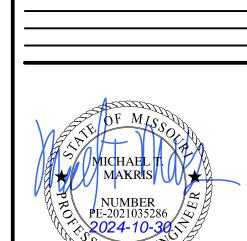


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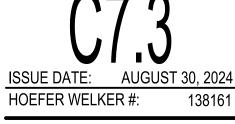
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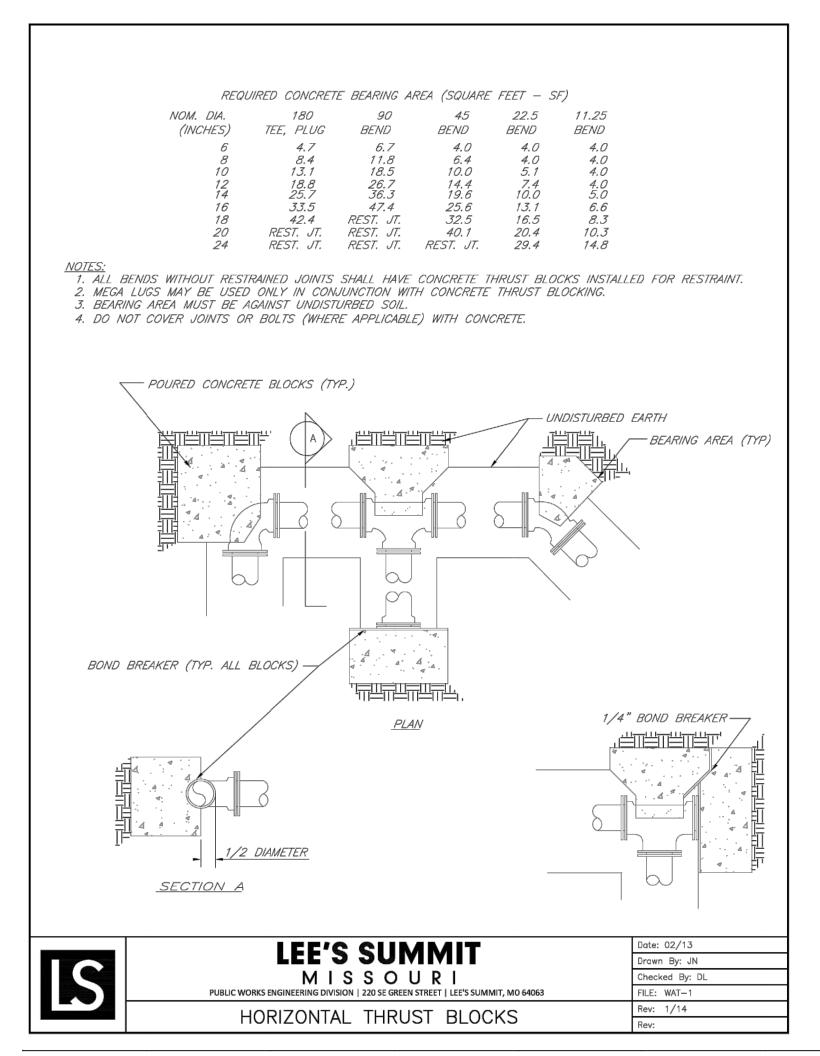
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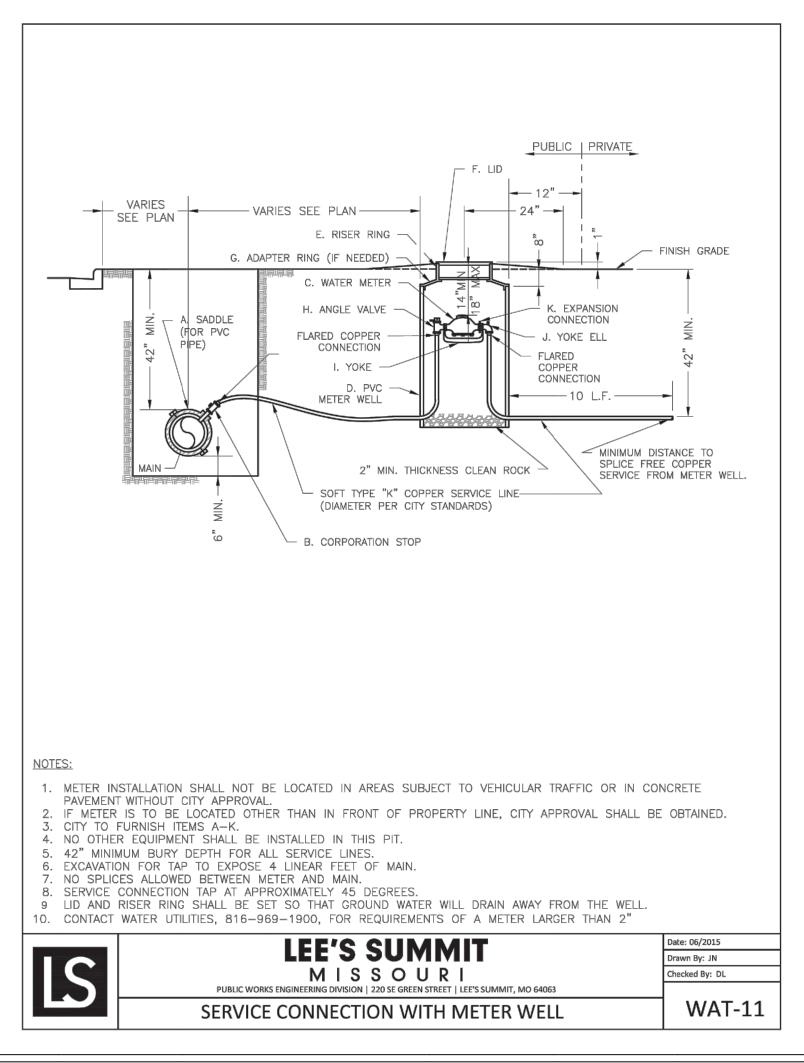


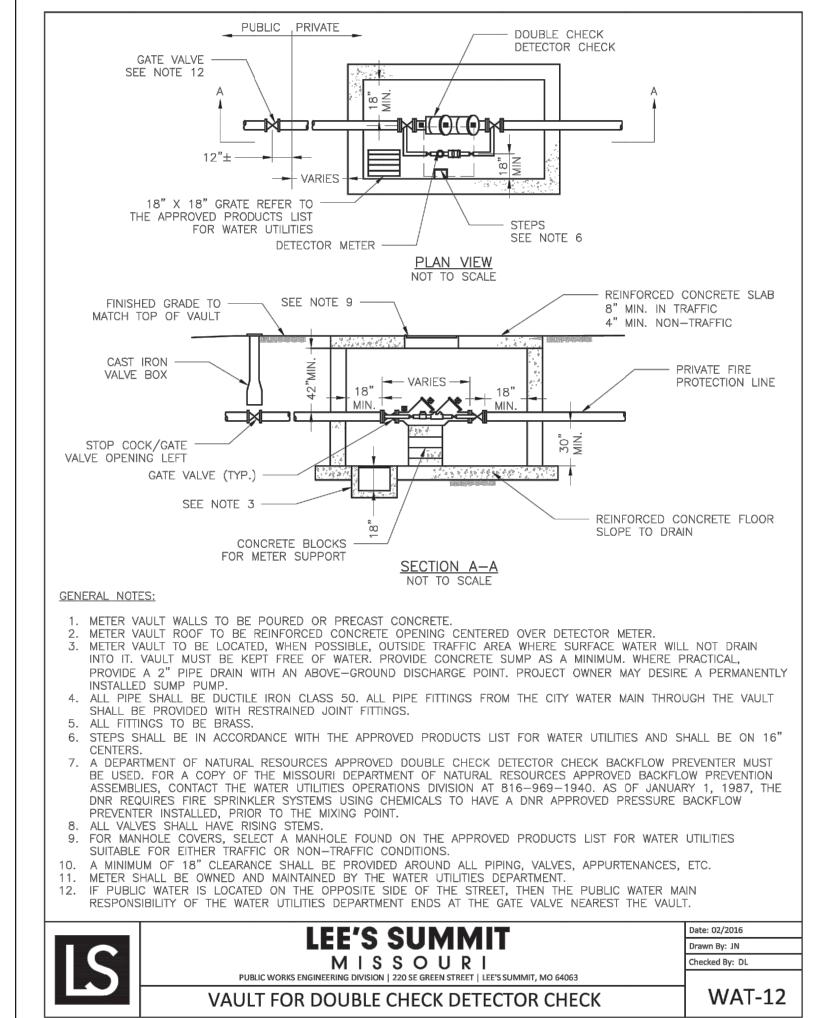


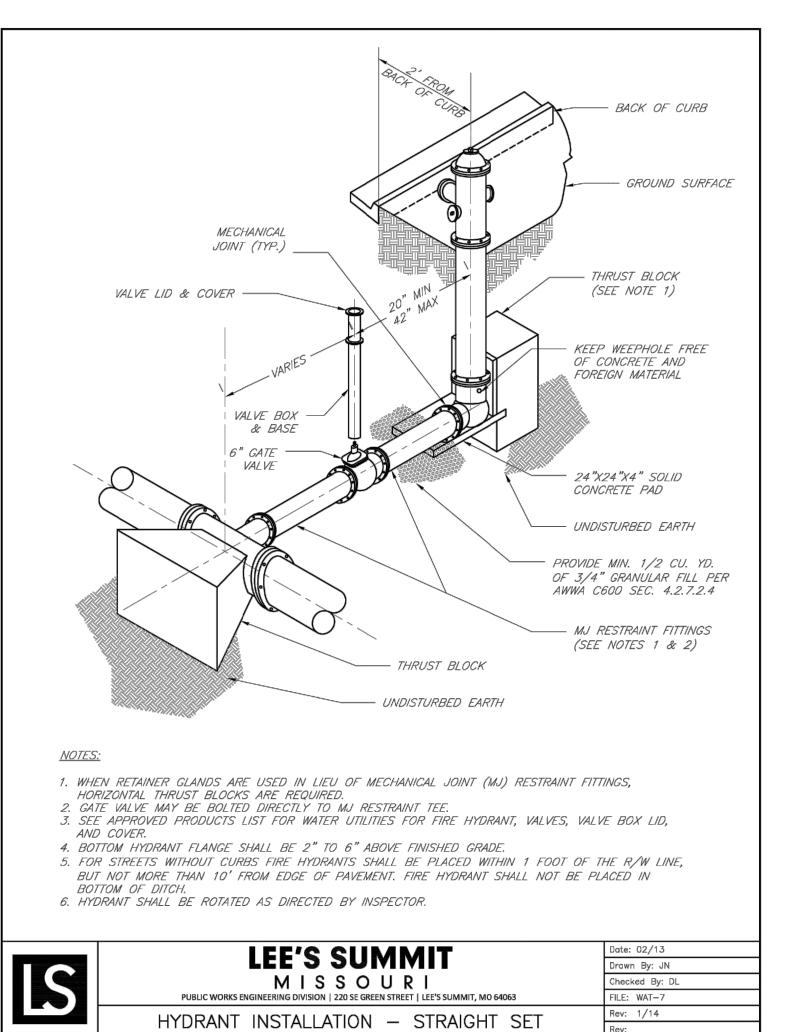
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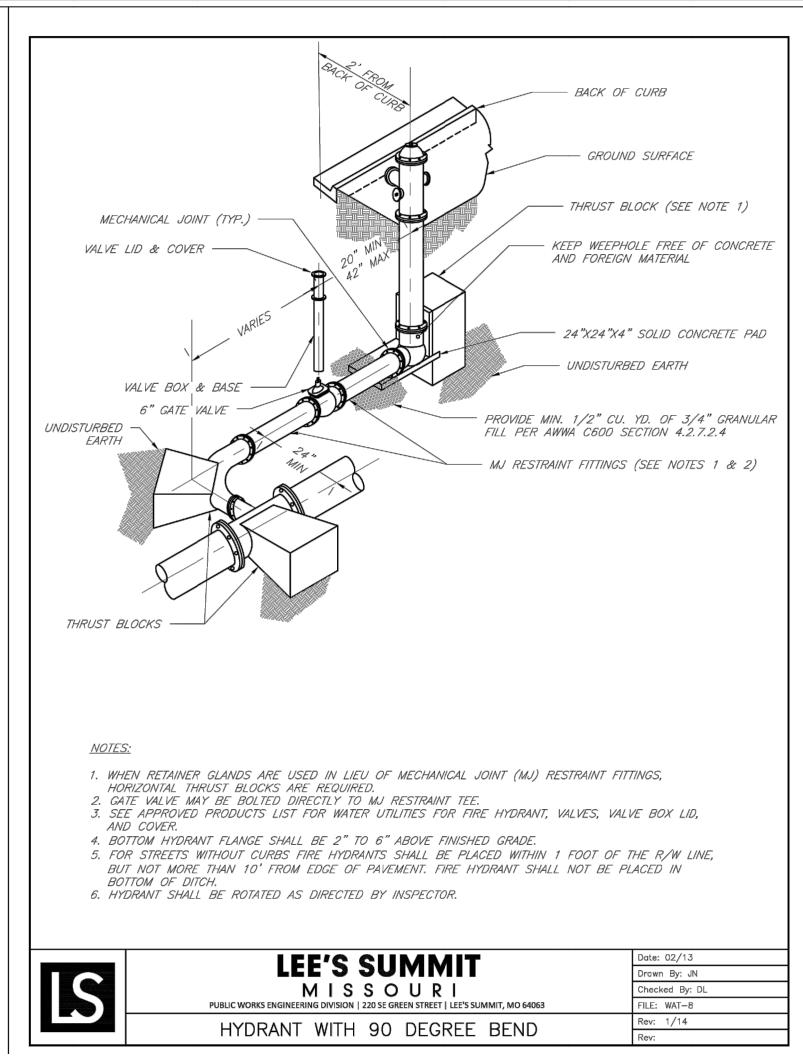


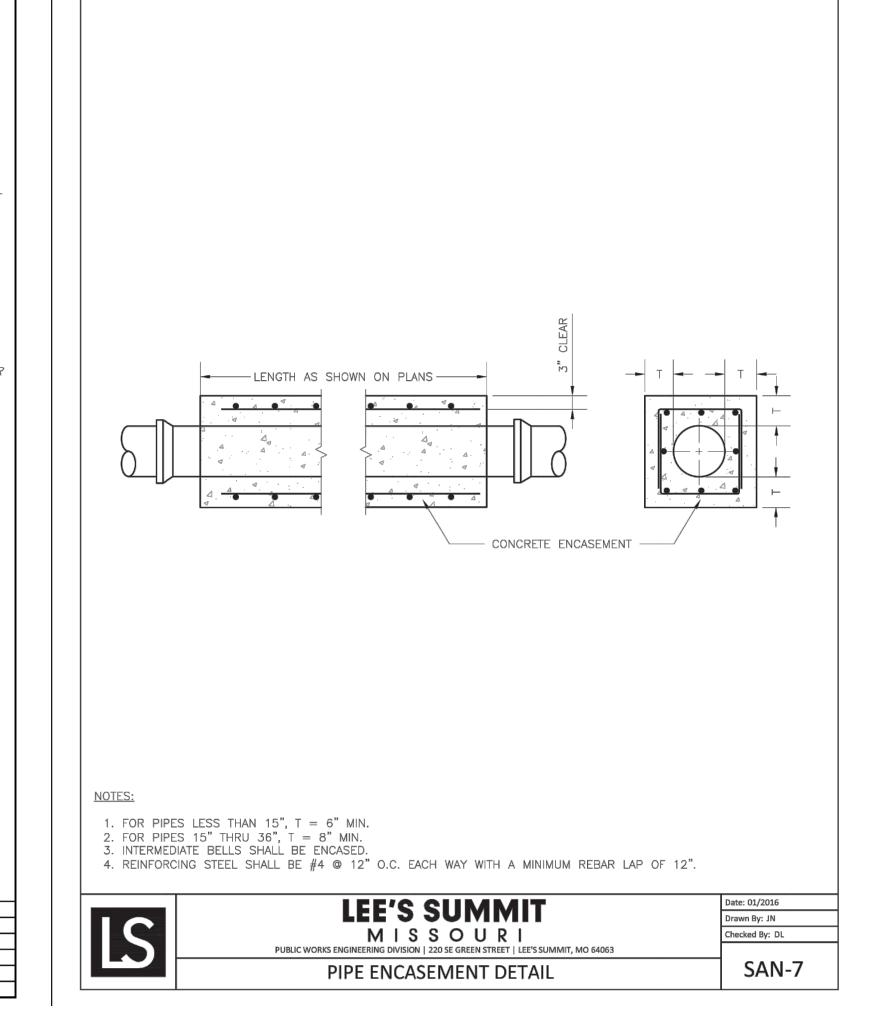


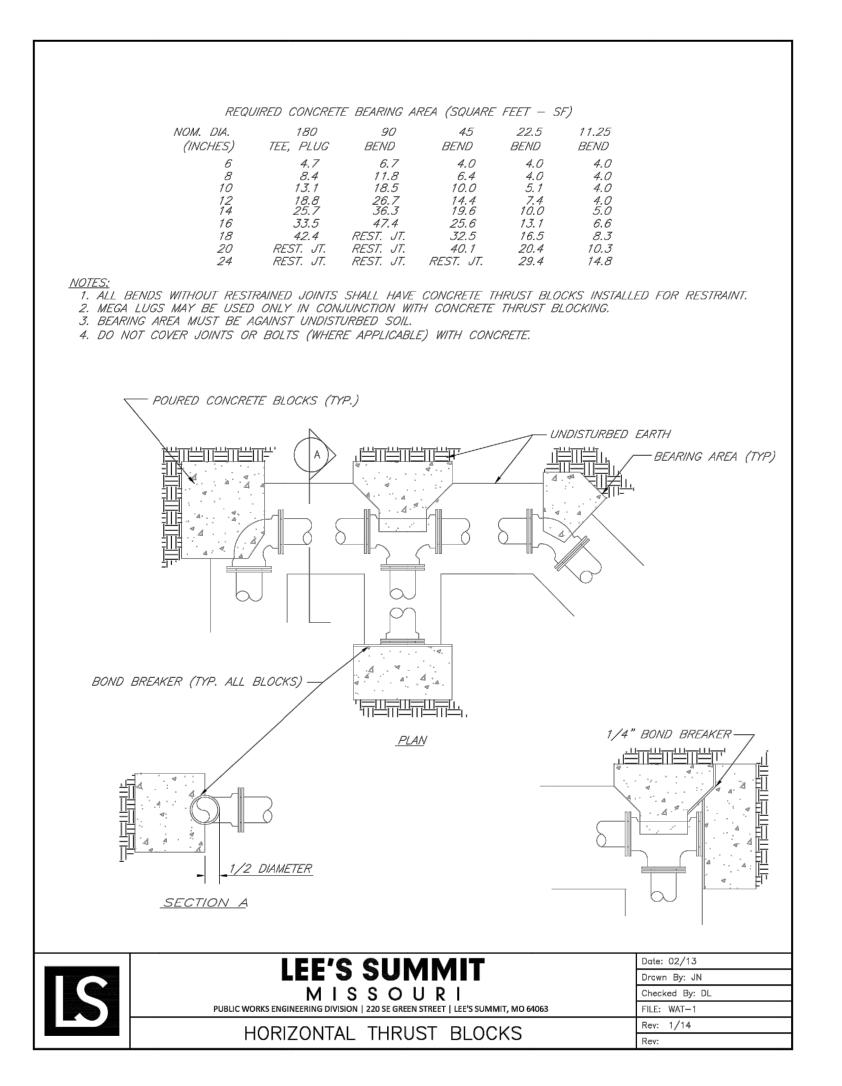


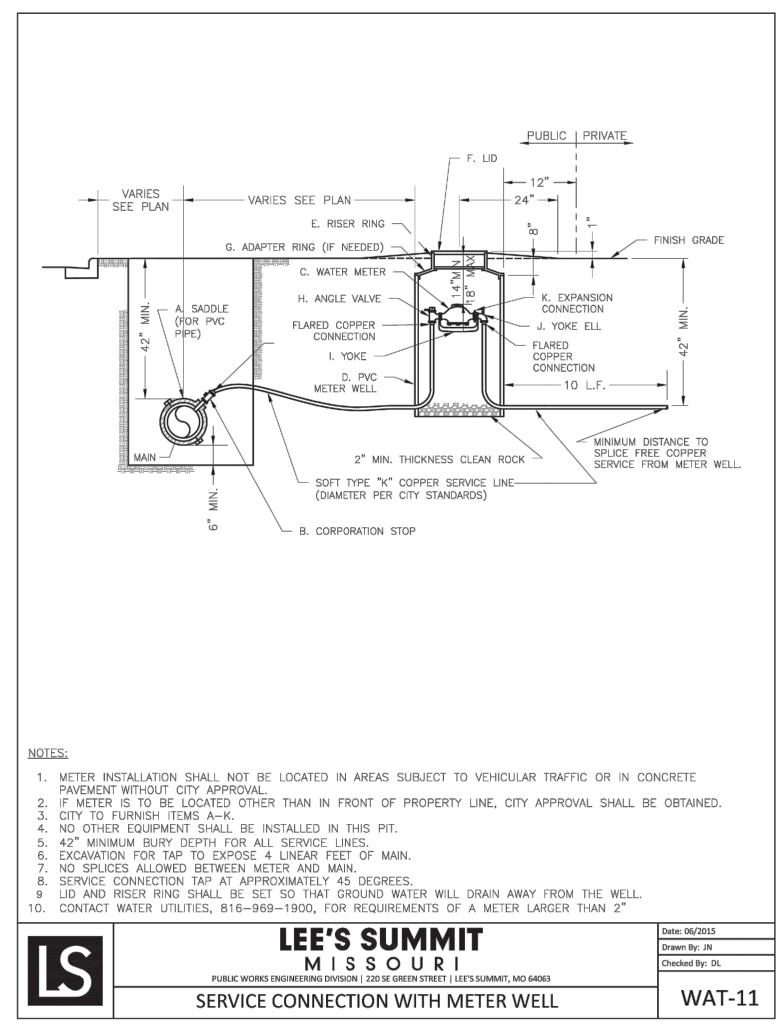


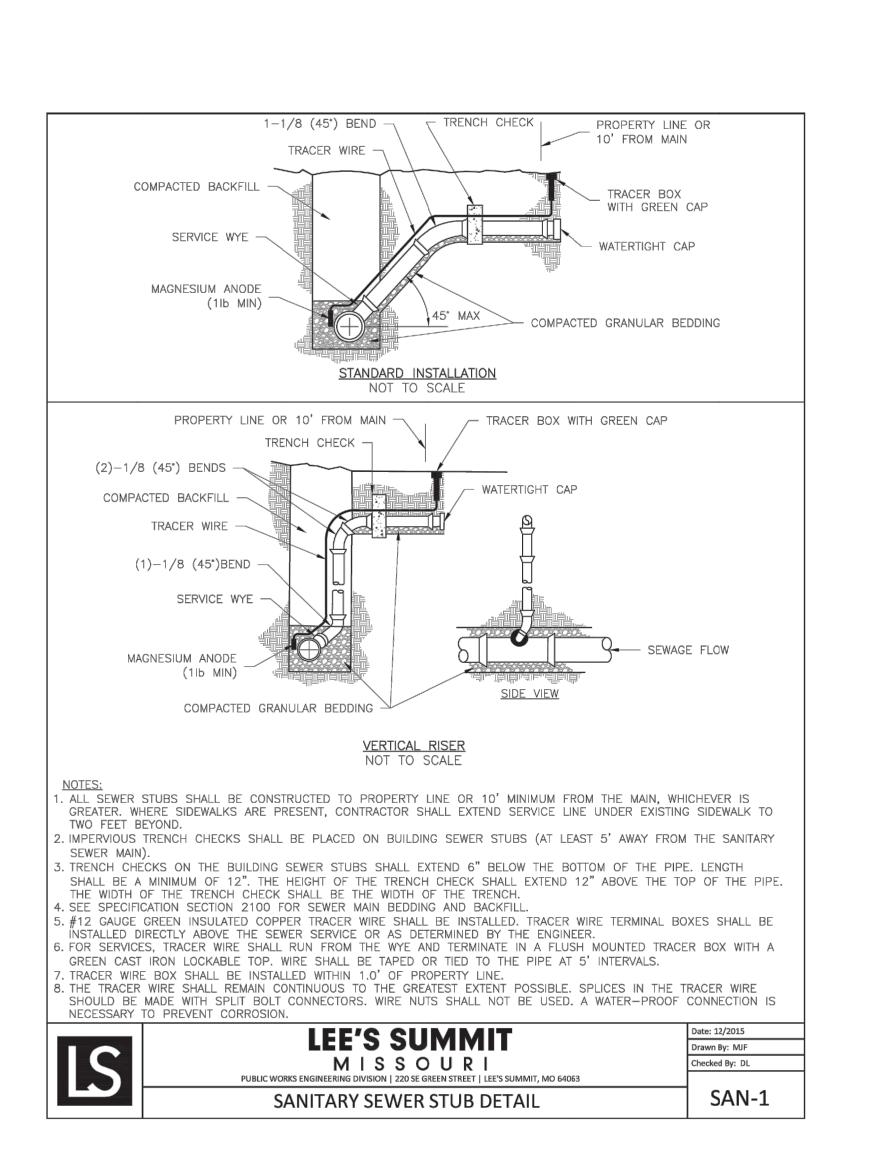












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MAKRIS

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