U.S. Department of Veterans Affairs
Veterans Health Administration

PROJECT NAME:

CONSTRUCT NEW SPS

SITE ADDRESS:

2501 WEST 22ND STREET. SIOUX FALLS, SD 57105

VA PROJECT NUMBER:

438-460

OWNER AND CONSULTANTS:

VA COR:

CONTACT: Brooke White

ADDRESS: 2501 WEST 22ND STREET, BUILDING 17
SIOUX FALLS, SD 57105

PHONE: 605.336.3230 EX 7693

ARCHITECT:

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ADDRESS: 13605 1ST AVE NORTH, SUITE 100
PLYMOUTH, MN 55441

CONTACT: Giovanni Barbati

PHONE: 763-412-4000

CIVIL ENGINEER:

NAME: ANDERSON ENGINEERING OF MN, LLC

ADDRESS: 13605 1ST AVE NORTH, SUITE 100
PLYMOUTH, MN 55441

CONTACT: EDWIN BRODMARKLE

PHONE: 763-412-4000

LANDSCAPE ARCHITECTURE:

NAME: ANDERSON ENGINEERING OF MN, LLC

ADDRESS: 13605 1ST AVE NORTH, SUITE 100
PLYMOUTH, MN 55441

CONTACT: CURT CLAEYS

PHONE: 763-412-4000

STRUCTURAL ENGINEER:

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ADDRESS: 1410 WEST RUSSELL STREET
SIOUX FALLS, SD 57104

CONTACT: Michael Merron

PHONE: 605.331.2505

MECH/ELEC/PLUMB/FIRE ENGINEER:

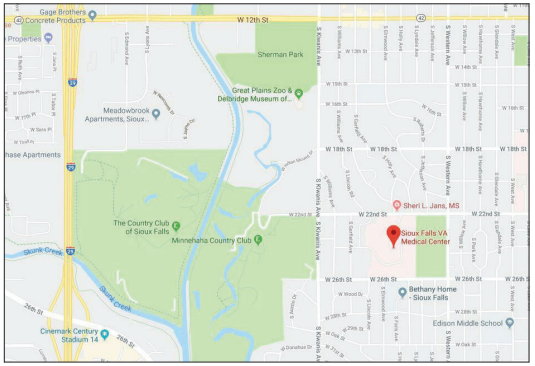
NAME: IMEG Corp.

ADDRESS: 2882 106TH STREET
DES MOINES, IA 50322

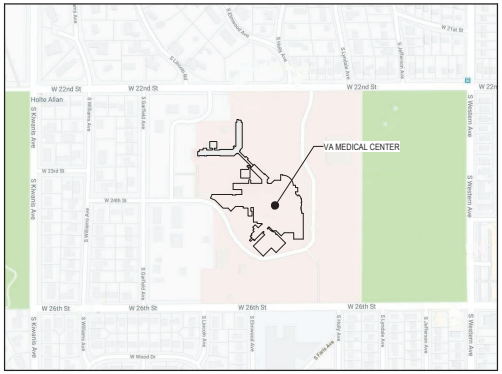
CONTACT: Eric Henderson

PHONE: 630.717.2433

VICINITY MAP:



SITE LOCATION MAP:



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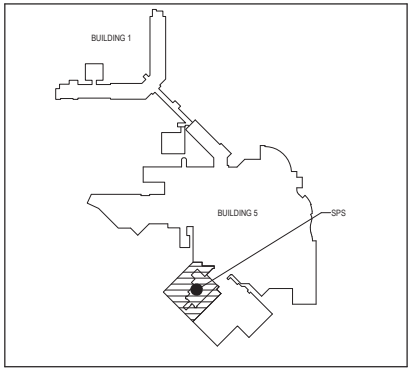

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

ANDERSON

13605 1st Ave. N. 2130 Plymouth, MN 55441
P 763.412.4000 | F 763.412.4090 | an-mn.com
Anderson Engineering of Minnesota, LLC | Proj # 16584

STAMP

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Name: Tom Olesak

Date: 02/14/2025

License Number: 19157

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: COVER SHEET	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS		Project Number: 438-460
Approved:	FULLY SPRINKLERED	Location: Sioux Falls, SD.		Building Number: 5
		Issue Date: 02/14/2025	Checked: LA / Drawn: GJB	Drawing Number: GI000

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VA FORM 08 - 6231

SHEET ABBREVIATION AND NUMBERING

DISCIPLINE DESIGNATOR | SHEET TYPE DESIGNATOR | FLOOR LEVEL | SHEET GROUPING | ZONE NUMBER

AE 1 1 1 - 01

AE 111-01
ARCHITECTURAL ELEMENTS, PLAN, FIRST LEVEL, FLOOR PLAN, ZONE 1

DISCIPLINE DESIGNATOR | SHEET TYPE DESIGNATOR | SHEET GROUPING

AF 6 7 0

AF 670
ARCHITECTURAL FINISHES, FINISH SCHEDULE

DISCIPLINE DESIGNATOR | SHEET TYPE DESIGNATOR | FLOOR LEVEL | SHEET GROUPING | ZONE NUMBER

QH 1 1 0 - 01

QH110-01
EQUIPMENT HOSPITAL, PLAN, FIRST LEVEL, ZONE 1

DISCIPLINE DESIGNATOR | SHEET TYPE DESIGNATOR | SHEET GROUPING

AE 5 1 2

AE 501
ARCHITECTURAL ELEMENTS, EXTERIOR PLAN DETAILS

DISCIPLINE DESIGNATOR	SHEET TYPE DESIGNATOR	FLOOR LEVEL (PLANS ONLY)	SHEET GROUPING
GC - GENERAL CONTRACT GI - GENERAL INFORMATION AC - ARCHITECTURAL RCP AD - ARCHITECTURAL DEMOLITION AS - ARCHITECTURAL SITE AE - ARCHITECTURAL ELEMENTS AF - ARCHITECTURAL FINISHES IF - INTERIOR FURNISHINGS QC - EQUIPMENT LAUNDRY QF - EQUIPMENT FOOD SERVICE QH - EQUIPMENT HOSPITAL QL - EQUIPMENT LABORATORY	0 - GENERAL 1 - PLANS 2 - ELEVATIONS 3 - SECTIONS 4 - LARGE SCALE VIEWS 5 - DETAILS 6 - SCHEDULES & DIAGRAMS	0 - LOWER LEVEL 1 - FIRST LEVEL 2 - SECOND LEVEL 3 - THIRD LEVEL 4 - FOURTH LEVEL	GENERAL: 00-10 - TITLE SHEET, NOTES, ABBREVIATIONS, SYMBOLS, SCHEDULES PLANS: 1 - LEVEL FLOOR PLAN 2 - DIMENSION PLAN ELEVATIONS: 01-10 - EXTERIOR ELEVATIONS 11-19 - INTERIOR ELEVATION SECTIONS: 01-10 - BUILDING SECTIONS 11-19 - WALL SECTIONS 20-29 -STAIR SECTIONS & PLANS DETAILS: 01-19 - EXTERIOR PLAN DETAILS 20-29 - EXTERIOR SECTION DETAILS 30-39 - ROOF DETAILS 40-49 - INTERIOR PLAN DETAILS 50-59 - INTERIOR SECTION DETAILS 60-69 - CEILING DETAILS

	NOT ISSUED
■	ISSUED
R	ISSUED FOR REFERENCE ONLY
N	ISSUED AS NOTED

SHEET INDEX - GENERAL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
G000	COVER SHEET	■
G001	SHEET INDEX	■
G002	ABBREVIATIONS	■
GH01	GROUND LEVEL LIFE SAFETY PLAN	■
GH11	INTERSTITIAL/FIRST LEVEL LIFE SAFETY PLAN	■
GC101	GROUND LEVEL INFECTION CONTROL & LIFE SAFETY PLAN	■
GC111	FIRST LEVEL INFECTION CONTROL & PHASING PLAN	■

SHEET INDEX - CIVIL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
VB101	SITE SURVEY & MAPPING	■
CD101	DEMOLITION PLAN	■
CS101	SITE LAYOUT PLAN	■
CG101	GRADING PLAN	■
CG102	EROSION CONTROL PLAN	■
CU101	UTILITY PLAN	■
CU103	SANITARY SEWER PLAN AND PROFILE	■
CU104	STORM SEWER PLAN AND PROFILE	■
CU105	STORM SEWER PLAN AND PROFILE	■
CU106	WATER LINE PLAN AND PROFILE	■
CP101	PAVING & JOINT LAYOUT PLAN	■
C-501	RAMP SITE DETAILS	■
C-502	STAIRS SITE DETAILS	■
C-503	RETAINING WALL SITE DETAILS	■
C-504	CIVIL DETAILS	■
C-505	CIVIL DETAILS	■
C-506	CIVIL DETAILS	■
C-507	CIVIL DETAILS	■
LP101	PLANTING PLAN	■
LP501	PLANTING DETAILS	■
LF101	SITE FURNISHINGS PLAN	■
LF501	SITE FURNISHINGS DETAILS	■
LF502	SITE FURNISHINGS DETAILS	■
IR101	IRRIGATION PLAN	■
IR501	IRRIGATION DETAILS	■
IR502	IRRIGATION DETAILS	■
IR503	IRRIGATION DETAILS	■
IR504	IRRIGATION DETAILS	■

SHEET INDEX - STRUCTURAL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
SG000	GENERAL NOTES	■
SG001	TESTING SCHEDULES	■
SB100	PARTIAL BASEMENT FOUNDATION PLAN	■
SB101	GROUND LEVEL FOUNDATION PLAN	■
SB102	GROUND LEVEL COLUMN LOADS	■
SB103	ENLARGED PLANS AND SECTIONS	■
SB200	SECTIONS - FOUNDATION	■
SB201	SECTIONS - FOUNDATION	■
SF102	FIRST FLOOR & ROOF FRAMING PLAN	■
SF103	ROOF FRAMING PLAN	■
SF210	SECTIONS - FLOOR	■
SF220	SECTIONS - ROOF	■
SF221	SECTIONS - ROOF	■
SF230	BRACE FRAME ELEVATIONS & SECTIONS	■

SHEET INDEX - HAZARDOUS MATERIALS

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
HA101	ASBESTOS CONTAINING MATERIALS	■
HA102	LEAD CONTAINING MATERIAL	■

SHEET INDEX - ARCHITECTURAL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
AD101	GROUND LEVEL DEMOLITION PLAN	■
AD111	INTERSTITIAL/FIRST LEVEL DEMOLITION PLAN	■
AD520	DEMOLITION WALL SECTIONS AND DETAILS	■
AE101	GROUND LEVEL FLOOR PLAN	■
AE102	GROUND LEVEL DIMENSION PLAN	■
AE111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN	■
AE112	INTERSTITIAL/FIRST LEVEL DIMENSION PLAN	■
AC101	GROUND LEVEL REFLECTED CEILING PLAN	■
AC111	INTERSTITIAL/FIRST LEVEL REFLECTED CEILING PLAN	■
AE121	ROOF PLAN	■
AE201	EXTERIOR ELEVATIONS	■
AE211	INTERIOR ELEVATIONS	■
AE212	INTERIOR ELEVATIONS	■
AE301	BUILDING SECTIONS	■
AE302	BUILDING SECTIONS	■
AE311	WALL SECTIONS	■
AE312	WALL SECTIONS	■
AE313	WALL SECTIONS	■
AE314	WALL SECTIONS	■
AE320	STAIR SECTIONS AND ENLARGED PLANS	■
AE321	STAIR SECTIONS AND ENLARGED PLANS	■
AE322	STAIR SECTIONS - PARTITIONS AT EXISTING STAIR	■
AE411	ENLARGED PLANS & INTERIOR ELEVATIONS	■
AE412	ENLARGED PLANS & INTERIOR ELEVATIONS	■
AE413	ENLARGED PLAN, SECTIONS AND DETAILS - CART WASH	■
AE501	EXTERIOR PLAN DETAILS	■
AE502	EXTERIOR PLAN DETAILS	■
AE503	EXTERIOR PLAN DETAILS	■
AE520	EXTERIOR SECTION DETAILS	■
AE521	EXTERIOR SECTION DETAILS	■
AE530	ROOF DETAILS	■
AE531	ROOF DETAILS	■
AE540	INTERIOR PLAN DETAILS	■
AE541	INTERIOR PLAN DETAILS	■
AE542	INTERIOR PLAN DETAILS	■
AE543	INTERIOR PLAN DETAILS	■
AE550	INTERIOR SECTION DETAILS	■
AE551	INTERIOR SECTION DETAILS	■
AE552	INTERIOR SECTION DETAILS	■
AE560	CEILING DETAILS	■
AE601	INTERIOR PARTITION & WALL TYPES AND DETAILS	■
AE602	DOOR SCHEDULE AND ELEVATIONS, CAST STONE PROFILES AND WINDOW TYPES	■
AE640	MOUNTING HEIGHTS	■

SHEET INDEX - INTERIOR

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
AF101	FINISH PLANS	■
AF102	GROUND LEVEL WALL PROTECTION PLAN	■
AF600	ROOM FINISH SCHEDULE AND INTERIOR FINISH DETAILS	■
AW101	GROUND LEVEL WAYFINDING PLAN	■
AW601	WAYFINDING MESSAGE SCHEDULES & SIGNAGE DETAILS	■

SHEET INDEX - EQUIPMENT

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
QH101	GROUND LEVEL EQUIPMENT PLAN & SCHEDULE	■
QH411	ENLARGED EQUIPMENT PLAN & SCHEDULE	■

SHEET INDEX - FIRE PROTECTION

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
FP000	FIRE PROTECTION COVERSHEET	■
FPD101	GROUND LEVEL DEMOLITION PLAN - FIRE PROTECTION	■
FP101	GROUND LEVEL FLOOR PLAN - FIRE PROTECTION	■
FP111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - FIRE PROTECTION	■
FP400	FIRE PROTECTION DETAILS	■

SHEET INDEX - MECHANICAL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
MV000	VENTILATION COVERSHEET	■
MVD091	PIPE BASEMENT DEMOLITION PLAN - VENTILATION	■
MVD102	GROUND LEVEL FLOOR DEMOLITION PLAN - VENTILATION	■
MVD112	FIRST LEVEL DEMOLITION PLAN - VENTILATION	■
MV091	PIPE BASEMENT FLOOR PLAN - VENTILATION	■
MV101	GROUND LEVEL FLOOR PLAN - VENTILATION	■
MV111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - VENTILATION	■
MV121	ROOF PLAN - VENTILATION	■
MV300	VENTILATION ENLARGED PLANS	■
MV301	VENTILATION ENLARGED PLANS	■
MV400	VENTILATION DETAILS	■
MV401	VENTILATION DETAILS	■
MV402	VENTILATION DETAILS	■
MV600	VENTILATION SCHEDULES	■
MP000	PIPING COVERSHEET	■
MPD091	PIPE BASEMENT DEMOLITION PLAN - PIPING	■
MPD101	GROUND LEVEL FLOOR DEMOLITION PLAN - PIPING	■
MPD111	FIRST LEVEL DEMOLITION PLAN - PIPING	■
MPD151	FIFTH LEVEL DEMOLITION PLAN - PIPING	■
MP091	PIPE BASEMENT FLOOR PLAN - PIPING	■
MP101	GROUND LEVEL FLOOR PLAN - PIPING	■
MP111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - PIPING	■
MP121	ROOF PLAN - PIPING	■
MP400	PIPING DETAILS	■
MP401	PIPING DETAILS	■
MP500	STEAM FLOW DIAGRAM	■
MP601	HEATING WATER FLOW DIAGRAM	■
MP602	CHILLED WATER FLOW DIAGRAM	■
MP800	PIPING SCHEDULES	■
MC000	CONTROLS COVERSHEET	■
MC101	GROUND LEVEL FLOOR PLAN - CONTROLS	■
MC102	FIRST LEVEL FLOOR PLAN - ROOM PRESSURIZATION PLAN	■
MC111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - CONTROLS	■
MC121	ROOF PLAN - CONTROLS	■
MC400	CONTROL DIAGRAMS	■
MC401	CONTROL DIAGRAMS	■
MC402	CONTROL DIAGRAMS	■
MC403	CONTROL DIAGRAMS	■
MC404	CONTROL DIAGRAMS	■

SHEET INDEX - PLUMBING

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
PL000	PLUMBING COVERSHEET	■
PLD100	PIPE BASEMENT DEMOLITION PLAN - PLUMBING	■
PLD101	GROUND LEVEL FLOOR DEMOLITION PLAN - PLUMBING	■
PLD111	FIRST LEVEL DEMOLITION PLAN - PLUMBING	■
PL100	PIPE BASEMENT AND UNDERFLOOR - PLUMBING	■
PL101	GROUND LEVEL FLOOR PLAN - PLUMBING	■
PL111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - PLUMBING	■
PL121	ROOF PLAN - PLUMBING	■
PL300	PLUMBING ENLARGED PLANS	■
PL400	PLUMBING DETAILS	■
PL401	PLUMBING DETAILS	■
PL500	PLUMBING FLOW DIAGRAMS	■
PL600	PLUMBING MATERIAL LISTS	■

SHEET INDEX - ELECTRICAL

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
E000	ELECTRICAL COVERSHEET	■
FA001	ELECTRICAL FIRE ALARM COVERSHEET	■
ES-100	NEW ELECTRICAL SITE PLAN	■
ED101	GROUND LEVEL FLOOR DEMOLITION PLAN - ELECTRICAL	■
ED121	ROOF DEMOLITION PLAN - ELECTRICAL	■
EL101	GROUND LEVEL FLOOR PLAN - LIGHTING	■
EL111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - LIGHTING	■
EP101	GROUND LEVEL FLOOR PLAN - POWER	■
EP102	PARTIAL GROUND LEVEL FLOOR PLAN - POWER	■
EP111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - POWER	■
EP121	ROOF PLAN - POWER	■
EP151	FIFTH LEVEL FLOOR PLAN - POWER	■
FA101	GROUND LEVEL FLOOR PLAN - FIRE ALARM	■
FA111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - FIRE ALARM	■
E400	ELECTRICAL DETAILS	■
E401	ELECTRICAL DETAILS	■
E402	ELECTRICAL DETAILS	■
ES00	ELECTRICAL ONE-LINE DIAGRAMS	■
ES01	ELECTRICAL ONE-LINE DIAGRAMS	■
EB00	ELECTRICAL SCHEDULES	■
EB01	ELECTRICAL SCHEDULES	■

SHEET INDEX - TECHNOLOGY

SHEET NO.	SHEET TITLE	BID DOCUMENTS 02/14/2025
T000	TECHNOLOGY COVERSHEET	■
T001	GROUND LEVEL OVERALL PLAN - TECHNOLOGY	■
T002	LEVEL 01 OVERALL PLAN - TECHNOLOGY	■
TD101	GROUND LEVEL FLOOR DEMOLITION PLAN - TECHNOLOGY	■
T101	GROUND LEVEL FLOOR PLAN - TECHNOLOGY	■
T111	INTERSTITIAL/FIRST LEVEL FLOOR PLAN - TECHNOLOGY	■
T300	TECHNOLOGY ROOM ENLARGEMENTS	■
T400	TECHNOLOGY DETAILS	■
T500	TECHNOLOGY RISER DIAGRAMS	■
T600	TECHNOLOGY SCHEDULES	■

Revisions:	Date:

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Anderson Engineering of Minnesota, LLC | Proj # 16584

STAMP

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.

Name: Tom Olesak
Date: 02/14/2025
License Number: 19157

Office of Construction and Facilities Management
VA | U.S. Department of Veterans Affairs

Drawing Title: SHEET INDEX
Approved:

Phase: BID DOCUMENTS
Project Title: CONSTRUCT NEW SPS
Project Number: 438-460
Building Number: 5
FULLY SPRINKLERED
Location: Sioux Falls, SD.
Issue Date: 02/14/2025
Checked: LA
Drawn: GJB
Drawing Number: GI001

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VA FORM 08 - 6231

ARCHITECTURAL ABBREVIATIONS

A/C	AIR CONDITION
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSN
AAP	ALARM ANNUNCIATOR PANEL
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ACC	ACCESSIBLE
ACI	AMERICAN CONCRETE INSTITUTE
ACT	ACOUSTICAL CEILING TILE
ACS DR	ACCESS DOOR
ACS FLR	ACCESS FLOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADC	AUTOMATIC DOOR CLOSER
ADDL	ADDITIONAL
ADDN	ADDITION
ADH	ADHESIVE
ADJ	ADJACENT, ADJOINING, OR ADJUSTABLE
ADMIN	ADMINISTRATION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGC	ASSOCIATED GENERAL CONTRACTORS
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHR	ANCHOR
AHU	AIR HANDLING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALT NO	ALTERNATE NUMBER
ALUM	ALUMINUM
AMT	AMOUNT
ANOD	ANODIZE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
AP	ACCESS PANEL
APA	AMERICAN PLYWOOD ASSOCIATION
APC	ARCHITECTURAL PRECAST CONCRETE
APPD	APPROVED
APPROX	APPROXIMATE
AR	AS REQUIRED
ARCH	ARCHITECT
ASB	ASBESTOS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASKLR	AUTOMATIC SPRINKLER
ASPH	ASPHALT
ASSN	ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATCH	ATTACHMENT
ATM	AUTOMATIC TELLER MACHINE
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AVG	AVERAGE
AW	ACID WASTE
AWI	ARCHITECTURAL WOODWORKING INSTITUTE
AWPA	AMERICAN WOOD PRESERVERS' ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
B PL	BASE PLATE
BAT	BATTEN
BD	BOARD
BD FT	BOARD FEET (FOOT)
BEV	BEVEL
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BI FLD DR	BIFOLDING DOORS
BITUM	BITUMINOUS
BKG	BACKING
BLD	BUILD
BLDG	BUILDING
BM	BEAM OR BENCHMARK
BOT	BOTTOM
BRCG	BRACING
BRDG	BRIDGING
BRDG JST	BRIDGING JOIST
BRG	BEARING
BRG PL	BEARING PLATE
BRKT	BRACKET
BRZ	BRONZE
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
C CONC	CAST CONCRETE
C TO C	CENTER TO CENTER
CAB	CABINET
CAC	CEILING ATTENUATION CLASS
CB	CATCH BASIN OR CORNER BEAD
CBB	CEMENTITIOUS (BACKER) BOARD
CCD	CONSTRUCTION CHANGE DIRECTIVE
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CD	CONSTRUCTION DOCUMENTS OR CONTRACT DOCUMENTS
CEM	CEMENT
CEM PLAS	CEMENT PLASTER
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFLG	COUNTERFLASHING
CFMF	COLD-FORMED METAL FRAMING
CG	CORNER GUARD
CGSFU	CERAMIC GLAZED STRUCTURAL FACING UNITS
CH	COAT HOOK
CHEM	CHEMICAL
CHFR	CHAMFER
CHK	CHECK
CI	CAST IRON
CIP	CAST-IN-PLACE
CIR	CIRCLE
CIRC	CIRCULAR
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CL	CENTER LINE
CLDG	CLADDING
CLG	CEILING
CLR	CLEAR
CM	CONSTRUCTION MANAGEMENT
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CNTR	COUNTER
CRTP	COUNTERTOP
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COL	COLUMN
COM	COMMON
COMB	COMBINATION, COMBINED
COMM	COMMUNICATION
COMP	COMPONENT
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
COND	CONDENSER OR CONDITION
CONF	CONFERENCE
CONN	CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPM	CRITICAL PATH METHOD
CPRS	COMPRESSIBLE
CR	CARD READER
CRS	COLD ROLLED STEEL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSB	CONCRETE SPLASH BLOCK
CSG	CASING
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSK	COUNTER SUNK
CSMT	CASEMENT
CSWK	CASEWORK
CTG	COATING
CTR	CENTER
CTRL	CONTROL
CTV	CABLE TELEVISION
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CURT	CURTAIN
CYL	CYLINDER
CYL L	CYLINDER LOCK
D	DEPTH OR PENNY (NAIL)
DAT	DATUM
DBL	DOUBLE
DBL GLZ	DOUBLE GLAZE
DCS	DIAPER CHANGING STATION
DP	DECORATIVE PANEL
DEG	DEGREE
DEL	DELETE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFERENCE OR DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVIDE OR DIVISION
DL	DEAD LOAD
DOC	DOCUMENT
DR	DOOR, DRAIN, DRESSING ROOM, OR DRIVE
DR CL	DOOR CLOSER
DR FR	DOOR FRAME
DR OPNG	DOOR OPENING
DS	DOWNSPOUT
DSGN	DESIGN
DW	DISHWASHER
DWG	DRAWING
E	EAST
EA	EACH
EFF	EFFICIENCY
EFS	EXTERIOR FINISH SYSTEM
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC
ELEC DR OP	ELECTRIC DOOR OPENER
ELEV	ELEVATOR
EMER	EMERGENCY
EMER SHR	EMERGENCY SHOWER
ENCL	ENCLOSURE
ENGR	ENGINEER
ENVIR	ENVIRONMENT
EO	ELECTRICAL OUTLET
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPO	EMERGENCY POWER OFF
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ERD	EXISTING ROOF DRAIN
ESC	ESCAPE OR ESCUTCHEON
ESMT	EASEMENT
ESP	ESPECIALLY
EST	ESTIMATE
ETC	AND SO FORTH OR ET CETERA
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWS	EYE WASH STATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXP BT	EXPANSION BOLT
EXST GR	EXISTING GRADE
EXT	EXTERIOR, EXTERNAL, OR EXTINGUISHER
EXT GR	EXTERIOR GRADE
F	FAHRENHEIT OR FEMALE
FA	FIRE ALARM
FAB	FABRIC
FAC	FACTOR
FACIL	FACILITY
FAS	FASCIA
FAS BD	FASCIA BOARD
FCU	FAN COIL UNIT
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FACE
FF EL	FINISH FLOOR ELEVATION
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FIG	FIGURE
FIL	FILLET
FIN	FINISH
FIN FLR	FINISH FLOOR
FIN GR	FINISH GRADE
FIN WD	FINISH WOOD
FIXT	FIXTURE
FL	FLOORLINE
FLASH	FLASHING
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLR	FLOOR
FLR FIN	FLOOR FINISH
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FLUOR FIX	FLUORESCENT FIXTURE
FM	FACTORY MUTUAL
FM-G	FACTORY MUTUAL GLOBAL
FO	FINISHED OPENING
FOC	FACE OF CONCRETE OR FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF SLAB OR FACE OF STUD
FOUNT	FOUNTAIN
FOW	FACE OF WALL
FP	FIRE PROTECTION OR FIREPROOF
FR	FIRE RATING, FIRE RESISTANT, OR FRAME
FR SNK	FLUSHING RIM SINK
FREQ	FREQUENCY
FRMG	FRAMING
FRP	FIBERGLASS REINFORCED PLASTIC
FRZ	FREEZER
FS	FEDERAL SPECIFICATION
FSB	FOLDING SHOWER BENCH
FSTNR	FASTENER
FT	FEET OR FOOT
FTG	FOOTING
FURG	FURRING
FURN	FURNISH OR FURNITURE
FUT	FUTURE
FVC	FIRE VALVE CABINET
GA	GAGE OR GYPSUM ASSOCIATION
GAL	GALLON
GALV	GALVANIC OR GALVANIZED
GALV STL	GALVANIZED STEEL
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GD	GUARD
GDR	GUARD RAIL
GEN	GENERAL OR GENERATOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GFRP	GLASS-FIBER-REINFORCED PLASTIC
GI	GALVANIZED IRON
GL	GLASS
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED WOOD
GP	GRAB BAR
GR FL	GROUND FLOOR
GRAN	GRANITE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSU	GLAZED STRUCTURAL UNIT
GT	GROUT
GUAR	GUARANTEE
GUT	GUTTER
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
H	HIGH OR HUMIDISTAT
HAZ MAT	HAZARDOUS MATERIALS
HB	HOSE BIBB
HC	HOLLOW CORE
HCWD	HOLLOW CORE WOOD DOOR
HDBD	HARDBOARD
HDO	HIGH DENSITY OVERLAY
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HEX	HEXAGON
HGR	HANGER
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HOSP	HOSPITAL
HP	HIGH PRESSURE
HPD	HYGIENE PRODUCT DISPOSAL
HPDL	HIGH PRESSURE DECORATIVE LAMINATE
HQ	HEADQUARTERS
HS	HEAT-STRENGTHENED (GLASS) OR HIGH STRENGTH
HSE	HOUSE
HSKPG	HOUSEKEEPING
HST	HOIST
HSS	HOLLOW STRUCTURAL STEEL
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVY	HEAVY
HW	HOT WATER
HYD	HYDRANT
HYDR	HYDRAULIC
IAQ	INDOOR AIR QUALITY
IBC	INTERNATIONAL BUILDING CODE
IC	INFECTION CONTROL
ICW	INFECTION CONTROL WALL
ID	INSIDE DIAMETER
ID NO	IDENTIFICATION NUMBER
ILLUM	ILLUMINATION
INCL	INCLUDED
IND	INDEPENDENT OR INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INTL	INTERNATIONAL
IWH	INSTANTANEOUS WATER HEATER
JAN	JANITOR
KD	KILN DRIED OR KNOCKED DOWN
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	ANGLE
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAU	LAUNDRY
LAV	LAVATORY
LBR	LUMBER
LBS	POUND
LCS	LOCKABLE CHARTING STATION/MED CABINET
LD BRG	LOAD-BEARING
LDR	LEADER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LIB	LIBRARY
LIN	LINEAR
LIQ	LIQUID
LKR	LOCKER
LKR RM	LOCKER ROOM
LL	LEAD LINED
LMST	LIMESTONE
LRG	LARGE
LRV	LOUVERED ROOF VENT
LS	LIGHT SWITCH
LT	LIGHT
LT GA	LIGHT GAGE
LT WT	LIGHTWEIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LVD	LOUVERED
LVR	LOUVER
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
LYR	LAYER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MBD	MARKER BOARD
MCB	METAL CORNER BEAD
MD	DECK
ME	MECHANICAL ENGINEER
MEAS	MEASURE
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MED	MEDICAL, MEDIUM
MEK	METHYL ETHYL KETONE
MEMB	MEMBRANE
MEMO	MEMORANDUM
MEZZ	MEZZANINE
MF	MILL FINISH
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MFR REC	MANUFACTURER'S RECOMMENDATION
MGT	MANAGEMENT
MIC	MICROPHONE
MID	MIDDLE
MIL STD	MILITARY STANDARD
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MIT	MITER
MKR	MARKER
ML	METAL LATH
MLDG	MOLDING (MOULDING)
MLWK	MILLWORK
mm	MILLIMETER
MO	MASONRY OPENING
MOD	MODEL, MODIFY OR MODULE
MOD BIT	MODIFIED BITUMEN
MON	MONITOR
MOPR	MOP RACK
MR	MOISTURE RESISTANT
MS	MOP SINK
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
MW	MICROWAVE
MWP	MEMBRANE WATERPROOFING
N	NORTH
NA	NOT APPLICABLE
NAT	NATURAL
NATL	NATIONAL
NC	NOISE CRITERIA OR NURSE CALL
NCOMBL	NONCOMBUSTIBLE
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSN
NEUT	NEUTRAL
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NRP	NONREMOVABLE
NS	NARROW STILE
NUM	NUMERAL
O/O	OUT TO OUT
O	OXYGEN
OA	OUTSIDE AIR OR OVERALL
OC	ON CENTER
OCC	OCCUPY
OCT	OCTAGON
OD	OUTSIDE DIAMETER, OUTSIDE DIMENSION
OD	OUTSIDE DIAMETER/OUTSIDE DIMENSION
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHANG
OH DR	OVERHEAD (COILING) DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPR	OPERABLE
OPT	OPTIONAL
OR	OPERATING ROOM OR OUTSIDE RADIUS
ORD	ORDNANCE OR OVERFLOW ROOF DRAIN
ORG	ORGANIC
ORIG	ORIGINAL
ORN	ORNAMENTAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINSTRATION
OUT	OUTLET
OZ	OUNCE
P	PAINT
PAR	PARALLEL OR PARAPET
PARA	PARAGRAPH
PART	PARTIAL
PAT	PATTERN
PB	PUSHBUTTON
PBD	PARTICLEBOARD
PC	PIECE, POLYCARBONATE OR PORTLAND CEMENT
PCA	PORTLAND CEMENT ASSOCIATION
PCC	PRECAST CONCRETE
PCCP	CONCRETE PAVEMENT
PCD	PAPER CUP DISPENSER
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PCT	PRIVACY CURTAIN TRACK
PED	PEDESTAL
PEN	PENETRATE
PEND	PENDANT
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PHAR	PHARMACY
PHOTO	PHOTOGRAPH
PKG	PACKAGE
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER OR PLASTIC
PLBG	PLUMBING
PLYWD	PLYWOOD
PMTL	PAINTED METAL
PNEU	PNEUMATIC
PNL	PANEL
PO	POST OFFICE, PURCHASE ORDER
POLY	POLYETHYLENE (PLASTIC)
PP	PUSH PLATE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATE
PREFIN	PREFINISH
PRELIM	PRELIMINARY
PREP	PREPARATION
PRESS	PRESSURE
PREV	PREVIOUS
PRKG	PARKING
PRMLD	PREMOLDED
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PORCELAIN TILE OR PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVG	PAVING
PWR	POWER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QRY	QUARRY
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
QUAL	QUALITY
R	RADIUS OR RISER
RA	RETURN AIR
RAD	RADIATOR
RBM	REINFORCED BRICK MASONRY
RBR	RUBBER
RC	REMOTE CONTROL
RCP	REFLECTED CEILING PLAN
RCVR	RECEIVER
RD	ROAD OR ROOF DRAIN
REC	RECESSED
RECD	RECEIVED
RECPT	RECEPTACLE
RECT	RECTANGLE
REF	REFERENCE OR REFRIGERATOR
REFR	REFRACTORY, REFRIGERATION
REG	REGISTER
REINF	REINFORCE
REP	REPAIR
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RET	RETURN
REV	REVISION
RFG	ROOFING
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RFS	ROOM FINISH SCHEDULE
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RM LT	NURSE CALL LIGHT/ROOM LIGHT
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RS	ROUGH SAWN
RSV	RESILIENT SHEET VINYL
RT	RIGHT
RV	ROOF VENT
RVS	REVERSE
RWL	RAIN WATER LEADER
S	SOLID SURFACE
SA	SUPPLY AIR
SALV	SALVAGE
SAMP	SAMPLE
SAN	SANITARY
SB	SPLASH BLOCK
SBS	STYRENE BUTADIEN STYRENE
SBSTR	SUBSTRATE
SC	SHARPS CONTAINER
SCH	SCHOOL
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCP	SCUPPER
SCRN	SCREEN
SCT	SHOWER CURTAIN TRACK
SCWD	SOLID CORE WOOD DOOR
SD	SMOKE DETECTOR/SOAP DISPENSER
SDG	SIDING
SECT	SECTION
SEG	SEGMENT
SEL	SELECT
SEP	SEPARATE
SF	SQUARE FOOT (FEET)
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SGL	SINGLE
SHR	SHOWER
SHR HD	SHOWER HEAD
SHRD	SHOWER DRAIN
SHT	SHEET
SHTG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SJ	SCORED JOINT
SJI	STEEL JOIST INSTITUTE
SK	SKETCH
SKLT	SKYLIGHT
SLDG	SLIDING
SLNT	SEALANT
SM	SHEET METAL
SMK	SMOKE
SND INS	SOUND INSULATION
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SPLY	SUPPLY
SPR	SINGLE PLY ROOF SYSTEM
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SST	STAINLESS STEEL
ST	STAIRS OR STREET
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL JST	STEEL JOIST
STL LNTL	STEEL LINTEL
STL PL	STEEL PLATE
STL RF DK	STEEL ROOF DECK
STL TB	STEEL TUBE
STL TR	STEEL TRUSS
STNLS	STAINLESS
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SUB	SUBSTITUTE
SURF	SURFACE
SUSP	SUSPEND
SUSP CLG	SUSPENDED CEILING
SW	SWITCH
SWDR	SWING DOOR
SYM	SYMBOL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	TREAD OR THERMOSTAT
T&M	TIME AND MATERIALS
TB	TOWEL BAR
TBD	TACK BOARD
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE OR TEMPORARY
THERM	THERMAL
THK	THICKNESS
THRES	THRESHOLD
THRU	THROUGH
THRUOUT	THROUGHOUT
TMPD	TEMPERED
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TO	TOP OF ____
TO FDN	TOP OF FOUNDATION
TOB	TOP OF BEAM
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TRANS	TRANSOM
TRTD	TREATED
TS	TUBE STEEL
TSTAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UC	UNDERCUT
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
ULT	ULTIMATE
UNFIN	UNFINISH
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
UV	ULTRAVIOLET
VAC	VACUUM
VAR	VARIES
VEH	VEHICLE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VFD	VARIABLE FREQUENCY DRIVE
VIC	VICINITY
VID	VIDEO
VIF	VERIFY IN FIELD
VNR	VENEER
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WBL	WOOD BLOCKING
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WFR	WOOD FRAME
WFS	WOOD FURRING STRIPS
WH	WATER HEATER
WHSE	WAREHOUSE
WP	WATERPROOFING
WPM	WATERPROOF MEMBRANE
WR	WEATHER RESISTANT
WS	WEATHERSTRIP OR WALL SCONCE
WSCT	WAINSCOT
WT	WEIGHT OR WINDOW TREATMENT
X BRACE	CROSS BRACE
XPS	EXTRUDED POLYSTYRENE BOARD
YD	YARD

Revisions: | Date:

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STAMP

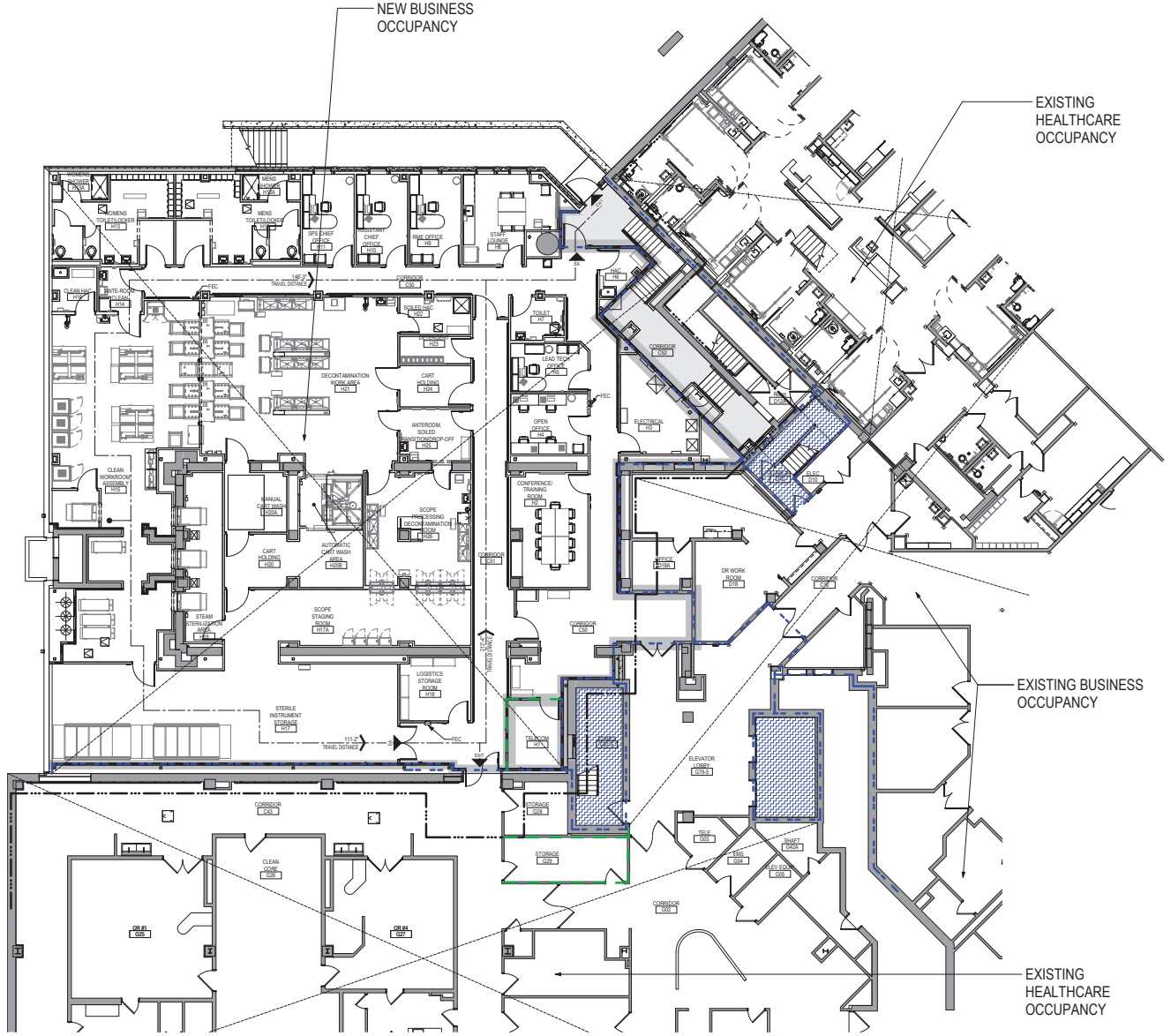
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Name: Tom Olesak
Date: 02/14/2025
License Number: 18157

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ABBREVIATIONS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
			Building Number: 5
Approved:	FULLY SPRINKLERED	Location: Sioux Falls, SD.	Drawing Number: GI002
		Issue Date: 02/14/2025 · Checked: - · Drawn: GJB	

VA FORM 08 - 6231



1 GROUND LEVEL FLOOR PLAN
1/8" = 1'-0"

0 4' 8' 16'

CODE SUMMARY

PROJECT DESCRIPTION
ADDITION TO AND REMODELING OF BUILDING 5 FOR STERILE PROCESSING SERVICE LINE.

GENERAL TYPE OF PROJECT

	YES	NO
NEW BUILDING		●
ADDITION	●	
REMODEL	●	

PHYSICAL SECURITY AND RESILIENCY CLASSIFICATION OF PROJECT

MISSION CRITICAL (MC)	●	
LIFE-SAFETY PROTECTED (LSP)		
LIFE-SAFETY PROTECTED (LSP) WITH MC UTILITIES / SYSTEMS REDUNDANCIES		

AUTHORITIES HAVING JURISDICTION (AHJ's)

	YES	NO
THE JOINT COMMISSION (TJC)	●	
VETERANS ADMINISTRATION (VA)	●	
		●

APPLICABLE REGULATIONS

- 2021 NFPA 101 (LIFE SAFETY CODE)
- 2018 IBC
- ABA STANDARDS (2015) (ABAAS)
- VA BARRIER FREE DESIGN STANDARD (PG-18-13)
- NFPA NATIONAL FIRE CODES (EXCEPTION: NFPA 5000 & 900)
- 2018 FGI GUIDELINES
- OSHA STANDARDS
- VA SEISMIC DESIGN REQUIREMENTS H-18-8
- NATIONAL ELECTRIC CODE (NEC)
- ASHRE 90.1
- ASME BOILER AND PRESSURE VESSEL CODE
- ASME CODE FOR PRESSURE PIPING
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE AND COMETARY (ACI 318)
- MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- ENERGY POLICY ACT OF 2005 (EPAct)
- DOE INTERIM FINAL RULE: ENERGY CONSERVATION STANDARDS FOR NEW FEDERAL, COMMERCIAL AND MULTI-FAMILY HIGH-RISE RESIDENTIAL BUILDINGS AND NEW LOW-RISE RESIDENTIAL BUILDINGS, 10 CFR PARTS 433,434 AND 435
- FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)
- EXECUTIVE ORDER 13834
- THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIREMENTS SECTION 01010 OF THE VA MASTER CONSTRUCTION SPECIFICATION
- VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1-2004
- SAFETY STANDARD FOR REFRIGERATION SYSTEMS - ASHRAE STANDARD 15 -2007
- VA FIRE PROTECTION DESIGN MANUAL
- VA PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL (2015)
- VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL)

OCCUPANCY CLASSIFICATION(S)

OCCUPANCIES	(LSC CH 12-42)	BUSINESS	YES / NO
CHANGE OF OCCUPANCY?	(If Remodeling)		●
SEPARATED OCCUPANCIES?	2021 LSC (TABLE 6.1.14.1)	●	
FIRE BARRIER RATING(S)	(Section 8.3)	SEE LIFE SAFETY PLANS	

TYPE(S) OF CONSTRUCTION

CONSTRUCTION TYPE(S)	(NAPA 220 TABLE 4.1.1)	II (222)
AREA SEPARATIONS / FIRE WALLS		SEE LIFE SAFETY PLANS

EGRESS

	YES	NO
AREAS OF REFUGE REQUIRED		●
ACCESSIBLE MEANS OF EGRESS ("MOE") REQUIRED		
ELEVATOR REQUIRED AS MEANS OF EGRESS		
MEANS OF EGRESS CAPACITY (width in inches)	(Hdpd)	

PLUMBING FIXTURES

	PROVIDED	RQD	FACTOR (IBC Ch 29)
TOILETS	5	2 M, 2 F	1/25 for first 50 occupants, then 1/50
URINALS	0	--	--
LAVATORIES	5	3	1/40 for first 80 occupants, then 1/80. 1/100 occupants. 50% may be omitted
DRINKING FOUNTAINS	1	1	--
SERVICE SINKS	3	1	--

FIRE-RESISTIVE REQUIREMENTS

	RATING (HRS)	TEST
STRUCTURAL FRAME		
COLUMNS	2HR	ASTM E119
GIRDERS	2HR	ASTM E119
TRUSSES	2HR	ASTM E119
BEARING WALLS		
EXTERIOR BEARING WALLS	2HR	ASTM E119
INTERIOR BEARING WALLS	2HR	ASTM E119
NON-BEARING WALLS AND PARTITIONS		
EXTERIOR	0HR	NA
INTERIOR	See Life Safety Plans	
FLOOR CONSTRUCTION		
FLOOR/CEILING ASSEMBLY	2HR	ASTM E119
PRIME & SEC. FLOOR BEAMS, JOISTS	1HR	ASTM E119
ROOF CONSTRUCTION		
ROOF/CEILING ASSEMBLY	2HR	ASTM E119
PRIME & SEC. ROOF BEAMS, JOISTS	2HR	ASTM E119
OTHER		
SHAFTS AND EXIT PASSAGEWAYS	2HR	ASTM E119
EXTERIOR DOORS AND WINDOWS	0HR	NA

MISCELLANEOUS

	YES	NO
FIRE RESISTIVE CORRIDORS?		●
SMOKE TIGHT CORRIDORS (SMOKE PARTITIONS)		●
INCIDENTAL USE AREA RATING(S)		SEE PLANS
INTERIOR FINISHES CLASSIFICATION	EXITS	A or B
	EXIT ACCESS CORRIDORS	A or B
	OTHER SPACES	A, B or C

ADDITIONAL NOTES
--

LIFE SAFETY SYMBOLS

	SMOKE TIGHT ASSEMBLY		1 HOUR FIRE & SMOKE BARRIER
	1 HOUR FIRE BARRIER		2 HOUR FIRE & SMOKE BARRIER
	2 HOUR FIRE BARRIER		3 HOUR FIRE & SMOKE BARRIER
	3 HOUR FIRE BARRIER	TRAVEL DISTANCE 100'-10"	TRAVEL DISTANCE
EXIT	EXIT	ED	EXIT DISCHARGE
HE	HORIZONTAL EXIT	EA	EXIT ACCESS
FE	FIRE EXTINGUISHER	FEC	FIRE EXTINGUISHER CABINET
	LIMITS OF CONSTRUCTION		OCCUPANCY SEPARATION
	SMOKE COMPARTMENT BOUNDARY		HEALTH CARE SUITE

SHAFT
ADJACENT SYMBOLS SHOW PARTITION RATING AND DAMPER REQUIREMENTS

HAZARDOUS USE
ADJACENT SYMBOLS SHOW PARTITION RATING. OPENINGS REQUIRE CLOSER & LATCH

EXIT PASSAGEWAY
RATE AS STAIR
ALL OPENINGS TO BE RATED AS STAIR SHAFT

CORRIDOR
WALLS TO LIMIT THE TRANSFER OF SMOKE

ADJUNCT CORRIDOR or PSYCHIATRIC AREA
or CONSTRUCTED WITH MIN. 4'-0" CLEAR
WITH (PER CHAPTER 19)

NOTE: NOT ALL SYMBOLS MY BE USED ON EACH PLAN

Revisions:	Date:

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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Name: Tom Olesak
Date: 02/14/2025
License Number: 19157

Office of Construction and Facilities Management
VA | U.S. Department of Veterans Affairs

Drawing Title: GROUND LEVEL LIFE SAFETY PLAN
Approved:

Phase: BID DOCUMENTS
FULLY SPRINKLERED

Project Title: CONSTRUCT NEW SPS
Location: Sioux Falls, SD.
Issue Date: 02/14/2025
Checked: LA
Drawn: GJB

Project Number: 438-460
Building Number: 5
Drawing Number: GI101

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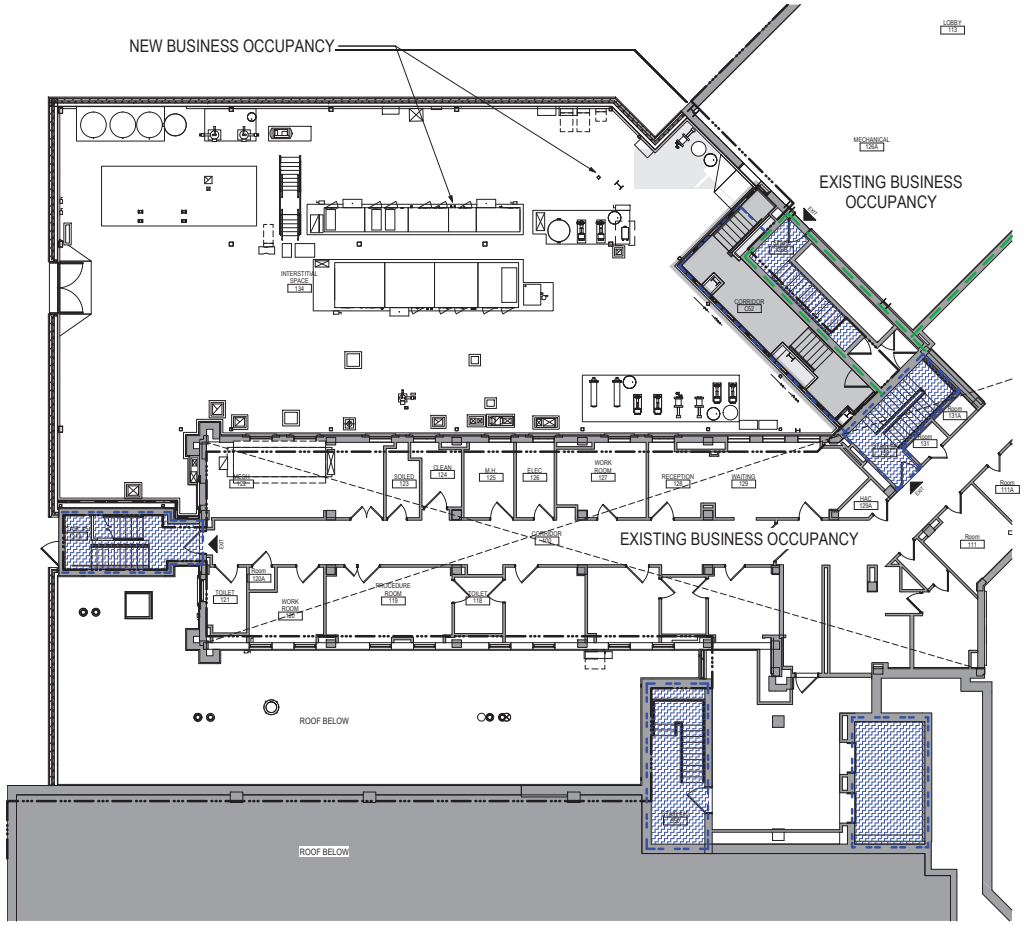

1 INTERSTITIAL / FIRST LEVEL LIFE SAFETY PLAN
1/8" = 1'-0"

CODE SUMMARY

PROJECT DESCRIPTION
ADDITION TO AND REMODELING OF BUILDING 5 FOR STERILE PROCESSING SERVICE LINE.

GENERAL TYPE OF PROJECT

	YES	NO
NEW BUILDING		●
ADDITION	●	
REMODEL	●	

PHYSICAL SECURITY AND RESILIENCY CLASSIFICATION OF PROJECT

MISSION CRITICAL (MC)	●	
LIFE-SAFETY PROTECTED (LSP)		
LIFE-SAFETY PROTECTED (LSP) WITH MC UTILITIES / SYSTEMS REDUNDANCIES		

AUTHORITIES HAVING JURISDICTION (AHJ's)

	YES	NO
THE JOINT COMMISSION (TJC)	●	
VETERANS ADMINISTRATION (VA)	●	
		●

APPLICABLE REGULATIONS
- 2021 NFPA 101 (LIFE SAFETY CODE)
- 2018 IBC
- ABA STANDARDS (2015) (ABAAS)
- VA BARRIER FREE DESIGN STANDARD (PG-18-13)
- NFPA NATIONAL FIRE CODES (EXCEPTION: NFPA 5000 & 900)
- 2018 FGI GUIDELINES
- OSHA STANDARDS
- VA SEISMIC DESIGN REQUIREMENTS H-18-8
- NATIONAL ELECTRIC CODE (NEC)
- ASHRE 90.1
- ASME BOILER AND PRESSURE VESSEL CODE
- ASME CODE FOR PRESSURE PIPING
- BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE AND COMETARY (ACI 318)
- MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
- ENERGY POLICY ACT OF 2005 (EPAct)
- DOE INTERIM FINAL RULE: ENERGY CONSERVATION STANDARDS FOR NEW FEDERAL, COMMERCIAL AND MULTI-FAMILY HIGH-RISE RESIDENTIAL BUILDINGS AND NEW LOW-RISE RESIDENTIAL BUILDINGS, 10 CFR PARTS 435-434 AND 435
- FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)
- EXECUTIVE ORDER 13834
- THE PROVISIONS FOR CONSTRUCTION AND SAFETY SIGNS. STATED IN THE GENERAL REQUIREMENTS SECTION 01010 OF THE VA MASTER CONSTRUCTION SPECIFICATION
- VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1-2004
- SAFETY STANDARD FOR REFRIGERATION SYSTEMS - ASHRAE STANDARD 15 -2007
- VA FIRE PROTECTION DESIGN MANUAL
- VA PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL (2015)
- VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL)

OCCUPANCY CLASSIFICATION(S)

		YES	NO
OCCUPANCIES (LSC CH 12-42)	BUSINESS		
CHANGE OF OCCUPANCY?	(If Remodeling)		●
SEPARATED OCCUPANCIES?	2021 LSC (TABLE 6.1.14.1)		●
FIRE BARRIER RATING(S)	(Section 8.3) SEE LIFE SAFETY PLANS		

TYPE(S) OF CONSTRUCTION

CONSTRUCTION TYPE(S)	(NAPA 220 TABLE 4.1.1) II (222)
AREA SEPARATIONS / FIRE WALLS	SEE LIFE SAFETY PLANS

EGRESS

	YES	NO
AREAS OF REFUGE REQUIRED		●
ACCESSIBLE MEANS OF EGRESS ("MOE") REQUIRED		
ELEVATOR REQUIRED AS MEANS OF EGRESS		
MEANS OF EGRESS CAPACITY (width in inches)	(Input)	

PLUMBING FIXTURES

	PROVIDED	ROD	FACTOR (IBC CH 29)
TOILETS	5	2 M, 2 F	1/25 for first 50 occupants, then 1/50
URINALS	0	--	--
LAVATORIES	5	3	1/40 for first 80 occupants, then 1/80
DRINKING FOUNTAINS	1	1	1/100 occupants, 50% may be vending
SERVICE SINKS	3	1	--

FIRE-RESISTIVE REQUIREMENTS

	RATING (HRS)	TEST
STRUCTURAL FRAME		
COLUMNS	2HR	ASTM E119
GIRDERS	2HR	ASTM E119
TRUSSES	2HR	ASTM E119
BEARING WALLS		
EXTERIOR BEARING WALLS	2HR	ASTM E119
INTERIOR BEARING WALLS	2HR	ASTM E119
NON-BEARING WALLS AND PARTITIONS		
EXTERIOR	0HR	NA
INTERIOR	See Life Safety Plans	
FLOOR CONSTRUCTION		
FLOOR/CEILING ASSEMBLY	2HR	ASTM E119
PRIME & SEC. FLOOR BEAMS, JOISTS	1HR	ASTM E119
ROOF CONSTRUCTION		
ROOF/CEILING ASSEMBLY	2HR	ASTM E119
PRIME & SEC. ROOF BEAMS, JOISTS	2HR	ASTM E119
OTHER		
SHAFTS AND EXIT PASSAGEWAYS	2HR	ASTM E119
EXTERIOR DOORS AND WINDOWS	0HR	NA

MISCELLANEOUS

	YES	NO
FIRE RESISTIVE CORRIDORS?		●
SMOKE TIGHT CORRIDORS (SMOKE PARTITIONS)		●
INCIDENTAL USE AREA RATING(S)		SEE PLANS
INTERIOR FINISHES CLASSIFICATION	EXITS	A or B
	EXIT ACCESS CORRIDORS	A or B
	OTHER SPACES	A, B or C

ADDITIONAL NOTES
--

LIFE SAFETY SYMBOLS

	SMOKE TIGHT ASSEMBLY		1 HOUR FIRE & SMOKE BARRIER
	1 HOUR FIRE BARRIER		2 HOUR FIRE & SMOKE BARRIER
	2 HOUR FIRE BARRIER		3 HOUR FIRE & SMOKE BARRIER
	3 HOUR FIRE BARRIER	TRAVEL DISTANCE 100'-10"	TRAVEL DISTANCE
EXIT	EXIT	ED	EXIT DISCHARGE
HE	HORIZONTAL EXIT	EA	EXIT ACCESS
FE	FIRE EXTINGUISHER	FEC	FIRE EXTINGUISHER CABINET
	LIMITS OF CONSTRUCTION		OCCUPANCY SEPARATION
	SMOKE COMPARTMENT BOUNDARY		HEALTH CARE SUITE

SHAFT
ADJACENT SYMBOLS SHOW PARTITION RATING AND DAMPER REQUIREMENTS

HAZARDOUS USE
ADJACENT SYMBOLS SHOW PARTITION RATING. OPENINGS REQUIRE CLOSER & LATCH

EXIT PASSAGEWAY
RATE AS STAIR
ALL OPENINGS TO BE RATED AS STAIR SHAFT

CORRIDOR
WALLS TO LIMIT THE TRANSFER OF SMOKE

ADJUNCT CORRIDOR or PSYCHIATRIC AREA or CONSTRUCTED WITH MIN. 4'-0" CLEAR WITH (PER CHAPTER 19)

NOTE: NOT ALL SYMBOLS MY BE USED ON EACH PLAN

Revisions:	Date:

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STAMP
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Name: Tom Olesak
Date: 02/14/2025
License Number: 19157

Office of Construction and Facilities Management
VA | U.S. Department of Veterans Affairs

Drawing Title: INTERSTITIAL/FIRST LEVEL LIFE SAFETY PLAN
Approved:

Phase: BID DOCUMENTS
FULLY SPRINKLERED

Project Title: CONSTRUCT NEW SPS
Location: Sioux Falls, SD.
Issue Date: 02/14/2025
Checked: LA
Drawn: GJB

Project Number: 438-460
Building Number: 5
Drawing Number: GI111

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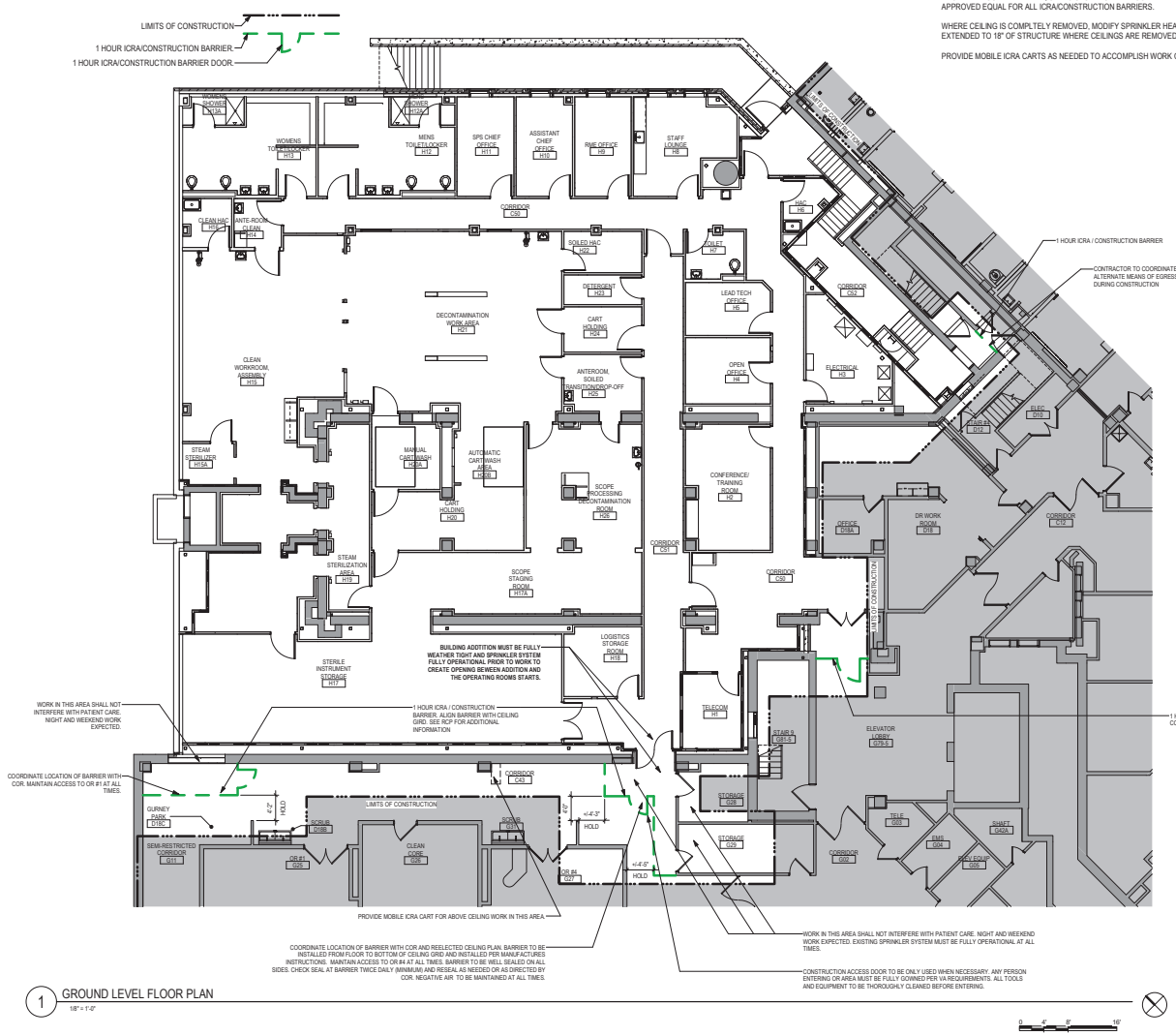

INFECTION CONTROL & CONSTRUCTION BARRIER GENERAL NOTES

1. SEE SPEC SECTION 01 35 26 SAFETY REQUIREMENTS FOR ADDITIONAL INFORMATION
2. THE INTENT OF INFECTION CONTROL ISOLATION IS TO CONTAIN DUST AND PARTICULATE MATTER TO THE CONSTRUCTION AREA. CONSTRUCTION AREA PERIMETER NEEDS TO BE SEALED COMPLETELY WITH SHEET PLASTIC AS SPECIFIED AND DUCT TAPE DURING OPERATIONS, WHERE PERMITTED BY CLASS. ICRA - CONSTRUCTION BARRIER TO BE PROVIDED AS SPECIFIED AND LISTED IN ICRA CLASS.
3. PROVIDE NEGATIVE PRESSURE MONITORS DURING CONSTRUCTION OPERATIONS AS SPECIFIED. MONITOR TO MEASURE PRESSURE DIFFERENTIAL BETWEEN CONSTRUCTION AREA AND ADJACENT CORRIDOR OR ROOM AS DIRECTED BY VA.
4. AS CONSTRUCTION PROGRESSES, FROM TYPE D TO TYPE C AND THEREON, PROVIDE A REQUEST VIA "INFECTION CONTROL CONSTRUCTION PERMIT" TO THE VA INFECTION CONTROL NURSE. UPON AUTHORIZATION, PROCEED TO NEXT TYPE OF CONSTRUCTION. PROVIDE AT LEAST TEN (10) WORKING DAYS NOTICE FOR EACH PERMIT.
5. CONSTRUCT IC (INFECTION CONTROL) CONSTRUCTION BARRIER(S) FROM FLOOR TO DECK/FLOOR ABOVE. EXCEPTION. IF BARRIER IS ADJACENT TO SMOKE, FIRE, OR EXISTING WALL CONSTRUCTION WHICH WILL NOT BE DEMOLISHED AND TERMINATES TO FLOOR/DECK ABOVE, THEN CONSTRUCT DUST PROOF IC BARRIER, SEE DETAIL(S). TAPE, MUD, SAND JOINTS AND PAINT ON NON-CONSTRUCTION SIDE OF BARRIER.
6. CONTROL BARRIERS ARE TO BE INSTALLED AND REMOVED ONLY BEFORE 7:00 AM AND AFTER 8:00 PM OR DIRECTED BY COR.
7. DURING CONSTRUCTION OPERATIONS IN EACH ENCLOSED AREA PROVIDE NEGATIVE PRESSURE MONITORS, MINIMUM (1) ONE IN AREAS LESS THAN 1000 SF, (2) TWO MINIMUM IN AREAS BETWEEN 1000 SF AND 5000 SF, AND (3) THREE FOR AREAS BETWEEN 5000 SF AND 10000 SF.
8. LIFE SAFETY EGRESS IS TO BE MAINTAINED AT ALL TIMES.
9. THE CONTRACTOR SHALL PROVIDE ENOUGH NEGATIVE AIR MACHINES TO COMPLETELY EXCHANGE THE REGULATED AREA AIR VOLUME (4) FOUR ACTUAL TIMES PER HOUR. THE COMPETENT PERSON SHALL DETERMINE THE NUMBER OF UNITS NEEDED FOR EACH REGULATED AREA BY DIVIDING THE CUBIC FEET IN THE REGULATED AREA BY (15) FIFTEEN AND THEN DIVIDING THAT RESULT BY THE ACTUAL CUBIC FEET PER MINUTE (CFM) FOR EACH UNIT TO DETERMINE THE NUMBER OF UNITS NEEDED TO EFFECT (4) FOUR AIR CHANGES PER HOUR. PROVIDE A STANDBY UNIT IN THE EVENT OF MACHINE FAILURE AND/OR EMERGENCY IN AN ADJACENT AREA.
10. PRIOR TO ANY REMOVAL OF SMOKE BARRIER FIRE RATED PARTITIONS, CONSTRUCT NEW SMOKE BARRIER/APPROPRIATE FIRE RATED PARTITIONS PER PLANS OR CONSTRUCT INFECTION CONTROL BARRIER TO ACT AS SMOKE BARRIER.

CONSTRUCTION PHASING GENERAL NOTES

1. THE WORK UNDER THIS CONTRACT SHALL BE DIVIDED INTO PHASES. A PHASE CAN INVOLVE MULTIPLE LOCATION AREAS. SEE SPECIFICATIONS SECTION 01 00 00 1.6.G PHASING.
2. THE GENERAL CONTRACTOR SHALL COORDINATE ALL PHASING AND SEQUENCING WITH ALL TRADES AND THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE A WRITTEN NARRATIVE TO OUTLINE CONSTRUCTION PHASING AND SEQUENCE PLANS, VALIDATING AND ELABORATING ON THIS PHASING DESCRIPTION.
3. THE GENERAL CONTRACTOR SHALL COOPERATE FULLY WITH THE OWNER SO WORK MAY BE CARRIED OUT SMOOTHLY, WITHOUT INTERFERING WITH OR DELAYING WORK UNDER THIS CONTRACT, OR OTHER CONTRACTS ON THE PROJECT SITE OR WORK BY OWNER.
4. THE GENERAL CONTRACTOR'S CONSTRUCTION SCHEDULE SHALL INDICATE THE SEQUENCE, COMMENCEMENT AND COMPLETION DATES, OWNER INSPECTION AND APPROVAL DATES AND MOVE-OUT AND MOVE-IN DATES OF OWNER'S PERSONNEL FOR ALL PHASES OF THE WORK.
5. THE GENERAL CONTRACTOR SHALL PERFORM THE WORK IN EACH PHASE IN THE SEQUENCE SHOWN ON THE PHASING PLAN DRAWING(S) AND CONSTRUCTION PHASING DESCRIPTION.
6. THE GENERAL CONTRACTOR MUST COMPLETE ALL WORK IN EACH PHASE WITH THE VA INSPECTING AND ACCEPTING THE WORK PRIOR TO VA OCCUPANCY AND THE CONTRACTOR PROCEEDING TO THE NEXT SCHEDULED PHASE. UPON COMPLETION OF A PARTICULAR PHASE, THE ENTIRE AREA COVERED BY THAT PHASE CAN BE OCCUPIED BY THE VA PERSONNEL WITH ALL SYSTEMS FUNCTIONING PROPERLY.
7. BEFORE COMMENCING WORK ON EACH SUCCESSIVE PHASE, THE GENERAL CONTRACTOR SHALL SUBMIT AN UPDATED COPY OF THE SCHEDULE.
8. ANY ICRA / CONSTRUCTION BARRIERS CONSTRUCTED BY THE CONTRACTOR PRIOR TO THE START OF DEMOLITION MUST REMAIN IN PLACE UNTIL THE COMPLETION OF THAT PHASE OR SUBSEQUENT PHASE WHERE REQUIRED.
9. THE CONTRACTOR SHALL PERFORM ALL WORK ADJACENT TO VA OCCUPIED AREAS IN SUCH A MANNER TO ENSURE THE CONTINUOUS AND UNINTERRUPTED USE OF ALL OCCUPIED AREAS, INCLUDING THE APPLICABLE MECHANICAL AND ELECTRICAL SYSTEMS SERVING THESE AREAS.
10. FOR ADDITIONAL NOTES AND INFORMATION REFER TO INFECTION CONTROL DRAWING(S) AND DEMOLITION PLANS.
11. ANY INFORMATION REGARDING SEQUENCING PROVIDED IN THE DOCUMENTS IS FOR ARCHITECT-OWNER PLANNING PURPOSES ONLY.
12. THE CONTRACTOR DURING CONSTRUCTION SHALL MAINTAIN REQUIRED MEANS OF EGRESS THROUGHOUT ALL PHASING.
13. THE CONTRACTOR SHALL PLAN FOR A MINIMUM OF 4 WEEKS' TIME BETWEEN PHASES TO ALLOW THE VA TO OCCUPY THE NEWLY ACCEPTED SPACE AND VACATE THE FOLLOW-ON PHASES. THE VA WILL ACCELERATE THIS TIME WHEN POSSIBLE AND WILL NOTIFY THE CONTRACTOR IF THIS OCCURS.

CONSTRUCTION INFECTION CONTROL RISK ASSESSMENT (ICRA)

TYPE A	INSPECTIONS AND NON-INVASIVE ACTIVITIES. INCLUDES, BUT NOT LIMITED TO, REMOVAL OF CEILING TILES FOR VISUAL INSPECTION LIMITED TO 1 TILE PER 50 SQUARE FEET, PAINTING BUT NOT SANDING, WALL COVERING, ELECTRICAL WORK, MINOR PLUMBING, AND ACTIVITIES WHICH DO NOT GENERATE DUST OR REQUIRE CUTTING OF WALLS OR ACCESS TO CEILINGS OTHER THAN FOR VISUAL INSPECTION.	GROUP 1 LOW RISK	• MECHANICAL SPACES: AREAS NOT DIRECTLY ADJACENT TO PATIENT CARE, INCLUDING INTERSTITIAL SPACES. • ENGINEERING OR EMS OFFICE/WORK AREAS • OFFICE AREAS: AREAS NOT ATTACHED TO/ADJOINING PATIENT CARE AREAS, NOT USED FOR PATIENT INTERVIEWS, EVALUATIONS OR EXAMINATIONS. • PUBLIC CORRIDORS: SPACES NOT ON OR DIRECTLY ATTACHED TO PATIENT UNITS OR TREATMENT LOCATIONS.
TYPE B	SMALL SCALE, SHORT DURATION ACTIVITIES WHICH CREATE MINIMAL DUST. INCLUDES, BUT IS NOT LIMITED TO, INSTALLATION OF TELEPHONE AND COMPUTER CABLING, ACCESS TO CHASE SPACES, CUTTING OF WALLS OR CEILING WHERE DUST MIGRATION CAN BE CONTROLLED, FLOOR COVERING REMOVAL (WITHOUT SANDING OR GRINDING).	GROUP 2 MEDIUM RISK	• OUTPATIENT AREAS: 1. PRIMARY CARE OR SPECIALTY CARE CLINIC AREAS 2. BEHAVIORAL/MENTAL HEALTH AREAS 3. EXTENDED CARE / REHAB CLINIC AREAS 4. COMMUNITY BASED OUT PATIENT CLINICS (CBOCS)
TYPE C	ANY WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST OR REQUIRES DEMOLITION OR REMOVAL OF ANY FIXED BUILDING COMPONENTS OR ASSEMBLIES. INCLUDES, BUT IS NOT LIMITED TO, SANDING OF WALL FOR PAINTING OR WALLCOVERING, REMOVAL OF FLOOR COVERINGS, CEILING TILES AND CASEWORK, MINOR WALL CONSTRUCTION, MINOR DUCTWORK OR ELECTRICAL WORK ABOVE CEILINGS, MAJOR CABLING ACTIVITIES, AND ANY ACTIVITY WHICH CANNOT BE COMPLETED WITHIN A SINGLE WORK SHIFT. FLOOR COVERING REMOVAL (WITH SANDING OR GRINDING).	GROUP 3 HIGH RISK	• IN-PATIENT UNITS: 1. INCLUDING, BUT NOT LIMITED TO: EMERGENCY DEPT., NURSING UNITS: RADIOLOGY/MRI/CT/ULTRASOUND; NUCLEAR MEDICINE; CAFETERIA/KITCHEN/CANTEEN; LABORATORIES; RADIATION / ONCOLOGY; DIALYSIS
TYPE D	MAJOR DEMOLITION AND CONSTRUCTION PROJECTS. INCLUDES, BUT IS NOT LIMITED TO, ACTIVITIES WHICH REQUIRE CONSECUTIVE WORK SHIFTS, REQUIRE HEAVY DEMOLITION OR REMOVAL OF A COMPLETE CEILING SYSTEM, FLOORING AND NEW CONSTRUCTION.	GROUP 4 HIGHEST RISK	• ICU/SICU • ORPACU/ENDOSCOPY • GI • STERILE PROCESSING SERVICES (SPS) • PHARMACY • CATH LAB
CLASS I	KEEP AREAS FREE OF DEBRIS, TRASH EXECUTE WORK TO MINIMIZE OF DUST MIGRATION (E.G. WET MOPPING, HEPA VACUUM) IMMEDIATELY REPLACE ANY CEILING TILE DISPLACED FOR VISUAL INSPECTION (INVOLVING MINOR DEMOLITION IN MAINTENANCE OR REMODELING.)		
CLASS II	SAME AS CLASS I PLUS: 1. ESTABLISH MATERIAL AND DEBRIS ROUTE USING NON-PATIENT/VISITOR PATHWAY 2. WATER MIST WORK SURFACE TO CONTROL DUST WHILE CUTTING OR DRILLING. 3. BLOCK OFF AND SEAL AIR VENTS 4. SEAL UNUSED DOORS WITH PLASTIC SHEATHING AND DUCT TAPE. 5. CREATE BARRIERS AS DEFINED BY INFECTION PREVENTION 6. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINER; TAPE COVERING UNLESS SOLID LID. 7. WET MOP AND/OR VACUUM WITH HEPA-FILTERED VACUUM BEFORE LEAVING WORK AREA. 8. PLACE STICKY MAT AT ALL WORK AREA ENTRANCES AND EXITS. 9. REMOVE OR ISOLATE HVAC SYSTEM IN CONSTRUCTION AREA		
CLASS III	SAME AS CLASS I AND II PLUS: 1. ISOLATE HVAC SYSTEM IN CONSTRUCTION AREA TO PREVENT DUCT SYSTEM CONTAMINATION 2. COMPLETE CRITICAL BARRIERS (I.E. SHEETROCK, PLYWOOD, PLASTIC) AT ALL CONSTRUCTION ENTRIES AND EXITS; MONITOR FOR SEAL AND TAKE IMMEDIATE CORRECTIVE ACTION AS NEEDED 3. MAINTAIN AND MONITOR NEGATIVE AIR PRESSURE WITHIN CONSTRUCTION SITE UTILIZING HEPA EQUIPPED AIR FILTRATION UNITS. 4. REMOVE OR ISOLATE HVAC SYSTEMS IN AREA WHERE WORK IS BEING PERFORMED. 5. CHECK AND REPLACE AIR FILTERS AS NEEDED RESPECTFULLY 6. DO NOT REMOVE BARRIERS FROM WORK SITE UNTIL PROJECT IS COMPLETE & HAS BEEN THOROUGHLY CLEANED; REMOVE BARRIERS CAREFULLY TO MINIMIZE SPREADING DUST, DEBRIS. 7. VACUUM WORK WITH HEPA FILTERED VACUUM. 8. WET MOP AREA WITH CLEANER/DISINFECTANT. 9. MITIGATE VIBRATION AND NOISE TO LOWEST IMPACT WHERE POSSIBLE. 10. DISPLAY ICRA AT SITE. 11. SEAL HOLES, PIPES, CONDUITS AND PUNCTURES.		
CLASS IV	SAME AS CLASS I, II AND III PLUS: 1. INSPECT ADJACENT AREAS FOR DUST MIGRATION; TAKE IMMEDIATE CORRECTIVE AS NEEDED 2. USE HEPA VACUUM IN AREA PRIOR TO START OF CONSTRUCTION 3. CONSTRUCT ANTE ROOM. ALL PERSONNEL MUST ENTER THROUGH IT TO BE VACUUMED USING HEPA VACUUM BEFORE LEAVING OR TO DON/DOFF PPE		

INFECTION CONTROL RISK ASSESSMENT (ICRA) BY PROJECT AREA USE AND PHASE

PHASE - ALL:
CONSTRUCTION PROJECT ACTIVITY TYPE - D
INFECTION CONTROL RISK GROUP - GROUP 4: HIGH RISK
CONTROL PROCEDURE CLASS - IV

Revisions:	Date:

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STAMP
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Name: Tom Olesak
Date: 02/14/2025
License Number: 19157

Office of Construction and Facilities Management
VA | U.S. Department of Veterans Affairs

Drawing Title: GROUND LEVEL INFECTION CONTROL & LIFE SAFETY PLAN
Approved:

Phase: BID DOCUMENTS
FULLY SPRINKLERED

Project Title: CONSTRUCT NEW SPS
Location: Sioux Falls, SD
Issue Date: 02/14/2025
Checked: LA
Drawn: GJB

Project Number: 438-460
Building Number: 5
Drawing Number: GC101

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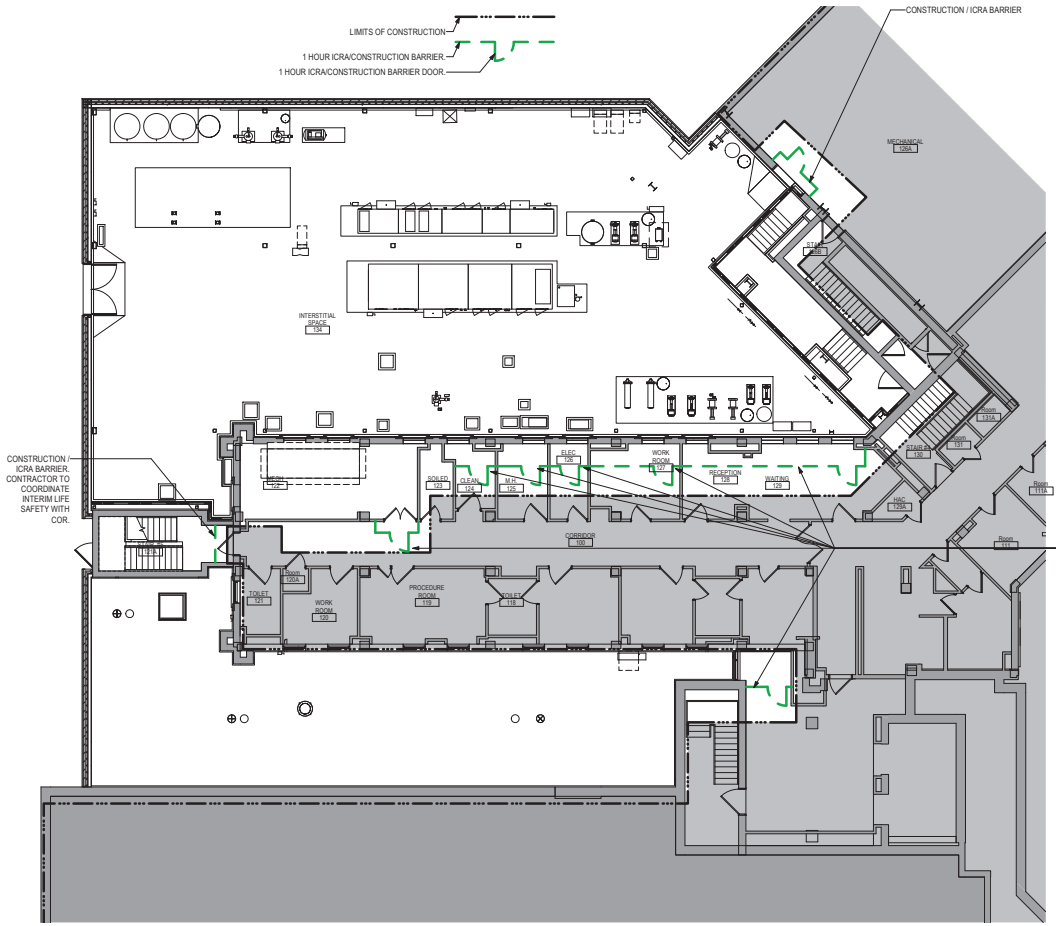
NOTE:
PROVIDE 1 HOUR FIRE RATED, STARC SYSTEMS FIREBLOCK WALL PANELS OR APPROVED EQUAL FOR ALL ICRA/CONSTRUCTION BARRIERS AND MODIFY SPRINKLER HEADS TO BE UPTURNED AND EXTENDED TO 18" OF STRUCTURE.



1 FIRST LEVEL ICRA, CONSTRUCTION BARRIER & PHASING PLAN
1/8" = 1'-0"

0 4' 8' 16'

INFECTION CONTROL & CONSTRUCTION BARRIER GENERAL NOTES

1. SEE SPEC SECTION 01 35 26 SAFETY REQUIREMENTS FOR ADDITIONAL INFORMATION
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7. DURING CONSTRUCTION OPERATIONS IN EACH ENCLOSED AREA PROVIDE NEGATIVE PRESSURE MONITORS, MINIMUM (1) ONE IN AREAS LESS THAN 1000 SF, (2) TWO MINIMUM IN AREAS BETWEEN 1000 SF AND 5000 SF, AND (3) THREE FOR AREAS BETWEEN 5000 SF AND 10000 SF.
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10. PRIOR TO ANY REMOVAL OF SMOKE BARRIER FIRE RATED PARTITIONS, CONSTRUCT NEW SMOKE BARRIER/APPROPRIATE FIRE RATED PARTITIONS PER PLANS OR CONSTRUCT INFECTION CONTROL BARRIER TO ACT AS SMOKE BARRIER.

CONSTRUCTION PHASING GENERAL NOTES

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3. THE GENERAL CONTRACTOR SHALL COOPERATE FULLY WITH THE OWNER SO WORK MAY BE CARRIED OUT SMOOTHLY, WITHOUT INTERFERING WITH OR DELAYING WORK UNDER THIS CONTRACT, OR OTHER CONTRACTS ON THE PROJECT SITE OR WORK BY OWNER.
4. THE GENERAL CONTRACTOR'S CONSTRUCTION SCHEDULE SHALL INDICATE THE SEQUENCE, COMMENCEMENT AND COMPLETION DATES, OWNER INSPECTION AND APPROVAL DATES AND MOVE-OUT AND MOVE-IN DATES OF OWNER'S PERSONNEL FOR ALL PHASES OF THE WORK.
5. THE GENERAL CONTRACTOR SHALL PERFORM THE WORK IN EACH PHASE IN THE SEQUENCE SHOWN ON THE PHASING PLAN DRAWING(S) AND CONSTRUCTION PHASING DESCRIPTION.
6. THE GENERAL CONTRACTOR MUST COMPLETE ALL WORK IN EACH PHASE WITH THE VA INSPECTING AND ACCEPTING THE WORK PRIOR TO VA OCCUPANCY AND THE CONTRACTOR PROCEEDING TO THE NEXT SCHEDULED PHASE. UPON COMPLETION OF A PARTICULAR PHASE, THE ENTIRE AREA COVERED BY THAT PHASE CAN BE OCCUPIED BY THE VA PERSONNEL WITH ALL SYSTEMS FUNCTIONING PROPERLY.
7. BEFORE COMMENCING WORK ON EACH SUCCESSIVE PHASE, THE GENERAL CONTRACTOR SHALL SUBMIT AN UPDATED COPY OF THE SCHEDULE.
8. ANY ICRA / CONSTRUCTION BARRIERS CONSTRUCTED BY THE CONTRACTOR PRIOR TO THE START OF DEMOLITION MUST REMAIN IN PLACE UNTIL THE COMPLETION OF THAT PHASE OR SUBSEQUENT PHASE WHERE REQUIRED.
9. THE CONTRACTOR SHALL PERFORM ALL WORK ADJACENT TO VA OCCUPIED AREAS IN SUCH A MANNER TO ENSURE THE CONTINUOUS AND UNINTERRUPTED USE OF ALL OCCUPIED AREAS, INCLUDING THE APPLICABLE MECHANICAL AND ELECTRICAL SYSTEMS SERVING THESE AREAS.
10. FOR ADDITIONAL NOTES AND INFORMATION REFER TO INFECTION CONTROL DRAWING(S) AND DEMOLITION PLANS.
11. ANY INFORMATION REGARDING SEQUENCING PROVIDED IN THE DOCUMENTS IS FOR ARCHITECT-OWNER PLANNING PURPOSES ONLY.
12. THE CONTRACTOR DURING CONSTRUCTION SHALL MAINTAIN REQUIRED MEANS OF EGRESS THROUGHOUT ALL PHASING.
13. THE CONTRACTOR SHALL PLAN FOR A MINIMUM OF 4 WEEKS' TIME BETWEEN PHASES TO ALLOW THE VA TO OCCUPY THE NEWLY ACCEPTED SPACE AND VACATE THE FOLLOW-ON PHASES. THE VA WILL ACCELERATE THIS TIME WHEN POSSIBLE AND WILL NOTIFY THE CONTRACTOR IF THIS OCCURS.

CONSTRUCTION INFECTION CONTROL RISK ASSESSMENT (ICRA)

TYPE A	INSPECTIONS AND NON-INVASIVE ACTIVITIES, INCLUDES, BUT NOT LIMITED TO, REMOVAL OF CEILING TILES FOR VISUAL INSPECTION LIMITED TO 1 TILE PER 50 SQUARE FEET, PAINTING BUT NOT SANDING, WALL COVERING, ELECTRICAL TRIM WORK, MINOR PLUMBING, AND ACTIVITIES WHICH DO NOT GENERATE DUST OR REQUIRE CUTTING OF WALLS OR ACCESS TO CEILINGS OTHER THAN FOR VISUAL INSPECTION.	GROUP 1 LOW RISK	• MECHANICAL SPACES: AREAS NOT DIRECTLY ADJACENT TO PATIENT CARE, INCLUDING INTERSTITIAL SPACES. • ENGINEERING OR EMS OFFICE/WORK AREAS • OFFICE AREAS: AREAS NOT ATTACHED TO/ADJOINING PATIENT CARE AREAS, NOT USED FOR PATIENT INTERVIEWS, EVALUATIONS OR EXAMINATIONS. • PUBLIC CORRIDORS: SPACES NOT ON OR DIRECTLY ATTACHED TO PATIENT UNITS OR TREATMENT LOCATIONS.
TYPE B	SMALL SCALE, SHORT DURATION ACTIVITIES WHICH CREATE MINIMAL DUST. INCLUDES, BUT IS NOT LIMITED TO, INSTALLATION OF TELEPHONE AND COMPUTER CABLING, ACCESS TO CHASE SPACES, CUTTING OF WALLS OR CEILING WHERE DUST MIGRATION CAN BE CONTROLLED, FLOOR COVERING REMOVAL (WITHOUT SANDING OR GRINDING).	GROUP 2 MEDIUM RISK	• OUTPATIENT AREAS: 1. PRIMARY CARE OR SPECIALTY CARE CLINIC AREAS 2. BEHAVIORAL/MENTAL HEALTH AREAS 3. EXTENDED CARE / REHAB CLINIC AREAS 4. COMMUNITY BASED OUT PATIENT CLINICS (CBOCS)
TYPE C	ANY WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST OR REQUIRES DEMOLITION OR REMOVAL OF ANY FIXED BUILDING COMPONENTS OR ASSEMBLIES. INCLUDES, BUT IS NOT LIMITED TO, SANDING OF WALL FOR PAINTING OR WALLCOVERING, REMOVAL OF FLOOR COVERINGS, CEILING TILES AND CASEWORK, NEW WALL CONSTRUCTION, MINOR DUCTWORK OR ELECTRICAL WORK ABOVE CEILINGS, MAJOR CABLING ACTIVITIES, AND ANY ACTIVITY WHICH CANNOT BE COMPLETED WITHIN A SINGLE WORK SHIFT. FLOOR COVERING REMOVAL (WITH SANDING OR GRINDING).	GROUP 3 HIGH RISK	• IN-PATIENT UNITS: 1. INCLUDING, BUT NOT LIMITED TO: EMERGENCY DEPT.; NURSING UNITS; RADIOLOGY/MRI/CT/ULTRASOUND; NUCLEAR MEDICINE; CAFETERIA/KITCHEN/CANTEEN; LABORATORIES; RADIATION / ONCOLOGY; DIALYSIS
TYPE D	MAJOR DEMOLITION AND CONSTRUCTION PROJECTS. INCLUDES, BUT IS NOT LIMITED TO, ACTIVITIES WHICH REQUIRE CONSECUTIVE WORK SHIFTS, REQUIRE HEAVY DEMOLITION OR REMOVAL OF A COMPLETE CEILING SYSTEM, FLOORING AND NEW CONSTRUCTION.	GROUP 4 HIGHEST RISK	• ICU/SICU • ORP/ACU/ENDOSCOPY • GI • STERILE PROCESSING SERVICES (SPS) • PHARMACY • CATH LAB

CLASS I	KEEP AREAS FREE OF DEBRIS, TRASH EXECUTE WORK TO MINIMIZE OF DUST MIGRATION (E.G. WET MOPPING, HEPA VACUUM) IMMEDIATELY REPLACE ANY CEILING TILE DISPLACED FOR VISUAL INSPECTION (INVOLVING MINOR DEMOLITION IN MAINTENANCE OR REMODELING.)
CLASS II	SAME AS CLASS I PLUS: 1. ESTABLISH MATERIAL AND DEBRIS ROUTE USING NON-PATIENT/VISITOR PATHWAY 2. WATER MIST WORK SURFACE TO CONTROL DUST WHILE CUTTING OR DRILLING. 3. BLOCK OFF AND SEAL AIR VENTS 4. SEAL UNUSED DOORS WITH PLASTIC SHEATHING AND DUCT TAPE. 5. CREATE BARRIERS AS DEFINED BY INFECTION PREVENTION. 6. CONTAIN CONSTRUCTION WASTE BEFORE TRANSPORT IN TIGHTLY COVERED CONTAINER; TAPE COVERING UNLESS SOLID LID. 7. WET MOP AND/OR VACUUM WITH HEPA-FILTERED VACUUM BEFORE LEAVING WORK AREA. 8. PLACE STICKY MAT AT ALL WORK AREA ENTRANCES AND EXITS. 9. REMOVE OR ISOLATE HVAC SYSTEM IN CONSTRUCTION AREA
CLASS III	SAME AS CLASS I AND II PLUS: 1. ISOLATE HVAC SYSTEM IN CONSTRUCTION AREA TO PREVENT DUCT SYSTEM CONTAMINATION 2. COMPLETE CRITICAL BARRIERS (I.E. SHEETROCK, PLYWOOD, PLASTIC) AT ALL CONSTRUCTION ENTRIES AND EXITS; MONITOR FOR SEAL AND TAKE IMMEDIATE CORRECTIVE ACTION AS NEEDED 3. MAINTAIN AND MONITOR NEGATIVE AIR PRESSURE WITHIN CONSTRUCTION SITE UTILIZING HEPA EQUIPPED AIR FILTRATION UNITS. 4. REMOVE OR ISOLATE HVAC SYSTEMS IN AREA WHERE WORK IS BEING PERFORMED. 5. CHECK AND REPLACE AIR FILTERS AS NEEDED REGULARLY 6. DO NOT REMOVE BARRIERS FROM WORK SITE UNTIL PROJECT IS COMPLETE & HAS BEEN THOROUGHLY CLEANED; REMOVE BARRIERS CAREFULLY TO MINIMIZE SPREADING DUST. DEBRIS. 7. VACUUM WORK WITH HEPA FILTERED VACUUM. 8. WET MOP AREA WITH CLEANER/DISINFECTANT. 9. MITIGATE VIBRATION AND NOISE TO LOWEST IMPACT WHERE POSSIBLE. 10. DISPLAY ICRA AT SITE. 11. SEAL HOLES, PIPES, CONDUITS AND PUNCTURES.
CLASS IV	SAME AS CLASS I, II AND III PLUS: 1. INSPECT ADJACENT AREAS FOR DUST MIGRATION; TAKE IMMEDIATE CORRECTIVE AS NEEDED 2. USE HEPA VACUUM IN AREA PRIOR TO START OF CONSTRUCTION 3. CONSTRUCT ANTE ROOM; ALL PERSONNEL MUST ENTER THROUGH IT TO BE VACUUMED USING HEPA VACUUM BEFORE LEAVING OR TO DON/DOFF PPE

INFECTION CONTROL RISK ASSESSMENT (ICRA) BY PROJECT AREA USE AND PHASE

PHASE - ALL:
CONSTRUCTION PROJECT ACTIVITY TYPE - D
INFECTION CONTROL RISK GROUP - GROUP 4: HIGH RISK
CONTROL PROCEDURE CLASS - IV

Revisions:	Date:

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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the laws of the State of Minnesota.
Name: Tom Olesak
Date: 02/14/2025
License Number: 19157

Office of Construction and Facilities Management
VA | U.S. Department of Veterans Affairs

Drawing Title: FIRST LEVEL INFECTION CONTROL & PHASING PLAN
Approved:

Phase: BID DOCUMENTS
FULLY SPRINKLERED

Project Title: CONSTRUCT NEW SPS
Location: Sioux Falls, SD.
Issue Date: 02/14/2025
Checked: LA
Drawn: GJB

Project Number: 438-460
Building Number: 5
Drawing Number: GC111

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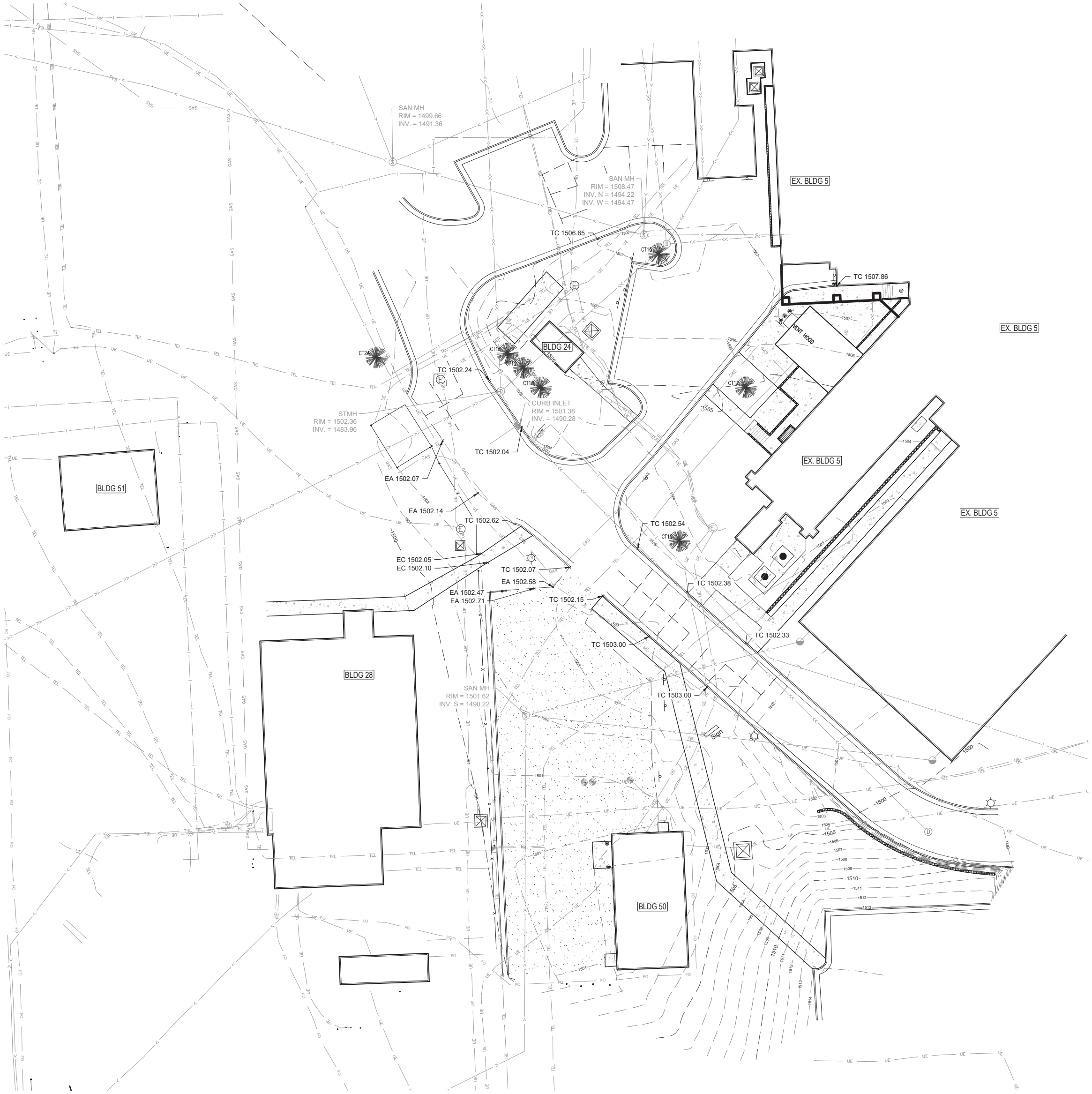

LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING BUILDING
- EXISTING RETAINING WALL
- EXISTING CONCRETE WALK
- EXISTING ASPHALT PAVEMENT
- EXISTING JOINTS IN CONCRETE PAVEMENT
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING FENCE
- EXISTING GAS MAIN
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING HYDRANT AND GV
- EXISTING SANITARY MANHOLE
- EXISTING STORM SEWER INLET
- EXISTING TREE

SPOT ELEVATION KEY

EA	EDGE OF ASPHALT
EC	EDGE OF CONCRETE
TC	TOP OF CURB

N W E S

0 20 40
SCALE IN FEET

Revisions: Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: SITE SURVEY & MAPPING	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: VB101
		Issue Date: 02/14/2025; Checked: EB; Drawn: AB	

VA FORM 08-6231

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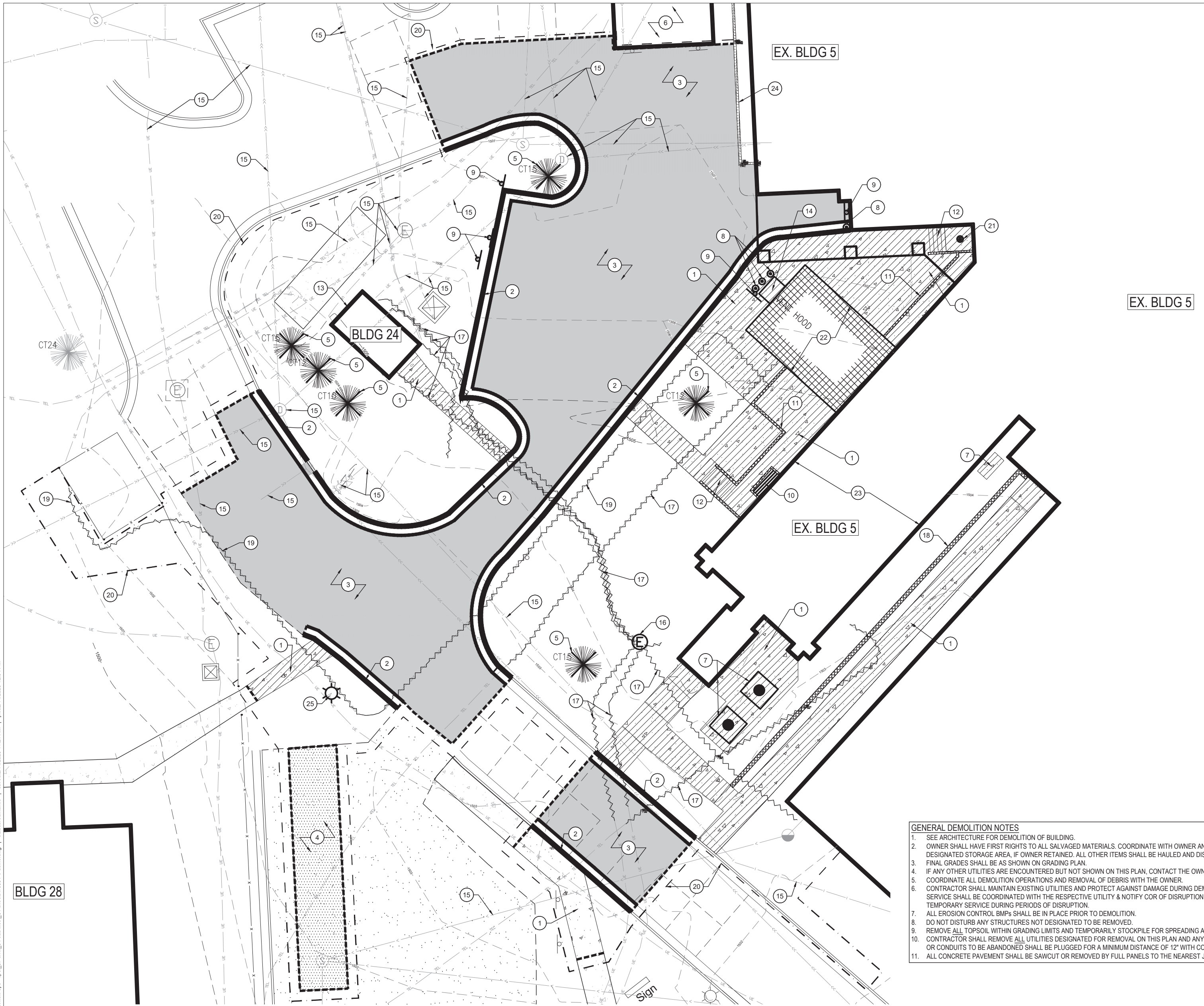

LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING FENCE
- EXISTING GAS MAIN
- EXISTING OVERHEAD WIRES
- EXISTING TELEPHONE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING HYDRANT AND GV
- EXISTING SANITARY MANHOLE
- EXISTING STORM SEWER INLET
- REMOVE EXISTING UTILITY LINE
- REMOVE EXISTING BUILDING STRUCTURE
- REMOVE EXISTING ASPHALT PAVEMENT
- REMOVE EXISTING CONCRETE PAVEMENT
- REMOVE EXISTING CONCRETE WALK
- REMOVE EXISTING RETAINING WALL
- SAWCUT EXISTING PAVEMENT
- REMOVE EXISTING CONCRETE C&G
- REMOVE TREE

KEYNOTES

1. REMOVE CONCRETE SIDEWALK / STOOPS AND AGGREGATE BASE COURSE, TYP.
2. REMOVE CURB AND GUTTER AND AGGREGATE BASE COURSE, TYP.
3. REMOVE CONCRETE PAVEMENT AND AGGREGATE BASE COURSE
4. REMOVE ASPHALT PAVEMENT AND AGGREGATE BASE COURSE
5. CLEAR AND GRUB EXISTING TREE
6. RECYCLING CENTER (DO NOT DISTURB)
7. SALVAGE EXISTING MECHANICAL EQUIPMENT, REMOVE EXISTING CONCRETE PAD (SEE MECHANICAL PLANS)
8. REMOVE BOLLARD, TYP.
9. REMOVE SIGN, TYP.
10. REMOVE FRAME AND GRATE
11. REMOVE CONCRETE RETAINING WALL
12. REMOVE CONCRETE STAIRS AND HANDRAIL
13. EXISTING ELECTRICAL BUILDING - DO NOT DISTURB
14. REMOVE VENT HOOD (SEE MECHANICAL PLANS)
15. EXISTING UTILITY - DO NOT DISTURB
16. REMOVE ELECTRICAL MANHOLE (SEE ELECTRICAL PLANS)
17. REMOVAL AND RELOCATION OF ELECTRICAL AND COMMUNICATION UTILITIES (SEE ELECTRICAL PLANS)
18. REMOVE SEGMENTAL BLOCK RETAINING WALL
19. REMOVE OXYGEN LINE (SEE MECHANICAL PLANS)
20. PROJECT LIMITS
21. REMOVE EXISTING DRAIN, CAP WITH MJ CAP
22. REMOVE BUILDING (SEE ARCHITECTURAL PLANS)
23. EXISTING BUILDING TO REMAIN
24. EXISTING RETAINING WALL TO REMAIN
25. REMOVE LIGHT POLE (SEE ELECTRICAL PLAN)

GENERAL DEMOLITION NOTES

1. SEE ARCHITECTURE FOR DEMOLITION OF BUILDING.
2. OWNER SHALL HAVE FIRST RIGHTS TO ALL SALVAGED MATERIALS. COORDINATE WITH OWNER AND TRANSPORT SALVAGED ITEMS TO THE OWNER DESIGNATED STORAGE AREA, IF OWNER RETAINED. ALL OTHER ITEMS SHALL BE HAULED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.
3. FINAL GRADES SHALL BE AS SHOWN ON GRADING PLAN.
4. IF ANY OTHER UTILITIES ARE ENCOUNTERED BUT NOT SHOWN ON THIS PLAN, CONTACT THE OWNER AND UTILITY COMPANY IMMEDIATELY.
5. COORDINATE ALL DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS WITH THE OWNER.
6. CONTRACTOR SHALL MAINTAIN EXISTING UTILITIES AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. ANY DISRUPTION IN SERVICE SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY & NOTIFY COR OF DISRUPTION. CONTRACTOR SHALL PROVIDE A METHOD OF TEMPORARY SERVICE DURING PERIODS OF DISRUPTION.
7. ALL EROSION CONTROL BMPs SHALL BE IN PLACE PRIOR TO DEMOLITION.
8. DO NOT DISTURB ANY STRUCTURES NOT DESIGNATED TO BE REMOVED.
9. REMOVE ALL TOPSOIL WITHIN GRADING LIMITS AND TEMPORARILY STOCKPILE FOR SPREADING AT COMPLETION OF PROJECT.
10. CONTRACTOR SHALL REMOVE ALL UTILITIES DESIGNATED FOR REMOVAL ON THIS PLAN AND ANY DISCOVERED ABANDONED UTILITIES. ALL PIPES OR CONDUITS TO BE ABANDONED SHALL BE PLUGGED FOR A MINIMUM DISTANCE OF 12" WITH CONCRETE.
11. ALL CONCRETE PAVEMENT SHALL BE SAWCUT OR REMOVED BY FULL PANELS TO THE NEAREST JOINT.

N

0 10' 20'

Revisions: Date:

CONSULTANTS

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT, WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO: 55409

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
DEMOLITION PLAN	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: CD101
		Issue Date: 02/14/2025; Checked: EB; Drawn: AB	

VA FORM 08-6231

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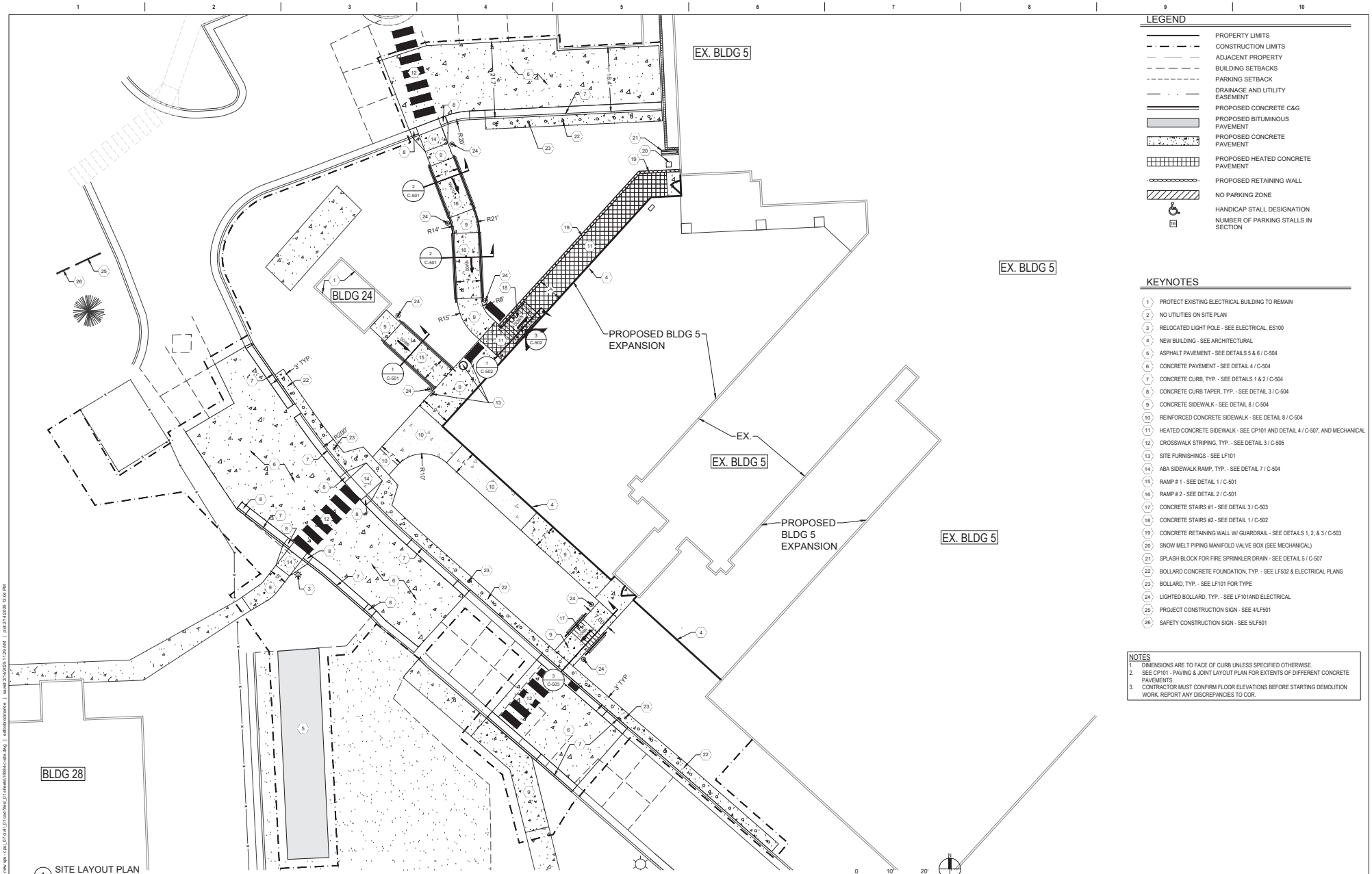

LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- ADJACENT PROPERTY
- BUILDING SETBACKS
- PARKING SETBACK
- DRAINAGE AND UTILITY EASEMENT
- PROPOSED CONCRETE C&G
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- PROPOSED HEATED CONCRETE PAVEMENT
- PROPOSED RETAINING WALL
- NO PARKING ZONE
- HANDICAP STALL DESIGNATION
- 16 NUMBER OF PARKING STALLS IN SECTION

KEYNOTES

1. PROTECT EXISTING ELECTRICAL BUILDING TO REMAIN
2. NO UTILITIES ON SITE PLAN
3. RELOCATED LIGHT POLE - SEE ELECTRICAL, ES100
4. NEW BUILDING - SEE ARCHITECTURAL
5. ASPHALT PAVEMENT - SEE DETAILS 5 & 6 / C-504
6. CONCRETE PAVEMENT - SEE DETAIL 4 / C-504
7. CONCRETE CURB, TYP. - SEE DETAILS 1 & 2 / C-504
8. CONCRETE CURB TAPER, TYP. - SEE DETAIL 3 / C-504
9. CONCRETE SIDEWALK - SEE DETAIL 8 / C-504
10. REINFORCED CONCRETE SIDEWALK - SEE DETAIL 8 / C-504
11. HEATED CONCRETE SIDEWALK - SEE CP101 AND DETAIL 4 / C-507, AND MECHANICAL
12. CROSSWALK STRIPING, TYP. - SEE DETAIL 3 / C-505
13. SITE FURNISHINGS - SEE LF101
14. ABA SIDEWALK RAMP, TYP. - SEE DETAIL 7 / C-504
15. RAMP # 1 - SEE DETAIL 1 / C-501
16. RAMP # 2 - SEE DETAIL 2 / C-501
17. CONCRETE STAIRS #1 - SEE DETAIL 3 / C-503
18. CONCRETE STAIRS #2 - SEE DETAIL 1 / C-502
19. CONCRETE RETAINING WALL W/ GUARDRAIL - SEE DETAILS 1, 2, & 3 / C-503
20. SNOW MELT PIPING MANIFOLD VALVE BOX (SEE MECHANICAL)
21. SPLASH BLOCK FOR FIRE SPRINKLER DRAIN - SEE DETAIL 5 / C-507
22. BOLLARD CONCRETE FOUNDATION, TYP. - SEE LF502 & ELECTRICAL PLANS
23. BOLLARD, TYP. - SEE LF101 FOR TYPE
24. LIGHTED BOLLARD, TYP. - SEE LF101AND ELECTRICAL
25. PROJECT CONSTRUCTION SIGN - SEE 4/LF501
26. SAFETY CONSTRUCTION SIGN - SEE 5/LF501

NOTES
1. DIMENSIONS ARE TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
2. SEE CP101 - PAVING & JOINT LAYOUT PLAN FOR EXTENTS OF DIFFERENT CONCRETE PAVEMENTS.
3. CONTRACTOR MUST CONFIRM FLOOR ELEVATIONS BEFORE STARTING DEMOLITION WORK. REPORT ANY DISCREPANCIES TO COR.

1 SITE LAYOUT PLAN
SCALE: 1" = 10' (30" x 42" PAPER SIZE)

Revisions: | Date:

CONSULTANTS
IMEG
EC design

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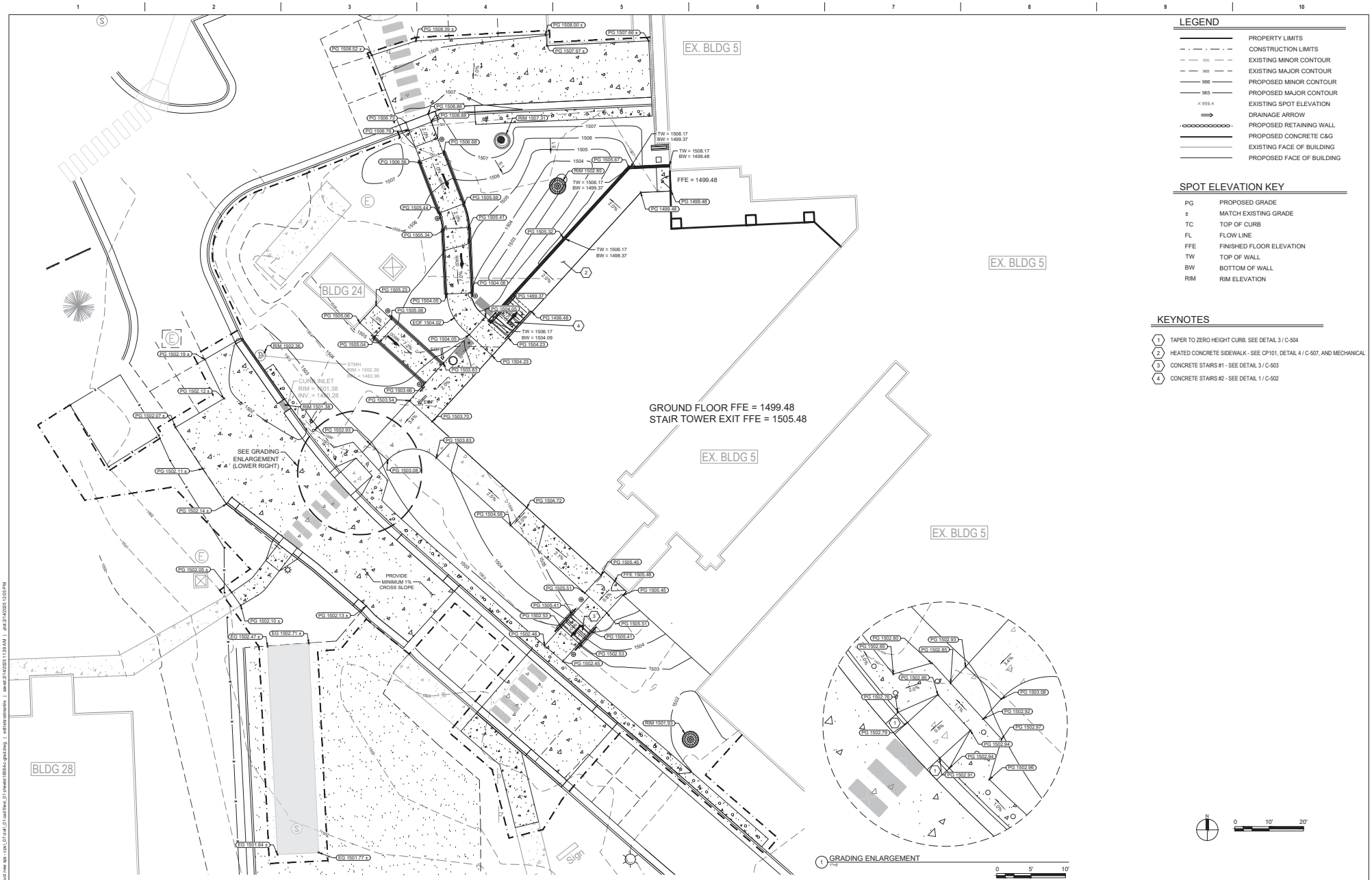
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT, WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
LOWELL V. BROOKBANKLE, PE
DATE: 2025.02.14 | LICENSE NO. 53409

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: SITE LAYOUT PLAN
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM
Phase: BID DOCUMENTS
FULLY SPRINKLERED
Project Title: CONSTRUCT NEW SPS
Location: SIOUX FALLS, SOUTH DAKOTA
Issue Date: 02/14/2025 | Checked: EB | Drawn: JD
Project Number: 438-460
Building Number: 5
Drawing Number: CS101



LEGEND

	PROPERTY LIMITS
	CONSTRUCTION LIMITS
965	EXISTING MINOR CONTOUR
965	EXISTING MAJOR CONTOUR
966	PROPOSED MINOR CONTOUR
965	PROPOSED MAJOR CONTOUR
× 959.4	EXISTING SPOT ELEVATION
	DRAINAGE ARROW
	PROPOSED RETAINING WALL
	PROPOSED CONCRETE C&G
	EXISTING FACE OF BUILDING
	PROPOSED FACE OF BUILDING

SPOT ELEVATION KEY

PG	PROPOSED GRADE
±	MATCH EXISTING GRADE
TC	TOP OF CURB
FL	FLOW LINE
FFE	FINISHED FLOOR ELEVATION
TW	TOP OF WALL
BW	BOTTOM OF WALL
RIM	RIM ELEVATION

KEYNOTES

1. TAPER TO ZERO HEIGHT CURB. SEE DETAIL 3 / C-504
2. HEATED CONCRETE SIDEWALK - SEE CP101, DETAIL 4 / C-507, AND MECHANICAL
3. CONCRETE STAIRS #1 - SEE DETAIL 3 / C-503
4. CONCRETE STAIRS #2 - SEE DETAIL 1 / C-502

1 GRADING ENLARGEMENT
1"=5'

0 5' 10'

N 0 10' 20'

Revisions:	Date:

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DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: GRADING PLAN	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025 / Checked: EB / Drawn: JD	Drawing Number: CG101

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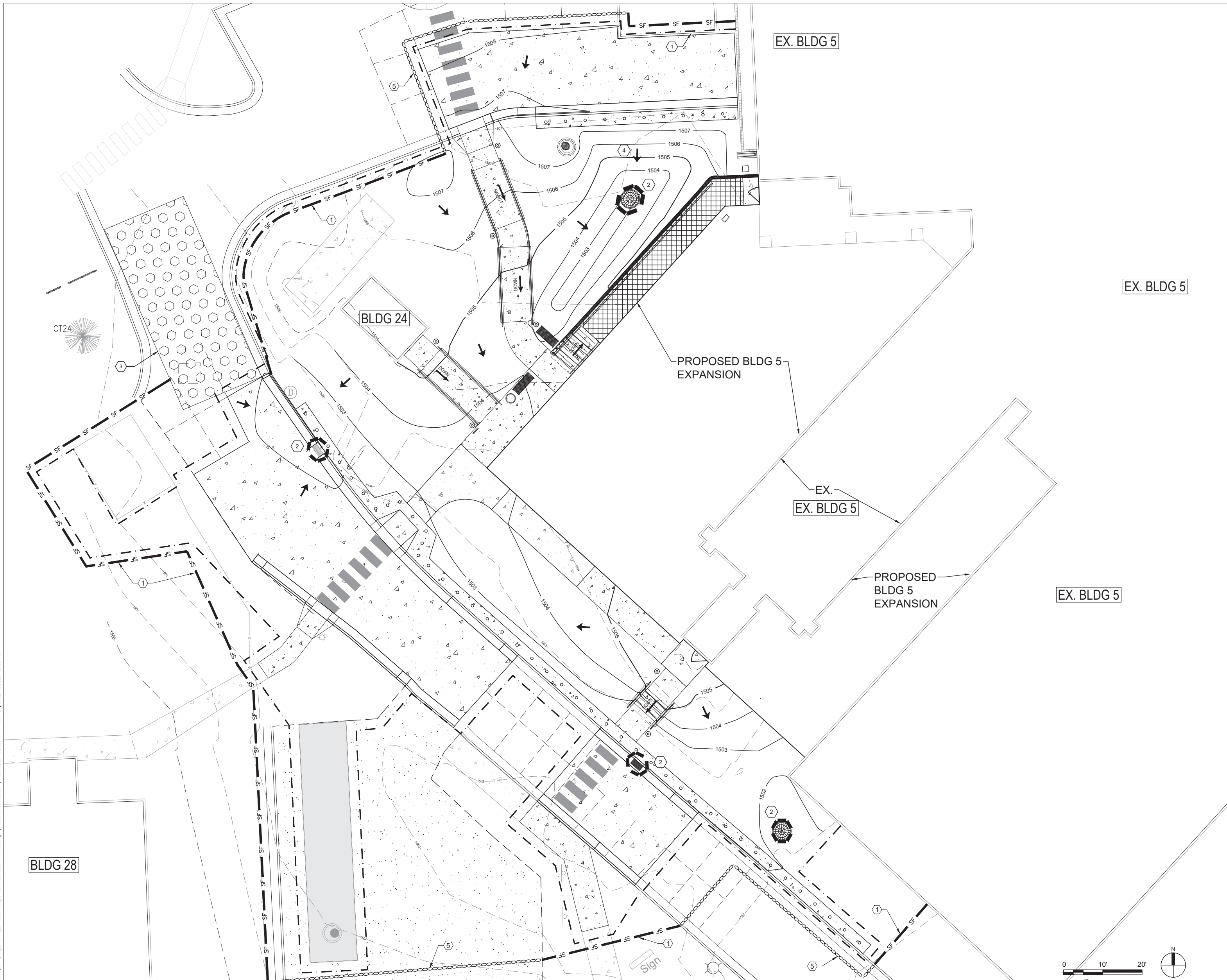

LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED CONCRETE C&G
- DRAINAGE ARROW
- INLET PROTECTION (SEE SHEET C-506)
- SILT FENCE (SEE SHEET C-506)
- ROCK CONSTRUCTION ENTRANCE (SEE SHEET C-506)
- BIOROLL EROSION CONTROL

KEY NOTES

1. INSTALL & MAINTAIN SILT FENCE PERIMETER SEDIMENT PROTECTION IN TURF AREAS. USE BIO-ROLLS AS NEEDED IN PAVED AREAS FOR PHASING PURPOSES. SEE DETAIL 4 / C-506
2. INSTALL AND MAINTAIN INLET SEDIMENT PROTECTION. SEE DETAIL 3 / C-506
3. INSTALL TEMP ROCK ENTRANCE AT CONSTRUCTION INGRESS & EGRESS LOCATION(S) PRIOR TO EXCAVATION & TO BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. SEE DETAIL 2 / C-506
4. AREAS WITH SLOPES 4:1 OR STEEPER TO HAVE EROSION CONTROL BLANKET & SEED INSTALLED. SEE DETAIL 7 / C-506
5. SEDIMENT CONTROL WATTLE OR APPROVED EQUAL FOR EROSION CONTROL OVER EXISTING PAVEMENT SURFACE. SEE DETAIL 5 / C-506

NOTES:

1. CONCRETE WASHOUT AREA TO BE ESTABLISHED BY CONTRACTOR.
2. INSTALL TEMPORARY VEHICLE TRACKING CONTROL AT ALL LOCATIONS WHERE VEHICLES ENTER FROM PAVEMENT INTO CONSTRUCTION SITE. CONTRACTOR TO CLEAN PAVEMENTS OF SEDIMENTS AND MUD THAT IS NOT CONTROLLED BY VEHICLE TRACKING.
3. TEMPORARY EROSION CONTROL DEVICES TO BE REMOVED BY CONTRACTOR WHEN SITE IS STABILIZED.
4. CONTRACTOR TO SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION WITH NON-IRRIGATED SEED MIXES. SEE LANDSCAPE PLAN LP101.
5. SEDIMENT CONTROL WATTLE SHALL BE MADE FROM WEED-FREE STRAW, EXCELSIOR, COCONUT HUSK, OR YARD COMPOST.
6. INSTALL SEDIMENT FILTERING DEVICES AT STORM DRAIN INLETS. INLET PROTECTION SHALL BE A BMP CONSISTING OF A FILTERING DEVICE PLACED IN THE MANHOLE THAT INCLUDES AN OVERFLOW FEATURE THAT ALLOWS TO BMP TO DRAIN WHEN PLUGGED OR FULL AND PREVENTS PONDING AT THE CURB INLETS. BASIS OF DESIGN IS FLEXSTORM INLET FILTERS.

EROSION CONTROL / STORM WATER POLLUTION CONTROL:

- THE CONTRACTOR IS NOT REQUIRED TO OBTAIN COVERAGE UNDER THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES GENERAL STORM WATER CONSTRUCTION PERMIT AS THE PROJECT WILL DISTURB LESS THAN 1 ACRE OF LAND AREA. CONTACT SOUTH DAKOTA DENR AT 1-800-737-8678 FOR INFORMATION.
- THE CONTRACTOR SHALL ALSO COMPLY WITH ANY CITY OF SIOUX FALLS EROSION AND SEDIMENT CONTROL REQUIREMENTS. CONTACT THE CITY OF SIOUX FALLS ENGINEERING DEPARTMENT AT 605-367-8601 FOR INFORMATION.
- THE CONTRACTOR SHALL NOT BEGIN ANY SURFACE REMOVAL OR EXCAVATION UNTIL EROSION CONTROL MEASURES ARE IN PLACE FOR THE PHASE OF WORK BEING COMPLETED. EROSION CONTROL MEASURES SHALL PROCEED IN AN ORDERLY AND PROGRESSIVE MANNER AHEAD OF EXCAVATION WORK.
- THE CONTRACTOR IS ADVISED THAT SEVERAL AGENCIES INCLUDING THE OWNER HAVE THE AUTHORITY TO "STOP WORK" IF THE POLLUTION PREVENTION CONTROL IS NOT IMPLEMENTED OR IS NOT EFFECTIVE IN PREVENTION OF ENVIRONMENTAL DAMAGE FROM CONSTRUCTION ACTIVITIES. NO COMPENSATION WILL BE FORTHCOMING FOR "LOST TIME" DUE TO A "STOP WORK" ORDER.
- LOCATIONS FOR THE EROSION CONTROL MEASURES ARE RECOMMENDED ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE DEVICES AND LOCATIONS NECESSARY FOR EFFECTIVE POLLUTION CONTROL IN ACCORDANCE WITH CITY, STATE, AND FEDERAL POLLUTION CONTROL REQUIREMENTS.
- ALL STORM DRAIN INLETS SHALL BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL FOLLOW THIS EROSION CONTROL PLAN TO ADDRESS POTENTIAL RUNOFF OF SURFACE WATERS CONTAINING SEDIMENT TO WATERS OF THE STATE. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THIS PLAN. THIS PLAN, AS WELL AS IMPLEMENTATION, IS DESIGNED TO MINIMIZE THESE IMPACTS AND ADDRESS POTENTIAL PROBLEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO STORM SEWER, ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- THE CONTRACTOR WILL BE REQUIRED TO FIND AN APPROPRIATE LOCATION FOR CONCRETE WASHOUT. THE LOCATION WILL REQUIRE APPROPRIATE CONTAINMENT FOR THE WASHOUT OPERATIONS.
- THE CONTRACTOR, AND / OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC RIGHT OF WAYS.
- SILT FENCE AND/OR WATTLES SHALL BE INSTALLED AS SHOWN ON THE DRAWING. IN LOCATION(S) WHERE HEAVY SEDIMENT TRANSPORT IS EXPECTED, A DOUBLE LAYER OF SILT FENCE OR PYRAMID OF WATTLES SHALL BE INSTALLED.

INSPECTION AND MAINTENANCE:

- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL AND WATER POLLUTION CONTROL DEVICES ONCE A WEEK AND WITHIN 24 HOURS OF EVERY RAINFALL GREATER THAN 1/2 INCH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, TO INCLUDE BUT NOT BE LIMITED TO: REPAIR, RESET, MUCKING, REPLACEMENT, OF ALL TEMPORARY EROSION CONTROL AND WATER POLLUTION CONTROL DEVICES UNTIL PERMANENT EROSION CONTROL IS ESTABLISHED AND THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE OF EROSION CONTROL AND WATER POLLUTION CONTROL DEVICES SHALL BE INCIDENTAL AND CONSIDERED PART OF THE UNIT COST.
- CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE ROADS, WITHIN 24 HOURS OF DISCOVERY. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE RELOCATED AS NECESSARY DEPENDENT UPON PHASING.
- ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOUR OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
- TEMPORARY DRAINAGE DURING CONSTRUCTION IS THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL BE AWARE OF EXISTING DRAINAGE CONDITIONS AND FACILITIES, AND SHALL PROVIDE FOR DRAINAGE AND EROSION CONTROL DURING ALL PHASES OF CONSTRUCTION. DAMAGE CAUSED BY IMPROPER TEMPORARY DRAINAGE FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

Revisions: | Date:

CONSULTANTS

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Anderson Engineering of Minnesota, LLC | Proj # 16584

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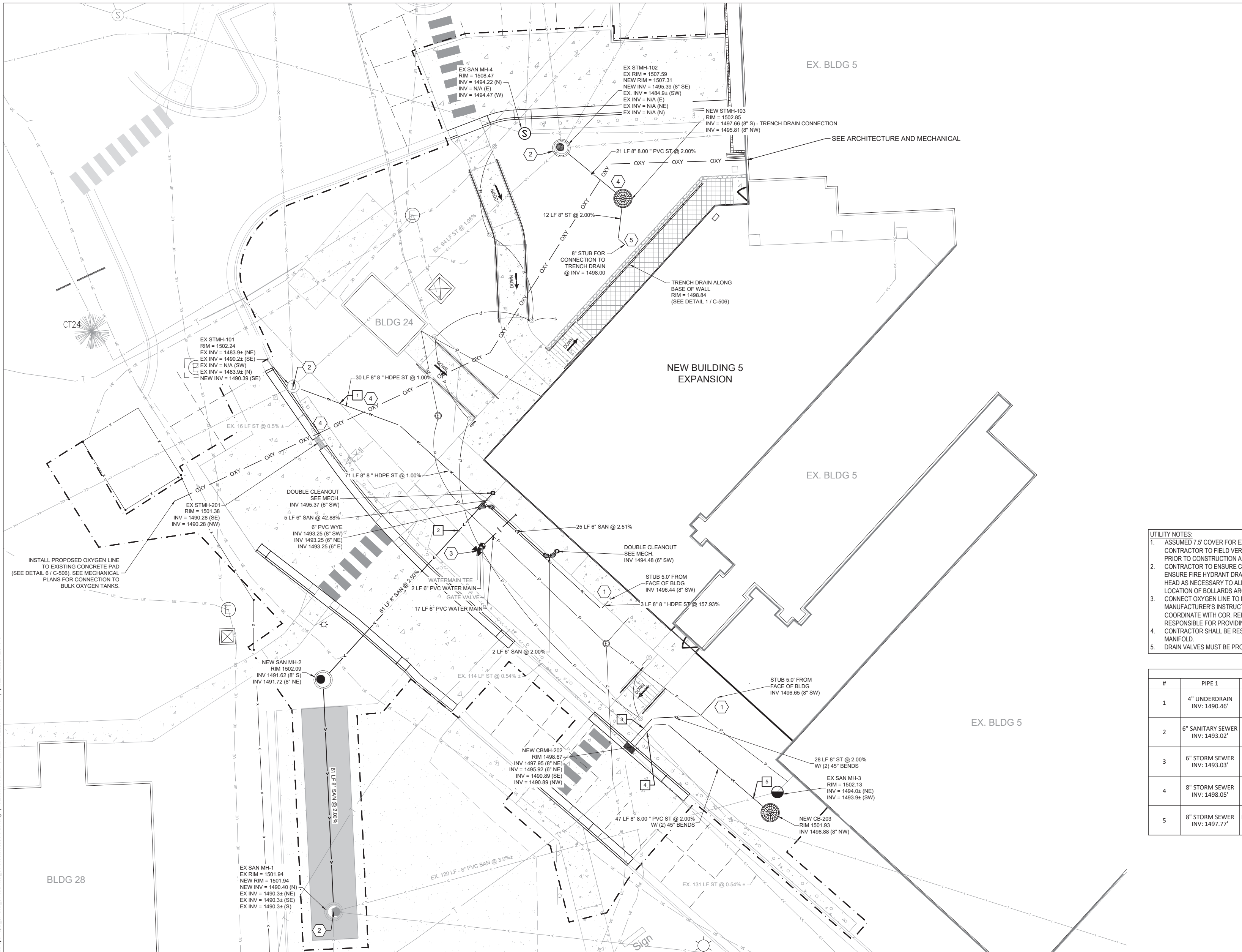
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT, WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
EROSION CONTROL PLAN	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number
		Issue Date: 02/14/2025 · Checked: EB · Drawn: JD	CG102


EX. BLDG 5
EX SAN MH-4
RIM = 1508.47
INV = 1494.22 (N)
INV = N/A (E)
INV = 1494.47 (W)
EX STMH-102
EX RIM = 1507.59
NEW RIM = 1507.31
NEW INV = 1495.39 (8" SE)
EX. INV = 1484.9± (SW)
EX INV = N/A (E)
EX INV = N/A (NE)
EX INV = N/A (N)
NEW STMH-103
RIM = 1502.85
INV = 1497.66 (8" S) - TRENCH DRAIN CONNECTION
INV = 1495.81 (8" NW)
SEE ARCHITECTURE AND MECHANICAL
21 LF 8" 8.00 " PVC ST @ 2.00%
12 LF 8" ST @ 2.00%
8" STUB FOR CONNECTION TO TRENCH DRAIN @ INV = 1498.00
TRENCH DRAIN ALONG BASE OF WALL
RIM = 1498.84
(SEE DETAIL 1 / C-506)
BLDG 24
CT24
NEW BUILDING 5 EXPANSION
EX STMH-101
RIM = 1502.24
EX INV = 1483.9± (NE)
EX INV = 1490.2± (SE)
EX INV = N/A (SW)
EX INV = 1483.9± (N)
NEW INV = 1490.39 (SE)
30 LF 8" 8 " HDPE ST @ 1.00%
EX. 16 LF ST @ 0.5% ±
71 LF 8" 8 " HDPE ST @ 1.00%
EX. BLDG 5
DOUBLE CLEANOUT
SEE MECH.
INV 1495.37 (6" SW)
5 LF 6" SAN @ 42.88%
6" PVC WYE
INV 1493.25 (8" SW)
INV 1493.25 (6" NE)
INV 1493.25 (6" E)
EX STMH-201
RIM = 1501.38
INV = 1490.28 (SE)
INV = 1490.28 (NW)
25 LF 6" SAN @ 2.51%
DOUBLE CLEANOUT
SEE MECH.
INV 1494.48 (6" SW)
INSTALL PROPOSED OXYGEN LINE TO EXISTING CONCRETE PAD
(SEE DETAIL 6 / C-506). SEE MECHANICAL PLANS FOR CONNECTION TO BULK OXYGEN TANKS.
WATERMAIN TEE
2 LF 6" PVC WATER MAIN
GATE VALVE
17 LF 6" PVC WATER MAIN
61 LF 8" SAN @ 2.50%
STUB 5.0' FROM FACE OF BLDG
INV 1496.44 (8" SW)
3 LF 8" 8 " HDPE ST @ 157.93%
2 LF 6" SAN @ 2.00%
NEW SAN MH-2
RIM 1502.09
INV 1491.62 (8" S)
INV 1491.72 (8" NE)
EX. 114 LF ST @ 0.54% ±
STUB 5.0' FROM FACE OF BLDG
INV 1496.65 (8" SW)
EX. BLDG 5
61 LF 8" SAN @ 2.00%
NEW CBMH-202
RIM 1498.67
INV 1497.95 (8" NE)
INV = 1495.92 (6" NE)
INV = 1490.89 (SE)
INV = 1490.89 (NW)
28 LF 8" ST @ 2.00%
W/ (2) 45° BENDS
EX SAN MH-3
RIM = 1502.13
INV = 1494.0± (NE)
INV = 1493.9± (SW)
NEW CB-203
RIM 1501.93
INV 1498.88 (8" NW)
47 LF 8" 8.00 " PVC ST @ 2.00%
W/ (2) 45° BENDS
BLDG 28
EX SAN MH-1
EX RIM = 1501.94
NEW RIM = 1501.94
NEW INV = 1490.40 (N)
EX INV = 1490.3± (NE)
EX INV = 1490.3± (SE)
EX INV = 1490.3± (S)
EX. 120 LF 8" PVC SAN @ 3.0%±
EX. 131 LF ST @ 0.54% ±
Sign

LEGEND

- PROJECT LIMITS
- CROSSING PIPE ID
- EX. WATER MAIN
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. UNDERGROUND ELECTRIC
- PROPOSED POWER LINE
- PROPOSED OXYGEN LINE
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM DRAINTILE

KEYNOTES

1. STUB 5.0' FROM PROPOSED FACE OF BLDG FOR CONNECTION TO PROPOSED UNDERDRAIN SYSTEM
2. LOWER RIM & CORE DRILL EXISTING MANHOLE
3. WET TAP EXISTING WATER MAIN
4. DEFLECT OXYGEN LINE TO MAINTAIN 1' CLEARANCE BETWEEN UTILITIES
5. STUB TO CONNECT TO TRENCH DRAIN IN HEATED CONCRETE SLAB

UTILITY NOTES:

1. ASSUMED 7.5' COVER FOR EXISTING SANITARY SEWER & WATERMAIN UTILITIES WHERE DEPTH IS UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT ELEVATION OF EXISTING UTILITIES AT CROSSING AREAS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER/COR OF ANY DISCREPANCIES.
2. CONTRACTOR TO ENSURE CONCRETE REMAINS BELOW BOTTOM FLANGE OF FIRE HYDRANT. CONTRACTOR TO ENSURE FIRE HYDRANT DRAIN IS NOT BLOCKED BY CONCRETE BOLLARD FOUNDATION. ROTATE FIRE HYDRANT HEAD AS NECESSARY TO ALLOW EMERGENCY ACCESS BETWEEN BOLLARDS. CONTRACTOR SHALL CONFIRM LOCATION OF BOLLARDS AROUND FIRE HYDRANT WITH COR PRIOR TO PLACEMENT.
3. CONNECT OXYGEN LINE TO MANIFOLD AT BULK TANK (FIELD VERIFY LOCATION). REFER TO BULK TANK MANUFACTURER'S INSTRUCTIONS FOR CONNECTION. MINIMIZE OXYGEN SERVICE SHUTDOWN (MAX. 2 HOURS), COORDINATE WITH COR. REFER TO MECHANICAL FOR TESTING AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FITTINGS AND PROVIDING CONNECTION TO THE MANIFOLD.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FITTINGS AND PROVIDING CONNECTION TO THE MANIFOLD.
5. DRAIN VALVES MUST BE PROVIDED AT LOW POINTS IN OXYGEN LINE ENCASEMENT.

CROSSING PIPES TABLE

#	PIPE 1	PIPE 2	SEPARATION	NOTES
1	4" UNDERDRAIN INV: 1490.46'	EX. 8" WATER MAIN INV: 1495.42'	4.46'	ASSUMED 7.5' COVER FOR EXISTING UTILITIES, FIELD VERIFY LOCATION OF EX. WATER MAIN
2	6" SANITARY SEWER INV: 1493.02'	EX. 8" WATER MAIN INV: 1495.74'	2.22'	ASSUMED 7.5' COVER FOR EXISTING UTILITIES, FIELD VERIFY LOCATION OF EX. WATER MAIN
3	6" STORM SEWER INV: 1493.03'	EX. 8" WATER MAIN INV: 1495.18'	1.65'	ASSUMED 7.5' COVER FOR EXISTING UTILITIES, FIELD VERIFY LOCATION OF EX. WATER MAIN
4	8" STORM SEWER INV: 1498.05'	EX. 8" WATER MAIN INV: 1495.16'	2.22'	ASSUMED 7.5' COVER FOR EXISTING UTILITIES, FIELD VERIFY LOCATION OF EX. WATER MAIN
5	8" STORM SEWER INV: 1497.77'	EX. 8" SANITARY SEWER INV: 1493.73'	3.37'	ASSUMED 7.5' COVER FOR EXISTING UTILITIES, FIELD VERIFY LOCATION OF EX. SAN.

N 0 10' 20'

Revisions: Date:

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EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: UTILITY PLAN	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: CU101
		Issue Date: 02/14/2025 / Checked: EB / Drawn: AB	

VA FORM 08-6231

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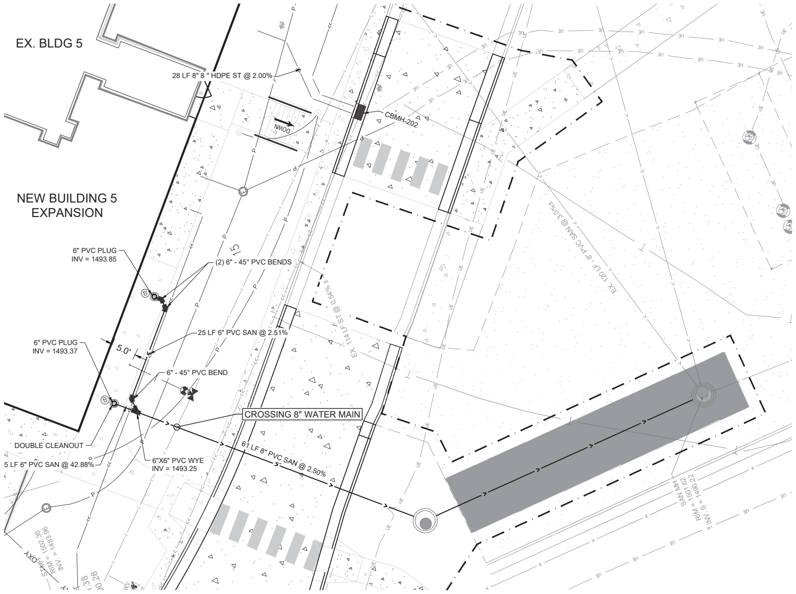
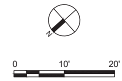

EX. BLDG 5
NEW BUILDING 5 EXPANSION
28 LF 8" 8 " HDPE ST @ 2.00%
CBMH-202
6" PVC PLUG INV = 1493.85
(2) 6" - 45° PVC BENDS
6" PVC PLUG INV = 1493.37
25 LF 6" PVC SAN @ 2.51%
5.0'
6" - 45° PVC BEND
CROSSING 8" WATER MAIN
DOUBLE CLEANOUT
5 LF 6" PVC SAN @ 42.88%
6"X6" PVC WYE INV = 1493.25
61 LF 8" PVC SAN @ 2.50%



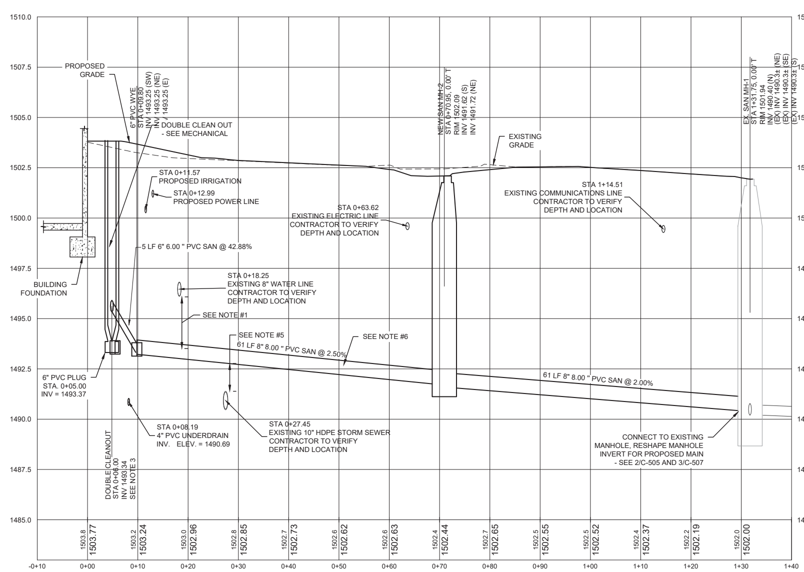
LEGEND

- PROJECT LIMITS
- CROSSING PIPE
- EX. WATER MAIN
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. UNDERGROUND ELECTRIC
- PROPOSED POWER LINE
- PROPOSED OXYGEN LINE
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM DRAINTILE

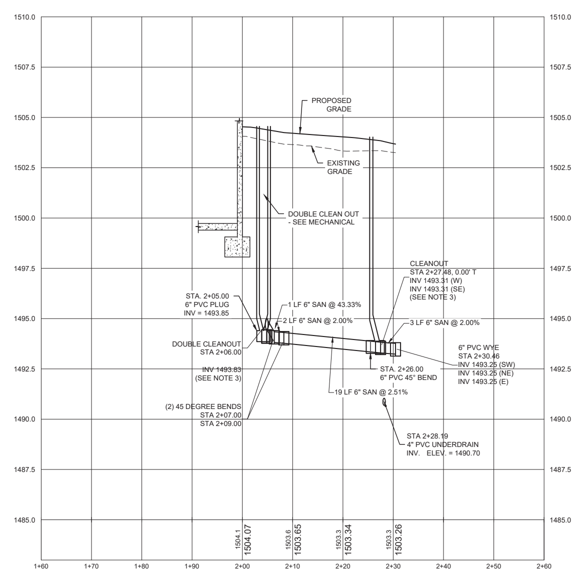
NOTE:

1. IF LESS THAN 18" OF VERTICAL CLEARANCE IS PROVIDED BETWEEN WATER MAIN AND STORM / SANITARY SEWER OR IF WATER MAIN IS BENEATH STORM / SANITARY SEWER, ENCASE AS PER SDDENR REQUIREMENTS - SEE 7/C-507
2. SEE 2/C-505 FOR MANHOLE DETAIL.
3. SEE MECHANICAL FOR CLEAN OUT DETAIL.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING CROSSING UTILITIES PRIOR TO CONSTRUCTION OF THE PROPOSED UTILITY AND ORDERING MATERIALS
5. MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION BETWEEN SANITARY AND STORM SEWER.
6. CONTRACTOR MAY REVISE SLOPE OF SANITARY SERVICE FROM BUILDING TO MANHOLE TO MAINTAIN CLEARANCES SHOWN IN NOTE 1 AND NOTE 5. MAINTAIN A MINIMUM OF 2% SLOPE ON ALL SANITARY SEWER SERVICE AND MAINS OUTSIDE OF BUILDING.
7. SEE 2/C-507 FOR TRENCH DETAIL.
8. CONTRACTOR IS RESPONSIBLE FOR ALL BYPASS PUMPING IN ACCORDANCE WITH CITY OF SIOUX FALLS REQUIREMENTS WHICH INCLUDES A BYPASS PUMPING PLAN.
9. ONLY IRRIGATION MAINLINE IS SHOWN, IRRIGATION LATERALS ARE NOT SHOWN.

PROFILE VIEW OF SANITARY SEWER #1


PROPOSED GRADE
DOUBLE CLEAN OUT - SEE MECHANICAL
EXISTING GRADE
STA 0+11.57 PROPOSED IRRIGATION
STA 0+12.99 PROPOSED POWER LINE
STA 0+63.62 EXISTING ELECTRIC LINE CONTRACTOR TO VERIFY DEPTH AND LOCATION
STA 1+14.51 EXISTING COMMUNICATIONS LINE CONTRACTOR TO VERIFY DEPTH AND LOCATION
5 LF 6" 6.00 " PVC SAN @ 42.88%
BUILDING FOUNDATION
STA 0+18.25 EXISTING 8" WATER LINE CONTRACTOR TO VERIFY DEPTH AND LOCATION
SEE NOTE #1
SEE NOTE #5
SEE NOTE #6
61 LF 8" 8.00 " PVC SAN @ 2.50%
61 LF 8" 8.00 " PVC SAN @ 2.00%
6" PVC PLUG STA. 0+05.00 INV = 1493.37
STA 0+08.19 4" PVC UNDERDRAIN INV. ELEV. = 1490.69
STA 0+27.45 EXISTING 10" HDPE STORM SEWER CONTRACTOR TO VERIFY DEPTH AND LOCATION
CONNECT TO EXISTING MANHOLE, RESHAPE MANHOLE INVERT FOR PROPOSED MAIN - SEE 2/C-505 AND 3/C-507
DOUBLE CLEANOUT STA 0+06.00 INV 1493.34 SEE NOTE 3

PROFILE VIEW OF SANITARY SEWER #2


PROPOSED GRADE
EXISTING GRADE
DOUBLE CLEAN OUT - SEE MECHANICAL
CLEANOUT STA 2+27.48, 0.00' T INV 1493.31 (W) INV 1493.31 (SE) (SEE NOTE 3)
STA. 2+05.00 6" PVC PLUG INV = 1493.85
1 LF 6" SAN @ 43.33%
2 LF 6" SAN @ 2.00%
3 LF 6" SAN @ 2.00%
DOUBLE CLEANOUT STA 2+06.00
INV 1493.83 (SEE NOTE 3)
STA. 2+26.00 6" PVC 45° BEND
6" PVC WYE STA 2+30.46 INV 1493.25 (SW) INV 1493.25 (NE) INV 1493.25 (E)
19 LF 6" SAN @ 2.51%
(2) 45 DEGREE BENDS STA 2+07.00 STA 2+09.00
STA 2+28.19 4" PVC UNDERDRAIN INV. ELEV. = 1490.70

Revisions:	Date:

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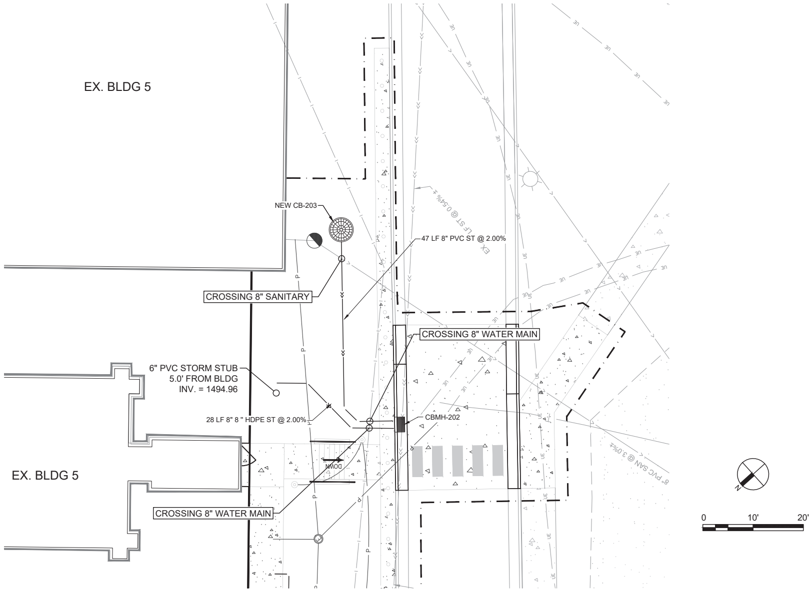
EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SANITARY SEWER PLAN AND PROFILE	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: CU103
		Issue Date: 02/14/2025 Checked: EB Drawn: AB	



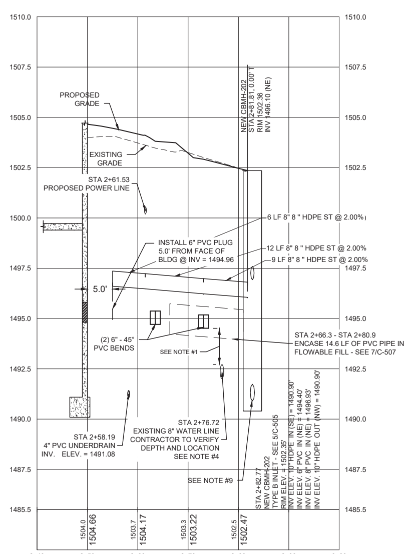
LEGEND

- PROJECT LIMITS
- CROSSING PIPE
- EX. WATER MAIN
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. UNDERGROUND ELECTRIC
- PROPOSED POWER LINE
- PROPOSED OXYGEN LINE
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM DRAINTILE

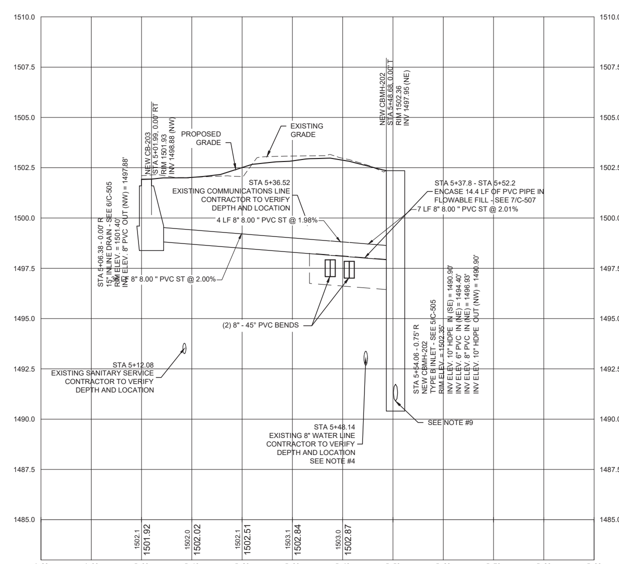
NOTE:

1. IF LESS THAN 18" OF VERTICAL CLEARANCE IS PROVIDED BETWEEN WATER MAIN AND STORM / SANITARY SEWER OR IF WATER MAIN IS BENEATH STORM / SANITARY SEWER, ENCASE AS PER SDDENR REQUIREMENTS - SEE 7/C-507
2. SEE 2/C-505 FOR MANHOLE DETAIL.
3. SEE MECHANICAL FOR CLEAN OUT DETAIL.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING CROSSING UTILITIES PRIOR TO CONSTRUCTION OF THE PROPOSED UTILITY AND ORDERING MATERIALS
5. MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION BETWEEN SANITARY AND STORM SEWER.
6. CONTRACTOR MAY REVISE SLOPE OF SANITARY SERVICE FROM BUILDING TO MANHOLE TO MAINTAIN CLEARANCES SHOWN IN NOTE 1 AND NOTE 5. MAINTAIN A MINIMUM OF 2% SLOPE ON ALL SANITARY SEWER SERVICE AND MAINS OUTSIDE OF BUILDING.
7. SEE 2/C-507 FOR TRENCH DETAIL.
8. CONTRACTOR IS RESPONSIBLE FOR ALL BYPASS PUMPING IN ACCORDANCE WITH CITY OF SIOUX FALLS REQUIREMENTS WHICH INCLUDES A BYPASS PUMPING PLAN.
9. ELEVATIONS OF PROPOSED STORM SEWER INLET ARE APPROXIMATE AND ARE BASED ON OWNER'S BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY EXACT LOCATION, DEPTH, AND SIZE OF EXISTING STORM SEWER. CONNECT EXISTING PIPING TO PROPOSED INLET BOX.
10. ONLY IRRIGATION MAINLINE IS SHOWN, IRRIGATION LATERALS ARE NOT SHOWN.

PROFILE VIEW OF STORM SEWER #1


PROPOSED GRADE
EXISTING GRADE
STA 2+61.53
PROPOSED POWER LINE
NEW CBMH-202
STA 2+81.81, 0.00' T
RIM 1502.36
INV 1496.10 (NE)
6 LF 8" 8 " HDPE ST @ 2.00%
INSTALL 6" PVC PLUG
5.0' FROM FACE OF
BLDG @ INV = 1494.96
12 LF 8" 8 " HDPE ST @ 2.00%
9 LF 8" 8 " HDPE ST @ 2.00%
5.0'
(2) 6" - 45° PVC BENDS
SEE NOTE #1
STA 2+66.3 - STA 2+80.9
ENCASE 14.6 LF OF PVC PIPE IN FLOWABLE FILL - SEE 7/C-507
STA 2+58.19
4" PVC UNDERDRAIN
INV. ELEV. = 1491.08
STA 2+76.72
EXISTING 6" WATER LINE
CONTRACTOR TO VERIFY
DEPTH AND LOCATION
SEE NOTE #4
SEE NOTE #9
STA 2+82.77
NEW CBMH-202
TYPE B INLET - SEE 5/C-505
1504.66
1504.17
1503.22
1502.47
2+40
2+50
2+60
2+70
2+80
2+90
3+00

PROFILE VIEW OF STORM SEWER #3


NEW CB-203
STA 5+01.99, 0.00' RT
RIM 1501.93
INV 1498.88 (NW)
PROPOSED GRADE
EXISTING GRADE
NEW CBMH-202
STA 5+48.68, 0.00' T
RIM 1502.36
INV 1497.95 (NE)
STA 5+36.52
EXISTING COMMUNICATIONS LINE
CONTRACTOR TO VERIFY
DEPTH AND LOCATION
4 LF 8" 8.00 " PVC ST @ 1.98%
STA 5+37.8 - STA 5+52.2
ENCASE 14.4 LF OF PVC PIPE IN FLOWABLE FILL - SEE 7/C-507
7 LF 8" 8.00 " PVC ST @ 2.01%
8" 8.00 " PVC ST @ 2.00%
(2) 8" - 45° PVC BENDS
STA 5+12.08
EXISTING SANITARY SERVICE
CONTRACTOR TO VERIFY
DEPTH AND LOCATION
STA 5+48.14
EXISTING 8" WATER LINE
CONTRACTOR TO VERIFY
DEPTH AND LOCATION
SEE NOTE #4
SEE NOTE #9
STA 5+54.06 - 0.75' R
NEW CBMH-202
TYPE B INLET - SEE 5/C-505
1501.92
1502.02
1502.51
1502.84
1502.87
4+80
4+90
5+00
5+10
5+20
5+30
5+40
5+50
5+60
5+70
5+80
5+90

Revisions:	Date:

CONSULTANTS: IMEG, EC design

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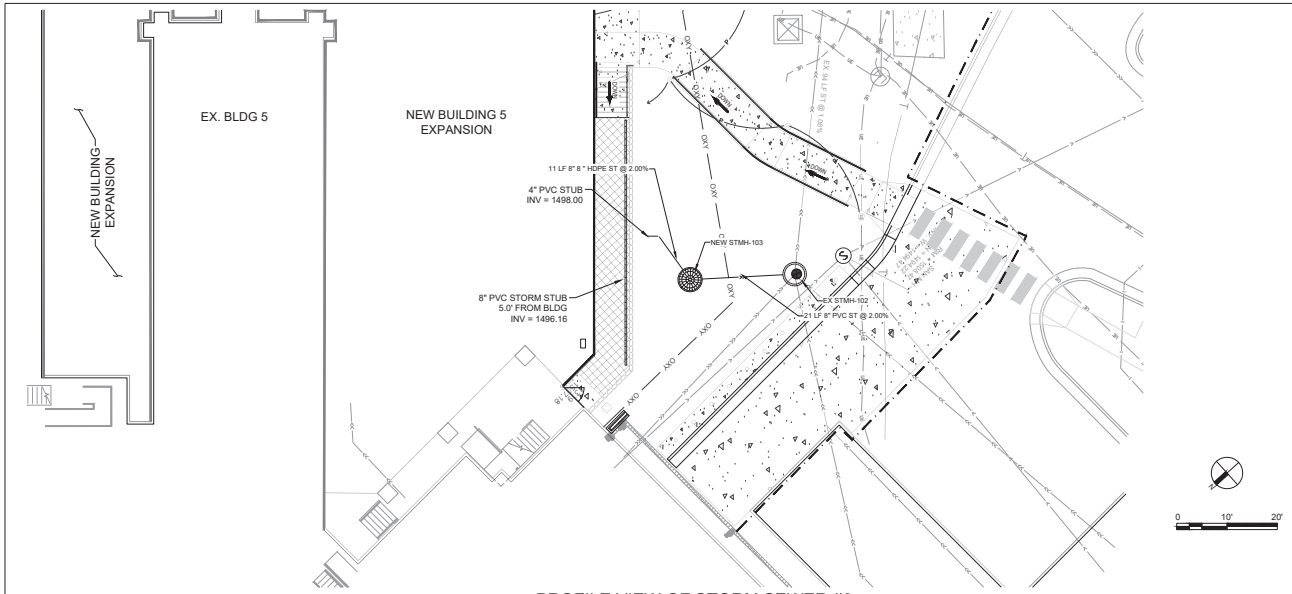
EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
STORM SEWER PLAN AND PROFILE	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: CU104
		Issue Date: 02/14/2025 · Checked: EB · Drawn: AB	

VA FORM 08-6231

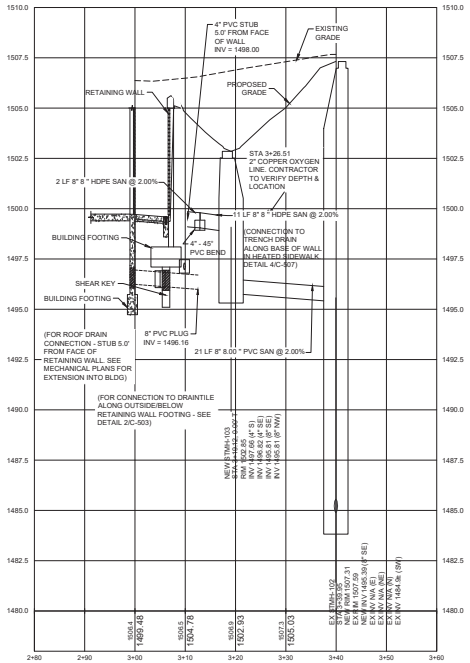


LEGEND

- PROJECT LIMITS
- CROSSING PIPE
- EX. WATER MAIN
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. UNDERGROUND ELECTRIC
- PROPOSED POWER LINE
- PROPOSED OXYGEN LINE
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM DRAINTILE

NOTE:
1. IF LESS THAN 18" OF VERTICAL CLEARANCE IS PROVIDED BETWEEN WATER MAIN AND STORM / SANITARY SEWER OR IF WATER MAIN IS BENEATH STORM / SANITARY SEWER, ENCASE AS PER SDDENR REQUIREMENTS - SEE 7/C-507
2. SEE SHEET 1/C-505 FOR AREA INLET DETAIL.
3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING CROSSING UTILITIES PRIOR TO CONSTRUCTION OF THE PROPOSED UTILITY AND ORDERING MATERIALS.
4. MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION.SEE 2/C-507 FOR TRENCH DETAIL.
5. ONLY IRRIGATION MAINLINE IS SHOWN, IRRIGATION LATERALS ARE NOT SHOWN.

PROFILE VIEW OF STORM SEWER #2



Revisions:	Date:

CONSULTANTS

IMEG EC design

ARCHITECT/ENGINEER OF RECORD

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DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: STORM SEWER PLAN AND PROFILE	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025 / Checked: EB / Drawn: AB	Drawing Number: CU105

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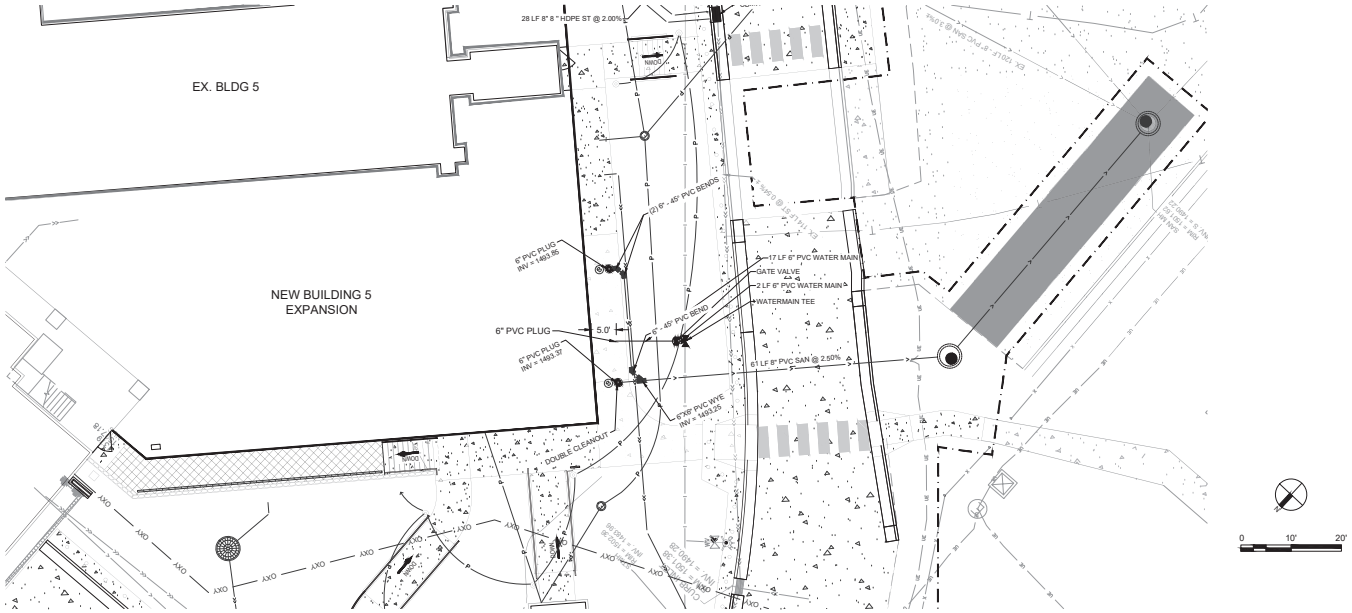
VA FORM 08 - 6231

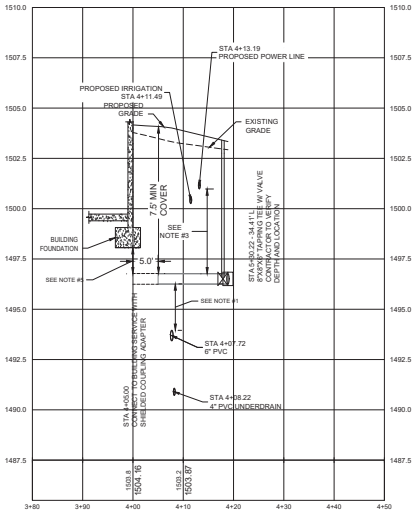


LEGEND

- PROJECT LIMITS
- CROSSING PIPE
- EX. WATER MAIN
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. UNDERGROUND ELECTRIC
- PROPOSED POWER LINE
- PROPOSED OXYGEN LINE
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM DRAINTILE

NOTE:
1. IF LESS THAN 18" OF VERTICAL CLEARANCE IS PROVIDED BETWEEN WATER MAIN AND STORM / SANITARY SEWER OR IF WATER MAIN IS BENEATH STORM / SANITARY SEWER, ENCASE AS PER SDDENR REQUIREMENTS - SEE 7/C-507
2. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING CROSSING UTILITIES PRIOR TO CONSTRUCTION OF THE PROPOSED UTILITY AND ORDERING MATERIALS
3. MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION.WATER SERVICE MUST BE LAID FLAT TO ENSURE VALVE AND VALVE BOX ARE VERTICAL - COORDINATE ELEVATION OF CONNECTION WITH MECHANICAL CONTRACTOR.
4. SEE 2/C-507 FOR TRENCH DETAIL.
5. ENCASE WATER MAIN IN 6" OF FLOWABLE FILL FOR 3' EACH SIDE OF FOOTING IF SEPARATION IS < 1'.
6. ONLY IRRIGATION MAINLINE IS SHOWN, IRRIGATION LATERALS ARE NOT SHOWN.

PROFILE VIEW OF WATER LINE #1



Revisions:	Date:

CONSULTANTS

IMEG

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LOWELL J. V. BROOKBANKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: WATER LINE PLAN AND PROFILE	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025 / Checked: EB / Drawn: AB	Drawing Number: CU106

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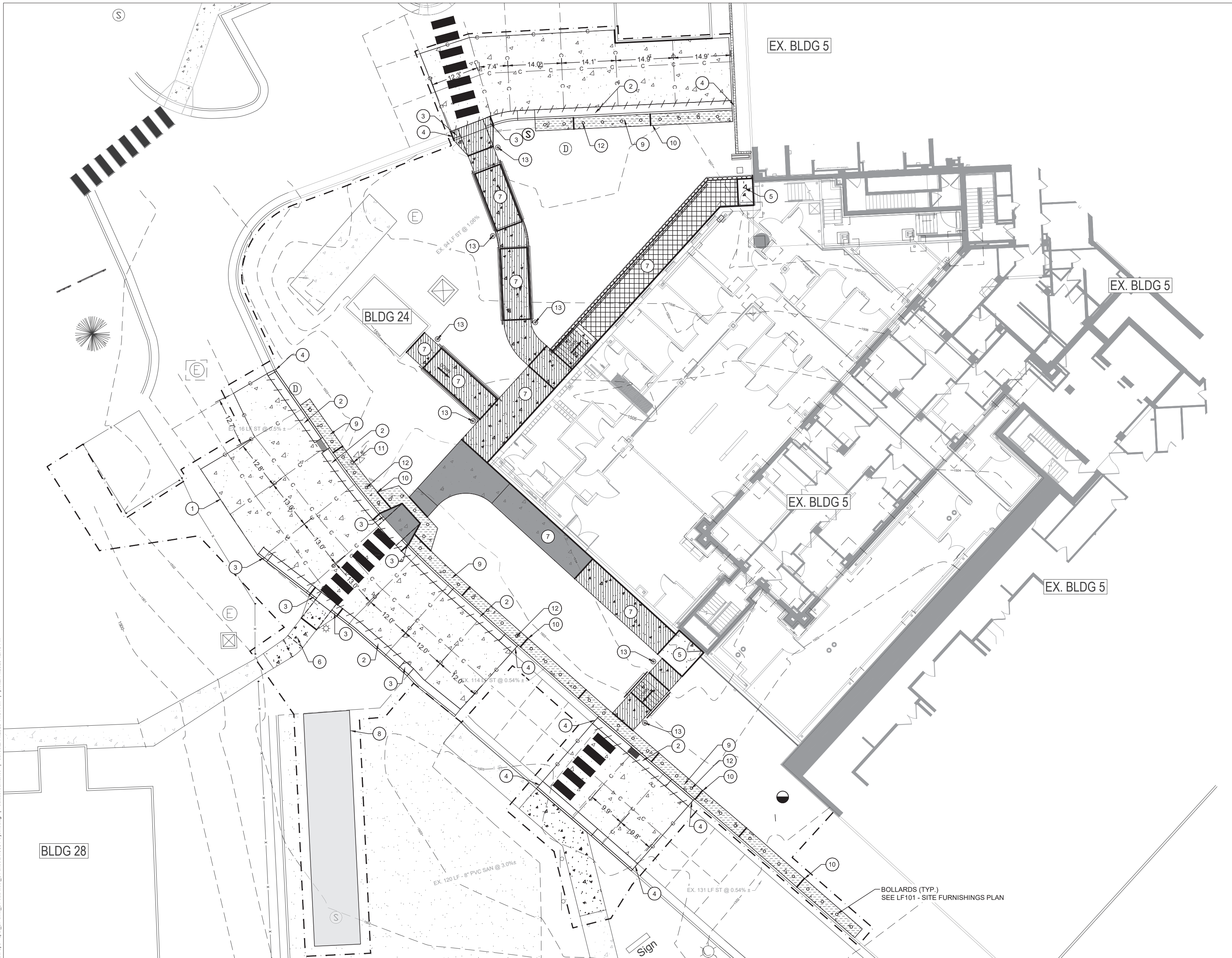
VA FORM 08 - 6231



LEGEND

- CURB CONSTRUCTION JOINT
- DOWELED CONSTRUCTION / CONTRACTION JOINT
- ISOLATION JOINT
- CONTRACTION JOINT FOR SIDEWALK (SEE 1/C-507)
- REINFORCED CONCRETE SIDEWALK (SEE 8/C-504)
- CONCRETE PAVEMENT (SEE 4/C-504)
- STANDARD CONCRETE SIDEWALK (SEE D8/C-504 AND 10/C-504)
- HEATED CONCRETE SIDEWALK AND STAIRS (SEE 4/C-507 AND MECHANICAL)
- CONCRETE BOLLARD FOUNDATION (SEE LF502)

KEYNOTES

1. THICKENED PAVEMENT EDGE, TYP. - SEE 1/C-507
2. 30" WIDE STANDARD CURB AND GUTTER - SEE 1/C-504
3. CURB TAPER - 3/C-504
4. CURB ISOLATION JOINT - SEE 2/C-504
5. CONCRETE SLAB STOOP - SEE STRUCTURAL
6. EQUALLY SPACED CONTRACTION JOINTS THIS AREA (6' PREFERRED); 4' MIN., 6' MAX. FOR NEW SIDEWALK
7. EQUALLY SPACED CONTRACTION JOINTS THIS AREA (7' PREFERRED); 5' MIN., 8' MAX. FOR NEW SIDEWALK
8. SEE 6/C-504 FOR ASPHALT ABUTMENT DETAIL
9. EQUALLY SPACED CONTRACTION JOINTS THIS AREA (3' PREFERRED); 1" MIN., 5' MAX. FOR NEW SIDEWALK
10. ISOLATION JOINTS IN CONCRETE BOLLARD FOUNDATION SHALL BE FULL-DEPTH
11. ISOLATION JOINT AROUND FIRE HYDRANT SHALL BE DOUBLE WIDTH (2 LAYERS) AND SHALL BE THE FULL DEPTH OF THE BOLLARD FOUNDATION
12. BOLLARD, TYP. - SEE LF101 FOR TYPE
13. LIGHTED BOLLARD, TYP. - SEE LF101AND ELECTRICAL

NOTES

1. CONTRACTOR TO PROVIDE JOINTING PLAN TO COR FOR APPROVAL PRIOR TO INSTALLATION OF CONCRETE SIDEWALKS.
2. CONTRACTION JOINTS SHALL CONFORM TO DETAIL (SEE 1/C-507)

Revisions: | Date:

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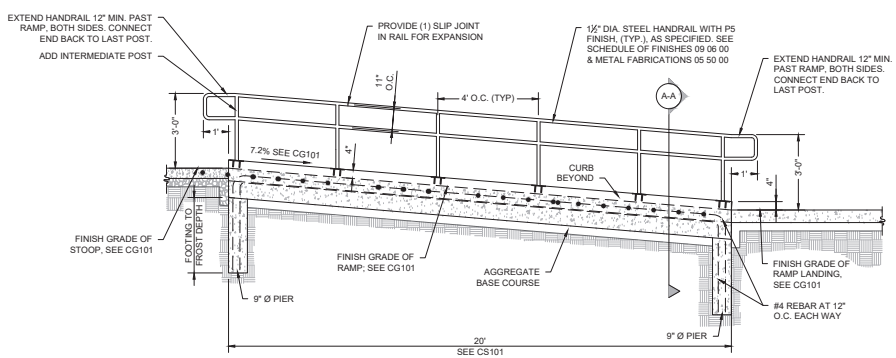
EDWIN J. Y. BRODMARKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

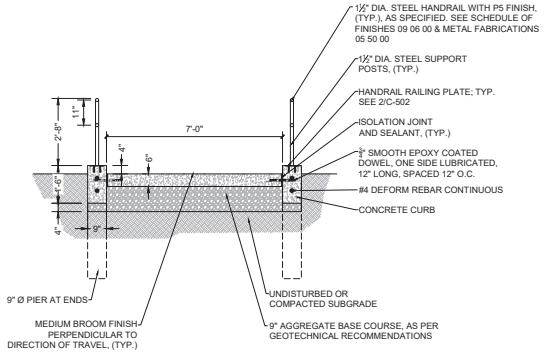
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PAVING & JOINT LAYOUT PLAN	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025; Checked: EB; Drawn: AB	Drawing Number: CP101

VA FORM 08-6231

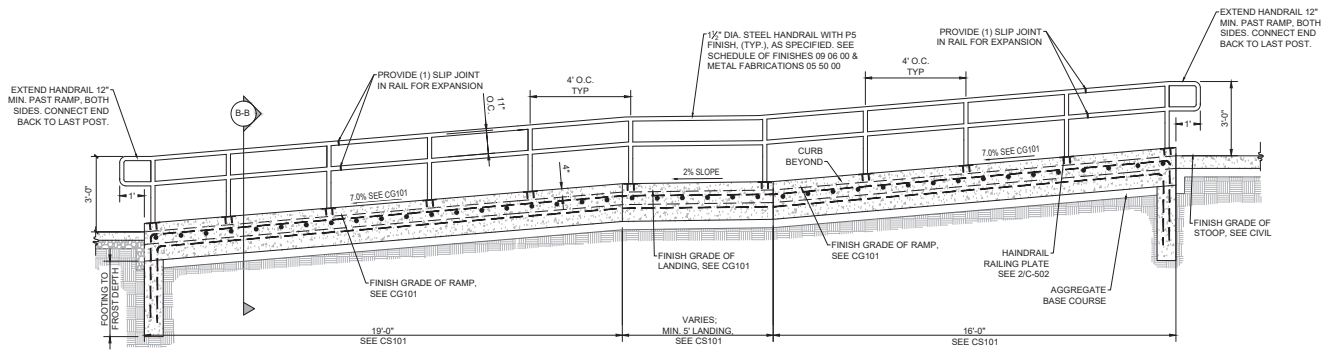


RAMP #1
SECTION-ELEVATION 'A'

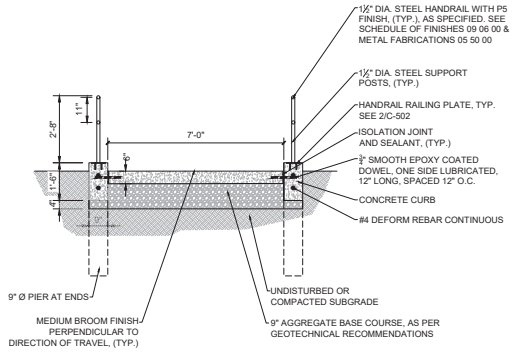


SECTION A-A

1 RAMP #1 DETAIL
SCALE: 1/2" = 1'-0" (30" x 42" PAPER SIZE)



RAMP #2
SECTION-ELEVATION 'B'



SECTION B-B

2 RAMP #2 DETAIL
SCALE: 1/2" = 1'-0" (30" x 42" PAPER SIZE)

Revisions:	Date:

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LOWELL J. V. BROOKBANKLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	RAMP SITE DETAILS
Approved: Project Director	SIOUX FALLS VA HEALTH CARE SYSTEM
Phase	BID DOCUMENTS
	FULLY SPRINKLERED
Project Title	CONSTRUCT NEW SPS
Location	SIOUX FALLS, SOUTH DAKOTA
Issue Date	02/14/2025
Checked	EB
Drawn	AB
Project Number	438-460
Building Number	5
Drawing Number	C-501

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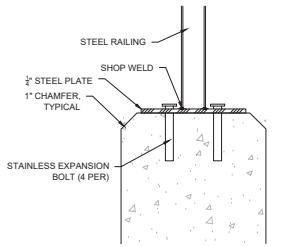
VA FORM 08 - 6231



2 ENLARGED RAILING PLATE DETAIL
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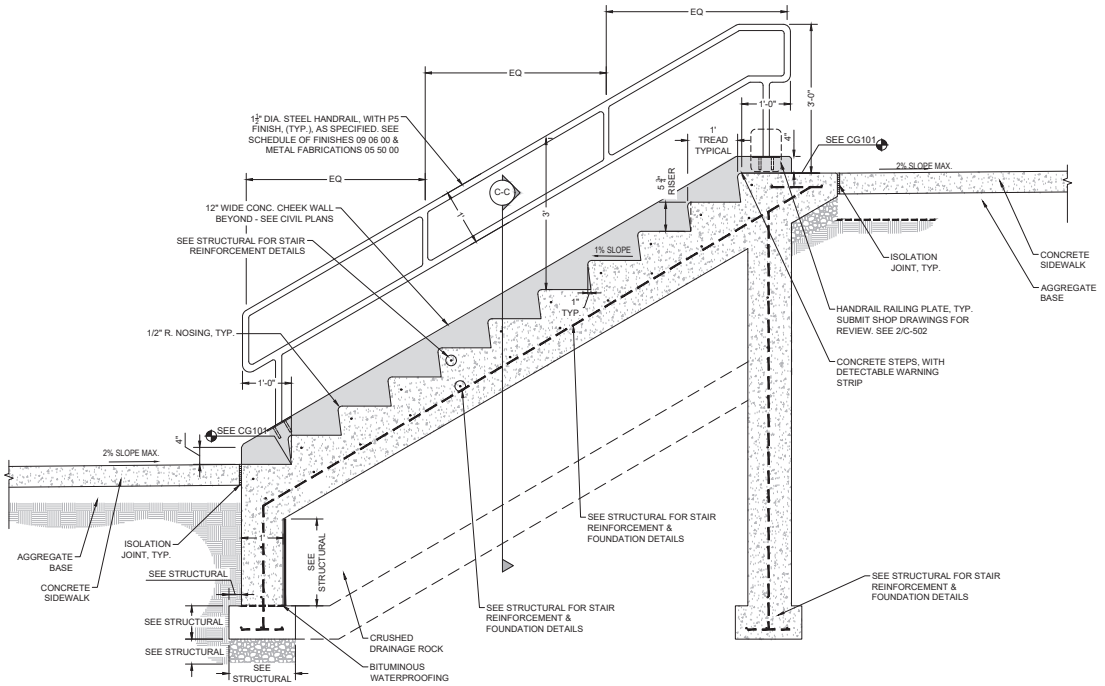
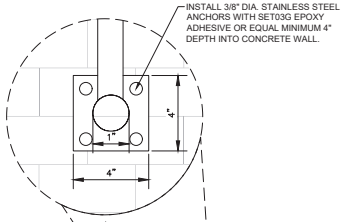
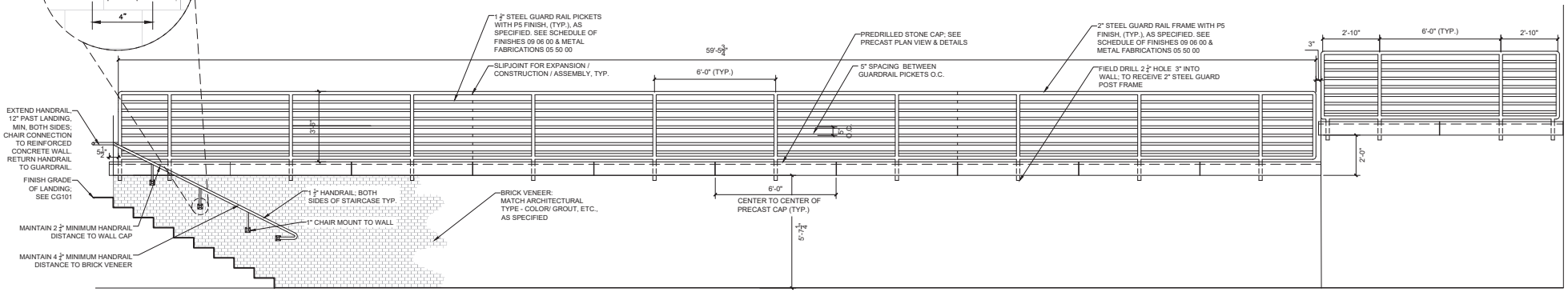


1 CONCRETE STAIR #2 DETAIL
SCALE: 1" = 1'-0" (30" x 42" PAPER SIZE)

SECTION C-C





3 CONCRETE STAIR #2 ELEVATION
SCALE: 1" = 1'-0" (30" x 42" PAPER SIZE)

Revisions:	Date:

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LOWELL V. SHOCKMILLER, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: STAIRS SITE DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS			Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA			Building Number: 5
		Issue Date: 02/14/2025	Checked: EB	Drawn: AB	Drawing Number: C-502

VA FORM 08-6231

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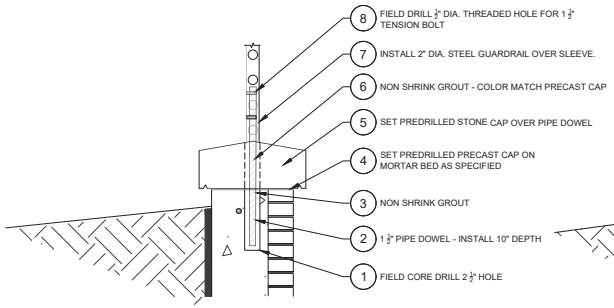
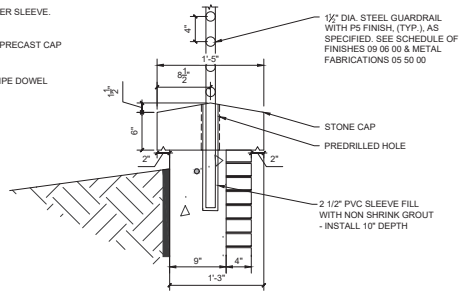
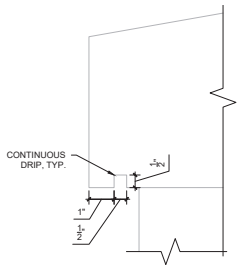


CAP INSTALLATION

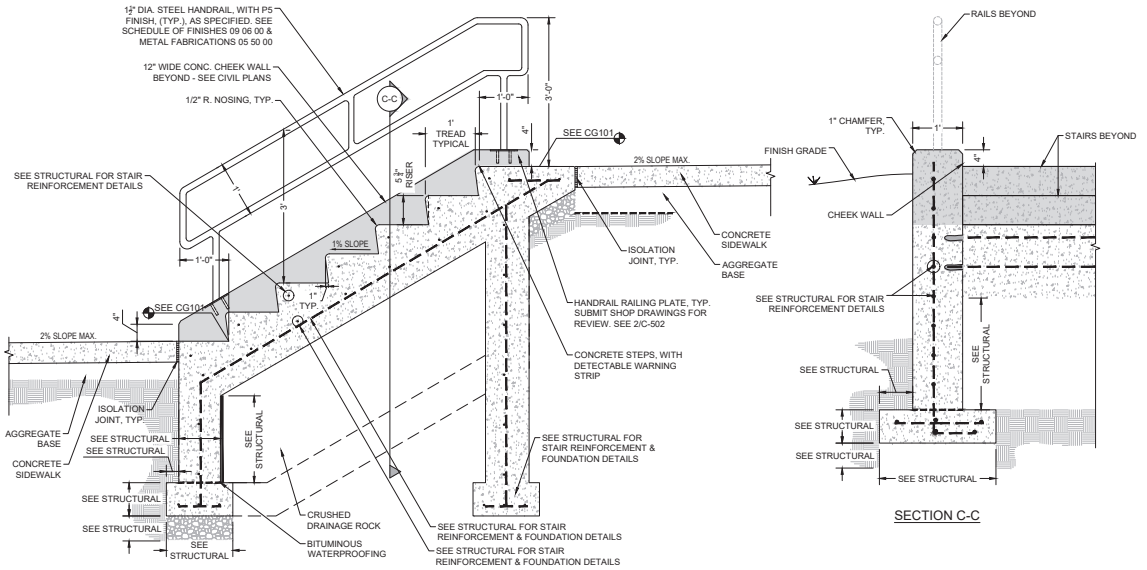


ENLARGED CAP AND RAIL DETAIL



DRIP EDGE
N.T.S

1 RETAINING WALL CAP & RAIL DETAIL
SCALE: 1" = 8' (30" x 42" PAPER SIZE)



SECTION C-C

3 CONCRETE STAIR #1 DETAIL
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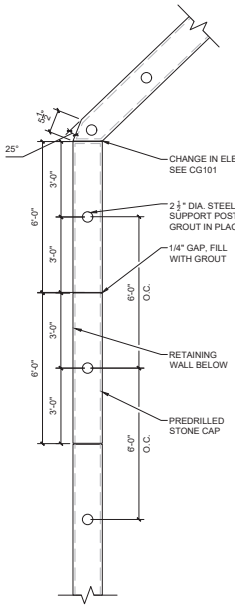
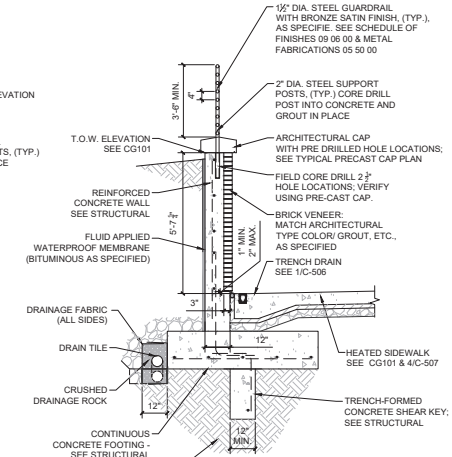


STONE CAP PLAN VIEW



SECTION ELEVATION VIEW

2 RETAINING WALL WITH GUARDRAIL
SCALE: 1" = 1'-0" (30" x 42" PAPER SIZE)

Revisions:	Date:

CONSULTANTS

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LOWELL V. SPRONKMARLE, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: RETAINING WALL SITE DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025 / Checked: EB / Drawn: AB	Drawing Number: C-503

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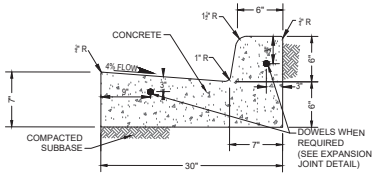
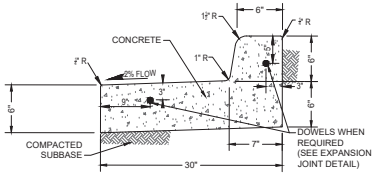
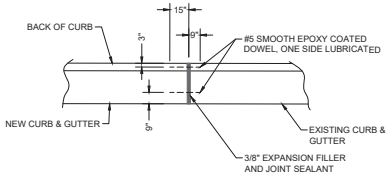


30" WIDE STANDARD CURB AND GUTTER
NTS



30" WIDE TIP-OUT CURB AND GUTTER
NTS

1 30" CURB TYPICAL SECTIONS
SCALE: NTS



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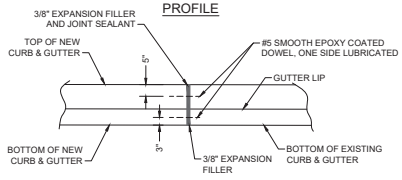
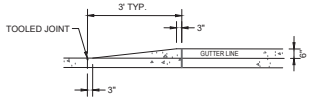
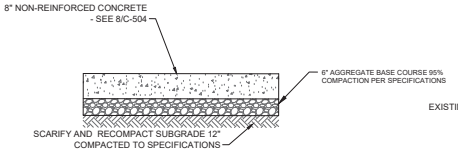


2 CURB AND GUTTER ISOLATION (EXPANSION) JOINT
SCALE: NTS

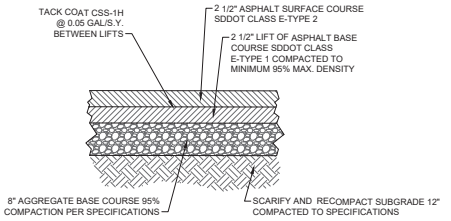


3 CURB TAPER DETAIL
SCALE: NTS

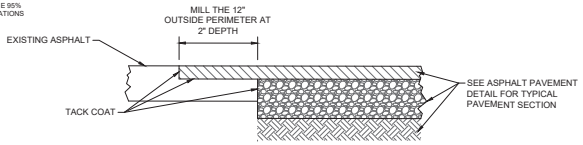


NOTE: IF CONTRACTOR OPTS TO DRIVE OVER BASE COURSE WITH CONSTRUCTION TRAFFIC PRIOR TO PAVEMENT PLACEMENT ADDITIONAL BASE COURSE WILL LIKELY BE NECESSARY. IF RUTTING OCCURS, BASE COURSE SHOULD BE REMOVED, SUBGRADE SHAPED AND COMPACTED AND BASE COURSE REINSTALLED.

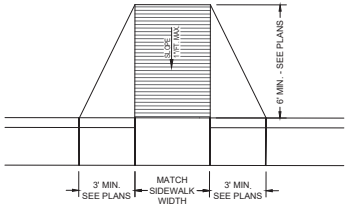
4 CONCRETE PAVEMENT DETAIL
SCALE: NTS



5 ASPHALT PAVEMENT DETAIL
SCALE: NTS

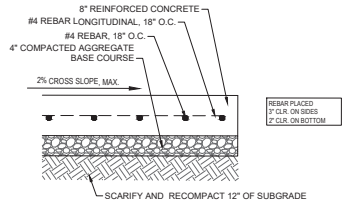


6 ASPHALT ABUTMENT DETAIL
SCALE: NTS

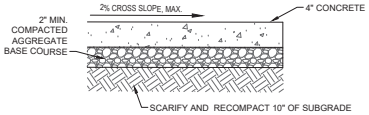


NOTES:
1. SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY A COARSE BROOMING AND TINING, TRANSVERSE TO THE SLOPE OF THE RAMP.
2. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES.
3. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP OPENING.
4. CROSS SLOPES SHALL NOT EXCEED 2%.

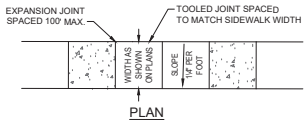
7 ABA CURB RAMPS
SCALE: NTS



REINFORCED SECTION

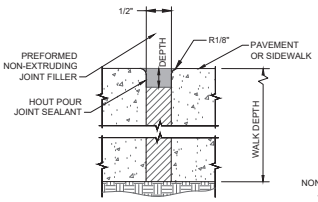


NON-REINFORCED SECTION

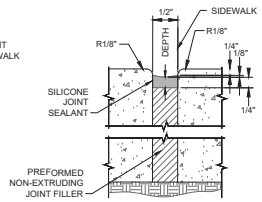


PLAN

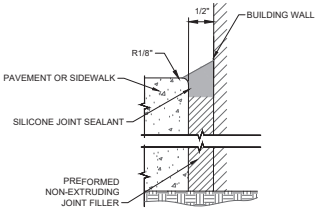
8 SIDEWALK DETAIL
SCALE: NTS



PAVEMENT ISOLATION JOINT W/ HOT POUR SEALANT



SIDEWALK OR PAVEMENT ISOLATION JOINT WITH SILICONE SEALANTS



BUILDING ISOLATION JOINT

10 SIDEWALK OR PAVEMENT ISOLATION (EXPANSION) JOINT DETAILS
SCALE: NTS

Revisions:	Date:

CONSULTANTS

IMEG EC design

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ANDERSON

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LOWELL V. SHOEMAKER, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title	CIVIL DETAILS
Phase	BID DOCUMENTS
Project Title	CONSTRUCT NEW SPS
Project Number	438-460
Building Number	5
Approved: Project Director	SIOUX FALLS VA HEALTH CARE SYSTEM
	FULLY SPRINKLERED
Location	SIOUX FALLS, SOUTH DAKOTA
Drawing Number	C-504
Issue Date	02/14/2025
Checked	EB
Drawn	AB

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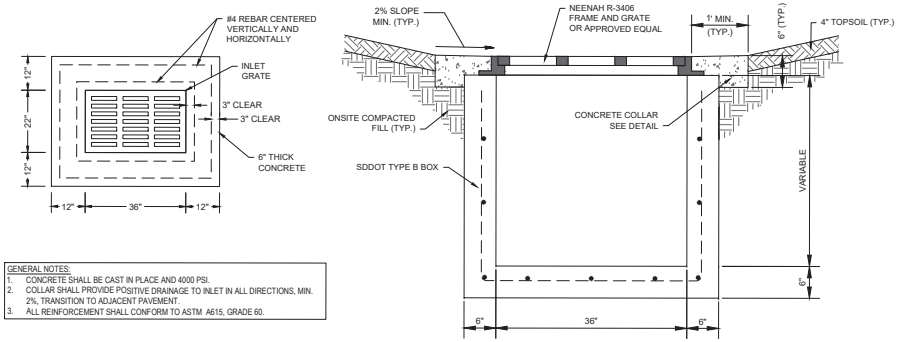
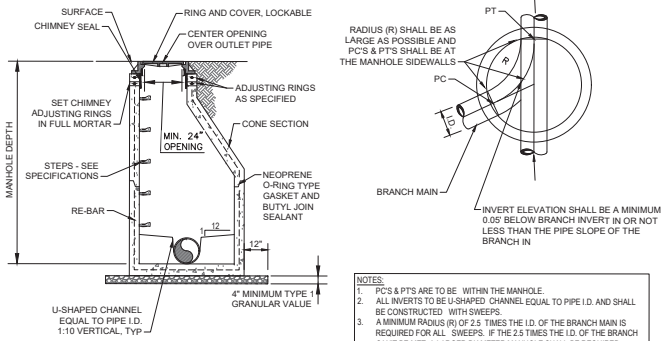
VA FORM 08 - 6231



GENERAL NOTES:
1. CONCRETE SHALL BE CAST IN PLACE AND 4000 PSI.
2. COLLAR SHALL PROVIDE POSITIVE DRAINAGE TO INLET IN ALL DIRECTIONS, MIN. 2%, TRANSITION TO ADJACENT PAVEMENT.
3. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.

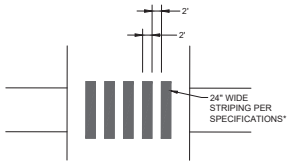
NEENAH R-3406 FRAME AND GRATE FOR AREA STORM INLET
N.T.S.

1 AREA INLET
SCALE: NTS



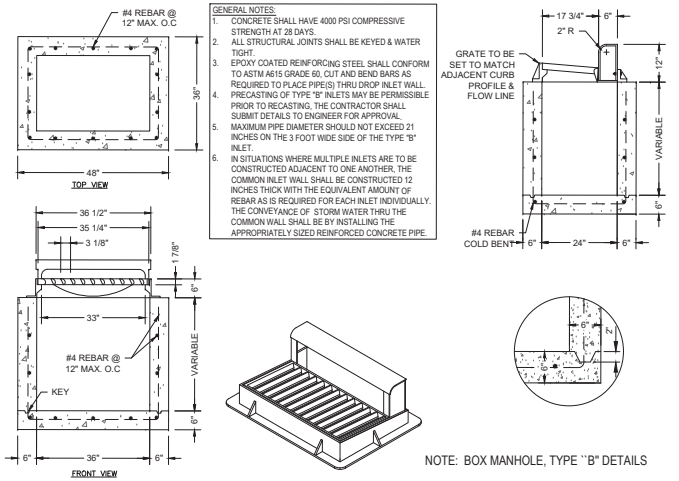
NOTES:
1. PC'S & PT'S ARE TO BE WITHIN THE MANHOLE.
2. ALL INVERTS TO BE U-SHAPED CHANNEL EQUAL TO PIPE I.D. AND SHALL BE CONSTRUCTED WITH SWEEPS.
3. A MINIMUM RADIUS (R) OF 2.5 TIMES THE I.D. OF THE BRANCH MAIN IS REQUIRED FOR ALL SWEEPS. IF THE 2.5 TIMES THE I.D. OF THE BRANCH CAN'T BE MET, A LARGER DIAMETER MANHOLE SHALL BE REQUIRED. MANHOLE PIPE CONNECTOR SHALL BE A RESILIENT WATERTIGHT SEAL.

2 SANITARY SEWER MANHOLE
SCALE: NTS



* CROSSWALK WIDTH TO MATCH ADJACENT SIDEWALK OR PATH WIDTH, BUT NOT LESS THAN 6' MEASURED BETWEEN LINES.

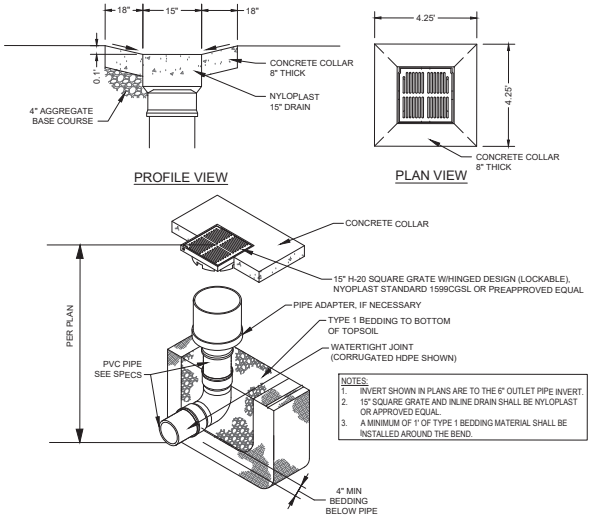
3 CROSSWALK DETAIL
SCALE: NTS



GENERAL NOTES:
1. CONCRETE SHALL HAVE 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. ALL STRUCTURAL JOINTS SHALL BE KEYED & WATER TIGHT.
3. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60, CUT AND BEND BARS AS REQUIRED TO PLACE PIPE(S) THRU DROP INLET WALL.
4. PRECASTING OF TYPE "B" INLETS MAY BE PERMISSIBLE PRIOR TO RECASTING, THE CONTRACTOR SHALL SUBMIT DETAILS TO ENGINEER FOR APPROVAL
5. MAXIMUM PIPE DIAMETER SHOULD NOT EXCEED 21 INCHES ON THE 3 FOOT WIDE SIDE OF THE TYPE "B" INLET.
6. IN SITUATIONS WHERE MULTIPLE INLETS ARE TO BE CONSTRUCTED ADJACENT TO ONE ANOTHER, THE COMMON INLET WALL SHALL BE CONSTRUCTED 12 INCHES THICK WITH THE EQUIVALENT AMOUNT OF REBAR AS IS REQUIRED FOR EACH INLET INDIVIDUALLY. THE CONVEYANCE OF STORM WATER THRU THE COMMON WALL SHALL BE BY INSTALLING THE APPROPRIATELY SIZED REINFORCED CONCRETE PIPE.

NOTE: BOX MANHOLE, TYPE ``B" DETAILS NEENAH R-3067 (V CURB INLET, FLOW-RIGHT SHOWN)

5 TYPE B INLET DETAIL
SCALE: NTS



NOTES:
1. INVERT SHOWN IN PLANS ARE TO THE 6" OUTLET PIPE INVERT.
2. 15" SQUARE GRATE AND INLINE DRAIN SHALL BE NYLOPLAST OR APPROVED EQUAL.
3. A MINIMUM OF 1' OF TYPE 1 BEDDING MATERIAL SHALL BE INSTALLED AROUND THE BEND.

6 NYLOPLAST 15" SQUARE GRATE INLINE DRAIN
SCALE: NTS

Revisions:	Date:

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LOWELL J. V. BROOKBANK, PE
DATE: 2025.02.14
LICENSE NO. 55409

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: CIVIL DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS			Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA			Building Number: 5
		Issue Date: 02/14/2025	Checked: EB	Drawn: AB	Drawing Number: C-505

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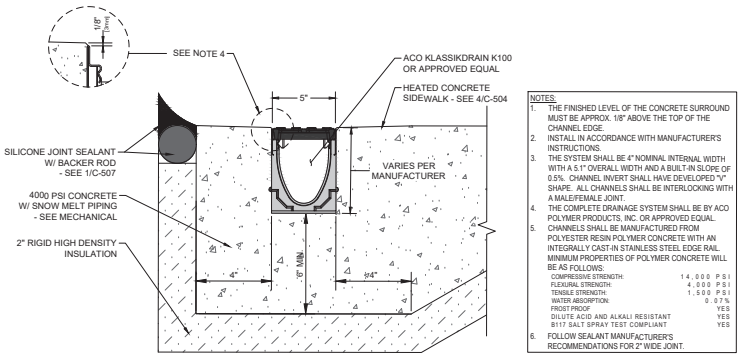
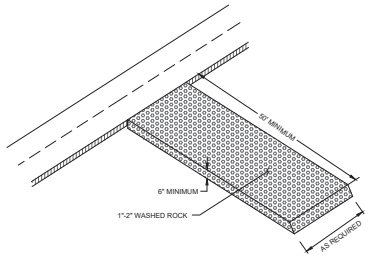


NOTES:
1. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" ABOVE THE TOP OF THE CHANNEL EDGE.
2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. THE SYSTEM SHALL BE 4" NOMINAL INTERNAL WIDTH WITH A 5.1" OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.
4. THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. OR APPROVED EQUAL.
5. CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN STAINLESS STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

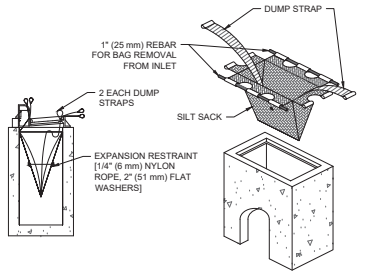
COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

6. FOLLOW SEALANT MANUFACTURER'S RECOMMENDATIONS FOR 2" WIDE JOINT.

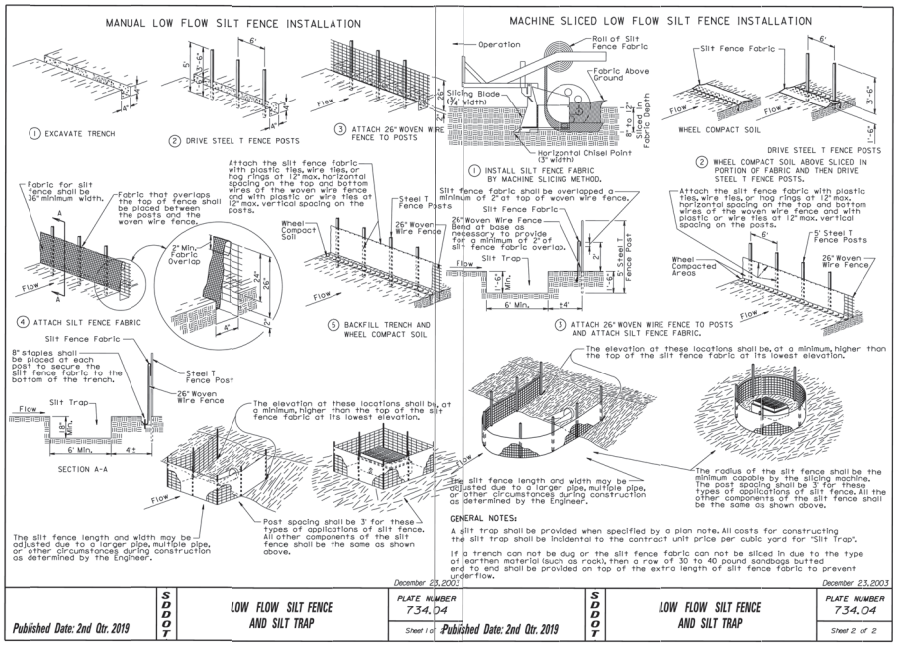
1 TRENCH DRAIN DETAIL
SCALE: NTS



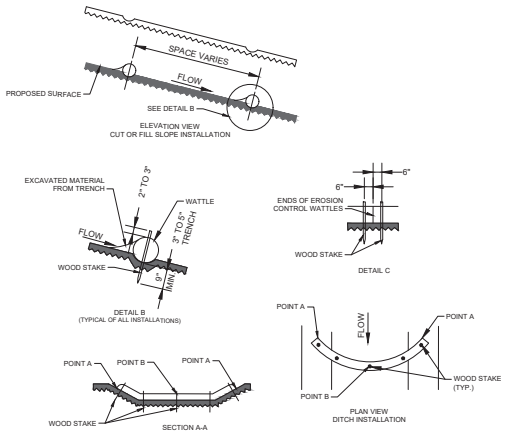
2 ROCK CONSTRUCTION ENTRANCE DETAIL
SCALE: NTS



3 INLET PROTECTION DETAIL
SCALE: NTS

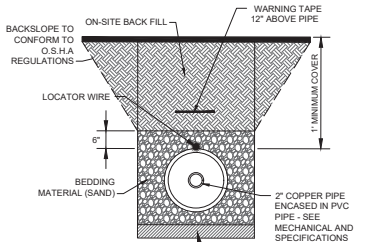


4 SILT FENCE DETAILS
SCALE: NTS

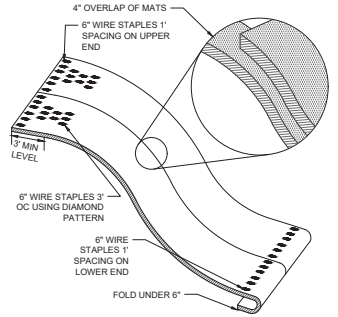


GENERAL NOTES:
1. AT CUT OR FILL SLOPE INSTALLATIONS WATTLES SHALL BE INSTALLED ALONG THE CONTOUR AND PERPENDICULAR TO THE WATER FLOW.
2. AT DITCH INSTALLATIONS, POINT "A" MUST BE HIGHER THAN POINT "B" SO THAT WATER FLOWS OVER THE WATTLE AND NOT AROUND THE ENDS.
3. THE CONTRACTOR SHALL DIG A 3" TO 5" TRENCH, INSTALL THE WATTLE TIGHTLY IN THE TRENCH SO THAT DAYLIGHT CAN NOT BE SEEN UNDER THE WATTLE, AND THEN COMPACT THE SOIL EXCAVATED FROM THE TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. SEE DETAIL B.
4. THE STAKES SHALL BE 1"X2" OR 2"X2" WOOD STAKES. HOWEVER, OTHER TYPES OF STAKES SUCH AS REBAR MAY BE USED. THE STAKES SHALL BE PLACED 6" FROM THE ENDS OF THE WATTLES AND THE SPACING OF THE STAKES ALONG THE WATTLES SHALL BE 3' TO 4'.
5. WHERE INSTALLING RUNNING LENGTHS OF WATTLES, THE CONTRACTOR SHALL BUTT THE SECOND WATTLE TIGHTLY AGAINST THE FIRST AND SHALL NOT OVERLAP THE ENDS. SEE DETAIL C.

5 SEDIMENT CONTROL WATTLE
SCALE: NTS



6 OXYGEN LINE TRENCH DETAIL
SCALE: NTS



7 EROSION CONTROL BLANKET
SCALE: NTS

Revisions:	Date:

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LOWEN J. V. BROCKMUELLER, PE
DATE: 2025.02.14 LICENSE NO. 55409

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: CIVIL DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025	Checked: EB
			Drawn: AB
			Drawing Number: C-506

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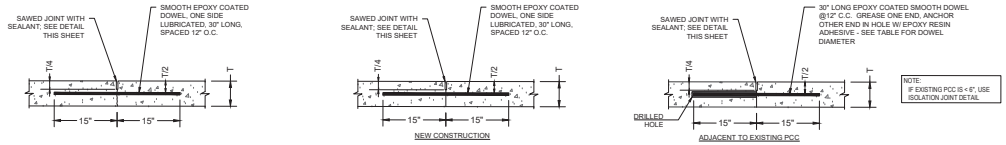
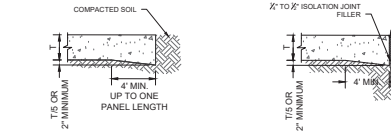
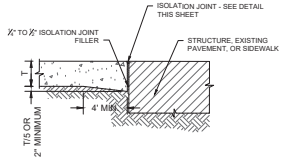


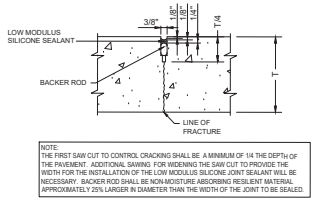
DOWELED CONSTRUCTION JOINT
N.T.S.



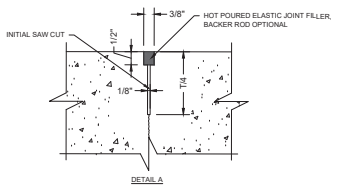
THICKENED PAVEMENT EDGE
N.T.S.



ISOLATION JOINT
N.T.S.

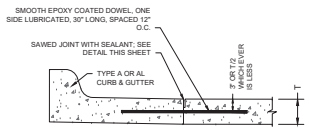


SAWED JOINT W/ BACKER ROD & SILICONE SEAL

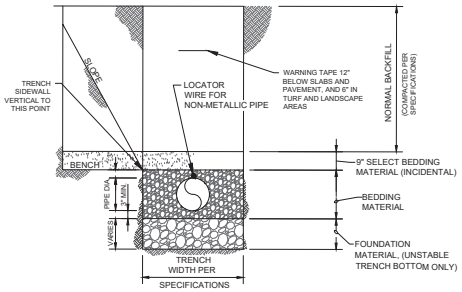


SAWED JOINT WITH HOT POURED SEALANT

PAVEMENT CONTRACTION JOINT DETAILS
N.T.S.

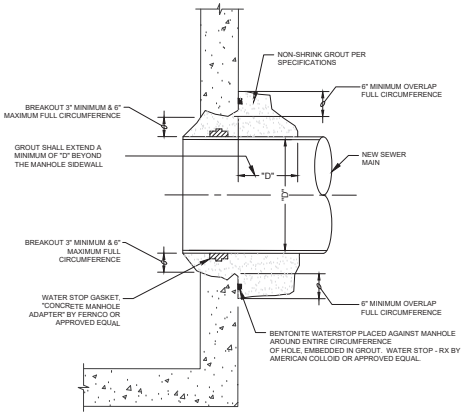


CURB CONSTRUCTION JOINT
N.T.S.



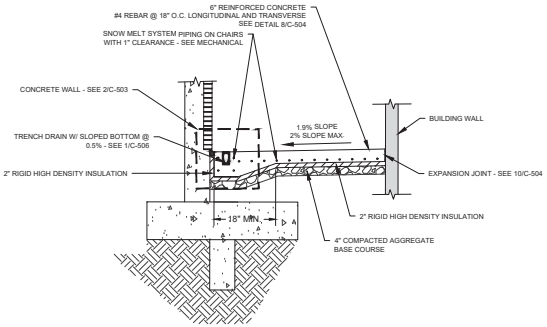
2 STANDARD PIPE TRENCH DETAIL
SCALE: NTS

1 JOINT DETAILS
SCALE: NTS

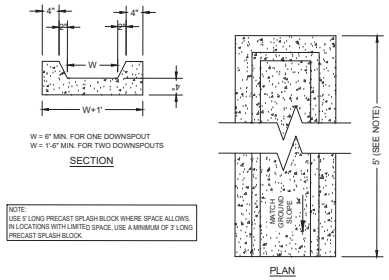


NOTE:
AS AN ALTERNATIVE, THE CONTRACTOR MAY CORE THE EXISTING MANHOLE AND INSTALL A BOOT-TYPE FLEXIBLE CONNECTOR CONSISTING OF A RUBBER GASKET OR BOOT, METAL EXPANSION RING AND DOUBLE METAL TAKE-UP CLAMPS, AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION, OR PREAPPROVED EQUAL. A STAINLESS STEEL "POWER SLEEVE" SHALL BE SUPPLIED FOR CONNECTING THE BOOT TO THE MANHOLE. THE BOOTS SHALL BE TYPE PSX AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION OR APPROVED EQUAL. RUBBER BOOTS AND GASKET MATERIAL SHALL MEET OR EXCEED ASTM C-923.

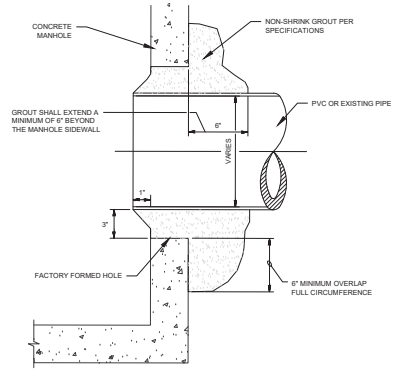
3 PIPE CONNECTION TO SANITARY MANHOLE
SCALE: NTS



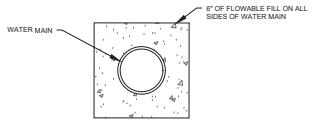
4 HEATED SIDEWALK DETAIL
SCALE: NTS



5 PRECAST SPLASH BLOCK
SCALE: NTS



6 PIPE CONNECTION TO STORM MANHOLE
SCALE: NTS



7 ENCASEMENT DETAIL
SCALE: NTS

Revisions:	Date:

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EC design

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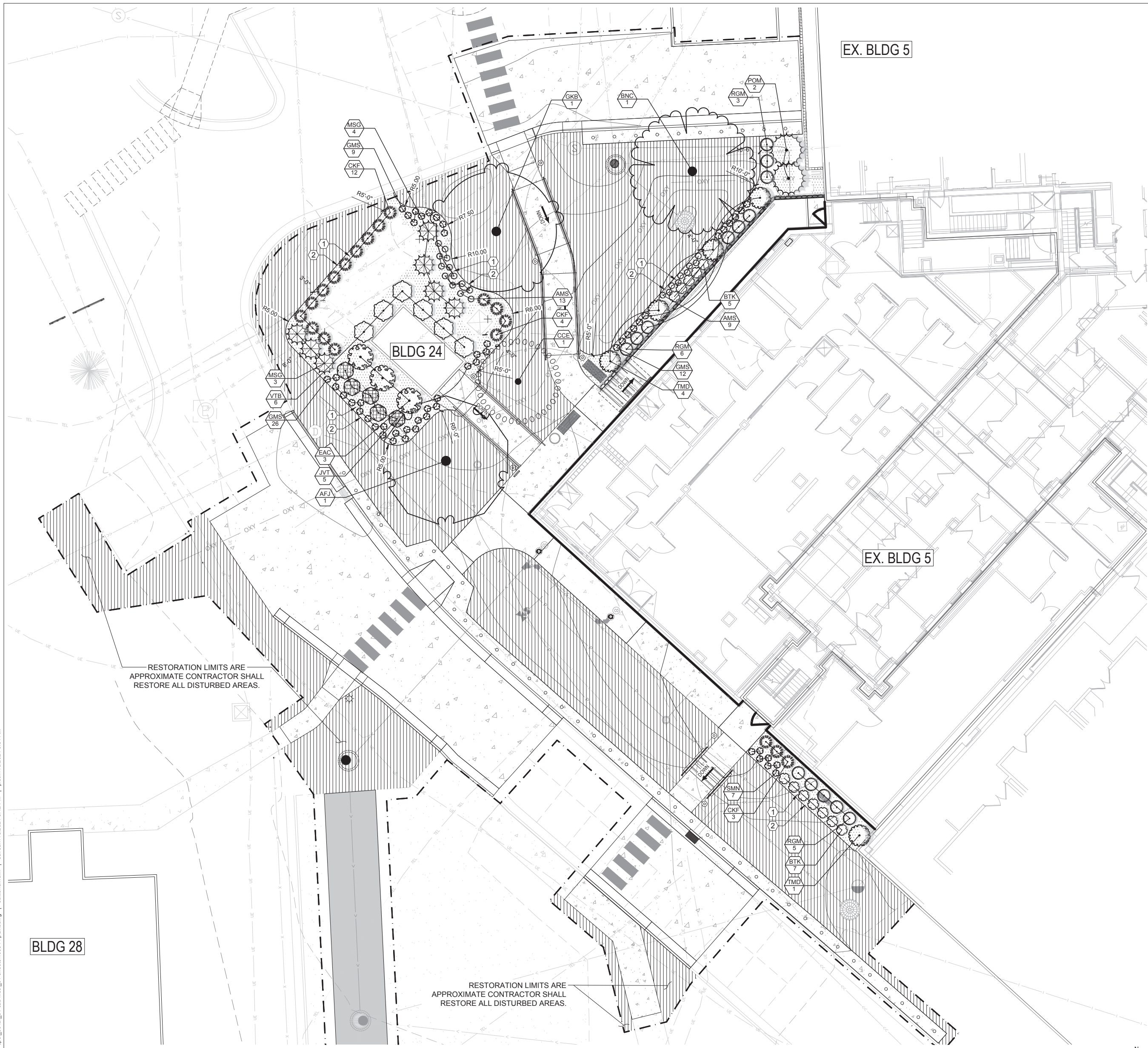
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT, WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
DATE: 2025.02.14
LICENSE NO. 55409

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: CIVIL DETAILS
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM
Phase: BID DOCUMENTS
FULLY SPRINKLERED
Project Title: CONSTRUCT NEW SPS
Location: SIOUX FALLS, SOUTH DAKOTA
Project Number: 438-460
Building Number: 5
Drawing Number: C-507
Issue Date: 02/14/2025
Checked: EB
Drawn: AB

VA FORM 08 - 6231



LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- DEMARCATION LINE
- 966 EXISTING MINOR CONTOUR
- 965 EXISTING MAJOR CONTOUR
- 966 PROPOSED MINOR CONTOUR
- 965 PROPOSED MAJOR CONTOUR
- CONSTRUCTION LIMITS
- NEW SOD w/IRRIGATION
- (1) 3" DEEP, 1-1/2" WASHED RIVER ROCK MULCH OVER FABRIC (MATCH EXISTING)
- (2) LANDSCAPE METAL EDGER

NOTES

1. ALL LANDSCAPING DISTURBED BEYOND THE NEW PLANTINGS SHALL BE REPLACED IN KIND.
2. ALL PLANTINGS SHALL RECEIVE IRRIGATION; REFER TO IRRIGATION PLAN SHEETS FOR IRRIGATION DESIGN.

PLANTING SCHEDULE

CONIFEROUS TREES	CODE	QTY	COMMON / BOTANICAL NAME	CONT	CAL	HT	REMARKS
	JVT	5	TAYLOR EASTERN REDCEDAR JUNIPERUS VIRGINIANA 'TAYLOR'	B&B		6` HT.	FULL FORM TO GRADE - 12" MAX. LEADER LENGTH; SHEARED AND CLIPPED TREES WILL NOT BE ACCEPTED
DECIDUOUS TREES	**CODE**	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**CAL**	**HT**	**REMARKS**
	AFJ	1	AUTUMN BLAZE FREEMAN MAPLE ACER X FREEMANII 'JEFFERSRED' TM	B&B	3" CAL.		SINGLE, STRAIGHT LEADER; NO 'V' CROTCHES
	BNC	1	HERITAGE RIVER BIRCH BETULA NIGRA 'CULLY' TM	B&B		12` HT.	MIN. 1-1/2" CAL. LEADERS; NO BRANCHES BELOW 36" HT. SINGLE STEM
	CCE	1	EASTERN REDBUD CERCIS CANADENSIS	B&B	2" CAL.		SINGLE, STRAIGHT LEADER; NO BRANCHES BELOW 36" HT.; SINGLE STEM
	GKB	1	MAIDENHAIR TREE GINKGO BILOBA	B&B	2 - 1/2" CAL.		SINGLE, STRAIGHT LEADER; NO 'V' CROTCHES; SEEDLESS
SHRUBS	**CODE**	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**SIZE**		
	BTK	12	KOBOLD JAPANESE BARBERRY BERBERIS THUNBERGII 'KOBOLD' TM	CONT.	2 GAL.		MIN. 5 CANES @ 12" HT.
	EAC	3	COMPACT BURNING BUSH EUONYMUS ALATUS 'COMPACTUS'	CONT.	5 GAL.		MIN. 5 CANES @ 12" HT.
	POM	2	DIABOLO NINEBARK PHYSOCARPUS OPULIFOLIUS 'MONLO' TM	CONT.	5 GAL.		MIN. 5 CANES @ 12" HT.
	RGM	14	GREEN MOUND ALPINE CURRANT RIBES ALPINUM 'GREEN MOUND'	CONT.	2 GAL.		MIN. 5 CANES @ 12" HT.
	TMD	5	DENSE SPREADING YEW TAXUS X MEDIA 'DENSIFORMIS'	CONT.	5 GAL.		
	VTB	6	BAILEY'S COMPACT CRANBERRYBUSH VIBURNUM TRILOBUM 'BAILEY COMPACT'	CONT.	5 GAL.		MIN. 5 CANES @ 12" HT.
ORNAMENTAL GRASS	**CODE**	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**SIZE**		
	CKF	19	KARL FOERSTER FEATHER REED GRASS CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	CONT.	1 GAL.		
	MSG	7	EULALIA GRASS MISCANTHUS SINENSIS 'GRACILLIMUS'	CONT.	1 GAL.		
PERENNIALS	**CODE**	**QTY**	**COMMON / BOTANICAL NAME**	**CONT**	**SIZE**		
	HSO	22	'STELLA DE ORO' DAYLILY HEMEROCALLIS X `STELLA DE ORO`	CONT.	1 GAL.		
	SMN	54	MAY NIGHT SAGE SALVIA X SYLVESTRIS `MAY NIGHT`	CONT.	1 GAL.		

1 PLANTING PLAN
SCALE: 1" = 10' (30" x 42" PAPER SIZE)

0 10' 20'

Revisions: Date:

CONSULTANTS
IMEG
EC design

ARCHITECT/ENGINEER OF RECORD
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13605 1st Ave. N. #100 Plymouth, MN 55441
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Anderson Engineering of Minnesota, LLC | Proj # 16584

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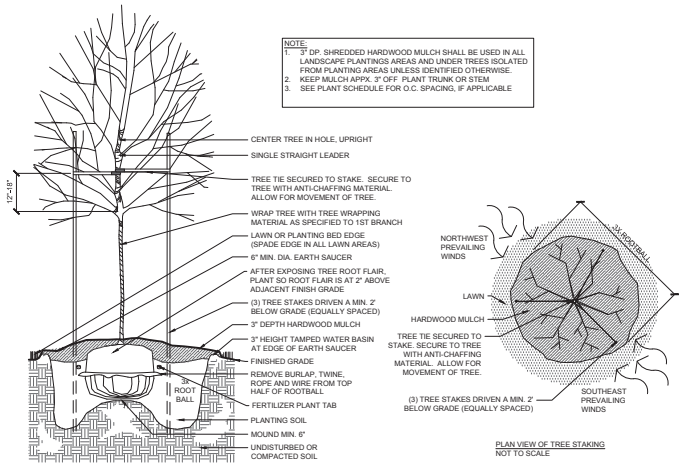
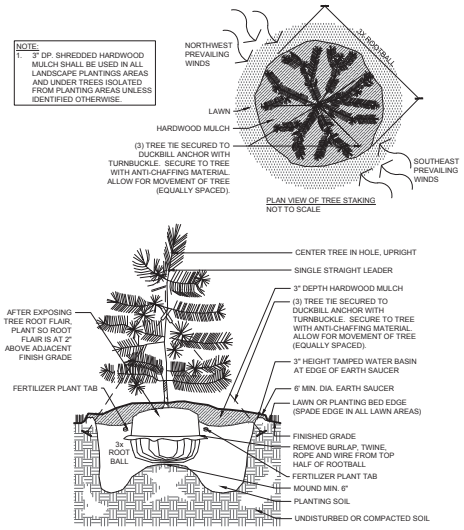
Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
PLANTING PLAN	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
Approved: Project Director		Location	Building Number
SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	SIOUX FALLS, SOUTH DAKOTA	5
		Issue Date 02/14/2025 / Checked CC / Drawn JF	Drawing Number LP101

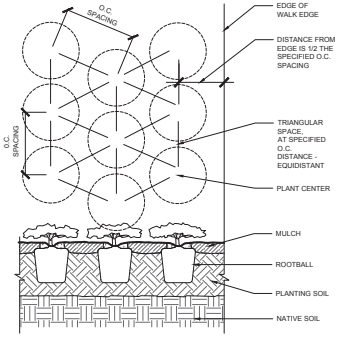
VA FORM 08-6231



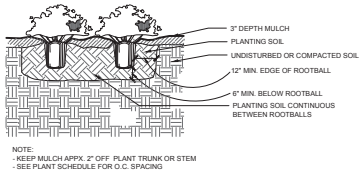
1 DECIDUOUS TREE PLANTING
SCALE:N.T.S.



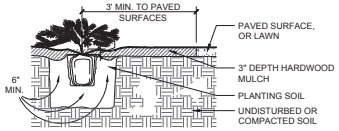
2 CONIFEROUS TREE PLANTING
SCALE:N.T.S.



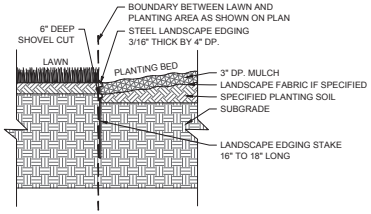
3 SHRUB BED SPACING
SCALE:N.T.S.



4 DECIDUOUS SHRUB PLANTING
SCALE:N.T.S.



5 EVERGREEN SHRUB PLANTING
SCALE:N.T.S.



6 METAL LANDSCAPE EDGING
SCALE:N.T.S.

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Revisions:	Date:

CONSULTANTS

IMEG EC design

ARCHITECT/ENGINEER OF RECORD

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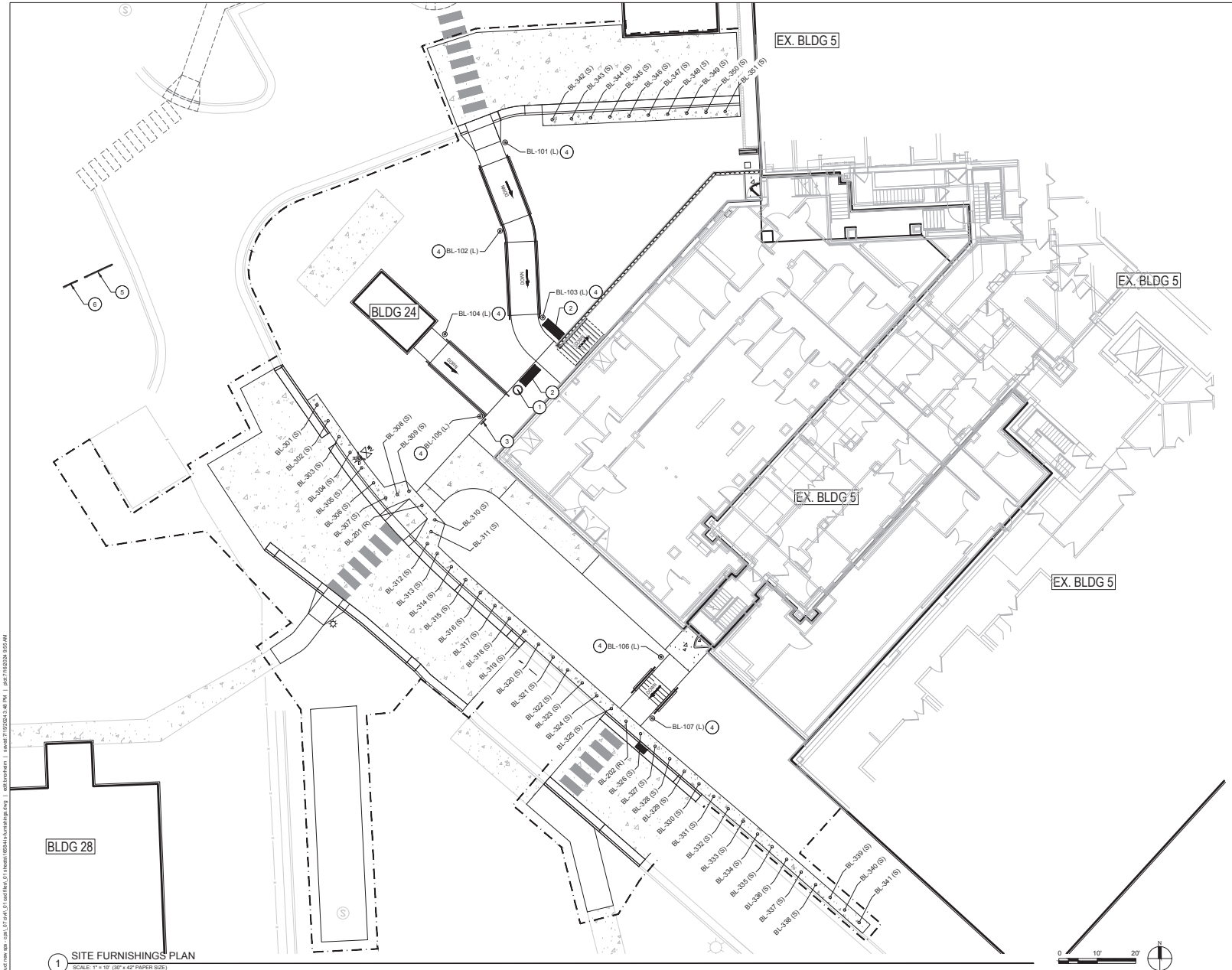
Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: PLANTING DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS			Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA			Building Number: 5
		Issue Date: 02/14/2025	Checked: CC	Drawn: JF	Drawing Number: LP501

VA FORM 08 - 6231



LEGEND

- PROPERTY LIMITS
- CONSTRUCTION LIMITS
- ADJACENT PROPERTY
- BUILDING SETBACKS
- PARKING SETBACK
- DRAINAGE AND UTILITY EASEMENT

KEYNOTES

1. SITE FURNISHINGS - TRASH RECEPTACLE, TYP. - SEE 1/LF501
2. SITE FURNISHINGS - BENCH, TYP. - SEE 2/LF501
3. SITE FURNISHINGS - BIKE RACK, TYP. - SEE 3/LF501
4. LIGHTED BOLLARD - SEE 2/LF502 & SEE ELECTRICAL PLANS
5. PROJECT CONSTRUCTION SIGN - SEE 4/LF501
6. SAFETY CONSTRUCTION SIGN - SEE 5/LF501

BOLLARDS SCHEDULE

ID	TYPE	DETAL	NOTES
BL-101 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-102 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-103 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-104 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-105 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-106 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-107 (L)	BOLLARD	SEE 2/LF502 & ELEC.	LIGHTED; PERMANENT BOLLARD
BL-201 (R)	BOLLARD	SEE 3/LF502	NON-LIGHTED; REMOVABLE BOLLARD
BL-202 (R)	BOLLARD	SEE 3/LF502	NON-LIGHTED; REMOVABLE BOLLARD
BL-301 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-302 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-303 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-304 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-301 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-302 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-303 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-304 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-305 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-306 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-307 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-308 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-309 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-310 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-311 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-312 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-313 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-314 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-315 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-316 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-317 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-318 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-319 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-320 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-321 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-322 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-323 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-324 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-325 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-326 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-327 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-328 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-329 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-330 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-331 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-332 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-333 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-334 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-335 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-336 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-337 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-338 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-339 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-340 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-341 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-342 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-343 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-344 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-345 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-346 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-347 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-348 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-349 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-350 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD
BL-351 (S)	BOLLARD	SEE 1/LF502	NON-LIGHTED; FIXED BOLLARD

GENERAL SITE FURNISHINGS NOTES:
1. ALL SITE FURNISHINGS SHALL BE LOCATED IN FIELD AS IDENTIFIED BY THE SCHEDULE ABOVE. FINAL APPROVAL SHALL BE ACQUIRED FROM RE PRIOR TO FINAL PLACEMENT.
2. SEE SPECIFICATIONS FOR MORE INFORMATION.

1 SITE FURNISHINGS PLAN
SCALE: 1" = 10' (30" x 42" PAPER SIZE)

Revisions: | Date:

CONSULTANTS

IMEG | EC design

ARCHITECT/ENGINEER OF RECORD

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Anderson Engineering of Minnesota, LLC | Proj # 16584

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SITE FURNISHINGS PLAN	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025	Checked: CC
			Drawn: JF
			Drawing Number: LF101

VA FORM 08 - 6231

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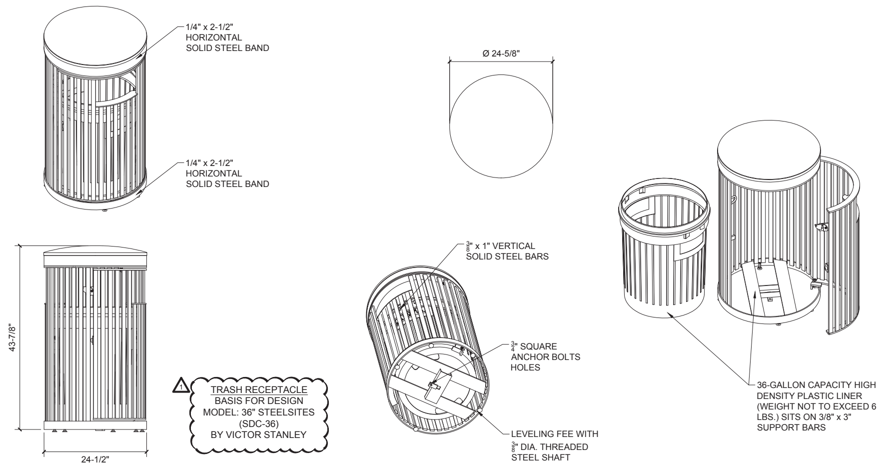
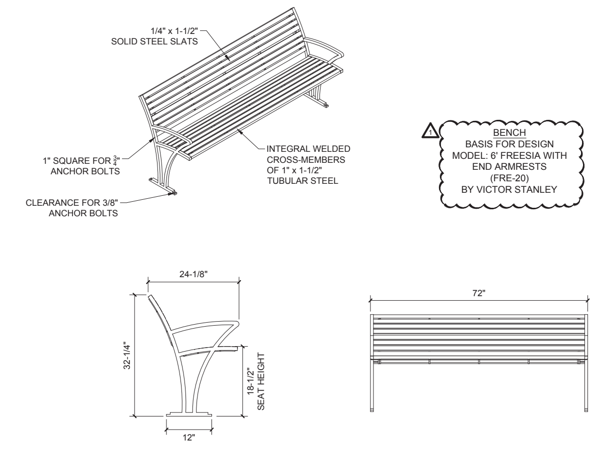
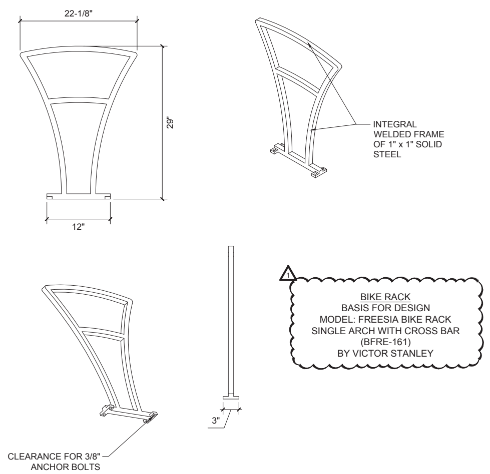

1/4" x 2-1/2" HORIZONTAL SOLID STEEL BAND
1/4" x 2-1/2" HORIZONTAL SOLID STEEL BAND
43-7/8"
24-1/2"
Ø 24-5/8"
3/8" x 1" VERTICAL SOLID STEEL BARS
3/4" SQUARE ANCHOR BOLTS HOLES
LEVELING FEE WITH 3/8" DIA. THREADED STEEL SHAFT
36-GALLON CAPACITY HIGH DENSITY PLASTIC LINER (WEIGHT NOT TO EXCEED 6 LBS.) SITS ON 3/8" x 3" SUPPORT BARS
TRASH RECEPTACLE
BASIS FOR DESIGN
MODEL: 36" STEELSITES (SDC-36)
BY VICTOR STANLEY

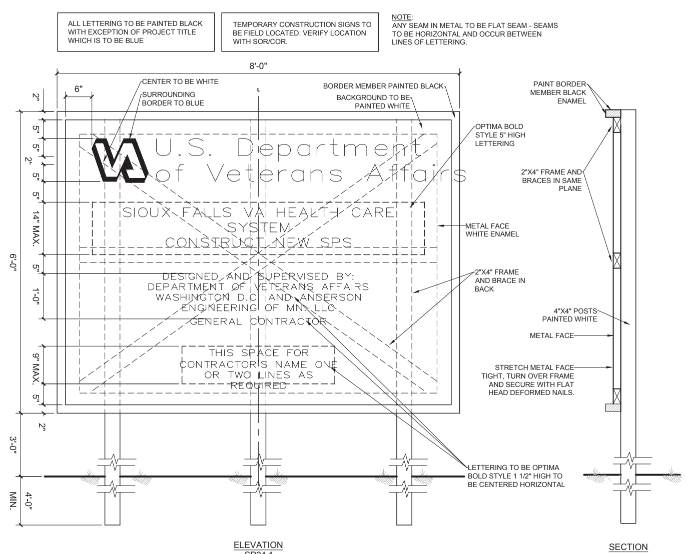
1 TRASH RECEPTACLE (OWNER PROVIDED; CONTRACTOR INSTALLED)
SCALE:N.T.S. (30" x 42" PAPER SIZE)


1/4" x 1-1/2" SOLID STEEL SLATS
1" SQUARE FOR 3/4" ANCHOR BOLTS
CLEARANCE FOR 3/8" ANCHOR BOLTS
INTEGRAL WELDED CROSS-MEMBERS OF 1" x 1-1/2" TUBULAR STEEL
BENCH
BASIS FOR DESIGN
MODEL: 6' FREESIA WITH END ARMRESTS (FRE-20)
BY VICTOR STANLEY
24-1/8"
32-1/4"
18-1/2" SEAT HEIGHT
12"
72"

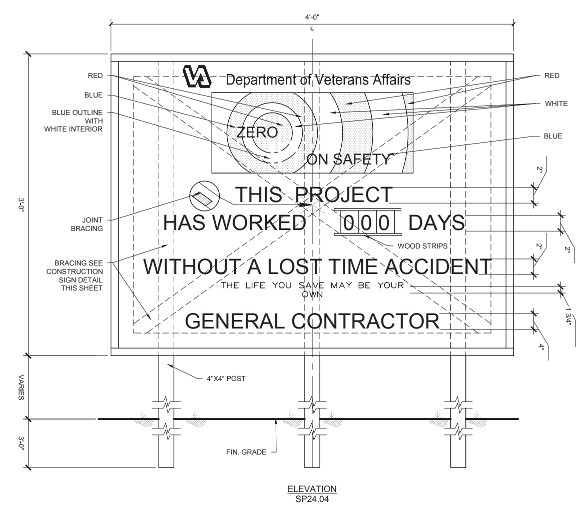
3 BENCH (OWNER PROVIDED; CONTRACTOR INSTALLED)
SCALE:N.T.S. (30" x 42" PAPER SIZE)



2 BIKE RACK (OWNER PROVIDED; CONTRACTOR INSTALLED)
SCALE:N.T.S. (30" x 42" PAPER SIZE)


ALL LETTERING TO BE PAINTED BLACK WITH EXCEPTION OF PROJECT TITLE WHICH IS TO BE BLUE
TEMPORARY CONSTRUCTION SIGNS TO BE FIELD LOCATED. VERIFY LOCATION WITH SOR/COR.
NOTE:
ANY SEAM IN METAL TO BE FLAT SEAM - SEAMS TO BE HORIZONTAL AND OCCUR BETWEEN LINES OF LETTERING.
8'-0"
6"
CENTER TO BE WHITE
SURROUNDING BORDER TO BLUE
BORDER MEMBER PAINTED BLACK
BACKGROUND TO BE PAINTED WHITE
OPTIMA BOLD STYLE 5" HIGH LETTERING
U.S. Department of Veterans Affairs
SIOUX FALLS VA HEALTH CARE SYSTEM
CONSTRUCT NEW SPS
METAL FACE WHITE ENAMEL
DESIGNED AND SUPERVISED BY:
DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON D.C. AND ANDERSON ENGINEERING OF MN, LLC
GENERAL CONTRACTOR
2"X4" FRAME AND BRACE IN BACK
THIS SPACE FOR CONTRACTOR'S NAME ONE OR TWO LINES AS REQUIRED
LETTERING TO BE OPTIMA BOLD STYLE 1 1/2" HIGH TO BE CENTERED HORIZONTAL
6'-0"
3'-0"
4'-0" MIN.
PAINT BORDER MEMBER BLACK ENAMEL
2"X4" FRAME AND BRACES IN SAME PLANE
4"X4" POSTS PAINTED WHITE
METAL FACE
STRETCH METAL FACE TIGHT, TURN OVER FRAME AND SECURE WITH FLAT HEAD DEFORMED NAILS.
ELEVATION
SP24.1
SECTION
ON CENTERLINE

4 PROJECT CONSTRUCTION SIGN
SCALE:N.T.S. (30" x 42" PAPER SIZE)


4'-0"
RED
BLUE
BLUE OUTLINE WITH WHITE INTERIOR
Department of Veterans Affairs
ZERO
ON SAFETY
RED
WHITE
BLUE
THIS PROJECT
HAS WORKED 0 0 0 DAYS
WITHOUT A LOST TIME ACCIDENT
THE LIFE YOU SAVE MAY BE YOUR OWN
GENERAL CONTRACTOR
JOINT BRACING
BRACING SEE CONSTRUCTION SIGN DETAIL THIS SHEET
WOOD STRIPS
4"X4" POST
VARIES
FIN. GRADE
3'-0"
ELEVATION
SP24.04

5 SAFETY CONSTRUCTION SIGN
SCALE:N.T.S. (30" x 42" PAPER SIZE)

Revisions:	Date:

CONSULTANTS

ARCHITECT/ENGINEER OF RECORD

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Anderson Engineering of Minnesota, LLC | Proj # 16584

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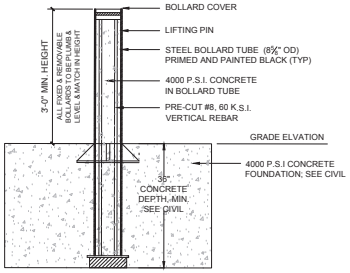
Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: SITE FURNISHINGS DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
			Building Number: 5
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Drawing Number: LF501
		Issue Date: 02/14/2025; Checked: CC; Drawn: JF	

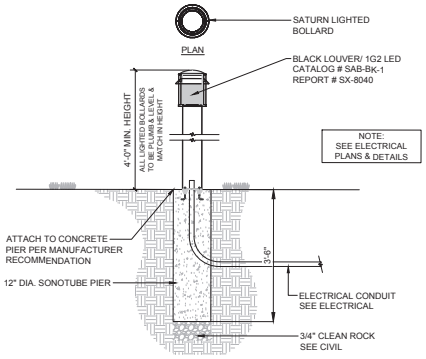
VA FORM 08-6231



FIXED BOLLARD
BASIS FOR DESIGN
MODEL SPB-400 (SET & POUR)
RATED ASTM M30(K4)
BY IDEAL SHIELD

NOTE:
STANDARD FIXED BOLLARDS & REMOVABLE BOLLARDS TO BE RATED ASTM M30(K4) PER VA PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL REQUIREMENTS

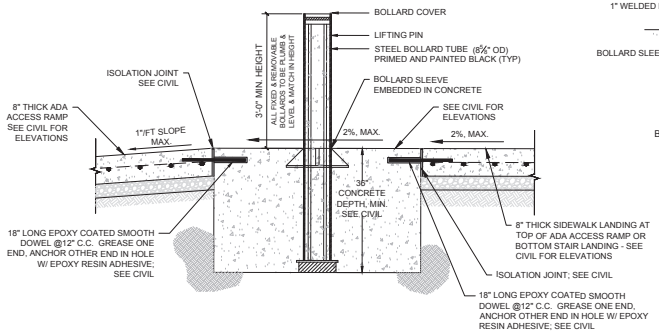
FIXED BOLLARD PREFABRICATED MATERIALS



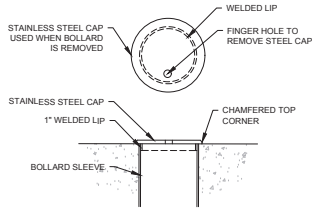
LIGHTED BOLLARD
BASIS FOR DESIGN
MODEL SATURN BOLLARD - SAB SERIES
BY SELUX CORP.

1 FIXED BOLLARDS - RATED M30(K4)
SCALE:N.T.S. (30" x 42" PAPER SIZE)

2 LIGHTED BOLLARDS
SCALE:N.T.S. (30" x 42" PAPER SIZE)

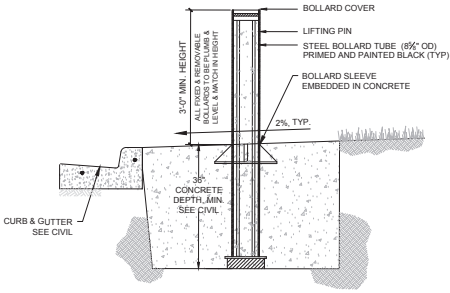


REMOVABLE BOLLARD
(AT TOP OF ABA ACCESS RAMP & BOTTOM STAIR LANDING)
BASIS FOR DESIGN MODEL SPB-400
RATED ASTM M30(K4)
BY IDEAL SHIELD

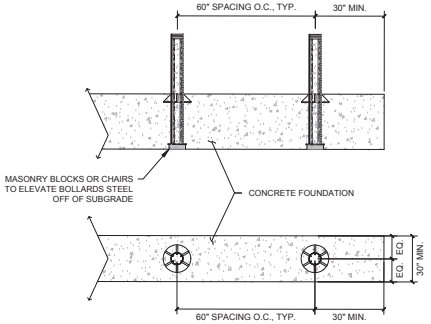


REMOVABLE BOLLARD CAP
BASIS FOR DESIGN MODEL SPB-400
RATED ASTM M30(K4)
BY IDEAL SHIELD

NOTE:
STANDARD FIXED BOLLARDS & REMOVABLE BOLLARDS TO BE RATED ASTM M30(K4) PER VA PHYSICAL SECURITY AND RESILIENCY DESIGN MANUAL REQUIREMENTS



REMOVABLE BOLLARD
(BEHIND CURB AND GUTTER)
BASIS FOR DESIGN MODEL SPB-400
RATED ASTM M30(K4)
BY IDEAL SHIELD



FIXED AND REMOVABLE BOLLARD ARRAY

3 REMOVABLE BOLLARDS - RATED M30(K4)
SCALE:N.T.S. (30" x 42" PAPER SIZE)

4 FIXED & REMOVABLE BOLLARDS SPACING
SCALE:N.T.S. (30" x 42" PAPER SIZE)

Revisions:	Date:

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Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: SITE FURNISHINGS DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM	FULLY SPRINKLERED	Location: SIOUX FALLS, SOUTH DAKOTA	Building Number: 5
		Issue Date: 02/14/2025 / Checked: CC / Drawn: JF	Drawing Number: LF502

VA FORM 08 - 6231

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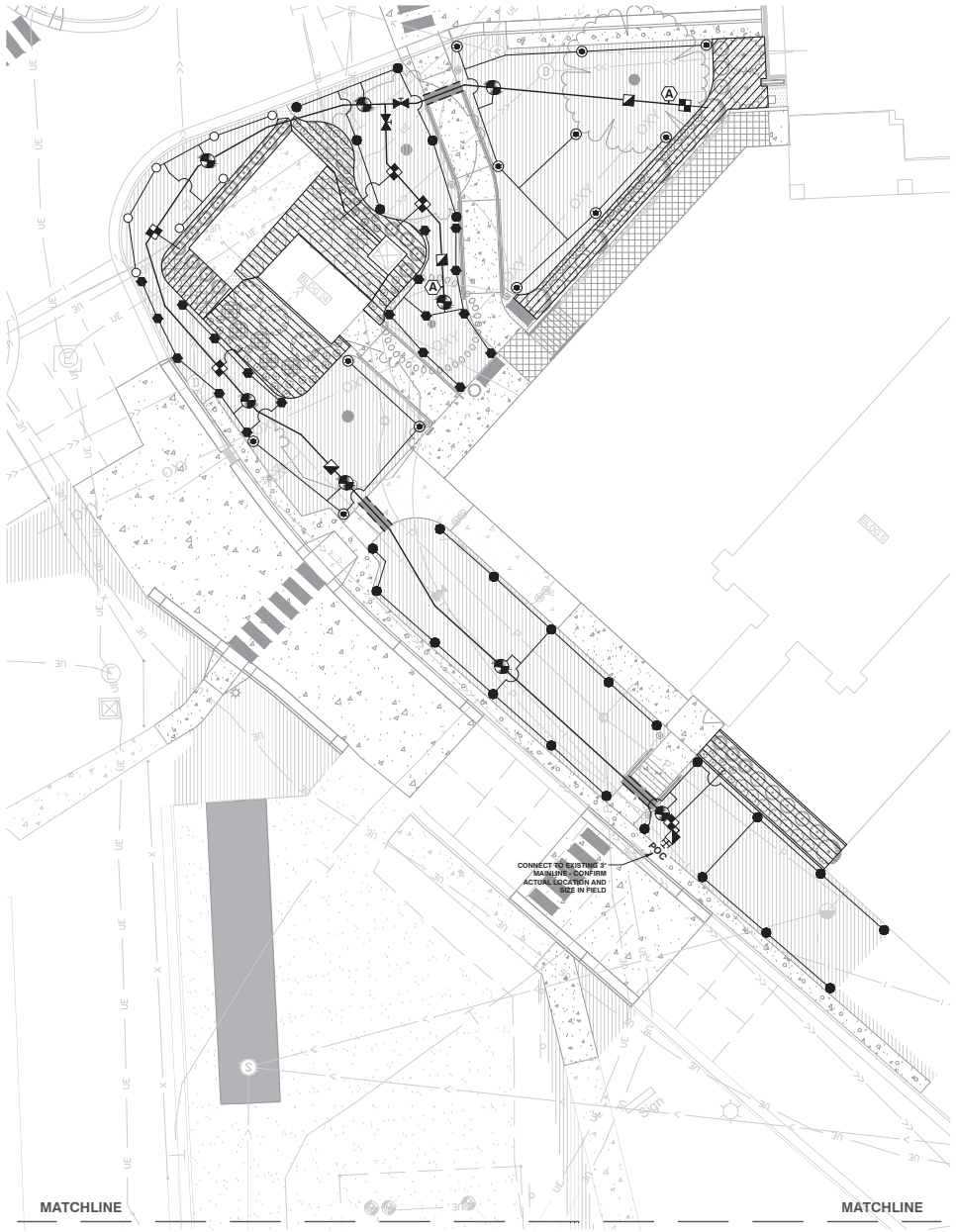


LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird 1804-PRS w/ MPR Nozzles Turf Spray 4.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. Pressure Regulating.	19
	Rain Bird R-VAN14 1804-SAM-PRS Turf Rotary, 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 4" pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2" NPT Female Threaded Inlet.	7
	Rain Bird R-VAN18 1804-SAM-PRS Turf Rotary, 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 4" pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2" NPT Female Threaded Inlet.	25
	Rain Bird R-VAN24 1804-SAM-PRS Turf Rotary, 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 4" pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2" NPT Female Threaded Inlet.	12
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**
	Rain Bird XCZ-100-PRB-COM Wide Flow Drip Control Kit for Commercial Applications. 1" Ball Valve with 1" PESB Valve and 1" Pressure Regulating 40psi Quick-Check Basket Filter. 0.3 GPM-20 GPM	6
	Area to Receive Dripline Rain Bird XFS-06-12 XFS Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.6 GPH emitters at 12" O.C. Laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	1,743 l.f.
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**
	Rain Bird PEB-PRS-D 1" Plastic Industrial Valves. With Pressure Regulator Module.	8
	Rain Bird 44-RC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Thermoplastic Rubber Cover, and 2-Piece Body.	4
	RW Isolation Valve (Line Sized)	2
A	Bermad C30 Air/Vaccum Relief Valve (1")	2
C	Existing Controller	1
POC	Point of Connection 3"	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	918.9 l.f.
	Irrigation Mainline: PVC Schedule 80	333.5 l.f.
	Pipe Sleeve: PVC Schedule 80	22.9 l.f.

Note: All quantities are for reference only. Contractor responsible for actual counts.

DESIGN NOTES

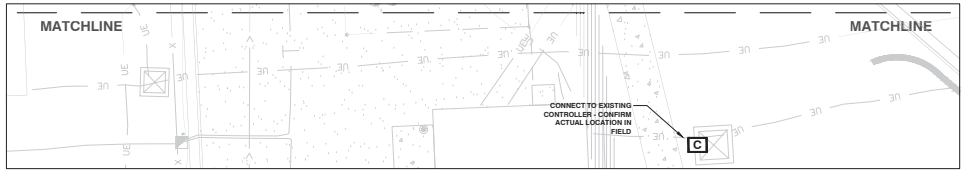
1. ALL PRODUCT APPLICATIONS AND INSTALLATIONS MUST MEET MANUFACTURER'S REQUIREMENTS.
2. FLOW RATES THROUGH PVC PIPING NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
3. PIPING AS SHOWN IS DIAGRAMMATIC IN NATURE. ALL PIPING TO BE LOCATED WITHIN OWNER'S PROPERTY LINES.
4. CONTRACTOR IS RESPONSIBLE FOR PROPER OPERATION OF IRRIGATION SYSTEM. SYSTEM SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS AND SHALL WATER ALL LANDSCAPED AREAS NOTED. IRRIGATION PLAN IS INTENDED TO INCLUDE EVERYTHING NECESSARY TO THE PROPER OPERATION OF SAID IRRIGATION SYSTEM. IF ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL MAKE ADJUSTMENTS FOR SAME.
5. IRRIGATION SPECIFICATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION PLANS. ANY DISCREPANCIES BETWEEN THESE TWO DOCUMENTS MUST BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE BEFORE BID DUE DATE.
6. IT IS THE INTENT TO KEEP IRRIGATION WATER OFF OF ALL BUILDINGS, SIDEWALKS, SIGNS AND PARKING AREAS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FIELD TUNE EACH SPRINKLER AS TO KEEPING IRRIGATION ADJUSTED TO LANDSCAPED AREAS ONLY. IT WILL ALSO BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO SUPPLY THE OWNER WITH AN OPERATING SCHEDULE THAT WORKS WITH EXISTING PLANS AND ANY FIELD ADJUSTMENTS.
7. IT IS THE INTENT OF THE IRRIGATION DESIGN TO ACHIEVE HEAD TO HEAD COVERAGE IN ALL LANDSCAPED AREAS AND TO MATCH SOIL AND PLANT MATERIAL WATERING NEEDS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ADJUST FOR SAME.
8. IRRIGATION CONTRACTOR TO LOCATE VALVE BOXES AWAY FROM ROAD/CURB AND AWAY FROM GRAVE SITES SO THEY ARE LESS VISUAL WHERE APPLICABLE.
9. IRRIGATION CONTRACTOR SHALL PROVIDE OWNERS REPRESENTATIVE WITH ALL SHOP DRAWINGS AND SUBMITTALS OF PROPOSED IRRIGATION SYSTEM BEFORE INSTALLATION.

ELECTRICAL NOTES:

1. ALL 120 V.A.C. POWER SPLICES AT FIELD SATELLITES. BY LICENSED ELECTRICIAN. AS PER CODE.
2. ALL POWER WIRE TAPS AND CONNECTIONS SHALL CONFORM TO WITH LOCAL AND STATE CODES AND PERFORMED BY LICENSED ELECTRICIAN.
3. 24" LOOP OF WIRE LOCATED BELOW EACH HEAD AND ELECTRIC VALVE.
4. ALL 24 V.A.C. SECONDARY WIRING SHALL BE (RED) #14 HOT AND (WHITE) #12 COMMON FOR BURIAL APPLICATIONS. (ONE HOT WIRE PER VALVE) SEE SPECIFICATIONS.
5. ALL WIRE SHALL HAVE ENOUGH SLACK AS TO ACCOMMODATE FOR EXPANSION AND/OR CONTRACTION.
6. ALL WIRE TO BE UL APPROVED FOR DIRECT BURIAL.
7. ALL 120 V.A.C. PRIMARY, AND 24 V.A.C. SECONDARY POWER TO BE INSTALLED AS PER STATE AND LOCAL CODES. SIZED AS PER PLAN WITH GROUND WIRE; MEETING N.E.C. REQUIREMENTS.

PROGRAM NOTES:

1. ALL VALVES SHALL HAVE SINGLE #14 HOT WIRE RUNNING BACK TO RESPECTIVE SATELLITE. NO #12 COMMON WIRES SHALL BE MIXED WITH OTHER SATELLITES. CONTRACTOR SHALL SUPPLY IRRIGATION DESIGN CONSULTANT WITH AS-STAKED DRAWINGS AND ILLUSTRATE ALL 120 V.A.C. AND 24 V.A.C. WIRE ROUTING AS INSTALLED.



Revisions:	Date:

CONSULTANTS

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U.S. Department of Veterans Affairs

Drawing Title	IRRIGATION PLAN
Phase	BID DOCUMENTS
Project Title	CONSTRUCT NEW SPS
Project Number	438-460
Approved: Project Director	SIOUX FALLS VA HEALTH CARE SYSTEM
Building Number	
Location	SIOUX FALLS, SOUTH DAKOTA
Drawing Number	IR101
Issue Date	02/14/2025
Checked	
Drawn	

File Path: z:\civil\projects\sioux falls sps\sioux falls sps irrigation.dwg | attr:non | saved:6/28/2022 8:10 AM | plot:6/28/2022 8:12 AM

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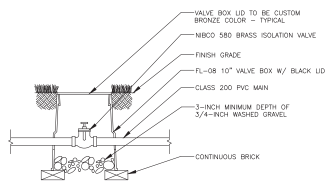
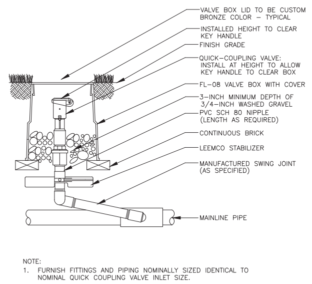
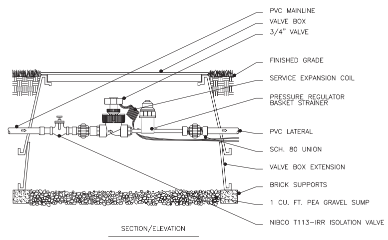


1 ISOLATION VALVE WITH BOX
SCALE: NONE

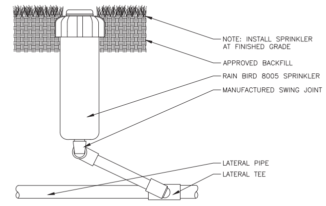

VALVE BOX LID TO BE CUSTOM BRONZE COLOR – TYPICAL
INSTALLED HEIGHT TO CLEAR KEY HANDLE
FINISH GRADE
QUICK–COUPLING VALVE: INSTALL AT HEIGHT TO ALLOW KEY HANDLE TO CLEAR BOX
FL–08 VALVE BOX WITH COVER
3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
CONTINUOUS BRICK
LEEMCO STABILIZER
MANUFACTURED SWING JOINT (AS SPECIFIED)
MAINLINE PIPE

NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

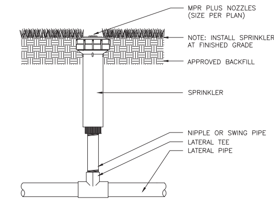
2 QUICK-COUPLING VALVE WITH STABILIZER
SCALE: NONE


PVC MAINLINE
VALVE BOX
3/4" VALVE
FINISHED GRADE
SERVICE EXPANSION COIL
PRESSURE REGULATOR BASKET STRAINER
PVC LATERAL
SCH. 80 UNION
VALVE BOX EXTENSION
BRICK SUPPORTS
1 CU. FT. PEA GRAVEL SUMP
NIBCO T113–IRR ISOLATION VALVE
SECTION/ELEVATION

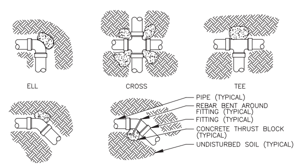
3 REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
SCALE: NONE

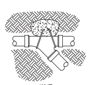


4 TURF ROTOR
SCALE: NONE



5 FIXED-SPRAY SPRINKLER
SCALE: NONE





NOTES:
ALL MAINLINE AND LATERAL CHANGE OF DIRECTION SHALL RECEIVE THRUST BLOCKING OR JOINT RESTRAINTS. – SEE THRUST BLOCKING TABLE FOR BEARING STRENGTH. FURTHERMORE ANY SOILS NOT STABLE FOR ADEQUATE THRUST BLOCKING, SAID FITTINGS MUST UTILIZE JOINT RESTRAINTS AT NO ADDITIONAL COST TO OWNER. IT IS ULTIMATELY THE CONTRACTORS RESPONSIBILITY TO INSTALL THE APPROPRIATE APPLICATION TO ENSURE THAT THE FITTING OR VALVE DOES NOT MOVE FROM A OUTWARD DEFLECTION.

THRUST BLOCKING

STEP 1. MULTIPLY THE PRESSURE LEVEL DESIRED FOR TESTING BY THE APPROPRIATE VALUE SHOWN IN THE FOLLOWING TABLE:

PIPE SIZE	DEAD END OR TEE	90° ELBOW	45° ELBOW	22.5° ELBOW
1.5"	2.94	4.16	2.25	1.15
2"	4.56	6.45	3.50	1.78
2.5"	6.65	9.40	5.10	2.60
3"	9.80	13.9	7.51	3.82
3.5"	12.8	18.1	9.81	4.99
4"	16.2	23.0	12.4	6.31
5"	24.7	35.0	18.9	9.63
6"	34.8	49.2	26.7	13.6

BASED ON POUNDS PER PSI WORKING PRESSURE.

STEP 2. DETERMINE THE BEARING STRENGTH OF THE SOIL FROM THE TABLE BELOW:

BEARING STRENGTH OF SOILS

SOILS AND SAFE BEARING LOADS LBS. SQ. FT.	
SOUND SHALE	10,000
CEMENTED GRAVEL AND SAND–DIFFICULT TO PICK	4,000
COARSE AND FINE COMPACT SAND	3,000
MEDIUM CLAY – CAN BE SPADED	2,000
SOFT CLAY	1,000
MUCK	0

STEP 3. DIVIDE THE TOTAL THRUST OBTAINED IN STEP 1 BY THE BEARING STRENGTH OF THE SOIL: THIS GIVES THE SQUARE FEET OF AREA NEEDED.

SIDE THRUST ON CURVES

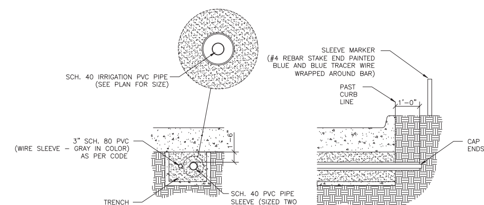
AN OUTWARD PRESSURE EXISTS ON ALL DEFLECTIONS FROM A STRAIGHT LINE. GOOD SOIL, PROPERLY TAMPED, IS SUFFICIENT TO HOLD SIDE THRUST – UNLESS SOIL CONDITIONS ARE UNSTABLE. IN THAT CASE, TO ANCHOR AGAINST THIS SIDE THRUST, THE BLOCKING SHOULD BE PLACED AGAINST THE PIPE ON EACH SIDE OF THE COUPLING. DO NOT THRUST BLOCK THE COUPLING ITSELF.

PIPE SIZE INCHES	SIDE THRUST POUNDS PER DEGREE
1.5"	5.1
2"	7.9
2.5"	11.6
3"	17.1
3.5"	22.4
4"	28.3
5"	43.1
6"	60.8

BASED ON SIDE THRUST PER 100 LBS/SQUARE INCH PRESSURE PER DEGREE OF DEFLECTION

NOTE: MULTIPLY SIDE THRUST POUNDS BY DEGREES OF DEFLECTION TIMES POUNDS OF PRESSURE DIVIDED BY 100 TO OBTAIN TOTAL SIDE THRUST IN POUNDS.

6 THRUST BLOCK DETAIL
SCALE: NONE


SCH. 40 IRRIGATION PVC PIPE (SEE PLAN FOR SIZE)
SLEEVE MARKER (#4 REBAR STAKE END PAINTED BLUE AND BLUE TRACER WIRE WRAPPED AROUND BAR)
PAST CURB LINE
1'–0"
3" SCH. 80 PVC (WIRE SLEEVE – GRAY IN COLOR) AS PER CODE
CAP ENDS
TRENCH (BACKFILLED AND COMPACTED)
SCH. 40 PVC PIPE SLEEVE (SIZED TWO PIPE SIZES LARGER THAN SLEEVED IRRIGATION PIPE NOTED ON PLAN)

NOTE:
ALL ROAD CROSSINGS ARE SUBJECT TO CITY FINAL LOCATION AND APPROVAL BEFORE INSTALLATION – TYPICAL
BACKFILL MATERIAL W/ SAND 2" ABOVE PIPE SLEEVE
WARNING TAPE 12" BELOW GRADE OVER PIPE

7 SLEEVING DETAIL
SCALE: NONE

Revisions:	Date:

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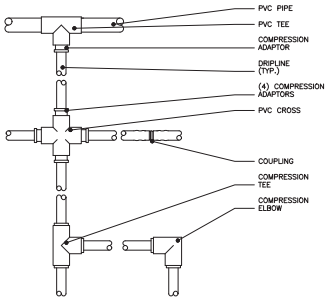
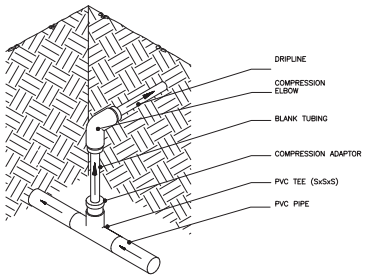
VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
IRRIGATION DETAILS	BID DOCUMENTS	CONSTRUCT NEW SPS	438-460
Approved: Project Director		Location: SIOUX FALLS, SOUTH DAKOTA	Building Number
SIOUX FALLS VA HEALTH CARE SYSTEM		Issue Date: 02/14/2025 / Checked / Drawn	Drawing Number: IR501

VA FORM 08 - 6231



1 5/8" FITTINGS
SCALE: NONE



2 MANIFOLD-TO-ELBOW CONNECTION
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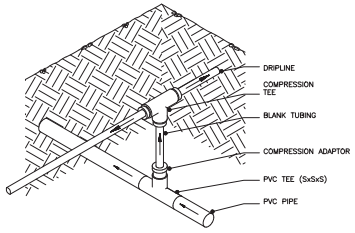
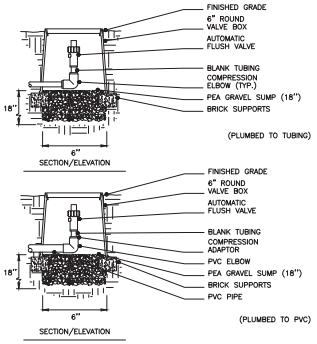
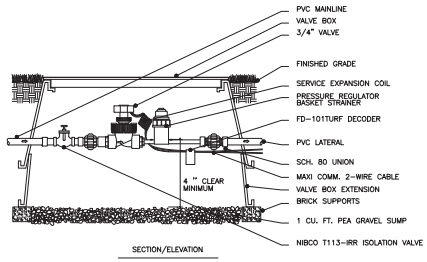


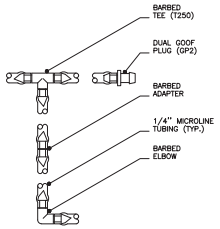
3 MANIFOLD-TO-TEE CONNECTION
SCALE: NONE



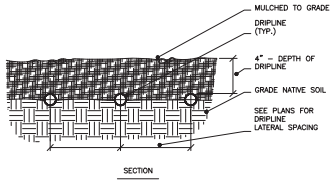
4 AUTOMATIC FLUSH VALVE
SCALE: NONE



5 REMOTE CONTROL VALVE, PRESSURE REGULATOR & FILTER
SCALE: NONE



6 1/4" MICRO FITTINGS
SCALE: NONE



7 SUB-GRADE LAYOUT
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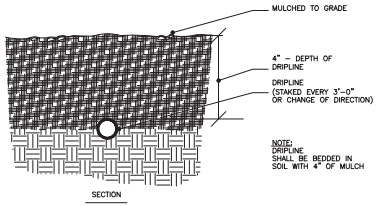
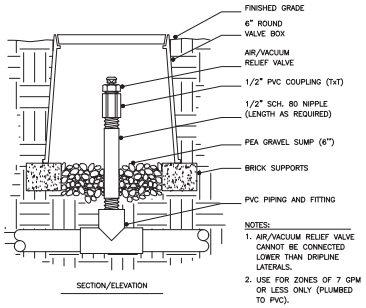
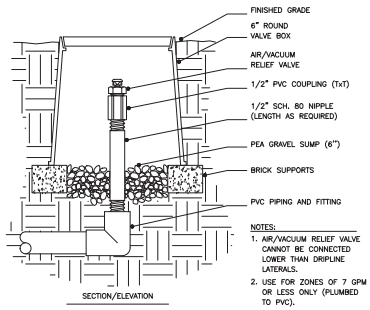


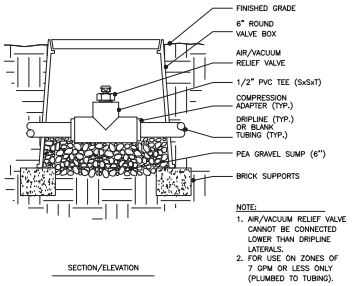
8 DRIPLINE TRENCH
SCALE: NONE



(PLUMBED TO PVC TEE)
9 1/2" AIR/VACUUM RELIEF VALVE
SCALE: NONE



(PLUMBED TO PVC ELBOW)
10 1/2" AIR/VACUUM RELIEF VALVE
SCALE: NONE



(PLUMBED TO TUBING)
11 1/2" AIR/VACUUM RELIEF VALVE
SCALE: NONE

Revisions:	Date:

CONSULTANTS

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ARCHITECT/ENGINEER OF RECORD

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Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

Drawing Title: IRRIGATION DETAILS
Phase: BID DOCUMENTS
Project Title: CONSTRUCT NEW SPS
Project Number: 438-460
Building Number:
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM
Location: SIOUX FALLS, SOUTH DAKOTA
Drawing Number: IR502
Issue Date: 02/14/2025
Checked:
Drawn:

VA FORM 08 - 6231

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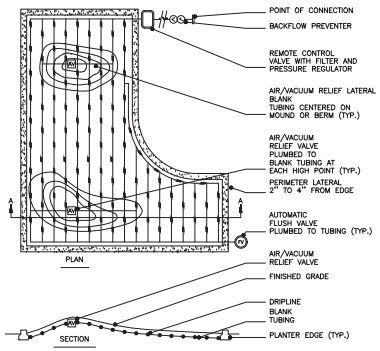
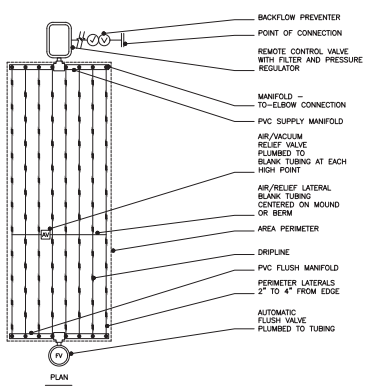


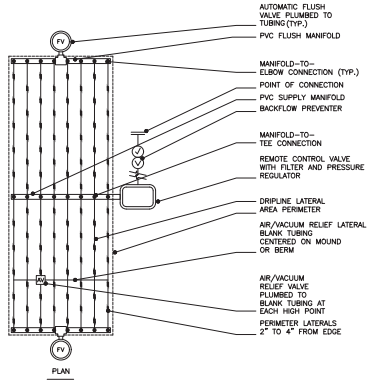
1 MOUND LAYOUT

SCALE: NONE



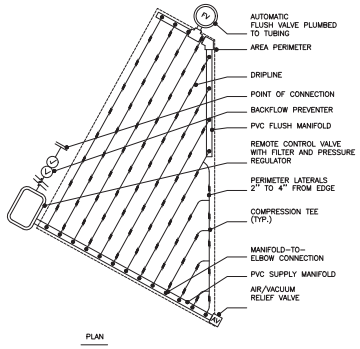
2 END FEED LAYOUT

SCALE: NONE



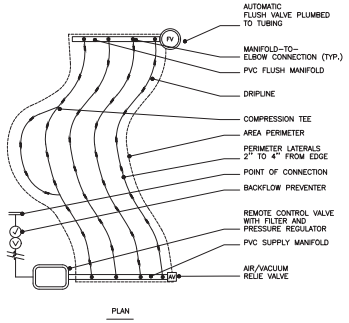
3 CENTER FEED LAYOUT

SCALE: NONE



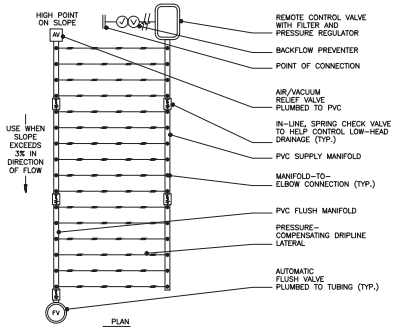
4 IRREGULAR LAYOUT (TRIANGULAR)

SCALE: NONE



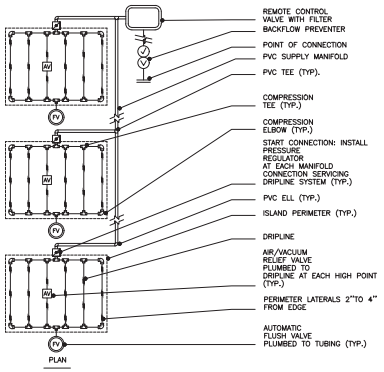
5 IRREGULAR LAYOUT (ODD CURVES)

SCALE: NONE



6 SLOPE LAYOUT (PRESSURE–COMPENSATING DRIPLINE)

SCALE: NONE



7 ISLAND LAYOUT

SCALE: NONE

BARBED MICRO VALVE

Revisions:	Date:

CONSULTANTS

IMEG

EC design

ARCHITECT/ENGINEER OF RECORD

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Anderson Engineering of Minnesota, LLC | Proj # 16584

STAMP

Office of Construction and Facilities Management

VA | U.S. Department of Veterans Affairs

Drawing Title: IRRIGATION DETAILS	Phase: BID DOCUMENTS	Project Title: CONSTRUCT NEW SPS	Project Number: 438-460
Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM		Location: SIOUX FALLS, SOUTH DAKOTA	Building Number
		Issue Date: 02/14/2025 / Checked / Drawn	Drawing Number: IR503

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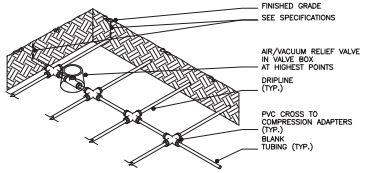
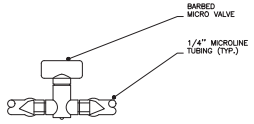
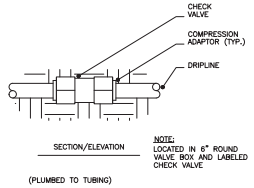


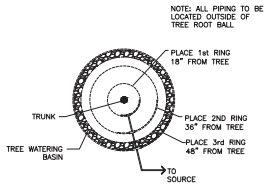
1 AIR/VACUUM RELIEF LATERAL
SCALE: NONE



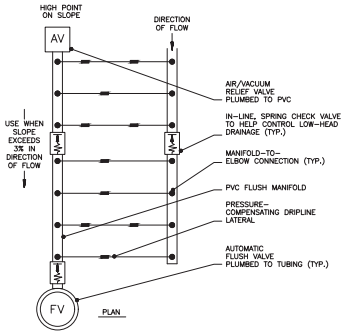
2 1/4" MICRO VALVE
SCALE: NONE



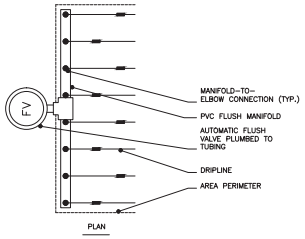
3 CHECK VALVE
SCALE: NONE



4 TEMPORARY TREE EMITTER LAYOUT FOR ESTABLISHMENT
SCALE: NONE



5 END-FEED LAYOUT
SCALE: NONE



6 CENTER-FEED LAYOUT
SCALE: NONE

Revisions:	Date:

CONSULTANTS

IMEG EC design

ARCHITECT/ENGINEER OF RECORD

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STAMP

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title: IRRIGATION DETAILS

Phase: BID DOCUMENTS

Project Title: CONSTRUCT NEW SPS

Project Number: 438-460

Building Number:

Approved: Project Director: SIOUX FALLS VA HEALTH CARE SYSTEM

Location: SIOUX FALLS, SOUTH DAKOTA

Issue Date: 02/14/2025

Checked:

Drawn:

Drawing Number: IR504

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VA FORM 08 - 6231

GENERAL CONSTRUCTION NOTES:

1. Reference Standards: Unless noted otherwise, all standards shall be current edition, with latest addenda, if applicable.
2. Contractor shall verify all existing dimensions, member sizes, and field conditions prior to any demolition, fabrication, construction, or installation and notify Structural Engineer of Record if conditions, materials, sizes, and dimensions are different from those shown.
3. The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or method of construction. The contractor is solely responsible for the protection of the structure during all phases of demolition, construction, and installation.
4. The finished structure has been designed for the loading indicated below. It is the responsibility of the contractor(s) and their specialty Engineer(s) to review and use means and methods to adequately address loading on the structure during construction including, but not limited to, wind, snow, seismic, underpinning, material storage, and equipment.
5. Cross reference all dimensions and details with architectural and mechanical drawings before commencing any fabrication and/or construction.
6. Details and conditions not specifically shown shall be constructed in accordance with details shown for similar conditions and materials.
7. Shop drawings prepared by suppliers, sub-contractors, etc. shall be reviewed, coordinated, and signed/stamped by the contractor prior to submitting to the Structural Engineer of Record. The Structural Engineer of Record's review of shop drawings, product data, design calculations, etc., does not relieve the contractor from complying with the contract documents.
8. Verify location of all box outs and openings. Opening sizes and locations shown for pipes, ducts, mechanical units, etc. are for general information only and shall be verified with all trades before commencing the work.
9. Contractor is solely responsible for protection of the existing building during all phases of construction.
10. No structural repairs, corrections, or alterations of work affecting a structural member shall be made without the approval of the Structural Engineer of Record. Design and/or review may be an additional service.
11. Do not scale the drawings.

DESIGN CRITERIA LOADS AND STRESSES:

CODES:

1. International Building Code (2018)
2. Minimum Design Loads for Buildings and Other Structures (ASCE 7-16).

DESIGN LOADS:

SEISMIC DESIGN CRITERIA	
Risk Category	IV
Seismic Importance Factor, I_e	1.5
Mapped Spectral Response Acceleration Parameters, S_S and S_1	S_S = 0.090 g S_1 = 0.035 g
Site Class	"D"
Design Spectral Response Acceleration Parameters, S_{DS} & S_{D1}	S_{DS} = 0.096 g S_{D1} = 0.056 g
Seismic Design Category	"A"
Basic Seismic Force-Resisting System	Steel ordinary concentrical brace frame and steel ordinary moment frame
Response Modification Coefficients	Steel ordinary conctrically brace frame R = 3.25 Steel ordinary moment grame R=3.0
Seismic Response Coefficients	C_S = 0.01
Design Base Shear	V = C_S * W
Analysis Procedure Used	Equivalent Lateral Force Procedure

WIND DESIGN CRITERIA	
Ultimate Design Wind Speed (3-sec gust), V_{ult}	120 MPH
Nominal Design Wind Speed (3-sec gust), V_{asd}	93 MPH
Risk Category	IV
Wind Exposure	"C"
Internal Pressure Coefficients	GC_{pi} = +/- 0.18

ROOF SNOW LOAD DATA*	
Ground Snow Load, P_g	40 PSF
Snow Exposure Factor, C_e	1.0
Snow Load Importance Factor, I	1.2
Thermal Factor, C_t	Heated C_t = 1.0
Slope Factor, C_s	C_s = 1.0
Flat Roof Snow Load, P_f	Heated P_f = 35 PSF + drifting

*See Plan for Unbalanced Snow Loads & Snow Drift Loads

FLOOR LIVE LOADS:

150 PSF Mechanical/Electrical areas
100 PSF Stairs, and exits

CONCRETE: (f'c) at 28 Days

3000 PSI Footings
3500 PSI Slab on grade [max w/c = 0.45, fly ash not permitted, no entrained air]
4000 PSI Slab on steel deck, topping slabs [max w/c = 0.45, fly ash not permitted, no entrained air]
4500 PSI Piers, foundation walls, and exterior slabs [5%-7% air content]
4500 PSI Retaining walls, basement walls, pile caps, and grade beams
7000 PSI Non-shrink grout below baseplates

All exterior concrete work shall have 5% to 7% air entrainment.

STEEL: (Fy)

60,000 PSI ASTM A615 grade 60 reinforcing
60,000 PSI ASTM A706 weldable reinforcing
50,000 PSI ASTM A992 wide-flange shapes
36,000 PSI ASTM A36 plates, channels, and angles, etc.
50,000 PSI ASTM A500 grade C structural tubes (HSS)
46,000 PSI ASTM A500 grade C structural pipe (HSS)
92,000 PSI ASTM A325 high strength bolts
36,000 PSI ASTM F1554 threaded anchor rods
50,000 PSI ASTM A108 headed studs

FOUNDATION LOADS:

2,000 PSF soil bearing, based on soil report prepared by Geotek Engineering & Testing Services, Inc., dated April 17, 2019 , (report # 19-225). See Geotek report for required site preparation. Steel helical piles and micropiles shall be designed for unfactored load indicated on sheet SB102.

LATERAL EARTH PRESSURE:

35 PCF Active Lateral Earth Pressure (Equivalent Fluid Density)

STEEL HELICAL PILES AND MICROPILES:

1. Piles shall be installed within the following tolerances:
   Top Elevation +/- 1/2"
   Plumb within 1°
   Pile Centerline within 3"
2. Piles shall be designed to provide the required load capacities shown on plans with a 1/2" maximum vertical settlement at any pile and a 1/4" maximum vertical differential settlement between any two adjacent pilies uon.
3. Pile load test shall be performed per the project specifications and ASTM D1143.
   a. Compession tests shall be performed following the "Quick Test" procedure described in ASTM D1143.
   b. Load tests shall be observed and documented by the testing and inspection agency.
   c. The maximum test load shall be 200% of the allowable load show on the drawings.
   d. The test pile locations shall be determinated by the contractor uon on the drawings.
   e. Installation methods, procedures, equipment, products, and final installation torque shall be identical to the production piles to the greates extent practicable, except where otherwise approved by the Owner or Architect.
   f. A load test shall be deemed acceptable provided the maximum test load is applied without pile failure and the deflection of the pile head at the design load is less than 0.25" uon on the drawings. Failure is defined when continuous jacking is required to maintain the load.
4. The Architect shall be notified immediately if obstructions are encountered while instaling piles.
5. The testing and inspection agency and installing contractor shall keep a record or log of each pile as installed showing location, top and bottom elevations, diameters, date installed, type of strata encountered, and any other pertinent information.
6. The pile contractor shall cubmit calculations for the design of piles. Those calculations shall be signed and sealed by an engineer licensed in the project's jurisdiction.
7. Pile contractor shall submit shop drawings for review showing dimensioned pile layout plan and installation sequence, pile components and details, corrosion protection system, and pile top atatchment.

TEMPORARY BRACING:

1. Provide temporary lateral support for all walls where grade varies on the two sides until slab has reached its design strength.
2. Provide required temporary bracing for structural steel until permanent bracing and walls are in place.
3. Provide temporary bracing for all walls, concrete, masonry, light gage metal, or wood until they are of adequate design strength and are properly anchored in final form.
4. Provide temporary shoring for all existing walls, floors, and roof members until new construction is in place and properly anchored or cured in final form.
5. All temporary shoring is to be designed by a specialty shoring contractor, by a Professional Engineer licensed in the state of the project, at the expense of the contractor.
6. Shore all foundation walls as required before backfilling and compacting.
7. Contractor shall provide adequate bracing and shoring during all phases of construction and erection of the structure.

GENERAL FOUNDATION NOTES:

1. All foundation excavations, backfill, and compaction shall be inspected and certified by a qualified soils testing firm prior to the construction of any footings. All reports are to be submitted to Structural Engineer of Record in a timely manner.
2. Cross reference all architectural, mechanical, electrical, and structural drawings to assure proper dimensions and placement of all anchor rods, inserts, etc.
3. All footing elevations are shown to top of footings, unless noted otherwise.
4. All footings are centered under walls or columns above, unless noted otherwise.
5. Continuous wall footings up through 1'-8" wide to be 10" thick. Footings over 1'-8" wide to be 12" thick, unless noted otherwise.
6. Provide wall footing reinforcement as follows:
   Footings up through 2'-0" wide = (2)-#5 cont.
   Footings 2'-1" through 3'-0" wide = (3)-#5 cont.
   Footings 3'-1" through 3'-6" wide = (3)-#5 cont. & #5 @ 12" transv.

   See details for reinforcing in all footings over 3'-6" wide.
7. Provide 90 degree bend in all footing dowels. Cast dowels in footings for columns, piers, and walls above. Dowels to be the same number and size as the vertical reinforcing, unless noted otherwise. See General Concrete Notes or General Masonry Notes for required lap length.
8. Rebar and anchor rods to be securely tied in place prior to placing concrete (i.e. no "wet-sticking" is allowed).

GENERAL CONCRETE NOTES:

1. Concrete construction shall comply with the provisions of the "Building Code Requirements for Structural Concrete," ACI 318-14.
2. The "ACI Detailing Manual" shall govern detailing and fabrication of all reinforcing steel, unless noted otherwise.
3. Reinforcing steel supplier to provide all accessories, chairs, spacing bars, and supports necessary to secure steel in accordance with "Manual of Standard Practice" by the Concrete Reinforcing Steel Institute. Clay brick is not allowed.
4. Provide minimum clear concrete cover for all reinforcement as follows:

   Cast against and permanently exposed to earth = 3"

   Exposed to earth or weather:
   #5 bars and smaller = 1 1/2"
   #6 bars and larger = 2"

   Not exposed to weather or in contact with ground:
   Slabs, walls, & joists (#3 to #11 bars) = 3/4"
   Beams, girders and columns, primary reinforcement, ties, stirrups, or spirals = 1 1/2"
5. Provide corner bars at all corners and intersections of walls, grade beams, and edge beams. Corner bar to be the same size and spacing as all horizontal bars.
6. At openings in structural slabs or walls, provide a minimum of (2)-#6 bars each side of opening. Bars are to extend a minimum of 3'-0" beyond corners of openings, unless noted otherwise. Provide (1)-#5 x 4'-0" long diagonal bar at each corner of opening in each face of wall or slab.
7. Provide minimum concrete wall reinforcing as follows: (unless noted otherwise)

   6" & 8" concrete walls:
   #4 @ 16" o.c. vert & #4 @ 10" o.c. horiz (center in wall)

   10" concrete walls:
   #4 @ 16" o.c. vert & #4 @ 16" o.c. horiz (each face)

   12" concrete walls:
   #4 @ 16" o.c. vert & #4 @ 12" o.c. horiz (each face)

   16" concrete walls:
   #4 @ 16" o.c. vert & #4 @ 12" o.c. horiz (each face)
8. Provide vertical control joints in exposed concrete walls at a maximum of 30'-0" intervals. See typical details for Control Joint and Construction Joint Detail.
9. No aluminum of any type shall be allowed in the concrete work, unless coated to prevent reaction with concrete.
10. Maximum outside diameter of embedded conduit shall be no larger than 1/3 of the slab thickness. This restriction applies to the total height at conduit crossings. The conduit shall be placed such that it does not significantly impair the strength of construction.
11. Post-installed anchors in concrete shall be ICC approved for use in cracked concrete. Approved anchors shall be Hilti Kwik Bolt TZ Expansion Anchors (ESR-1917) or a Hilti HIT-HY 200 Adhesive Anchoring System (ESR-3187), unless noted otherwise. Install anchors in strict conformance with anchor manufacturer's instructions. Anchor substitutions shall not be made without written permission from the Structural Engineer of Record.
12. No pipe or conduit of any type shall be placed in structural concrete members without written approval from the Structural Engineer of Record.
13. Composite slabs and beams are designed to support the dead load of the wet concrete plus normal construction loads without requiring temporary shoring. Some deflection of the deck and beams will occur when the wet concrete is placed. The contractor shall include in the bid the cost of the additional concrete quantity caused by the deflection of the beams and deck.
14. Do not weld rebar, unless Weldable Rebar is provided and its use is approved by the Structural Engineer of Record.
15. Lap splice lengths in continuous reinforcing shall be tension lap splices and are shown below, unless noted otherwise on drawings or details:

f'c = 3000 PSI:

CLASS B TENSION LAP SPLICE LENGTH				
	Top Bars		Other Bars	
Bar Size	Case 1	Case 2	Case 1	Case 2
#3	28"	42"	22"	32"
#4	37"	56"	29"	43"
#5	47"	70"	36"	54"
#6	56"	84"	43"	64"
#7	81"	122"	63"	94"
#8	93"	139"	72"	107"
#9	105"	157"	81"	121"
#10	118"	177"	91"	136"
#11	131"	196"	101"	151"

f'c = 4000 PSI:

CLASS B TENSION LAP SPLICE LENGTH				
	Top Bars		Other Bars	
Bar Size	Case 1	Case 2	Case 1	Case 2
#3	24"	36"	19"	28"
#4	32"	48"	25"	37"
#5	40"	60"	31"	47"
#6	48"	72"	37"	56"
#7	70"	106"	54"	81"
#8	80"	121"	62"	93"
#9	91"	136"	70"	105"
#10	102"	153"	79"	118"
#11	113"	170"	87"	131"

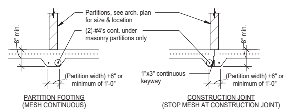
f'c = 5000 PSI:

CLASS B TENSION LAP SPLICE LENGTH				
	Top Bars		Other Bars	
Bar Size	Case 1	Case 2	Case 1	Case 2
#3	22"	33"	17"	25"
#4	29"	43"	22"	33"
#5	36"	53"	28"	41"
#6	43"	65"	33"	50"
#7	62"	95"	48"	73"
#8	72"	108"	55"	83"
#9	81"	122"	62"	94"
#10	91"	137"	70"	105"
#11	101"	152"	78"	117"

Notes:
1. Tables are for normal weight concrete with Grade 60 uncoated reinforcing bars. For lightweight aggregate, multiply the values in the table by 1.33.
2. Top bars are horizontal bars with more than 12" of concrete cast below the bars.
3. Compression lap splices (only where indicated on drawings) for Grade 60 uncoated reinforcing bars shall be 30 times the bar diameter.
4. Cases 1 and 2 are defined as follows:
   Beams and columns:
   Case 1: Concrete cover at least 1.0 times the bar diameter and center-to-center spacing of at least 2.0 times the bar diameter.
   Case 2: Concrete cover less than 1.0 times or center-to-center spacing less than 2.0 times the bar diameter.
   All other members:
   Case 1: Concrete cover at least 1.0 times the bar diameter and center-to-center spacing at least 3.0 times the bar diameter.
   Case 2: Concrete cover less than 1.0 times the bar diameter or center-to-center spacing less than 3.0 times the bar diameter.

CONCRETE SLAB AND JOINT NOTES AND DETAILS:

1. Control Joints (C.J.) - Locate saw cut control joints at column centerlines and at the following maximum spacing to create approximately square panels
   a. Concrete slabs on grade:
      i. 4"-5" thick slab = 12'-0"
      Coordinate control joint layout with floor finish requirements.
   b. Control joint depth to be 1", using an early entry saw.
   c. Cut control joints with an early entry saw as soon as possible without damage to the slab surface.
2. Provide 6x6-W1.4xW1.4 W.W.F. in all slabs on grade, unless noted otherwise. All mesh to be lapped a minimum of 12". Provide prefabricated sheets in lieu of rolled mesh. Reinforce with (2)-#5 x 3'-0" long at all re-entrant (inside) corners.
3. Place slab reinforcing between 1/4 and 1/3 of slab thickness down from top of slab.
4. Coordinate all floor finishes, slopes, recesses, floor drains, gutters, etc. with all disciplines (arch., mech., etc.).
5. Provide a preformed isolation joint in concrete slab at columns. The isolation joint can be either a circular or diamond shaped pattern.
6. Do not provide control joints in structural slabs, slabs on metal deck, or precast topping, unless noted otherwise.
7. Provide thickened slabs at masonry partitions and construction joints as detailed below.



PARTITION FOOTING
(MESH CONTINUOUS)

CONSTRUCTION JOINT
(STOP MESH AT CONSTRUCTION JOINT)

TYPICAL LINTEL TYPES AND NOTES:

1. Verify size and location of all mechanical, U.V., U.H., louver, and duct openings with mechanical contractor.
2. For all openings through masonry walls not shown, including mechanical and electrical openings, provide one of the following: (unless noted otherwise)
   a. Steel angle lintels:
      (1) L 3 1/2" x 3 1/2" x 1/4" for each 4" thickness of wall for spans up to 4'-0".
      (1) L 5" x 3 1/2" x 5/16" (LLV) for each 4" thickness of wall for spans up to 5'-0".
      (1) L 6" x 3 1/2" x 5/16" (LLV) for each 4" thickness of wall for spans up to 6'-0".
3. All steel lintel beams to bear a minimum of 8" on grouted or solid masonry, unless noted otherwise. All steel lintel angles to bear a minimum of 6" on solid or grouted masonry, unless noted otherwise.
4. All lintels in exterior walls to be hot-dipped galvanized, unless noted otherwise.

GENERAL STEEL NOTES:

1. Construction of structural steel shall comply with the provisions of "AISC 360-16 Specification for Structural Steel Buildings" and "AISC 341-16 Seismic Provisions for Structural Steel Buildings."
2. All shop connections shall be welded or bolted, field connections shall be bolted, unless noted otherwise. Bolted connections shall be Bearing Type (snug-tightened) and shall be made with a minimum of 3/4"ø ASTM A325-N Bolts. Direct-Tension Indicators are acceptable substitutions.
3. All welds as per latest specifications of the AWS - E70xx electrodes.
4. Before encasing steel columns in concrete or masonry, paint column bases and tops of anchor rods with asphaltic paint.
5. The structural fabricator shall furnish all plates and angles cast in bond beams, concrete walls, or columns to support steel joists, beams, and steel deck.
6. 'C' denotes beam is continuous over columns, 'S' denotes beam simple shear splice.
7. All steel beams shall be true to line and elevation, column base plates grouted, and anchor rods tight before any loads are placed.
8. All column base and cap plates to be welded around all sides.
9. All welds not specified are 3/16" fillet weld, continuous and/or all around.
10. Structural fabricators shall show all welding requirements on structural steel shop drawings.
11. Fabricator shall select AISC simple shear connections for composite beams capable of carrying the reaction load indicated or the reaction load calculated and based on tributary area or at a minimum 75% of the total shear capacity. Connection design shall also be check for blast reaction given on sheet SG000.
12. Cuts, holes, or openings required in structural steel members for the work of other trades shall be shown on the shop drawings. Burning of holes and cuts in structural steel members in the field shall not be allowed, except by written permission from the Structural Engineer of Record.
13. The top of all beams receiving shear studs shall not be painted.
14. The contractor shall provide 4000 pounds of structural steel contingency material to be fabricated and erected as directed by the Structural Engineer of Record. Cost of material, labor, delivery, and associated services are to be included in the bid amount.
15. All connections not specifically detailed shall be designed by a Professional Engineer licensed in the state where the project is located. Detailing shall be performed using rational engineering design and standard practice in conformance with the contract documents. The general details shown on the drawings are approximate only and do not indicate the required number of bolts, weld requirements, etc., unless specifically noted.
16. Shear stud connectors shall be manufactured by Nelson Stud Welding Co. or equal conforming to ASTM A108, and shall be field applied with automatic welding equipment through the composite steel deck with the use of a proper ferrule. Remove ferrules after welding.
17. Location, type, diameter, length, and spacing of shear stud connectors shall be detailed on the shop drawings.

STEEL DECK NOTES:

1. All steel decking shall comply with the specifications of the Steel Deck Institute (SDI). Thickness, type, and properties of decks shall be as shown on the drawings.
2. All steel deck shall span a minimum of three spans, unless otherwise approved.
3. Field weld 1 1/2" steel roof deck to supporting members with 5/8"ø puddle welds at 36/4 pattern. Where areas of warped deck occur, field weld steel deck maximum 6" o.c. at all supports. Typical, unless noted otherwise.
4. 1 1/2" steel roof deck shall have; (1)-#10 TEK screw side lap connector installed between adjacent supports (unless noted otherwise).
5. Composite steel deck with concrete slabs shall be welded to all supporting members with 5/8"ø puddle welds at 36/4 pattern. For deck units with spans greater than 5'-0", sidelaps and perimeter edges of units between span supports shall be fastened at intervals not exceeding 36" o.c., using one of the following methods:
   a) #10 self-drilling screws
   b) Crimp or button punch
   c) Arc puddle welds 5/8" minimum visible diameter, or minimum 1" long fillet weld.
6. See plans and details for composite deck thickness, depth, and profile. All composite steel deck to be galvanized with G-60 coating.
7. Steel conform deck shall be attached at all supports sufficiently to prevent movement. Steel deck fasteners are not required for conform decks supporting concrete stoop slabs.
8. For steel conform deck supporting interior floor slabs attach deck to supporting members with 5/8"ø puddle welds per the following pattern layout:
   0.6C Conform Deck – 30/4 weld pattern
   1.0C Conform Deck – 33/4 weld pattern
   1.3C Conform Deck – 32/4 weld pattern
   2.0C Conform Deck – 36/4 weld pattern

ROOF BEAM/ GIRDER BLAST REACTION TABLE

DESCRIPTION	SPAN	END REACTION (kips, LRFD)
W12x14 BEAM	8'-0" TO 12'-2"	50
W12x26 BEAM	12'-2"	90
W14x22 BEAM	19'-8"	55
W16x36 BEAM	12'-2"	140
W18x35 BEAM	29'-5"	78
W18x46 BEAM	20'-0"	115
W12x19 GIRDER	17'-0"	31
W14x22 GIRDER	8'-1" TO 18'-3"	44
W14x30 GIRDER	19'-2"	42
W16x26 GIRDER	15'-10" TO 20'-0"	50
	21'-1" TO 23'-10"	76
W18x35GIRDER	20'-0"	54
W21x44 GIRDER	20'-0"	145
W24x55 GIRDER	26'-7"	145

ROOF MEMBER REACTION TABLE NOTES:

- CONNECTIONS MUST BE DESIGNED FOR THE REACTION LOADS LISTED IN THE TABLES AT A MINIMUM. THESE SHOULD NOT BE COMBINED WITH OTHER LOADS (I.E., BLAST DESIGN COMBO=1.0 * BLAST)
- REACTIONS ARE VERTICAL AND ARE TO BE CONSIDERED IN THE UP AND DOWN DIRECTION
- REACTIONS ARE EQUIVALENT STATIC REACTIONS REPORTED AS ULTIMATE LOADS FOR CONNECTION DESIGN PER LRFD. IF ASD IS USED, DIVIDE THE REACTIONS B YA FACTOR OF 1.5. USE PROPER MATERIAL-AND LIMIT-STATE-SPECIFIC REDUCTION FACTOR (ϕ OR Ω) PER CODE FOR CONNECTION DESIGN.

VIEW KEY

NAME — LEVEL NAME
100'-0" — ELEVATION

(1) — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL

INDICATES DIRECTION OF TRUE NORTH
PLAN OR DETAIL NUMBER
PLAN OR DETAIL NAME
NORTH — 1 — **VIEW NAME** — 1/8" = 1'-0"
PLAN OR DETAIL SCALE

SIM — INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS
1 — DETAIL REFERRED TO BY SECTION CUT
S300 — SHEET DETAIL IS LOCATED ON

LINE TYPE KEY:

- NEW WORK (DARK SOLID LINE/LINE WEIGHT WILL VARY)
- NEW WORK BELOW OR BEYOND VIEW (DARK DASH LINE)
- EXISTING TO BE REMOVED (DARK DASH LINE)
- EXISTING WORK TO REMAIN (HALFTONED SOLID LINE/LINE WEIGHT WILL VARY)
- NON STRUCTURAL (HALFTONED LIGHT SOLID LINE)
- GRID OR CENTERLINE

MATERIAL LEGEND:

- CONCRETE - CAST-IN-PLACE
- MASONRY
- EXISTING
- METAL / COLD-FORM STUD
- EARTH
- PRECAST CONCRETE
- GRAVEL OR GRANULAR FILL
- STEEL
- GROUT OR DRYPACK OR SAND

CX — COLUMN MARK
PX — PIER MARK
SF#(X'-X") — FOOTING MARK (TOP ELEVATION)

STRUCTURAL SYMBOL LIST

GENERAL SYMBOLS:

SYMBOL	DESCRIPTION	DETAIL REFERENCE
(100'-0")	TOP OF ELEVATION	N/A

FOUNDATION SYMBOLS:

SYMBOL	DESCRIPTION	DETAIL REFERENCE
------S	STEP IN FOOTING	1/SB200

STEEL SYMBOLS:

SYMBOL	DESCRIPTION	DETAIL REFERENCE
←→	STEEL DECK (DIRECTION)	SEE PLAN NOTES
[##]	HEADED STUD ANCHORS (HSA) ON BEAM	
—‖—	BEAM SPLICE	3/SF220
▶—	MOMENT CONNECTION	
	BRACE ABOVE	SEE FRAME ELEVATION
	BRACE BELOW	SEE FRAME ELEVATION

STRUCTURAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
#	NUMBER OR POUNDS
@	AT
°	DEGREE
ø	DIAMETER
(E)	EXISTING
A.B.	ANCHOR BOLT
ARCH	ARCHITECT, -URE, -URAL
B.O.	BOTTOM OF
bf	BEAM FLANGE WIDTH
BF	BRACE FRAME
BM	BEAM
B.N.	BOUNDARY NAILING
BOTT	BOTTOM
BTWN	BETWEEN
CFSF	COLD FORM STEEL FRAMING
CGS	CENTER OF GRAVITY OF THE TENDON
CJP	COMPLETE JOINT PENETRATION WELD
CLR	CLEAR
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATION
DIA	DIAMETER
DL	DEAD LOAD
DET	DETAIL
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EFF	EFFECTIVE
EL	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
E.N.	EDGE NAILING
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
f 'c	CONCRETE COMPRESSIVE STRENGTH
FDN	FOUNDATION
F.N.	FIELD NAILING
FT	FOOT
FTG	FOOTING
Fy	YIELD STRESS
GA	GAGE OR GAUGE
GALV	GALVANIZED
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSB	HIGH STRENGTH BOLT
JT	JOINT
K, KIP	KILOPOUND (1,000 POUNDS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	LENGTH
LBS	POUNDS
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LT WT	LIGHTWEIGHT
MAX	MAXIMUM
MECH	MECHANICAL
MANUF	MANUFACTURER
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OH	OPPOSITE HAND
OPNG	OPENING
OSB	ORIENTED STRAND BOARD
PCF	POUNDS PER CUBIC FOOT
P.H.	PENTHOUSE
PJP	PARTIAL JOINT PENETRATION WELD
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST-TENSION, -ED, -ING
R	RADIUS
REINF	REINFORCING, -MENT, -ED
REQD	REQUIRED
RTU	ROOF TOP UNIT
SC	SLIP CRITICAL
SCHED	SCHEDULE
SFRS	SEISMIC FORCE-RESISTING SYSTEM
SIM	SIMILAR
SL	SNOW LOAD
S.M.S.	SHEET METAL SCREW
SP	SPACE(S)
SPECS	SPECIFICATION(S)
SQ	SQUARE
STIFF	STIFFENER
STL	STEEL
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T.O.	TOP OF
TC	PRE-TENSIONED BOLT
TEMP	TEMPERATURE
tf	BEAM FLANGE THICKNESS
THK	THICK
TRANS	TRANSVERSE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
WP	WORK POINT
WT	WEIGHT
WWR	WELDED WIRE REINFORCING

SHEET INDEX - STRUCTURAL

STATEMENT OF SPECIAL INSPECTION:

Special Inspections and Testing requirements per Chapter 17 of the IBC in addition to Section 110 of the IBC (Inspection preformed by the Building Official). See Specs. for additional information.

Structural Testing & Special Inspection Program Summary Schedule

IBC Section	Material	Type of Inspector	Report Frequency
1704.2.5	Shop Fabrication	SI-S	Upon Completion
1705.2	Steel	SI-S	Weekly
1705.3	Concrete	SI-S	Weekly
1705.6	Soils/Earthwork	SI-T	Upon Completion
1705.7-1705.9	Deep Foundation	SI-T	Continuous

SI-S Special Inspector-Structural
SI-T=Special Inspecta-Technical

1703.1 -APPROVALS

1. Agency must be approved by the Building Official or AHJ.
2. Agency must be independent of the contractor responsible for work and disclose possible conflicts of interests.

1704.2.4 - SPECIAL INSPECTOR RESPONSIBILITIES:

1. Submit inspection reports to the Building Official, Architect, Engineer of Record (EOR), and Contractor, stating the work was or was not in conformance with construction documents.
2. Discrepancies shall be brought to the immediate attention of the contractor for correction.
3. If discrepancy is not corrected, it shall be brought to the attention of the building official and EOR in a timely manner to provide remediation or acceptance prior to the completion of work.
4. Submit a final report documenting required special inspections and correction of any discrepancies noted.

1704.2.5 - FABRICATION:

Where fabrication of structural members and assemblies are being fabricated on the premises of a fabricator's shop, special inspection is required of the fabricated item.

Note: Where Special Inspection and Testing of Shop Fabricated Components is required, it shall conform to the Special Inspection and Testing required in the field for the material specific section the component is fabricated from.

Exception: Special Inspection of the Fabricator's shop is not required if approved per Section 1704.2.5.2.

TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION SOILS

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Continuous inspections shall be performed during installation of pile foundations and shall include equipment used, pile dimensions, tip elevations, final depth, final installation torque, and other pertinent installation data.	X	—
2. Verify excavations are extended to proper depth and have reached proper material.	—	X
3. Perform classification and testing of controlled fill materials.	—	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	—
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	—	X

TABLE 1705.7 REQUIRED VERIFICATION AND INSPECTION OF DEEP FOUNDATION ELEMENTS

Verification and Inspection Task	Continuous During Task Listed	Periodically During Task Listed
1. Verify element materials, sizes and lengths comply with the requirements.	X	—
2. Determine capacities of test elements and conduct additional load tests, as required.	X	—
3. Observe driving operations and maintain complete and accurate records for each element.	X	—
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element.	X	—
5. For steel elements, perform additional inspections in accordance with Section 1705.2.	—	—
6. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3.	—	—
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge.	—	—

HELICAL & MICROPILE PILE FOUNDATIONS:

Verification and Inspection Task	Continuous	Periodic
1. Continuous inspections shall be performed during installation of pile foundations and shall include equipment used, pile dimensionst, tip elevations, final depth, final installation torque, and other pertinent installation data.	X	—

TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

Verification and Inspection	Continuous	Periodic	Referenced Standard (a)	IBC Reference
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	—	X	ACI 318: 3.5, 7.1 - 7.7	1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, item 2b.	—	—	AWS D1.4, ACI 318: 3.5.2	—
3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.	—	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. Inspection of anchors post-installed in hardened concrete members (b).	—	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1909.1
5. Verifying use of required design mix.	—	X	ACI 318: Ch. 4, 5.2 - 5.4	1904.2, 1910.2, 1910.3
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	—	ASTM C 172, ASTM C 31, ACI 318: 5.6, 5.8	1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.	—	X	ACI 318: 5.11 - 5.13	1910.9
9. Inspection of prestressed concrete:			ACI 318: 18.20 ACI 318: 18.18.4	—
a. Application of prestressing forces.	X	—		
b. Grouting of bonded prestressing tendons in the seismic force-resisting system.	X	—		
10. Erection of precast concrete members.	—	X	ACI 318: Ch. 16	—
11. Verification of in -situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: Ch. 6.2	—
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	—	X	ACI 318: Ch. 6.1.1	—

For SI: 1 inch=25.4mm

a. Where applicable, see also Section 17.05.11, Special inspections for seismic resistance.

b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 355.2 or other qualification procedures. Where specific requirements are not provided special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

Exceptions:

1. Non-structural concrete slabs supported directly on the ground.
2. Concrete patios, driveways and sidewalks on grade.

TABLE 1705.2.2 REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

Verification and Inspection	Continuous	Periodic	Referenced Standard (a)
1. Material verification of cold-formed steel deck			
a. Identification markings to conform to ASTM standards specified in the approved construction documents	—	X	Applicable ASTM material standards
b. Manufacturer's certified test reports	—	X	
2. Inspection of welding:			
a. Cold-formed steel deck:			
1. Floor and roof deck welds	—	X	AWS D1.3
b. Reinforcing steel:			
1. Verification of weldability of reinforcing steel other than ASTM A706	—	X	AWS D1.4 ACI 318: Section 3.5.2
2. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement.	X	X	
3. Shear reinforcement	X	—	
4. Other reinforcing steel	—	X	

(a). Where applicable, see also Section 17.05.11, Special inspections for seismic resistance.

OPEN-WEB STEEL JOISTS

Verification and Inspection	Continuous	Periodic	IBC Reference
Verify size and grade of joists upon placement	—	X	—
After setting, verify proper bearing length is provided	—	X	—

In addition to the requirements below also comply w/ AISC 360-10 Chapter N

Welding Inspection Tasks

Welding procedure specifications (WPSs) available	P
Manufacturer certifications for welding consumables available	P
Material identification (type/grade)	O
Welder identifications system (1)	O
Fit-up of groove welds (including joint geometry)	O
Configuration and finish of access holes	O
Fit-up of fillet welds	O
Check welding equipment	—
Use of qualified welders	O
Control and handling of welding consumables	O
No welding over cracked tack welds	O
Environmental conditions	O
WPS followed	O
Welding techniques	O
Welds cleaned	O
Size, length and location of welds	P
Welds meet visual acceptance criteria	P
Arc strikes	P
k-area (2)	P
Backing removed and weld tabs removed (if required)	P
Repair activities	P
Document acceptance or rejection of welded joint or member	P

(1) The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.

(2) When welding of double plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld.

0 - Observe these items on a random basis. Operations need not be delayed pending these inspections.

P - Perform these tasks for each welded joint or member

N5.5

Non-destructive Testing (NDT) of Welds shall be performed in accordance with AWS D1.1/D1.1M based on the following criteria:

1. For structures in Risk Category III or IV, Ultrasonic Testing (UT) shall be performed on all Complete Joint Penetration (CJP) groove welds for materials 5/16" thick or greater.
2. Structures in Risk Category II, UT shall be performed on 10% of CJP groove welds for materials 5/16" thick or greater.
3. When flange or web thickness exceeds 2", thermally cut access holes shall be tested using Magnetic Particle Testing (MT) or Penetrant Testing (PT), any crack is unacceptable.
4. Welded joints requiring soundness per Appendix 3, Table A-3.1 shall be tested by Radiographic Testing (RT) or UT. Reduction in the rate of UT is prohibited.
5. Reduction rate for UT - Where the initial rate for UT is 100%, the NDT rate for an individual welder is permitted to be reduced to 25% provided the reject rate is 5% or less based on a minimum of 40 welds tested. For continuous welds over 2', each 12" increment shall be considered on weld.
6. Increase rate for UT - Where the initial rate for UT is 10%, the NDT rate for an individual welder shall be increased to 100% if the reject rate is over 5% based on a minimum of 20 welds tested. Rate may be reduced if reduction rate criterion is met.

Bolting Inspection Tasks

Manufacturer's certifications available for fastener materials	P
Fasteners marked in accordance with ASTM requirements	O
Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	O
Proper bolting procedure selected for joint detail	O
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	O
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	O
Proper storage provided for bolts, nuts, washers and other fastener components	O
Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.	O
Joint brought to the snug-tight condition prior to the pretensioning operation	O
Fastener component not turned by the wrench prevented from rotating	O
Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges.	O
Document acceptance or rejection of bolted connections	P

0 - Observe these items on a random basis. Operations need not be delayed pending these inspections.

P - Perform these tasks for each welded joint or steel member

N5.7

Anchor Bolts and other embedded items supporting structural steel, verify diameter, grade, type, length of embedded item, and the embedment depth prior to placing concrete.

TABLE N6.1

Inspection of Steel Elements of Composite Construction Prior to Concrete Placement

Placement and installation of steel deck	P
Placement and installation of steel headed stud anchors	P
Document acceptance or rejection of steel elements	P

0 - Observe these items on a random basis. Operations need not be delayed pending these inspections.

P - Perform these tasks for each steel member.

Revisions:	Date:

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0 1 2 3
INCH - SCALE IN INCHES

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STAMP

Office of Construction and Facilities Management

VA | U.S. Department of Veterans Affairs

Drawing Title: TESTING SCHEDULES

Approved:

Phase: BID DOCUMENTS

FULLY SPRINKLERED

Project Title: CONSTRUCT NEW SPS

Location: Sioux Falls, SD.

Project Number: 438-460

Building Number: 5

Drawing Number: SG001

Issue Date: 02/14/2025 | Checked: MPM/TGL | Drawn: MAQ

BIM 360://190524.00 - VA Vitals DC-VA Sioux Falls New SPS/S21 - 190524.00-04_VA Vitals DC-VA Sioux Falls New SPS_Curt

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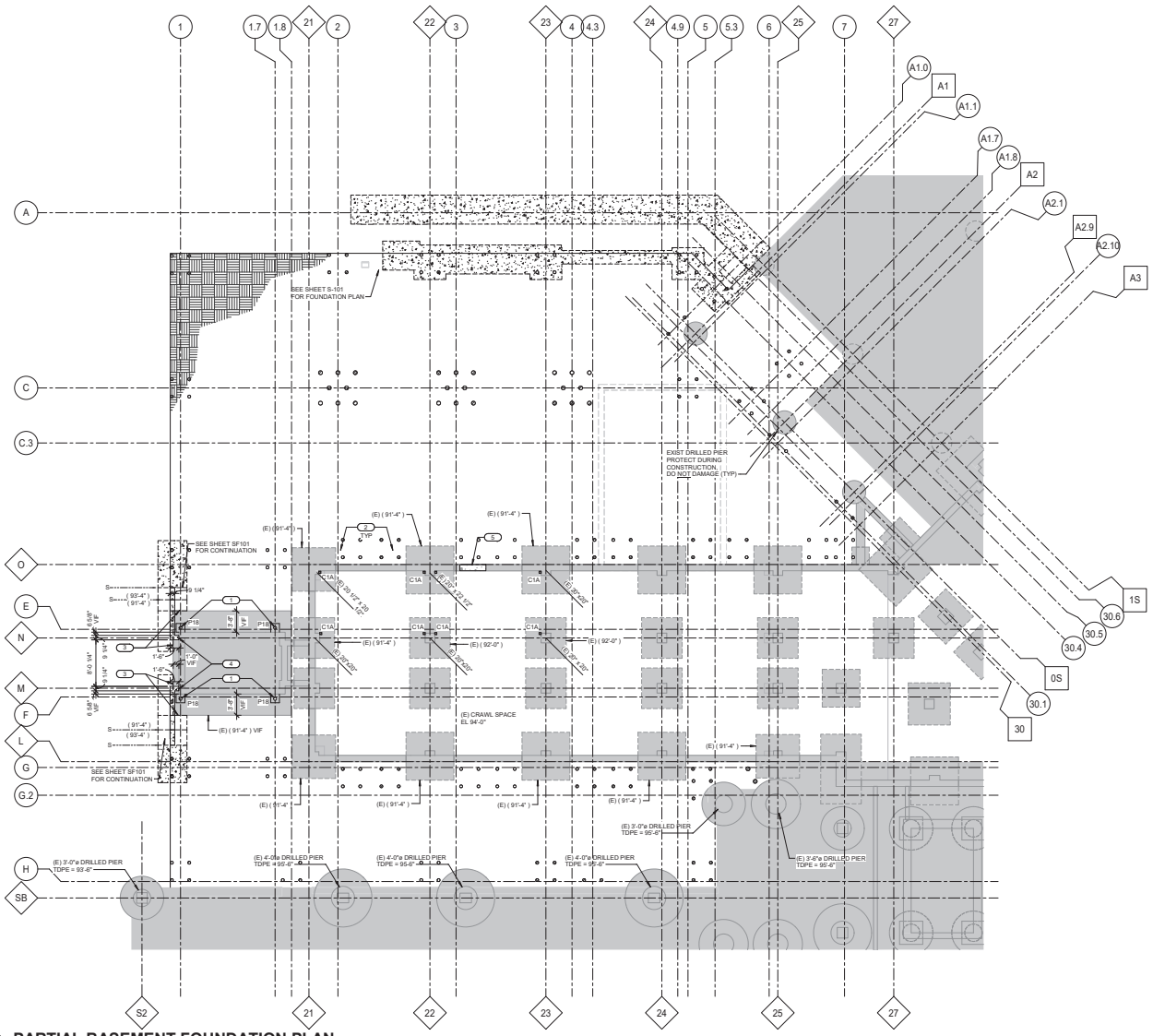
VA FORM 08 - 6231



PARTIAL BASEMENT FOUNDATION PLAN

1/8" = 1'-0"

GENERAL PLAN NOTES: FOUNDATION

— · — · — = INDICATES MECH LINE CROSSING FTG (NOT ALL SHOWN).

1. VERIFY ALL DIMENSIONS W/ ARCH DRAWINGS.
2. DO NOT SCALE DRAWINGS.
3. SEE ARCH DWGS FOR LOCATION OF WALLS NOT DIMENSIONED ON PLAN.
4. CX INDICATES STEEL COLUMN. SEE SHEET SB101 FOR SCHED.
5. PX INDICATES CONC PIER BELOW GRADE. SEE SHEET SB101 FOR SCHED.
6. SFX.X INDICATES CONCRETE SPREAD FOOTING. SEE SHEET SB101 FOR SCHEDULE.
7. CFX.X INDICATES CONCRETE CONTINUOUS FOOTING. SEE SHEET SB101 FOR SCHEDULE.
8. TYP STEPPED FTG, SEE SECTION 1/SB200.
9. TYP ANCHOR ROD DETAIL, SEE SECTION 4/SB200.
10. FOR TYP CONC FDN WALL CORNER DETAILS RETAINING EARTH, SEE SECTION 8/SB200.
11. FOR TYP CONC FDN WALL CONTROL JT, SEE SECTION 6/SB200.
12. FOR TYP CONC FDN WALL CONSTR JT, SEE SECTION 7/SB200.
13. FOR TYP ADD'L REINF AT CONC WALL OPGS LARGER THAN 12" IN ANY DIRECTION, SEE SECTION 9/SB200.
14. CONTRACTOR TO VERIFY UNDERGROUND UTILITIES LOCATIONS AND INVERT ELEVATIONS. DROP TOP OF FTG ELEVATIONS AS REQ'D TO ALLOW MECH PIPE TO PASS OVER FTG.
15. PROVIDE PIPE SLEEVES AT ALL LOCATIONS WHERE MECH PIPES PENETRATE WALL. VERIFY LOCATIONS WITH MECH. DWGS, SEE SECTION 2/SB200.
16. REFER TO ARCHITECTS DRAWINGS FOR BELOW GRADE WATERPROOFING DETAILS.
17. ALL EXTERIOR STEEL TO BE HOT-DIPPED GALVANIZED.
18. CONTRACTOR TO FIELD VERIFY EXISTING DIMENSIONS & ELEVATIONS.
19. CONTRACTOR TO LOCATE EXISTING REINFORCING IN EXISTING WALLS & SLAB AS REQUIRED.
20. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES, MECHANICAL PIPING, ELECTRICAL CONDUIT, ETX, PRIOR TO HELICAL PILE INSTALLATION. COORDINATE WITH HELICALPILE DESIGNER AND ADJUST HELICAL PILE LOCATION AS REQUIRED.

KEY PLAN NOTES: FOUNDATION

1. DRILL MICROPILES THROUGH FOUNDATION AT STAIR TOWER. LOCATE PILE CENTERED ON PIER. SEE PLAN SB101 FOR COLUMN REACTION.
2. HELICAL PILES DESIGNED BY SUPPLIER. HELICAL PILES SHALL BE OUTSIDE OF EXISTING FOOTINGS. SEE PLAN SB101 FOR COLUMN REACTIONS.
3. DRILL AND EPOXY FOOTING REINFORCING INTO EXISTING CONCRETE FOOTING WITH HILTI-HY 200 ADHESIVE (6" MIN EMBEDMENT).
4. DRILL AND EPOXY HORIZONTAL WALL REINFORCING INTO EXISTING FOUNDATION WALL WITH HILTI-HY 200 ADHESIVE (6" MIN EMBEDMENT).
5. INFILL EXISTING OPENING WITH NEW CONCRETE. REINFORCE W/ #4 BARS @ 18"OC EACH WAY, EACH FACE. DOWEL TO EXISTING W/ HILTI-HY 200 (4" MIN EMBED).

CONTRACTOR IS RESPONSIBLE FOR THE ENGINEERING DESIGN & INSTALLATION OF A TEMPORARY EARTH RETENTION SYSTEM AS REQUIRED TO CONSTRUCT THE FOUNDATIONS & LOWER LEVEL. COORDINATE PLACEMENT OF EARTH RETENTION SYSTEM W/ THE OWNER & CITY.

Revisions:	Date:

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STAMP

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12/19/2025

Office of Construction and Facilities Management

VA | U.S. Department of Veterans Affairs

Drawing Title	PARTIAL BASEMENT FOUNDATION PLAN
Approved:	
Phase	BID DOCUMENTS
	FULLY SPRINKLERED
Project Title	CONSTRUCT NEW SPS
Location	Sioux Falls, SD.
Issue Date	02/14/2025
Checked	MPM/TGL
Drawn	MAQ
Project Number	438-460
Building Number	5
Drawing Number	SB100

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