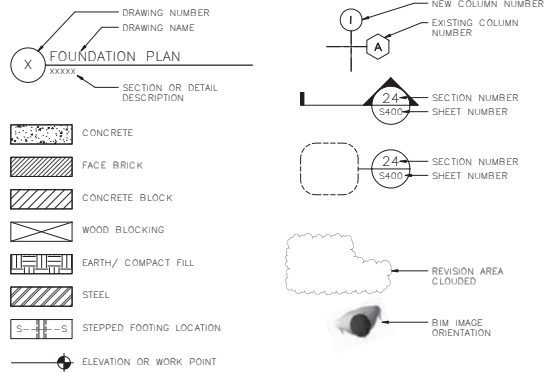


DANVILLE NC STORAGE BINS

DANVILLE, IL

Drawing Symbols



Abbreviations

A.B.	ANCHOR BOLT	I.	INFO. INFORMATION	S.	SOUTH
ADD'L.	ADDITIONAL	J.B.E.	JOIST BEARING ELEVATION	SCHED.	SCHEDULE
ALT.	ALTERNATE	JST.	JOIST	SM.	SIMILAR
ARCH.	ARCHITECT(URAL)	JT.	JOINT	SJI	STEEL JOIST INSTITUTE
B.	BUILDING	K.	KIP	SQA	SQUARE(S)
BLDG.	BLOCK	K.O.	KNOCK-OUT	SQ.	SQUARE
BLKG.	BLOCKING	K.S.I.	KIPS PER SQ. INCH	STD.	STANDARD
BL.	BEAM	L.	LIVE LOAD	STL.	STEEL
BOT.	BOTTOM	LLH.	LONG LEG HORIZONTAL	STRUCT.	STRUCTURAL
BRG.	BEARING	LLV.	LONG LEG VERTICAL	T.	TOP OF BEAM ELEVATION
B.TWN.	BETWEEN	M.	MASONRY	TDE.	TOP OF DECK ELEVATION
C.	CAST IN PLACE	MATL.	MATERIAL	TEMP.	TEMPORARY
C.J.	CONTROL JOINT	MECH.	MECHANICAL	TFE.	TOP OF FOOTING ELEVATION
CL.	CENTER LINE	MEZZ.	MEZZANINE	TPE.	TOP OF PIER ELEVATION
CMU	CONCRETE MASONRY UNIT	MFG.	MANUFACTURE(R)	TSE.	TOP OF SLAB ELEVATION
COL.	COLUMN	MIN.	MINIMUM	TYP.	TYPICAL
COMP.	COMPOSITE	MISC.	MISCELLANEOUS	U.	UNLESS NOTED OTHERWISE
CONC.	CONCRETE	M.O.	MASONRY OPENING	V.	VERT. VERTICAL
CONN.	CONNECTION	N.	NORTH	W.	WEST
CONST.	CONSTRUCTION	N.C.	NOT IN CONTRACT	W/	WITH
CONT.	CONTINUOUS	NTS	NOT TO SCALE	W.P.	WORK POINT
COORD.	COORDINATE	O.C.	ON CENTER(S)	W.W.F.	WELDED WIRE FABRIC
C.TRD.	CENTERED	O.H.	OVERHEAD		
D.	DOUBLE	OPNG.	OPENING		
DIA.	DIAMETER	OPP.	OPPOSITE		
DIAG.	DIAGONAL	P.	PRECAST CONCRETE		
D.L.	DEAD LOAD	P.C.	PERIMETER		
DO.	DITTO	PL.	PLATE		
DTL.	DETAIL	PLF	POUNDS PER LINEAR FOOT		
DWG.	DRAWING	PROJ.	PROJECT		
E.	EAST	PSF.	POUNDS PER SQ. FOOT		
EA.	EACH	PSI.	POUNDS PER SQ. INCH		
ELEV.	ELEVATION	QTY.	QUANTITY		
EMBRED.	EMBODIMENT	R.	RADIUS		
EQU.	EQUAL	RAD.	ROOF DRAIN		
EXIST.	EXISTING	REIN.	REINFORCE(D), (ING)		
EXP.	EXPANSION	REQ'D.	REQUIRED		
EXT.	EXTERIOR	REV.	REVISION, REVISE(D)		
FAB.	FABRICATE(OR)				
FD.	FLOOR DRAIN				
FNON.	FOUNDATION				
FTG.	FOOTING				
G.	GAGE, GAUGE				
GALV.	GALVANIZED				
G.C.	GENERAL CONTRACT(OR)				
H.	HORIZONTAL				
HK.	HOOK				
H.S.	HEADED STUDS				
H.S.S.	HOLLOW STRUCT. STEEL				

Drawing Index

Sheet Number	Sheet Name
S1.01	TITLE SHEET
S1.02	STRUCTURAL GENERAL NOTES
S1.03	SPECIAL INSPECTIONS / TESTING / REQUIRED SUBMITTALS
S2.01	FOUNDATION AND ROOF FRAMING PLANS
S3.01	FOUNDATION AND ROOF FRAMING SECTIONS AND DETAILS

100% CONSTRUCTION DOCUMENTS FOR BID

CONSULTANTS:		ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		National Cemetery Administration	
		ANDERSON ENGINEERING		TITLE SHEET		ACCESS ROAD FOR SECTION 20 DRAINAGE IMPROVEMENTS TO SECTION 23 NEW STORAGE MATERIAL BINS		809CM3017		Department of Veterans Affairs	
		Anderson Engineering of Minnesota, LLC 13605 1st Avenue North Suite 100 Plymouth, MN 55441 763-412-4000 (H) 763-412-4000 (F) www.ae-mn.com		Approved: Project Director		DANVILLE, ILLINOIS		#3G01			
		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: John M. Levar SIGNATURE: [Signature] DATE: 02-06-15 LICENSE # 43095				Date: FEBRUARY 06, 2015		Checked: AAO		Drawn: EMZ	
								S1.01		Dwg. 21 of 25	

STRUCTURAL NOTES

I. DESIGN DATA

A. BUILDING CODE

1. INTERNATIONAL BUILDING CODE 2006 EDITION

B. DESIGN LOADS/DESIGN CRITERIA

1. WIND LOAD (BASIC WIND SPEED (3-SECOND GUST)----- 105-MPH

EXPOSURE CATEGORY----- C

INTERNAL PRESSURE COEFFICIENTS, GC----- +/-0.55

2. ROOF LOADS

LIVE LOAD (LL)----- 20 PSF

DEAD LOAD (DL)----- 10 PSF

NET UPLIFT FOR JOIST AND DECK DESIGN

WITHIN 5 FT. OF BLDG PERIMETER----- 25 PSF

BLANCE OF ROOF----- 30 PSF

NET UPLIFT VALUES WERE CALCULATED USING ASCE 7-10 AND IBC SECTION 1605.3.1

BASIC LOAD COMBINATIONS WHICH DOES NOT ALLOW ALLOWABLE STRESS INCREASES.

IN COMPLIANCE WITH THE SJ SPECIFICATION, THE JOIST SUPPLIER SHALL CONSIDER

JOIST UPLIFT IN THE DESIGN OF THE JOISTS, JOIST ORDERS, BRIDGING AND JOIST

AND JOIST GIRD CONNECTIONS TO THE STRUCTURE. AT A MINIMUM, A SINGLE LINE OF

BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINT AT EACH END

OF JOIST. IN ADDITION, JOIST SUPPLIER IS RESPONSIBLE FOR JOIST AND JOIST GIRDER

WELDS TO SUPPORT STRUCTURE.

3. ROOF SNOW LOAD

GROUND SNOW LOAD, P_g----- 20 PSF

FLAT-ROOF SNOW LOAD, P_f----- 16 PSF

SNOW EXPOSURE FACTOR, C_e----- 1.0

SNOW LOAD IMPORTANCE FACTOR, I----- 0.80

THERMAL FACTOR, C_t----- 1.0

4. SEISMIC DESIGN DATA

SEISMIC IMPORTANCE FACTOR----- 1.00

OCCUPANCY CATEGORY----- I

MAPPED SPECTRAL RESPONSE ACCELERATIONS

S₁-----0.177 S₂-----0.092

SPECTRAL RESPONSE COEFFICIENTS

S₁-----0.189 S₂-----0.147

SITE CLASS----- D

SEISMIC DESIGN CATEGORY----- B

BASIC SEISMIC FORCE-RESISTING SYSTEM-----

STEEL MOMENT FRAME-CANTILEVERED COLUMN-BRACED FRAME

SEISMIC RESPONSE COEFFICIENT, C_s----- 0.063

RESPONSE MODIFICATION FACTOR, R----- 3

DESIGN BASE SHEAR----- 18.6 K

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

SEISMIC DESIGN AND ANCHORAGE OF NON-STRUCTURAL COMPONENTS SHALL BE THE

RESPONSIBILITY OF THE SUPPLIER OF THE COMPONENTS. NON-STRUCTURAL COMPONENTS

INCLUDES, BUT IS NOT LIMITED TO, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STORAGE

RACKING SYSTEMS. IT SHALL BE THE RESPONSIBILITY OF THE SUPPLIER TO EXAMINE THE

SYSTEMS AND COMPONENTS BEING PROVIDED RELATIVE TO THE PROVISIONS OF ASCE-7 2010,

CHAPTER 13 TO DETERMINE APPLICABILITY OF THE PROVISIONS TO THE SCOPE OF WORK. IN

THE EVENT THAT PROVISIONS APPLY TO THE SCOPE OF WORK, AN ENGINEER REGISTERED IN

THE STATE OF THE PROJECT SHALL DESIGN THE APPLICABLE SUPPORT SYSTEMS AND

ANCHORAGE FOR THE COMPONENTS AND PROVIDE SIGNED AND SEALED DRAWINGS AND

CALCULATIONS FOR SUBMITTAL AND REVIEW BY THE ENGINEER OF RECORD.

5. DEFLECTION CRITERIA

ALL PERIMETER MEMBERS ARE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF 0.5

INCHES UNLESS NOTED OTHERWISE ON PLANS.

* REDUCED PER IBC, SEC. 1607.9

** PLUS SNOW ACCUMULATION AS REQUIRED BY IBC, CHAPTER 16, SECTION 1608.

C. ALTERNATE DESIGNS

ALTERNATE STRUCTURAL SYSTEMS & DETAILS WILL ONLY BE CONSIDERED PROVIDED THEY ARE

SUBMITTED WITH CALCULATIONS CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE

STATE OF THE PROJECT. THE CALCULATIONS MUST SHOW THE EQUIVALENCY OF THE

ALTERNATE. ACCEPTANCE OF THE ALTERNATE BY THE ENGINEER OF RECORD MUST BE IN

WRITING.

D. FUTURE EXPANSION

THIS PROJECT IS NOT DESIGNED FOR FUTURE EXPANSION.

E. GENERAL NOTES

1. IN ALL CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN REQUIREMENTS IN THE

SPECIFICATION AND REQUIREMENTS ON THE DRAWINGS, THE STRUCTURAL ENGINEER OF RECORD

SHALL BE IMMEDIATELY NOTIFIED IN WRITING AND THE STRUCTURAL ENGINEER OF RECORD SHALL

INTERPRET THE INTENT OF THE CONTRACT DOCUMENT.

2. IN NO CASE, SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON

THE STRUCTURAL DRAWINGS.

3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS AT

THE JOBSITE AND TO CROSS CHECK ALL DETAILS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL

DRAWINGS WITH RELATED REQUIREMENTS ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND

CIVIL DRAWINGS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING

WORK.

4. IN EXISTING FACILITIES, ALL EXISTING CONDITIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR

PRIOR TO CONSTRUCTION. ANY EXISTING CONDITIONS THAT DIFFER FROM THOSE SHOWN ON THE

STRUCTURAL DRAWINGS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE STRUCTURAL

ENGINEERING (IN WRITING).

F. REFERENCE STANDARDS - SEE IBC CHAPTER 35 FOR ALL REFERENCE STANDARDS

G. SITE WORK

A. GEOTECHNICAL REPORT

1. FOUNDATIONS, RETAINING & BASEMENT WALLS, FOUNDATION DRAINAGE, SLABS ON GRADE &

OTHER ITEMS RELATED TO THE SOILS ARE DESIGNED & SHALL BE CONSTRUCTED IN

ACCORDANCE WITH THE RECOMMENDATIONS OF PSR REPORT NO. 00201691 DATED

OCTOBER 7, 2014 INCLUDING:

2. DESIGN NET SOIL BEARING CAPACITY IS AS FOLLOWS:

A. SPREAD FOOTINGS----- 2500 PSF

B. STRIP FOOTINGS----- 2500 PSF

3. ALL OPEN AIR FOUNDATIONS HAVE A MINIMUM OF 36-IN FROST PROTECTION.

4. UNRESTRAINED RETAINING WALLS ARE DESIGNED FOR AN ACTIVE EQUIVALENT FLOOD PRESSURE

OF 20 PSF/FT. THE BACKFILL MATERIAL SHALL CONFORM TO A WELL-SORTED, FREE-

DRAINING SAND. SEE THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION ON MATERIAL

GRADING AND BACKFILL OPERATIONS.

II. CONCRETE

A. CONCRETE MATERIAL PROPERTIES

1. CONCRETE PROPERTIES

A. FOOTINGS, PERKS,

& FOUNDATION WALLS----- 4000

B. EXTERIOR SLAB ON GRADE----- 3000

2. CYLINDER TESTING SHALL BE COMPLETED PER IBC SECTION 1905. TESTING REPORTS SHALL BE

PROVIDED TO THE OWNER AND ENGINEER OF RECORD AT A MINIMUM, PREFERABLE DELIVERY

METHOD IS VIA E-MAIL.

3. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED TO GIVE THE CONCRETE AN AIR CONTENT

OF 6% +/- 1 % BY VOLUME.

4. CONCRETE MIX DESIGNS & SUPPORTIVE DATA MUST BE SUBMITTED FOR APPROVAL ACCORDING

TO ACI-308.1 - STEEL JOISTS U.N.O.

SECTION 5.3.

B. REINFORCING MATERIAL PROPERTIES

1. REINFORCING PROPERTIES

A. ALL BARS UNLESS NOTED----- 60

B. TIES & STRIPS----- 60

C. WELDED WIRE FABRIC (SMOOTH)----- 65

2. EPOXY COATING FOR REINFORCING SHALL CONFORM TO ASTM A-775.

3. ALL CHAIRS, SLAB BOLSTERS & SUPPORT BARS SHALL BE PLASTIC COATED OR EPOXY

COATED.

4. SOFT METRIC BAR SIZES VS. INCH-POUND (U.S. SYSTEM OF MEASURES) BAR SIZE TABLE.

ALL DRAWINGS REFLECT THE U.S. SYSTEM OF MEASURE.

INCH-POUND BAR

SIZE DESIGNATION

SOFT METRIC BAR

SIZE DESIGNATION

#3 #10

#4 #13

#5 #16

#6 #19

#7 #22

#8 #25

#9 #29

#10 #32

#11 #36

#12 #43

#13 #57

C. CAST IN PLACE CONCRETE

1. ALL CONCRETE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER

19 & ACI-318.

2. ALL REINFORCING SHALL BE DETAIL, FABRICATED & PLACED IN ACCORDANCE WITH CRS

"MANUAL OF STANDARD PRACTICE" THE STEEL REINFORCING SUPPLIER SHALL SUBMIT SHOP

DR OR EXISTING DETAILS & MEMBERS WITH REINFORCING FURNISHED BY THE SUPPLIER.

3. PER ACI 7.8.2.1, ALL REINFORCING SHALL BE PLACED AND SUPPORTED PRIOR TO PLACING

CONCRETE. "WET STRICKING" OF REBAR, INCLUDING DOWELS IS PROHIBITED.

4. SPACING OF CONSTRUCTION OR CONTROL JOINTS IN WALLS EXPOSED TO VIEW SHALL NOT

EXCEED 4 FEET UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. CUT HALF

OF THE HORIZONTAL REINFORCING AT CORNER JOINTS.

5. SLEEVES EMBEDDED IN SLABS AND WALLS SHALL BE LOCATED CLEAR BETWEEN REINFORCING

BAR AND SHALL MAINTAIN CLEAR SPACING EQUAL TO THE DIAMETER OF THE LARGEST SLEEVE

IN ANY DIRECTION. SLEEVE GROUPS THAT DO NOT COMPLY WITH THE ABOVE REQUIREMENTS

SHALL BE CONSIDERED AS AN OPENING AND REINFORCED PER NOTE #5 BELOW.

6. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE EXTRA REINFORCING ON ALL SIDES OF

ALL MISCELLANEOUS WALL AND SLAB OPENINGS EQUAL TO ONE HALF THE INTERRUPTED

REINFORCING BARS EACH SIDE BUT NOT LESS THAN 2 - #5 FOR EACH LAYER OF

REINFORCEMENT. EXTEND BARS CLASS "B" LAP LENGTH BUT NOT LESS THAN 2 FEET BEYOND

EDGE OF OPENING. PROVIDE 2 - #4x45° DIAGONAL BARS AT EACH CORNER FOR EACH

LAYER OF REINFORCEMENT.

7. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CORNERS OF CONCRETE.

8. PROVIDE ISOLATION JOINTS AROUND COLUMNS AT SLAB ON GRADE AREAS.

9. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

MINIMUM

COVER IN

A. CONCRETE CAST AGAINST & PERMANENTLY

EXPOSED TO EARTH----- 3

B. CONCRETE EXPOSED TO EARTH OR WEATHER

#6 THRU #18 BARS----- 2

#5 & SMALLER BARS----- 1 1/2

C. CONCRETE NOT EXPOSED TO WEATHER OR IN

CONTACT WITH GROUND

SLABS & WALLS: #14 & #18 BARS----- 1 1/2

#11 & SMALLER BARS----- 3/4

IV. STEEL

A. STEEL MATERIAL PROPERTIES

1. STEEL PROPERTIES

A. STRUCTURAL WIDE FLANGE SHAPES----- F_y/PSI ASTM

OTHER STRUCT. SHAPES----- 4092

B. PLATES, ETC----- 36,000 A36

C. HIGH STRENGTH BOLTS, U.N.O----- 74,000 A325

D. ANCHOR BOLTS----- 36,000 F1554

E. WELDING ELECTRODES----- E70XX A533

F. WELDING ELECTRODES----- 360XX A233

B. STRUCTURAL STEEL

1. STRUCTURAL STEEL DESIGN & CONSTRUCTION SHALL CONFORM TO IBC CHAPTER 22, SECTION

2201, AISC "LOAD & RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL

BUILDING" & AISC "CODE OF STANDARD PRACTICE" APPLY U.N.O.

2. STRUCTURAL STEEL SUPPLIER SHALL SUBMIT SHOP DRAWINGS FOR ALL MATERIAL SUPPLIED. IN

ADDITION, THE STRUCTURAL STEEL SUPPLIER SHALL SUBMIT DRAWINGS AND CALCULATIONS

CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT FOR ALL

STAIRS, LADDERS, BALUNGS, CAP PLATES, BEARING PLATES, BASE PLATES, STIFFENERS,

SPLICES, CONNECTIONS AND ANY OTHER COMPONENTS DESIGNED BY THE SUPPLIER.

3. STRUCTURAL STEEL SUPPLIER SHALL FURNISH BOLTS FOR OSHA CONNECTIONS (SEE DRAWINGS

FOR DETAILS). BOLT HOLES IN BEAM TOP FLANGE SHALL BE MINIMUM 3/16" DIA. FOR "A"

SERIES JOISTS AND 13/16" DIA. FOR "K" SERIES JOISTS.

4. PROVIDE PROTECTIVE ASPHALTIC COATING OR EQUAL AROUND STRUCTURAL STEEL BELOW

GRADE.

5. THIS STRUCTURE IS A NON-Self SUPPORTING STEEL FRAME REQUIRING INTERACTION WITH

OTHER ELEMENTS TO PROVIDE THE REQUIRED STABILITY. THE STEEL DESIGNER SHALL PROVIDE

TEMPORARY BRACING UNTIL FINAL STABILITY IS PROVIDED. AS A MINIMUM, TEMPORARY

BRACING SHALL BE PROVIDED AT EACH GRID IN BOTH DIRECTIONS.

6. BOLTED CONNECTIONS SHALL BE 3/4" DIA. A325 BEARING-TYPE WITH THREADS INCLUDED IN

THE END OF THE BOLTS IN PRIMARY ALIGNED HOLES AND TIGHTEN TO A MINIMUM, PREFERABLE

DELIVERY METHOD IS VIA E-MAIL.

7. THE JOIST MANUFACTURER SHALL BE RESPONSIBLE FOR & SHALL SUBMIT SHOP DRAWINGS FOR

APPROVAL. A CERTIFIED LETTER STATING THAT ALL STANDARD JOISTS CONFORM TO THE SJ

SPECIFICATIONS SHALL BE SUBMITTED. CALCULATIONS FOR ALL JOIST ORDERS & SPECIAL

JOISTS CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT,

SHALL BE SUBMITTED FOR REVIEW.

8. THE DESIGN OF ALL JOIST & ORDER MEMBERS & ELEMENTS SHOWN ON THE DRAWINGS ARE

FOR THE IN-PLACE COMPLETED BUILDING. ALL LOADING CRITERIA & VERIFICATION OF DESIGN

FOR LOADING SUCH AS HANDLING, TRANSPORTATION & ERECTION ARE THE SOLE

RESPONSIBILITY OF THE JOIST MANUFACTURER.

9. SPECIAL JOISTS & JOIST ORDERS SHALL BE DESIGNED FOR THE LOADS INDICATED ON THE

DRAWINGS.

10. JOIST MANUFACTURER SHALL DESIGN & PROVIDE SPECIAL JOIST SEATS WHEN THE SUPPORT

BEARING WIDTH IS LESS THAN SJ REQUIREMENTS.

11. ALL JOISTS SHALL BE CAMBERED IN ACCORDANCE WITH SJ CRITERIA U.N.O.

12. STRUCTURAL STEEL SUPPLIER SHALL PROVIDE ERECTION BOLTS AT COLUMNS AND ELSEWHERE

AS REQUIRED BY OSHA AND THE METHOD OF STEEL ERECTION. BOLT SIZE AT COLUMNS

SHALL BE 1/2" DIA. WITH A 9/16" HOLE. COORDINATE LOCATIONS WITH JOIST SUPPLIER.

D. STEEL DECK

1. ALL STEEL DECKS SHALL BE DESIGNED & CONSTRUCTED IN ACCORDANCE WITH IBC CHAPTER

22, SECTION 2205 - COOL FORMED STEEL AND THE STEEL DECK MANUFACTURER'S

RECOMMENDATIONS, U.N.O.

2. THE STEEL DECK SUPPLIER SHALL SUBMIT SHOP DRAWINGS FOR ALL ELEMENTS & MEMBERS

BY DECK SUPPLIED BY DECK SUPPLIER. DECK SUPPLIER SHALL SUBMIT CALCULATIONS SHOWING

ALLOWABLE DIAPHRAGM SHEAR VALUES.

3. PRE-APPROVED DECK MANUFACTURERS ARE VULCRUIT, WHEELING AND WERCO. OTHER METAL

DECK MANUFACTURERS MAY BE APPROVED PROVIDING THAT THE DECK SPECIFICATIONS MEET

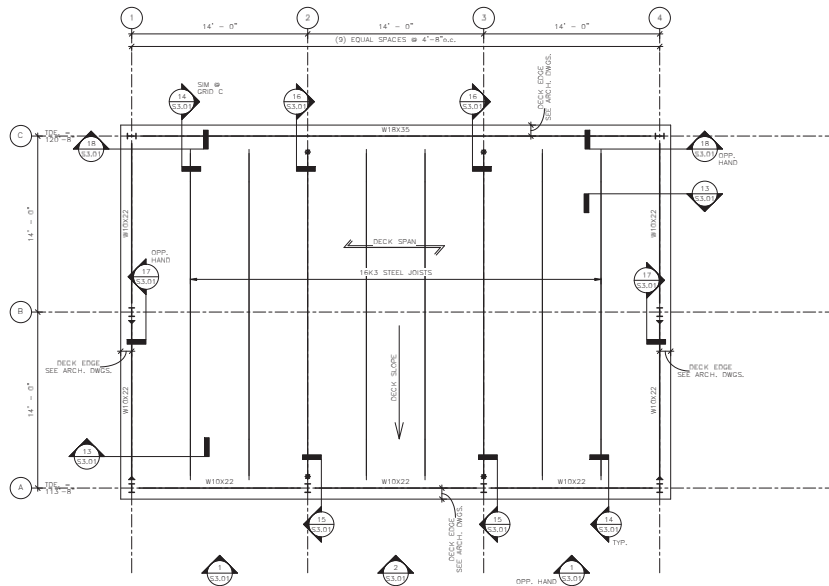
OR EXCEED THE SPECIFICATIONS OF THE PRE-APPROVED MANUFACTURERS. METAL DECK SIZE,

GAGE AND TYPE ARE INDICATED ON THE DRAWINGS.

4. ROOF DECK SHALL BE CONTINUOUS OVER THREE SPANS MINIMUM. YIELD STRESS SHALL BE

33,000 PSI MINIMUM. DETAIL IN ACCORDANCE WITH THE REPORT TO MEET THE REQUIRED

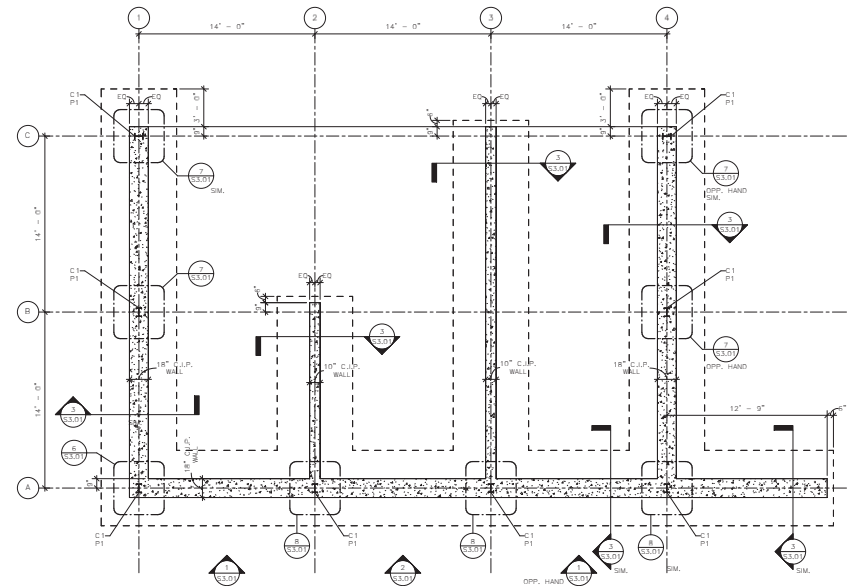
 Department of
Veterans Affairs



2 ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

- STRUCTURAL ROOF DECK SHALL BE 1 1/2" - 22GA. TYPE "B" METAL DECK. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON ROOF ASSEMBLY AND DETAILS.
- ON PLAN INDICATES DIRECTION OF DECK SPAN.
- ON PLAN DENOTES A MOMENT FRAME CONNECTION. SEE DETAIL 17/S3.01 FOR CONNECTION INFORMATION.
- ALL STRUCTURAL STEEL JOISTS, DECK, BEAMS, COLUMNS, PLATES AND THREADED RODS TO BE HOT DIP GALVANIZED PER ASTM SPECIFICATIONS.
- ON PLAN DENOTES BOTTOM FLANGE BRACING. SEE SECTION 15 & 16/S3.01 FOR ADDITIONAL INFORMATION.
- ALL STRUCTURAL STEEL BOLTS, NUTS AND WASHERS TO BE MECHANICALLY GALVANIZED.
- STEEL JOIST SUPPLIER TO PROVIDE SLOPED JOIST SEATS.



1 FOUNDATION PLAN
1/4" = 1'-0"

FOUNDATION PLAN NOTES:

- TOP OF SLAB ELEVATION (TSE.) = VARIES, SEE CIVIL.
- SEE CIVIL DRAWINGS FOR SLAB ON GRADE SLOPES, THICKNESS, AND REINFORCING.
- TOP OF FOOTING ELEVATION (TFL.)=36'-0" U.L.D. ON PLAN. GENERAL CONTRACTOR TO VERIFY FINAL GRADE ELEVATIONS TO ENSURE MINIMUM 36" FROST COVER TO TOP OF FOOTING.
- ALL STRUCTURAL STEEL JOISTS, DECK, BEAMS, COLUMNS, PLATES AND THREADED RODS TO BE HOT DIP GALVANIZED PER ASTM SPECIFICATIONS.
- CONTINUOUS WALL FOOTING SHALL BE 6'-0" WIDE x 1'-6" DEEP AND REINFORCED w/ #5 BARS SPACED @ 12" O.C. EACH WAY, TOP AND BOTTOM OF THE FOOTING. SEE THE FOUNDATION DETAILS ON SHEET 3000 FOR ADDITIONAL INFORMATION.
- TOP OF FOUNDATION / RETAINING WALL ELEVATION (TWE.) = 106'-0" TYP. U.L.D. SEE CIVIL FOR REFERENCED DATUM ELEVATION.
- ALL CONCRETE REINFORCING IN WALLS TO BE EPOXY COATED.
- ALL STRUCTURAL STEEL BOLTS, NUTS AND WASHERS TO BE MECHANICALLY GALVANIZED.

COLUMN SCHEDULE				
MARK	PIER SIZE	VERT. REIN.	TIES	REMARKS
C1	18"x18"	4#	#3 @ 12" O.C.	SEE DETAIL 5/S3.01

CONCRETE PIER SCHEDULE				
MARK	PIER SIZE	VERT. REIN.	TIES	REMARKS
P1	18"x18"	4#	#3 @ 12" O.C.	SEE DETAIL 4/S3.01

Revisions	Date

CONSULTANTS:



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: John M. Lever
SIGNATURE: DATE: 02-08-15 LICENSE # 43095

ARCHITECT/ENGINEERS:



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Plymouth, MN 55441
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Drawing Title

FOUNDATION AND ROOF FRAMING PLANS

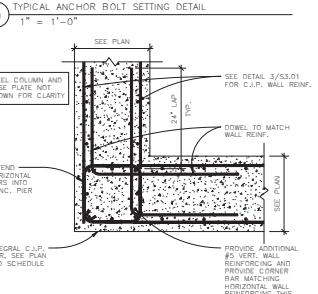
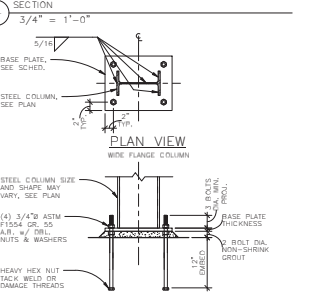
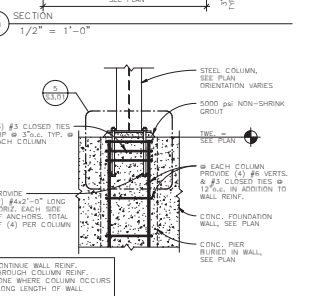
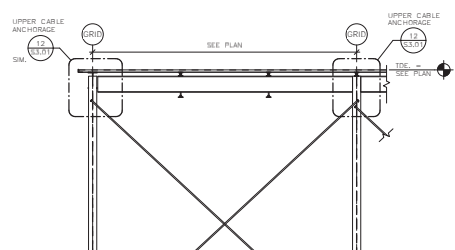
Approved: Project Director



100% CONSTRUCTION DOCUMENTS FOR BID

Project Title
ACCESS ROAD FOR SECTION 20
DRAINAGE IMPROVEMENTS TO SECTION 23
NEW STORAGE MATERIAL BINS
LOCATION
DANVILLE, ILLINOIS
Date
FEBRUARY 08, 2015
Checked
AAO
Drawn
EMZ

Project Number
809CM3017
Drawing Number
#3G01
Drawing Number
S2.01
Dwg. 24 of 25





Project Title ACCESS ROAD FOR SECTION 20			Project Number 809CM3017		
BRINNAVE IMPROVEMENTS TO SECTION 23			Building Number #3G01		
NEW STORAGE MATERIAL BINS			Drawing Number S3.01		
Location DANVILLE, ILLINOIS			 National Cemetery Administration		
Date FEBRUARY 08, 2015	Checked AAO	Drawn EMZ	 Department of Veterans Affairs		
			Dwg. 25 of 25		