

**VP BUILDINGS**

**VARCO PRUDEN**

**A BlueScope Steel Company**

**DRAWING INDEX**

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**DRAWING RELEASE HISTORY**

TYPE	DATE	DESCRIPTION
Approval Drawings	2/9/2009	FOR APPROVAL- NOT FOR CONSTRUCTION

**GENERAL NOTES**

**MATERIALS**

3 PLATE WELDED SECTIONS  
 COLD FORMED LIGHT GAGE SHAPES  
 BRACE RODS  
 HOT ROLLED MILL SHAPES  
 HOT ROLLED ANGLES  
 HOLLOW STRUCTURAL SECTION (HSS)  
 CLADDING

**ASTM DESIGNATION**

A529, A572, A1011, A1018  
 A863, A1011  
 A572  
 A36, A529, A572, A588, A709, A992  
 A529, A572, A688, A709, A992  
 A500  
 A663, A792

GRADE 55  
 GRADE 60  
 GRADE 50  
 GRADE 36 KSI UNLESS NOTED  
 GRADE 60  
 GRADE B  
 GRADE 60 OR GRADE 80

**A325 & A490 BOLT TIGHTENING REQUIREMENTS**

IT IS THE RESPONSIBILITY OF THE ERECTOR TO INSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPROPRIATE REGULATIONS. THE FOLLOWING CRITERIA IS IN COMPLIANCE WITH THE LATEST SPECIFICATIONS, HOWEVER THE ERECTOR IS RESPONSIBLE TO VERIFY LOCAL AUTHORITY REQUIREMENTS.  
 ALL CONNECTIONS MADE WITH A325 BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION AS PERMITTED BY THE SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS (2004 ED), UNLESS INDICATED AS "PRE-TENSIONED" ELSEWHERE IN THESE DRAWINGS, OR AS INDICATED BELOW.

PRE-TENSION BOLTS ON PRIMARY FRAMING, BOLTED BRACING, AND STRUT CONNECTIONS IF LOCATED IN IBC SEISMIC PERFORMANCE / DESIGN CATEGORY D, E OR F, USC ZONE 3 OR 4. SEE CODES AND LOADS NOTES BELOW FOR FOR SEISMIC DESIGN CATEGORY. PRE-TENSION ALL PRIMARY FRAMING CONNECTIONS IN CANADA.

PRE-TENSION BOLTS ON PRIMARY FRAMING, BOLTED BRACING, STRUTS AND CRANE RUNWAY CONNECTIONS IF BUILDING SUPPORTS A CRANE WITH A CAPACITY GREATER THAN 5 TONS.

CONNECTIONS THAT SUPPORT RUNNING MACHINERY AND OTHER SOURCES OF IMPACT OR STRESS REVERSAL MUST BE PRE-TENSIONED.

ALL SLIP CRITICAL CONNECTIONS AS INDICATED IN THESE DRAWINGS WITH -SC DESIGNATION MUST BE PRE-TENSIONED. SC TYPE CONNECTIONS MUST BE FREE OF PAINT, OIL OR OTHER MATERIALS THAT REDUCE THE FRICTION AT CONTACT SURFACES.

CONNECTIONS DESIGNATED AS A325-X OR A490-X SHALL BE INSTALLED WITH BOLT HEAD ON SIDE OF THE THINNEST PLATE BEING CONNECTED.

SECONDARY MEMBERS AND FLANGE BRACE CONNECTIONS ARE ALWAYS "SNUG TIGHTENED", EVEN IF ABOVE CONDITIONS EXIST, UNLESS SPECIFICALLY NOTED OTHERWISE ON DETAILS.  
 WASHERS ARE NOT REQUIRED FOR "SNUG-TIGHT" CONNECTIONS. PRE-TENSIONED A325 OR A490 CONNECTIONS TIGHTENED USING THE TURN-OF-THE-NUT METHOD DO NOT REQUIRE WASHERS. A490 BOLTS MUST ALWAYS BE PRE-TENSIONED.

**CODES AND LOADS**

WHEN MULTIPLE BUILDINGS ARE INVOLVED, SPECIFIC LOAD FACTORS FOR DIFFERING OCCUPANCIES, BUILDING DIMENSIONS, HEIGHTS, FRAMING SYSTEMS, ROOF SLOPES, ETC., MAY RESULT IN DIFFERENT LOAD APPLICATION FACTORS THAN INDICATED BELOW. SEE CALCULATIONS FOR FURTHER DETAILS.

Building Code: 2006 International Building Code  
 Operations Building: Building Use: Standard Occupancy Structure, Collateral Gravity: 5.00 psf (Not Including bldg wt)  
 Operations Building Lean-to: Building Use: Standard Occupancy Structure, Collateral Gravity: 5.00 psf (Not Including bldg wt)  
 Main: Building Use: Standard Occupancy Structure, Collateral Gravity: 5.00 psf (Not Including bldg wt)  
 LIVE LOADS AND RAINFALL  
 Live Load 20.00 psf (Not Reducible)  
 Rainfall: 10.00 inches per hour  
 Operations Building : Mezzanine 1 @ 12/9/0: FD=50.00 psf, FL=100.00 psf (Not Reducible, Coll. Load:= 5.00 psf, Partition Load:= 10.00 psf)

**SNOW LOAD**  
 Ground Snow: 5.00 psf, Flat Roof Snow: 3.15 psf  
 Snow Exposure Category (Factor): 1 Fully Exposed (0.80)  
 Snow Importance: 1.000 Thermal Category (Factor): Heated (1.00)

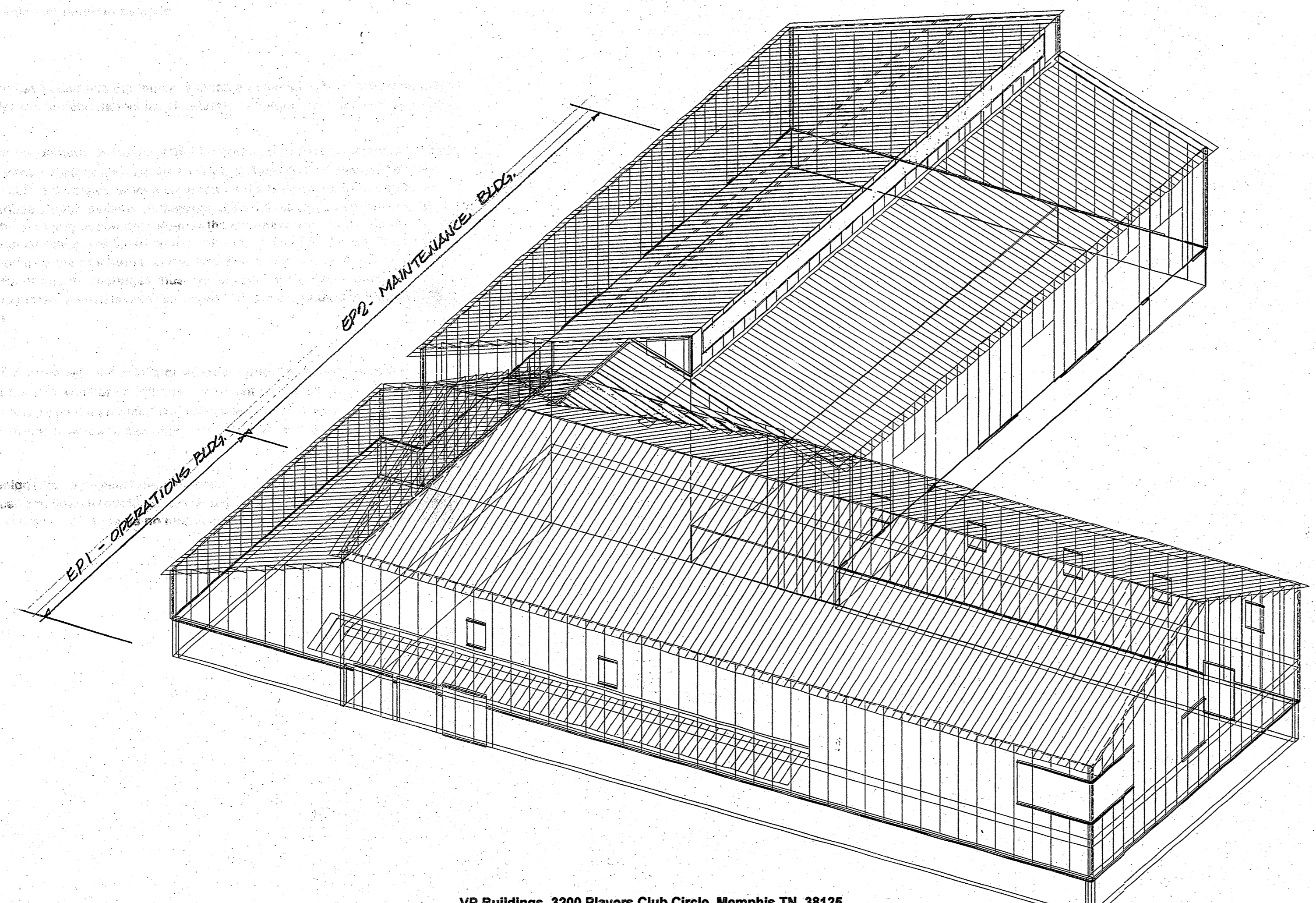
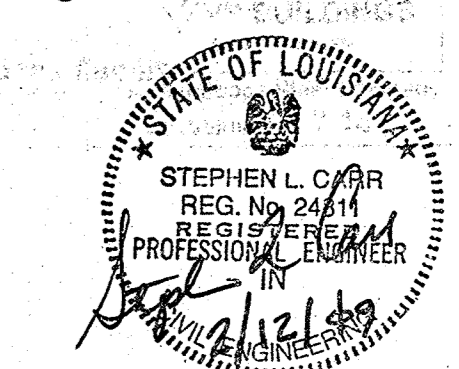
**WIND LOAD**  
 Wind Speed: 130.00 mph, Wind Exposure: B  
 Basic Wind Pressure: 25.92 psf  
 Wind Importance Factor: 1.000, Ft= Topographic Factor: 1.0000  
 Wind Enclosure: Enclosed, 0.180  
 Note: All windows, doors, skylights and other covered openings must be designed for the specified above wind loads

**EARTHQUAKE DESIGN DATA**  
 Lateral Force Resisting Systems using Equivalent Force Procedure  
 Mapped Spectral Response - Ss: 11.80 %g, S1: 5.10 %g  
 Seismic Hazard / Use Group: Group 1  
 Seismic Performance / Design Category: B (See Bolt Tightening Note Above)  
 Seismic Snow Load: 0.00 psf  
 Seismic Importance: 1.000  
 Soil Profile Type: Stiff soil (D, 4)  
 Design Spectral Response - Sds: 0.1259, Sd1: 0.0816

**Ordinary Steel Moment Frames**  
 Frame Redundancy Factor: 1.0000  
 Framing R-Factor: 3.0000, Frame Seismic Factor (%): 0.0420, Design Base Shear = 0.0420 W  
**Ordinary Steel Concentric Braced Frames**  
 Brace Redundancy Factor: 1.0000  
 Bracing R-Factor: 3.0000, Brace Seismic Factor (%): 0.0420, Design Base Shear = 0.0420 W

APPROVED OF DRAWINGS  
 These drawings are released for review and APPROVAL ONLY. Please review carefully. Approval constitutes the Builder / Contractor's acceptance of the Varco-Pruden interpretation of the contract Purchase Order. Fabrication is pending the return of the seal signed by Builder / Contractor.  
 Approved as Submitted  Approved as Noted  
 Disapproved, Please resubmit.  
 Builder Cont: \_\_\_\_\_ Date: \_\_\_\_\_

VP Buildings  
 2022 W. 77th Street  
 P.O. Box 95, 31902  
 "For Approval"  
 Pgs 1-35



VP Buildings 3200 Players Club Circle Memphis TN 38125

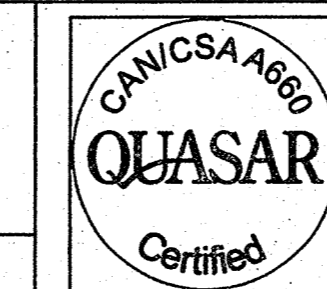
Approval  
 SCANNED  
 3/16/09 Initials: PAC

THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS.

IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.

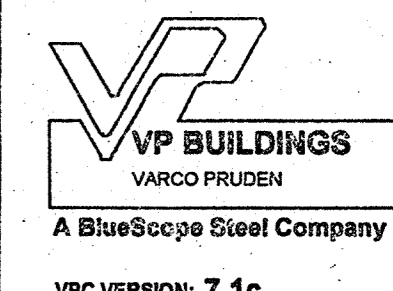
THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING. DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.



**COVER SHEET**

BUILDER	Broadmoor, LLC
CUSTOMER	John F. Stennis Space Center
LOCATION	Stennis Space Center, Mississippi
PROJECT	Riverine and Combatant Craft Operations Facility
BUILDERS P&G	

JOE#	08-23914 EP2
DATE	2/9/2009
DRAWN / CHECK	MWM
PAGE	1



VPC VERSION: 7.1c

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