Form # P 04 DISPLAY THIS C	CARD ON PRINCIPAL FRO	NTAGE OF WORK
Please Read Application And Notes, If Any, Attached	ITY OF PORTLA	ND Permit Number: 061671
This is to certify that BROWN J B & SON	S /ES I los Company	PERMATIS DED
has permission toinstall an emergency g	generation roof conjuilding	
AT _901 WASHINGTON AVE		71 A005001
of the provisions of the Statutes the construction, maintenance a this department.	N fication of inspection musice g h and when permision procu b re this a ding or and there I a d or compared by there I a R NOTICE IS REQUIRED.	A certificate of occupancy must be procured by owner before this building or part thereof is occupied.
OTHER REQUIRED APPROVALS Fire DeptKulley 11 21 04 Health Dept Appeal Board Other Department Name		Director - Building & Inspection Services
P	PENALTY FOR REMOVING THIS CA	

City of Portland, Maine					CBL:
389 Congress Street, 0410	1 Tel: (207) 874-8703	, Fax: (207) 874-87	16 06-1	1671	171 A005001
Location of Construction:	Owner Name:		Owner Addres	:SS:	Phone:
901 WASHINGTON AVE	BROWN J B &	& SONS	PO BOX 20	07	
Business Name:	Contractor Name:	:	Contractor Ac	ddress:	Phone
	ES Boulos Cor	mpany	45 Bradley	Drive Westbrook	2074643706
Lessee/Buyer's Name	Phone:		Permit Type: Alterations	s - Commercial	Zone: B-Z-
Past Use:	Proposed Use:		Permit Fee:	Cost of Work:	CEO District:
Commercial	-	install an emergency	\$50	0.00 \$48,000.00	0 4
		oof of building	FIRE DEPT:	Approved	PECTION: e Group: B Type: B
Proposed Project Description:			7 Nou	1 2 1 2 1 2 1 2 1	Mix Int
install an emergency generate	or on roof of building.		Signature:		nature. My cup
			PEDESTRIAN	N ACTIVITIES DISTRIC	$\overline{T(\mathbf{P.A.D.})}$
			Action:	Approved Approved	d w/Conditions Denied
			Signature:		Date:
Permit Taken By:	Date Applied For:		Zo	oning Approval	
ldobson	11/16/2006	L			
1. This permit application of		Special Zone or Revi		Zoning Appeal	Historic Preservation
Applicant(s) from meetin Federal Rules.		Shoreland LeST	rut i	Variance	Not in District or Landmark
2. Building permits do not septic or electrical work.		Shoreland NOISE lest Wetland Wetland		Miscellaneous	Does Not Require Review
 Building permits are voi within six (6) months of 	id if work is not started	Flood Zone		Conditional Use	Requires Review
False information may ir permit and stop all work	invalidate a building	Subdivision	, <u> </u>	Interpretation	Approved
		🔲 Site Plan		Approved	Approved w/Conditions
	SUED	Maj Minor MN Oll w Th G Date: ([]	1 - 1	Depied	Denied Date:
(, Y (); P O I	RTLARE				

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

Cit	y of Portland, Maine	- Building or Use	Permi	t Application	Pe	rmit No:	Issue Date:		CBL:	
	Congress Street, 04101	0				06-1671	12/2	27/200	6 171 A00	05001
Loca	ation of Construction:	Owner Name:			Owne	r Address:			Phone:	
90	WASHINGTON AVE	BROWN J B a	& SONS	S	POI	BOX 207				
Business Name: Contractor Name		:		Contr	actor Address:			Phone		
		ES Boulos Cor	mpany	ĺ	45 E	Bradley Drive	Westbrook		20746437	06
Less	ee/Buyer's Name	Phone:			Perm	it Type:				Zone:
					Alte	erations - Con	nmercial			
Past	Use:	Proposed Use:			Perm	ut Fee:	Cost of Worl		CEO District:	7
Co	mmercial	Commercial -	install a	an emergency		\$500.00	\$48,00	0.00	4	
1		generator on re	oof of b	ouilding	FIRE	E DEPT:	Approved	INSPE	CTION:	
						[Denied	Use Gr	oup:	Туре:
						L	Denied			
Prop	oosed Project Description:									
ins	tall an emergency generator	on roof of building			Signa			Signatı		
				PEDE	ESTRIAN ACTI	VITIES DIST	RICT (P.A.D.)		
					Actio	on: Approv	ed App	roved w	/Conditions	Denied
					Signa	ature:			Date:	
Pern	nit Taken By:	Date Applied For:				Zoning	Approva	1		
lde	obson	11/16/2006								
1.	This permit application do	bes not preclude the	Spe	ecial Zone or Review	vs	Zonin	ng Appeal		Historic Press	ervation
	Applicant(s) from meeting		St	oreland				Not in District or Landmar		
	Federal Rules.									
2.	Building permits do not in	clude plumbing,	🗌 🗌 w	etland		Miscella	neous		Does Not Rec	uire Review
	septic or electrical work.									
3.	Building permits are void	if work is not started	Fl	ood Zone		Conditio	nal Use		Requires Rev	iew
	within six (6) months of th									
	False information may inv	alidate a building	🗌 Su	ibdivision		🗌 Interpret	ation		Approved	
	permit and stop all work									
			🗌 Si	te Plan			d		Approved w/G	Conditions
	PERMIT ISS	UED	Maj [Minor MM [Denied			Denied	
			Date:		_	Date:		D	ate:	
	DEC 2 3	4 V.								
		1								
	CITY OF PORT	FLAND								
		t tut exit it. A succession to the								

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	<u> </u>	DATE	PHONE



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: 901	Vershing fan Ave. Square Footage of Lot	
Total Square Footage of Proposed Structure	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Owner: Maine Medical Center	Telephone:
170 F 1		
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone:	Cost Of Work: \$ 8 000
	E. S. Boulos Co. 45 Bredley Dr.	Work: \$ 8,000
	Westbrub, Le C'OGR	Fee: \$ <u>7500</u>
	207-464-3700	C of O Fee: \$
Current Specific use: <u>Medical Office</u>	урже	
If vacant, what was the previous use? Proposed Specific use:Sime		
Project description		, x
Project description: Install emergency	genurster an rout at puile	ding
	"	9
Contractor's name, address & telephone: \mathcal{E} §	Boulos Co. 45 Bradley Dr. We	stbruk ME 04082
Who should we contact when the permit is read Mailing address: Some y shore.	y: Gra Perm	-20 +- 4 6 Y- 3 7 6
Mailing address: Some of above.	Phone: 207-464-3706	\wedge
		TION
		NS ^{QL} M ^K
Please submit all of the information out		n Classifier.
Failure to do so will result in the automa		
In order to be sure the City fully understands the full request additional information prior to the issuance of www.portlandmaine.gov, stop by the Building Inspec	scope of the project, the Planning and Day	
www.portlandmaine.gov, stop by the Building Inspec	ctions office, room 315 City Hall or call 874-8	3. NOT
I hereby certify that I am the Owner of record of the name been authorized by the owner to make this application as h	ed property, or that the owner of record authorizes	the proposed work and that I have
In addition, if a permit for work described in this application	on is issued, I certify that the Code Official's authori	ized representative shall have the
authority to enter all areas covered by this permit at any res	asonable hour to enforce the provisions of the code	s applicable to this permit.
Signature of applicant:	Date: //	luda
		// °

This is not a permit; you may not commence ANY work until the permit is issued.

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	A CHARLEN AND A SAME
	CITY OF PORTLAND
	BUILDING CODE CERTFICATE
	389 Congress St., Room 315 Portland, Maine 04 101
TO:	Inspector of Buildings City of Portland, Maine
	Department of Planning & Urban Development
	Division of Housing & Community Service
FROM:	
RE:	<u>Certificate of Design</u>
IXL2.	Ochinicate of Design
DATE:	11,15.06
DATE:	
DATE:	<u>11.15.06</u> ns and / or specifications covering construction work on:
DATE: These plan	11.15.06 ns and/or specifications covering construction work on:
DATE: These plan <u>R</u> ∞F	<u>II.15.06</u> ns and/or specifications covering construction work on: TOP GENERATOR - STRUCTURAL SUPPORTS FOR ROOF
DATE: These plan <u>R</u> ooF ⁻ Have been	11.15.06 ns and/or specifications covering construction work on:
DATE: These plan <u>R</u> ooF ⁻ Have been	<u>11.15.06</u> ns and/or specifications covering construction work on: TOP GENERATOR - STRUCTURAL SUPPORTS FOR ROOF designed and drawn up by the undersigned, a Maine registered Architect
DATE: These plan <u>R</u> ooF ⁻ Have been	<u>11.15.06</u> ns and/or specifications covering construction work on: TOP GENERATOR - STRUCTURAL SUPPORTS FOR ROOF designed and drawn up by the undersigned, a Maine registered Architect

\$50,000.00 or more in new construction, repair expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.

<u>As per</u>

Firm: <u>CASCO BAY</u> ENGINEERUNG Address: <u>424 FORE ST.</u> POETLAND, ME 04101

FROM DESIGNER: Soc Drewings DATE:			
DATE:	1		
DATE:			
DATE:			
DATE:	· · · · · · · · · · · · · · · · · · ·	EROM DESIGNED Sec Drawing	
Job Name: Address of Construction::::::::::::::::::::::::::::::::::::		J	
Address of Construction: 2003 International Building Code Construction project was designed according to the building code enterin listed below: Building Code and Year Use Group Classification(s) Type of Construction			
2003 International Building code Construction project was designed according to the building code oriteria listed below: Building Code and Year Use Group Classification(s)	· .		
Construction project was designed according to the building code criteria listed below: Building Code and Year Use Group Classification(s) Type of Construction	•	Address of Construction:	
Type of Construction Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC Is the Structure mixed use? if yes, separated or non separated (see Section 302.3) Supervisory alarm system? Geotechnical/Solis report required?(See Section 1802.2) STRUCTURAL DESWN CALCULATIONS (Web Sci reduction (1902.2) DESIGN LOADS ON CONSTRUCTION DOCUMENTS Roofike bads (1603.1.2, 1607.10) (1603) (Heb Structure Mixed also (1902.1.2, 1607.10) Floor Area Use Loads Shown If Pip > 10 set, snow exposure factor, Cr If Pip > 10 set, snow exposure factor, Cr If Pip > 10 set, snow exposure factor, Cr If Bip is 100.5 (17.0) If Design option utilized (1603.1.1, 1608) Soloped roct snowbad, (1603.1.4, 1605.2) Wind loads (1603.1.4, 1602.1 Bibling ostigory and wind Importance to the structure (1616.4, 1617.5) Bibling ostigory and wind Importance (1603.1.1, 1607.6) Bibling not spoory and Wind Importance (1603.1.1, 1607.6) Wind loads (1603.1.6, 1614.1 483CE 7)			
Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2003 IRC		Building Code and Year Use G	troup Classification(s)
Is the Structuremixed use? if yes, separated or non separated (see Section 302.3) Supervisory alarm system? Geotechnical/Solis report required?(See Section 1802.2) STRUCTURAL DESWN CALCULATIONS L/e load reduction (r607, 17, 1607.7, 1607.7, 1607.10) DESIGNLOADS ON CONSTRUCTIONDOCUMENTS (1603) Conundersw load, <i>Pc</i> (1608.2), 1607.10) DIffering identified foor live loads (r603.11, r607) F Po stage, fist-root snow load, <i>Pr</i> (r606.1) Floor Area Use Loads Shown If P ₂ > 10 set, mov load (r603.1.4, r607) F Po stage, fist-root snow load, <i>Pr</i> (r606.1) Wind loads (r603.1.4, r609) If P ₂ > 10 set, mov load (mootence factor, 6, (r1806.1, r, r609.1) Wind loads (r603.1.4, r609) Basic setunito-from-sensiting system (r609.1.7.6.2) Basic setunito-form-sensiting system (r609.1.7.6.1) Response nod/factor coefficient, P ₁ (r609.1.7.6.2) Wind loads (r603.1.4, r609) Basic setunito-form-sensiting system (r609.1.7.6.2) Basic setunito-form-sensiticing system (r609.1.7.6.1) Response nod/factor coefficient, P ₁ and deliction amplification factor, cor (r609.1.7.6.1) Mind exposure octegory (r603.1.7, r609.8.2.7) Flood loads (r603.1.6, r677.4) Mind exposure octegory (r603.1.7, r609.8.2.7) Flood loads (r607.4) Wind exposure octegory (r603.1.7, r609.8.2.7) Flood loads (r607.6.1) Wind		Type of Construction	
Supervisory alarm system? Geotechnical/Solis report required?(See Section 1802.2) STRUCTURAL DESWN CALCULATIONS (1603.1.1, 1607.9, 1607.10)		Will the Structure have a Fire suppression system in Accordan	ice with Section 903.3.1 of the 2003 IRC
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Floor Area UseLoads ShownIf $P_p > 10 psf, snow exposure factor, C_p(Table 1908.3.1)Image: transmission of the start of the $		Uniformiy distributed floor live loads (7603.11, 1807)	μ If $P_p > 10$ psf, flat-roof snow load, P_f
If $P_g > 10$ psf, snow load importance factor, I_a (Table 1604.6)Image: Strain StrainRoof thermal factor, C_1 (Table 1608.3.2)Sloped roof snowload, P_a (1606.4)Selamic design category (1616.8)Image: Strain Stra	· ·	Floor Area Use Loads Shown	• •
fector, f_a (Table 1604.5)Image: Solution of thermal factor, f_a (Table 1606.3.2)Solution of thermal factor, f_a (Table 1606.3.2)Solution of thermal factor, f_a (1606.4)Solution of the solution the solution of the solution the solution the solution the solution of the solution of the solution the solution the solution of the solution of the solution the solution of the solution the sol	· · ·		(Table 1808.9.1)
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Selamic design category (1816.3) Wind loads (1803. 1.4, 1809)	· · ·		Roof thermal factor, Ct (Table 1608.3.2)
Wind loads (1803.1.4, 1809)		· · · · · · · · · · · · · · · · · · ·	Sloped roof snowload, P. (1806.4)
Wind loads (1803.1.4, 1809)			Selemía design category (1616.3)
		Wind loads (1803.1.4, 1809)	Basic seismic-force-resisting system
		Design option utilized (1609.1. 1, 1609.6)	
Building Category and Wind Importance factor, fw (Table 1604.6, 1609.5) Analysis procedure (1616.6, 16175) Wind exposure category (1609.4) Design base shear (1617.4, 1617.5, 1) Internal pressure coefficient (ASCE 7) Flood loads (1603.1.6, 1612) Component and oladding pressures (1609.1.1; 1609.6.2.2) Flood loads (1603.1.6, 1612) Main force wind pressures (7603.1.1, 1609.6.2.1) Elevation of structure Design option utilized (1614.1623) Concentrated loads (1607.4) Design option utilized (1614.1) Partition loads (1607.5) Selemio use group ("Category") Impact boads (1607.8) (1604.5; 1616.2) Misc. loads (1607.6, 1607.6; 1607.6; 1607.6; 1607.6; 1607.7; 160			and deflection amplification factor. Co
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Component and cladding pressures Floodhazard area (1612.3) Main force wind pressures (7603.1. 1, 1609.6.2.1) Elevation of structure Main force wind pressures (7603.1. 1, 1609.6.2.1) Concentrated loads (1607.4) Earthquake design data (1803.1.5, 1614 - 1823) Concentrated loads (1607.4) Design option utilized (1814.1) Partition loads (1607.5) Selemic use group ("Category") Impact loads (1607.5) (Table 1604.5; 1616.2) Misc. loads (1607.6) Spectral response coefficients, Sps & Spit (1615.1) 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)			Flood loads (1803.1.6, 1612)
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(Table 1604.5; 1616.2) Misc. loads (Table 1607.6; 1607.6:1, Spectral response coefficients, Sps & 1607.7; 1607.12, 1607.13; 1610, Spt (1615.1) 1611, 2404)			
Spectral response coemcients, Sps & 1607.7, 1607.12,1607.13, 1610, Spt (1615.1) 1611, 2404)		(Table 1604.5, 1616.2)	-
		Spectral response coefficients, Sps & Spt (1615.1)	1607.7, 1607.12,1607.13, 1610.
	*	Site class (1615.1.5)	



Power Systems Division

Southworth-Milton, Inc. 16 Pleasant Hill Road Scarborough, ME 04074 Tel: (207) 885.8044 Fax: (603) 746.4630

November 13, 2006

ATTN: Greg Perron ES Boulos Co. 45 Bradley Drive Westbrook, ME 04092

Subject: 901 Washington Ave. / Poison Control Center

Dear Greg:

The Caterpillar Olympian series model G30F3 Natural Gas fueled package generator set that we provided for the above referenced project has an untreated sound level of 88 dB(A) @ 3 feet in free field conditions.

The effects of distance on sound can be dramatic. For example, at 25' away, there will be a decrease of at least 5 dB(A). At 50' away, there will be a decrease of at least 8 dB(A). At 100' 100' away, there will be a decrease of at least 14 dB(A).

For your reference, I've attached the generator set performance data sheet with advertised sound level indicated.

Please feel free to contact me with any questions.

Sincerely,

Mike Gilbert Power Systems Sales Representative 207-885-8044

S T A N D B Y 3 0 / 3 0 k W P R I M E 2 7 / 2 7 k W 60 H z

OLYMPIAN^{IIII}

G30F3 (3-Phase)

Exclusively from your Caterpillar[®] dealer

		LP	Gas	Natura	al Gas
Generator Set Technical Data — 1800 rpm/6	50 HZ	Standby	Prime	Standby	Prime
Power Rating	kW (kVA)	30.0 (37.5)	27.0 (33.8)	30.0 (37.5)	27.0 (33.8)
Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF-4 Total Oil Capacity Oil Pan	U.S. gal (L) U.S. gal (L)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7 1.2 (4.7
Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load	Cfh (m³/hr) Cfh (m³/hr) Cfh (m³/hr)	164 (4.7) 124 (3.5) 85 (2.4)	147 (4.2) 112 (3.2) 74 (2.1)	454 (12.9) 345 (9.8) 236 (6.7)	410 (11.6 306 (8.7 204 (5.8
Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating	Amps	95	95	95	9
Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Water Temperature to Engine Temperature Rise Across Engine (Air) Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load	U.S. gal (L) Ft H ₂ O (m H ₂ O) U.S. gal/hr (L/min) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1182 (20.8) 932 (16.4) 1.88 (1.4)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1069 (18.8) 847 (14.9) 1.88 (1.4)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1182 (20.8) 932 (16.4) 1.88 (1.4)	5.3 (20 32.4 (9.8 1236 (79.5 169 (76 9 (5 1069(18.8 847 (14.9 1.88 (1.4
Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction	Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min) Cfm (m³/min) In H ₂ O (kPa) Cfm (m³/min)	53 (1.5) 10.1 (2.5) 6356 (180) 381 (10.8) 0.5 (0.125) 4238 (120)	50 (1.4) 10.1 (2.5) 6356 (180) 381 (10.8) 0.5 (0.125) 4238 (120)	53 (1.5) 10.1 (2.5) 6356 (180) 381 (10.8) 0.5 (0.125) 4238 (120)	50 (1.4 10.1 (2.5 6356 (180 381 (10.8 0.5 (0.125 4238 (120
Exhaust System Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust	In Hg (kPa) Cfm (m³/min) °F (°C)	4.5 (15.3) 141 (4) 1080 (584)	4.5 (15.3) 131 (3.7) 1054 (570)	4.5 (15.3) 141 (4) 1080 (584)	4.5 (15.3 131 (3.7 1054 (570
Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m)	dB(A)	88	88	88	8

Generator Technical Data		277/480V	120/24	ov	120/208V
Motor Starting Capability (30% Voltage Dip)	: (kVA) Self Excited AREP Excited	72 85	54 64		54 64
Full Load Efficiencies (LPG):	Standby Prime	90.1 90.4	89.0 89.5		89.0 89.5
Reactances (per unit):	x _d	2.21	2.94		2.94
Reactances	x' _d x" _d	0.12 0.058	0.16 0.078		0.16 0.078
shown are applicable to the	xa	1.10	1.47		1.47
LPG standby	X" ["]	0.083	0.110	ł	0.110
rating	x ₂	0.071	0.094		0.094
	x ₀	0.006	0.007		0.006
Time Constants:		t' _d 25 ms	^{t"} d 2.5 ms	^{t'} do 469 ms	t _a 4 ms

dB(A) levels are for guidance only

LEHF1093-08 (02-05)

ALL STRUCTURAL STEEL WORK SHALL CONFORM TO:

AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, NINTH EDITION AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES

STRUCTURAL STEEL MEMBERS SHALL BE IN CONFORMANCE WITH THE FOLLOWING:

ALL STEEL, UNO	ASTM A572, GRADE 50
ANGLES, PLATES	ASTM A36, Fy=36 KSI
STRUCTURAL TUBING	ASTM A500, GRADE B, Fy=46 KSI
Steel Pipe	ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI

SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO COMMENCING FABRICATION. SHOP DRAWINGS SUBMITTALS SHALL INCLUDE:

CERTIFIED MILL TEST REPORTS OF STRUCTURAL STEEL (INCLUDING NAMES AND LOCATIONS OF MILLS AND SHOPS). CERTIFIED MILL TEST REPORTS OF BOLTS, NUTS AND WASHERS (INCLUDING NAMES AND LOCATIONS OF MILLS AND SHOPS). STRUCTURAL STEEL FABRICATION AND ERECTION DRAWINGS WHICH INCLUDE BOLTED CONNECTIONS (SHOP AND FIELD)

AND WELDED CONNECTIONS (SHOP AND FIELD) DEPICTING AWS WELDING SYMBOLS.

METAL DECK SHOP DRAWINGS DEPICTING SHEAR STUD LAYOUT ON BEAMS AND GIRDERS.

OWNER SHALL RETAIN A QUALIFIED TESTING AGENCY TO PERFORM AND VERIFY THE FOLLOWING:

VISUAL INSPECTION OF ALL WELDS.

ULTRASONIC TESTING, IN ACCORDANCE WITH ASTM E-164, ON 100% OF ALL FIELD FULL PENETRATION WELDS. PROVIDE RANDOM VERIFICATION VIA ULTRASONIC TESTING OF SHOP FULL PENETRATION WELDS. FIELD BOLTED CONNECTIONS, INCLUDING VERIFICATION OF BOLT GRADES. SHEAR STUD QUANTITY, PROPER INSTALLATION, SIZE, AND SPACING. SHEAR STUDS SHALL CONFORM TO AWS D1.1.

BOLTED CONNECTIONS

FIELD CONNECTIONS SHALL UTILIZE MINIMUM 3/4-INCH DIAMETER A325 HIGH STRENGTH BOLTS, UNO. BOLTED CONNECTION SHALL BE SLIP CRITICAL (SC) AT ALL MOMENT FRAMES, BRACED FRAMES, AND AT ADDITIONAL LOCATIONS INDICATED IN THE DRAWINGS. SLIP CRITICAL CONNECTIONS SHALL UTILIZE LOAD INDICATOR WASHERS OR TENSION CONTROL BOLTS. BOLT HOLES SHALL BE STANDARD SIZE, UNO.

HIGH STRENGTH BOLTS SHALL BE INSTALLED AND TIGHTENED PER AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS.

ANCHOR BOLTS SHALL CONFORM TO ASTM A307, GRADE A, STANDARD HEX HEAD FURNISHED WITH HEAVY HEX NUTS AND LOCK WASHERS.

CONTRACTOR SHALL DESIGN CONNECTIONS NOT ALREADY DETAILED ON STRUCTURAL DRAWINGS. DESIGN SHALL BE STAMPED BY A LICENSED STRUCTURAL ENGINEER AND SUBMITTED PRIOR TO COMMENCING FABRICATION.

WELDED CONNECTIONS

WELDING SHALL CONFORM TO AWS D1.1. USE LOW-HYDROGEN SMAW ELECTRODES WITH MINIMUM TENSILE STRENGTH OF 70 KSI.

STRUCTURAL STEEL SHALL RECEIVE THE FOLLOWING PROTECTIVE COATINGS:

DO NOT PAINT SURFACES TO RECEIVE METAL DECK AND/ OR SHEAR CONNECTORS FASTENED BY WELDING, CONTACT SURFACES OF HIGH STRENGTH BOLTED CONNECTIONS, FINISHED BEARING SURFACES, AND SURFACES TO BE WELDED IN THE FIELD. IF REQUIRED, PROTECT THESE SURFACES BY RUST—INHIBITING COATING THAT CAN BE REMOVED EASILY PRIOR TO ERECTION

UNEXPOSED STRUCTURAL STEEL SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP3 AND PAINTED WITH PRIMER PAINT, TNEMEC 10-99, OR EQUIVALENT, UNO.

EXPOSED STRUCTURAL STEEL TO RECEIVE ZINC-RICH EPOXY PAINT SHALL BE FIRST CLEANED IN ACCORDANCE WITH SSPC-SP6, COMMERCIAL BLAST CLEANING. USE TNEMEC ZIN-RICH EPOXY PAINT, OR EQUIVALENT. APPLY FINISH COAT PER ARCHITECT.

EXPOSED STRUCTURAL STEEL TO BE HOT-DIPPED GALVANIZED SHALL BE IN ACCORDANCE WITH ASTM A123.

SHEAR CONNECTOR STUDS

SHEAR CONNECTOR STUDS SHALL BE NELSON, OR EQUIVALENT, 3/4-INCH DIAMETER, UNO. WELD STUDS PER STUD MANUFACTURER'S RECOMMENDATIONS THROUGH METAL DECKING. STUD LENGTH SHALL BE 1-INCH BELOW TOP OF CONCRETE SLAB ON DECK.

SHEAR STUDS, WHERE REQUIRED, ARE INDICATED ON THE DRAWINGS AS [XX], WHERE XX IS THE NUMBER OF STUDS EQUALLY SPACED BETWEEN SUPPORTS ON A BEAM OR GIRDER.

STEEL NOTES

THE FOLLOWING BUILDING CODES AND STANDARDS SHAL

IBC	2003 EDITION OF THE IBC INTERNATION
ASCE 7	AMERICAN SOCIETY OF CIVIL ENGINEER STRUCTURES
ACI 301	AMERICAN CONCRETE INSTITUTE SPECIF
AISC	AMERICAN INSTITUTE OF STEEL CONSTI
ACI 318	AMERICAN CONCRETE INSTITUTE BUILDI
ASTM	AMERICAN SOCIETY OF TESTING AND N
NDS	NATIONAL DESIGN SPECIFICATIONS FOR ASSOCIATION, 2001.

REFERENCE ARCHITECTURAL PLANS FOR DIMENSIONS NU ELECTRICAL, AND ARCHITECTURAL PLANS FOR SIZES AN DUCTS, PIPING, CURBS, AND EQUIPMENT PADS. IN THE DRAWINGS, SPECIFICATIONS, OR NOTES ON THE DRAWIN TO CONSTRUCTION.

EXISTING DIMENSIONS AND CONDITIONS ARE FOR REFER ALL EXISTING CONSTRUCTION AND DIMENSIONS IN THE I ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGII

THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF DEVI CONTRACT DOCUMENTS OR APPROVED SHOP DRAWINGS OR OTHER CAUSES.

THE STRUCTURE IS SELF-SUPPORTING AND STABLE AF THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTI-CONSTRUCTION AND ERECTION TO PROVIDE AND ENSUR ITS COMPONENTS DURING CONSTRUCTION AND ERECTION STRUCTURAL ENGINEER TO DESIGN TEMPORARY BRACING BRACING/SHORING IS NEEDED.

GENERAL NOTES

			EXISTING NURS ENTRANCE		PROPOSED GENER LOCATION
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				1/52.1	
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