FIMS/CAIS RPV Models

Replacement Plant Value (RPV) Models

	Standard Models (35)					
	Model #	Model Name	Model #	Model Name		
E1		Housing - Small	E19	Parking – Below Ground		
E2		Housing - Large	E20	Swimming Pool		
E3		Auditorium/Meeting	E21	Post Office/Mail Handling		
E4		Cafeteria/Dining Facility	E22	Gymnasium		
E5		Classroom-Small	E23	Retail Store		
E6		Classroom-Medium	E24	Security/Badging		
E7		Fire Station	E25	Warehouse/Storage		
E8		Garage, Repair	E26	Bank/Credit Union		
E9		Hangar – Service Building	E27	Visitor Center		
E10		Indoor Firing Range	E28	Office One Story		
E11		Laboratory - Office	E29	Warehouse, Mini		
E12		Laundry	E31	College, Dormitory, 2-3 Story		
E13		Library	E33	Lodge/Guest House		
E14		Medical Facility/Clinic	E34	Apartment 1-3 Story		
E15		Office-Small	E35	Apartment 4-7 Story		
E16		Office-Medium	E37	Hotel 4-7 Story		
E17		Office-Large	E39	Telephone Exchange		
E18		Parking – Above Ground				

Custom Models (66)

Model #	Model Name	Model #	Model Name
N1	Bunkers/Magazines	N46	Building Sewage Treatment Plant
N2	Communication – Telephone Center	N50	Office Trailer - Mobile
N3	Computer Center	N51	Office Trailer - Single Wide
N4	Day Care Center	N52	Office Trailer - Double Wide
N5	Explosives Handling	N53	Office Trailer – Multiple 4 units
N6	Hardened Storage	N54	Office Trailer – 20,000SF
N7	High Bay Facility	N55	Fire Station 2 Story
N8	Labs-Hard Engineered (80/20)	N56	Metal Building - Shop 1,200SF
N9	Labs-Biology Environmental (80/20)	N57	Metal Building - Shop 36,000SF
N10	Labs-Chemistry (80/20)	N58	Metal Building - Shop 60,000SF
N11	Labs-Physics/Computer (80/20)	N59	Metal Building - Office 20,000
N12	Labs-Test/Blast (80/20)	N60	Metal Building - Office 40,000
N13	Machine Shop	N61	Metal Building - Car Port
N14	Maintenance Shops	N62	Personnel Gate Turnstile
N15	Paint Shop	N63	Metal Covered Walkways
N16	Process Building with Pool	N64	Lift Station Small
N17	Process Building-Small	N65	Lift Station Large
N18	Process Building-Large	N66	Substation Small
N19	Records Storage/Vault	N67	Substation Large
N21	Labs-Hard Engineered (50/50)	N68	Office Cast In Place Concrete 2 Story
N22	Labs-Biology Environmental (50/50)	N69	Office Cast In Place Concrete 4 Story
N23	Labs-Chemistry (50/50)	N70	Shop Cast In Place Concrete 24,000SF
N24	Labs- Physics/Computer (50/50)	N71	Shop Cast In Place Concrete 42,000SF
N25	Labs-Test/Blast (50/50)	N73	Shaft with Elevator System
N30	Office with Atrium	N74	Tunnel Nevada Drift
N31	Labs - High Radiation Examination	N75	Underground Building
N32	Multi-Purpose Facility - Large	N76	Guard Shack Metal
N33	Real Property Trailer	N77	Guard Shack Precast
N34	Accelerator - Ring	N78	Shed 300SF Open
N35	Pumping Stations	N79	Shed 300SF Open, Electricity
N36	Special Nuclear Materials Component Facility	N80	Shed 840SF Open
N37	Assembly Cell	N81	Shed 840SF Open, Electricity
N38	High Explosives Subassembly	N82	Shed 300SF Enclosed

N39	High Explosives Machining Facility	N83	Shed 300SF Enclosed, Electricity
N40	Chilled Water Plant- 9,000T Centrifugal	Chilled Water Plant- 9,000T Centrifugal N84 S	
N41	Chilled Water Plant- 9,960T Absorption	N85	Shed 840SF Enclosed, Electricity
N42	Building Steam Power Plant	N86	Guard Tower Metal
N43	Steam Plant - Coal	N87	Guard Tower Precast
N44	Steam Plant - Gas	N88	High Security Nuclear Facility
N45	Steam Plant - Oil		

Model Descriptions

Model No.	Model Name	Model D	escription	
E1	Housing - Small	This model should be applied to small residential uses such as a house or small apartment. The model is based on a small 3-story apartment buildir with 8,000 square feet of floor area. The structure is light wood frame, wi vinyl siding exterior, asphalt shingle roof, and packaged HVAC units.Perimeter (LF): 213Location: National Average Gross Sqft: 8,000Gross Sqft: 8,000Floor Height (LF): 10No of Floors: 3Image: State of Sta		
apartments and dormitories. apartment building with 45,00		apartments and dormitories. The mo apartment building with 45,000 squa light steel frame, with brick veneer e packaged HVAC units.	plied to large residential uses such as a large vries. The model is based on a large 6-story 45,000 square feet of floor area. The structure is rick veneer exterior, built-up membrane roof, and	
		Perimeter (LF): 400 Gross Sqft: 45,000 No of Floors: 6	Location: National Average Floor Height (LF): 10	
auditoriums. feet of floor a CMU backup o			a 1-story building with 24,000 square ght steel frame, with brick veneer and brane roof, and roof-top HVAC units and	
		Perimeter (LF): 640 Gross Sqft: 24,000 No of Floors: 1	Location: National Average Floor Height (LF): 24	
E4 Cafeteria/Dining Facility		The model is based on a 1-story build The structure is light steel frame, wit	s such as cafeteria and dining facilities. ding with 8,000 square feet of floor area. th brick veneer and CMU backup and roof-top HVAC units and central air Location: National Average Floor Height (LF): 12	

Model No.	Model Name	Model D	escription
E5	Classroom - Small	•	
E6	Classroom - Medium		
E7	Fire Station	This model should be applied to all fire station facilities. The model is based on a 1-story building with 8,000 square feet of floor area. The structure is steel frame, with decorative block exterior, built-up membrane roof, and roof-top HVAC units and central air system.Perimeter (LF): 386Location: National Average	
E8	Garage, Repair	Gross Sqft: 8,000 No of Floors: 1 This model should be applied to vehi	Floor Height (LF): 14
		model is based on a 1-story building The structure is masonry bearing wal	
E9	Hangar – Service Building	area facilities. The model is based on	ger type uses and large clear-span open a a 1-story building with 20,000 square eel frame, with galvanized steel siding and unit heaters. Location: National Average Floor Height (LF): 24

Model No.	Model Name	Mod	lel Description
E10	Indoor Firing Range	The model is based on a 1-story square feet of floor area. The st	b indoor firing ranges with 4-6 firing stations. If firing range with 4-6 firing stations 14,000 cructure is masonry bearing wall with steel ck exterior, built-up membrane roof, and l air system. Location: National Average Floor Height (LF): 14
E11	Laboratory - Office	laboratory/office uses such as a on a 1-story building with 45,00 masonry bearing wall with steel	all simple light use combination medical diagnostic lab. The model is based 0 square feet of floor area. The structure is ljoists, with brick veneer and CMU backup of, and roof-top HVAC units and central air Location: National Average Floor Height (LF): 12
E12	Laundry	is based on a 1-story building wi structure is steel frame, with bri	a laundry type uses and facilities. The model ith 15,000 square feet of floor area. The ick veneer and CMU backup exterior, built-up VAC units and central air system. Location: National Average Floor Height (LF): 12
E13	Library	2-story building with 22,000 squ frame, with brick veneer and CN roof, and roof-top HVAC units an Perimeter (LF): 435 Gross Sqft: 22,000 No of Floors: 2	Location: National Average Floor Height (LF): 14
E14	facilities and uses. The model is based on a 1-story build square feet of floor area. The structure is masonry bearin joists, with brick veneer and CMU backup exterior, single- roof, and roof-top HVAC units and central air system. Perimeter (LF): 380 Location: Nationa		based on a 1-story building with 7,000 ructure is masonry bearing wall with steel IU backup exterior, single-ply membrane

Model No.	Model Name	Model	Description
E15	Office - Small	The model is based on a 3-story bu area. The structure is steel frame,	nall office facilities less than 80,000SF. uilding with 35,000 square feet of floor with brick veneer and CMU backup f, and roof-top HVAC units and central air Location: National Average Floor Height (LF): 12
E16	Office - Medium	and 150,000SF. The model is base feet of floor area. The structure is	edium size office facilities between 80,000 d on a 3-story building with 80,000 square concrete frame, with glass curtainwall f, and roof-top HVAC units and central air Location: National Average Floor Height (LF): 12
E17	Office – Large	and 250,000SF. The model is base square feet of floor area. The strue	rge size office facilities between 150,000 d on an 8-story building with 150,000 cture is steel frame, with precast concrete f, and roof-top HVAC units and central air Location: National Average Floor Height (LF): 12
E18	Parking – Above Ground	The model is based on a 5-story bu	bove ground parking structures and decks. uilding with 115,000 square feet of floor me, with precast concrete exterior, no tems. Location: National Average Floor Height (LF): 10
E19	Parking – Below Ground	The model is based on a 2-story bu	elow ground parking structures and decks. uilding with 100,000 square feet of floor me, with concrete foundation walls, no tems. Location: National Average Floor Height (LF): 10

Model No.	Model Name	Moc	del Description	
E20	Swimming Pool	This model should be applied to enclosed swimming pool facilities. The model is based on a 1-story building with 20,000 square feet of floor area. The structure is masonry bearing wall with steel joists, with brick veneer and CMU backup exterior, single-ply membrane roof, and roof-top HVAC units and central air system.		
		Perimeter (LF): 600	Location: National Average	
		Gross Sqft: 20,000	Floor Height (LF): 24	
		No of Floors: 1		
E21	Post Office/Mail Handling	is based on a 1-story building w structure is steel frame, with br	o all postoffice and mail facilities. The model ith 13,000 square feet of floor area. The ick veneer and CMU backup exterior, single- p HVAC units and central air system.	
		Perimeter (LF): 486	Location: National Average	
		Gross Sqft: 13,000	Floor Height (LF): 14	
		No of Floors: 1		
E23	Center/Gymnasium	The model is based on a 1-story area. The structure is steel fran single-ply membrane roof, and Perimeter (LF): 486 Gross Sqft: 20,000 No of Floors: 1	o all recreational and gymnasium facilities. y building with 20,000 square feet of floor ne, with painted concrete block exterior, roof-top HVAC units and central air system. Location: National Average Floor Height (LF): 25	
123	Retail Store	facilities. The model is based of floor area. The structure is mas	o all retailstores and productsales related n a 1-story building with 8,000 square feet of sonry bearing wall with steeljoist, with rior, single-ply membrane roof, and roof-top em. Location: National Average Floor Height (LF): 14	
E24	Security/Badging	processing centers and facilities with 15,000 square feet of floor with steel joists, with brick vene	o all security, badging, and site entry s. The model is based on a 2-story building r area. The structure is masonry bearing wall eer and CMU backup exterior, single-ply VAC units and central air system. Location: National Average Floor Height (LF): 12	

Model No.	Model Name	Model D	escription
E25	Warehouse/Storage	This model should be applied to all pre-engineered type structures used for storage and support facilities. The model is based on a 1-story building with 40,000 square feet of floor area. The structure is steel frame, with galvanized steel siding exterior, metal roof, and roof-top HVAC units and central air system.	
		Perimeter (LF): 833	Location: National Average
		Gross Sqft: 40,000	Floor Height (LF): 24
		No of Floors: 1	1
E26	Bank/Credit Union	The model is based on a 1-story build	anking and credit union type facilities. ling with 6,200 square feet of floor area. g with steel joists, with brick veneer and nbrane roof, and roof-top HVAC units
		Perimeter (LF): 317	Location: National Average
		Gross Sqft: 6,200	Floor Height (LF): 14
		No of Floors: 1	
E27	Visitor Center	This model should be applied to all vi	sitor centers and small museum type
		of floor area. The structure is mason brick veneer and CMU backup exterior top HVAC units and central air system	or, single-ply membrane roof, and roof-
		Perimeter (LF): 680	Location: National Average
		Gross Sqft: 24,000	Floor Height (LF): 12
		No of Floors: 1	<u> </u>]
E28	Office One Story	This model is a one-story office facilit building with 7,000 square feet of flo with a steel roof deck and single ply r	or area. The structure is brick on block
		Perimeter (LF): 360	Location: National Average
		Gross Sqft: 7,000	Floor Height (LF): 12
		No of Floors: 1	
E29	Warehouse, Mini	is concrete block steel frame.	000 square feet of floor area. The model
		Perimeter (LF): 900	Location: National Average
		Gross Sqft: 20,000	Floor Height (LF): 12
		No of Floors: 1	

Model No.	Model Name	Model D	Description
E31	College, Dormitory, 2-3 story	based on a 3-story building with 25,0	rick with concrete block backup with a
E33	Lodge/Guest House	The model is based on a 2-story buil	dential use as a lodge or guest houses. ding with 10,000 square feet of floor ture is a wood frame with cedar beveled Location: National Average Floor Height (LF): 10
E34	Apartment 1-3 Story	This model should be applied to resi The model is based on a 3-story buil area and 10' story height. The struct back-up with steel joists and chilled Perimeter (LF): 400 Gross Sqft: 22,500 No of Floors: 3	ture is face brick with concrete block
E35	Apartment 4-7 Story	This model should be applied to resi building. The model is based on a 6- of floor area and 10'-4" story height. concrete block back-up with steel joi condenser system. Perimeter (LF): 500 Gross Sqft: 60,000 No of Floors: 6	story building with 60,000 square feet The structure is face brick with
E37	Hotel 4-7 Story	model is based on a 6-story building and 10' story height. The structure is	e as a small hotel or similar facility. The with 135,000 square feet of floor area s face brick with concrete block back-up ater boiler, wall fin Radiationiation and Location: National Average Floor Height (LF): 10

Model No.	Model Name	Model	Description
E39	Telephone Exchange	uses. The model is based on a 1-ste floor area and a 12' story height. Th	telephone exchange facilities and related ory building with 5,000 square feet of ne structure is a face brick with concrete and a single zone unit for gas heating and Location: National Average Floor Height (LF): 12
N01	Bunkers/Magazines	The model is based on a 1-story bu	bunkers and magazine storage facilities. ilding with 1,000 square feet of floor area. ete, with cast-in-place concrete exterior, no mechanical system. Location: National Average Floor Height (LF): 14
N02	Communication – Telephone Center	3-story building with 25,000 square masonry bearing wall with steel joi	d related uses. The model is based on a
N03	Computer Center	facilities. The model is based on a 2 of floor area. The structure is preca	computer processing centers and related 1-story building with 100,000 square feet ast concrete panels, with tilt-up concrete , and roof-top HVAC units and central air Location: National Average Floor Height (LF): 14
N04	Day Care Center	The model is based on a 1-story bu	day care centers and related facilities. ilding with 10,000 square feet of floor ith brick veneer, wood trusses, asphalt Radiationiation heat. Location: National Average Floor Height (LF): 12

Model No.	Model Name	Mo	del Description
N05	Explosives Handling	blowout design features. The r 5,000 square feet of floor area	o all explosive handling type facilities with model is based on a 1-story building with . The structure is cast-in-place concrete, with ; metal blowout roof, and unit heaters and Location: National Average Floor Height (LF): 14
N06	Hardened Storage	facilities. This should be used f engineered. The model is base feet of floor area. The structur	o all reinforced and hardened storage for all storage facilities that are not pre- ed on a 1-story building with 25,000 square re is cast-in-place concrete, with precast mbrane roof, and unit heaters and packaged Location: National Average Floor Height (LF): 20
N07	High Bay Facility	space with crane. The model is	o all facilities with clear span high ceiling work s based on a 1-story building with 75,000 structure is steel frame, with metal siding seaters and packaged AC units. Location: National Average Floor Height (LF): 14
N08	Labs – Hard Engineered (80/20)	testing of equipment and is bas model is based on a 2-story bui The structure is steel frame, wi membrane roof, and roof-top H Perimeter (LF): 900 Gross Sqft: 100,000 No of Floors: 2	to laboratories used for construction and sed on 80% lab space and 20% office. The ilding with 100,000 square feet of floor area. ith precast concrete exterior, built-up IVAC units and central air system. Location: National Average Floor Height (LF): 15
N09	Labs – Biology Environmental (80/20)	environmental research and is model is based on a 3-story bui The structure is steel frame, wi	o laboratories used for biology and based on 80% lab space and 20% office. The ilding with 60,000 square feet of floor area. ith precast concrete exterior, built-up IVAC units and central air system. Location: National Average Floor Height (LF): 14

Model No.	Model Name	Model I	Description
N10	Labs - Chemistry (80/20)	and is based on 80% lab space and 2 story building with 60,000 square fe frame, with precast concrete exteri HVAC units and central air system.	oratories used for chemistry research 20% office. The model is based on a 3- set of floor area. The structure is steel or, built-up membrane roof, and roof-top
		Perimeter (LF): 600 Gross Sqft: 60,000	Location: National Average Floor Height (LF): 14
		No of Floors: 3	
N11	Labs – Physics/Computer		aratories used for physics and computer
NII	(80/20)	research and is based on 80% lab sp on a 4-story building with 80,000 sq steel frame, with precast concrete e roof-top HVAC units and central air Perimeter (LF): 600 Gross Sqft: 80,000	oratories used for physics and computer pace and 20% office. The model is based juare feet of floor area. The structure is exterior, built-up membrane roof, and system. Location: National Average Floor Height (LF): 14
N12	Labs – Test/Blast (80/20)	No of Floors: 4	oratories used for heavy testing and
			ory building with 60,000 square feet of me, with precast concrete exterior, built-
N13	Machine Shop	with overhead crane. The model is	machine shop and support type facilities based on a 1-story building with 20,000 ture is steel frame, with metal siding rs and packaged AC units. Location: National Average Floor Height (LF): 14
N14	Maintenance Shops	type facilities. The model is based of	maintenance, tRadiatione, and support on a 1-story building with 20,000 square steel frame, with metal siding exterior, ckaged AC units.
		Perimeter (LF): 600 Gross Sqft: 20,000 No of Floors: 1	Location: National Average Floor Height (LF): 14

Model No.	Model Name	Moc	del Description
N15	Paint Shop	with paint booths. The model is	o all paint shop and support type facilities s based on a 1-story building with 20,000 tructure is steel frame, with metal siding eaters and packaged AC units.
		Perimeter (LF): 600	Location: National Average
		Gross Sqft: 20,000	Floor Height (LF): 14
		No of Floors: 1	
N16	Process Building with Pool	roof storage. The model is base feet of floor area. The structure	o all process facilities with cooling ponds for ed on a 1-story building with 125,000 square e is cast-in-place concrete, with brick veneer t-up membrane roof, and a boiler/chiller
		Perimeter (LF): 1,650	Location: National Average
		Gross Sqft: 125,000	Floor Height (LF): 14
		No of Floors: 1	
N17	Process Building-Small	in the size range less than 250,0 building with 250,000 square fe	o all manufacturing and factory type facilities DOOSF. The model is based on a 1-story eet of floor area. The structure is tilt-up exterior, built-up membrane roof, and a n.
		Perimeter (LF): 2,900	Location: National Average
		Gross Sqft: 250,000	Floor Height (LF): 14
		No of Floors: 1	
N18	Process Building-Large	in the size range of 250,000-750 building with 750,000 square fe	o all manufacturing and factory type facilities 0,000SF. The model is based on a 1-story set of floor area. The structure is tilt-up exterior, built-up membrane roof, and a n. Location: National Average
		Gross Sqft: 750,000	Floor Height (LF): 14
		No of Floors: 1	
N19	Records Storage/Vault	climate controlled space. The n 150,000 square feet of floor are with brick veneer with CMU bac roof-top HVAC units and centra	
		Derimeter (LE) 1 150	
		Perimeter (LF): 1,150	Location: National Average
		Gross Sqft: 150,000 No of Floors: 2	Location: National Average Floor Height (LF): 20

Model No.	Model Name	Model D	escription
N21	Lab – Hard Engineered (50/50)	This model should be applied to labor testing of equipment and is based or model is based on a 3-story building The structure is steel frame, with pre- membrane roof, and roof-top HVAC u Perimeter (LF): 900 Gross Sqft: 100,000 No of Floors: 3	n 50% lab space and 50% office. The with 100,000 square feet of floor area. ecast concrete exterior, built-up
N22	Labs – Biology Environmental (50/50)		l on 50% lab space and 50% office. The with 60,000 square feet of floor area. ecast concrete exterior, built-up
N23	Lab – Chemistry (50/50)	story building with 60,000 square fee	0% office. The model is based on a 3-
N24	Labs – Physics/Computer (50/50)	research and is based on 50% lab spa	
N25	Labs – Test/Blast (50/50)		is based on 50% lab space and 50% bry building with 60,000 square feet of ne, with precast concrete exterior, built-

Model No.	Model Name	Model [Description
N30	Office with Atrium	on a 2 story office building with app 66,000 SF. The structure included st concrete foundations. Exterior enclo curtain walls. Roofing is EPDM Mem The building is fire protected. The H ¹ water boilers and roof top units. A 2 fire alarm, public address and tel/da	osure is metal wall panels and glazed brane trimmed with aluminum flashing. VAC system is a combination of hot 000 amp service with power, lighting, ata cables are provided. This model er, auditorium support functions and an
N31	Labs – High Radiation Examination	Examination Laboratory. The foundat there is a barium concrete core/cell reactions. The exterior structure is a reinforced concrete block. Exterior v siding and painted finishes. Floor co gRadiatione and structural concrete Toilet and locker rooms for employed for the facility is included. Heating for	veneer is a combination of brick, metal nstruction consist of a basement slab on floors. The roof is built up bituminous. sees are included. Fire protection system or the building is provided through a vstems in the facility. Electrical power, s have been provided. Interior
N32	Multi-Purpose Facility- Large	storage, manufacturing and office a 1,145,000 SF. The structure contain	t water boilers and roof top units. A

Model No.	Model Name	Model D	escription
N33	Real Property Trailer	The Trailer estimate includes the pur construction office trailer. Attached t platforms and stairs. The trailer instal power, grounding, fire alarm and spri Perimeter (LF): 120 Gross Sqft: 500 No of Floors: 1	o the trailer are two 10' x 10' entry llation includes a perimeter skirt,
N34	Accelerator - Ring	waterproofing, mechanical & electric accelerator tunnel and supporting sta	y 4300 LF long with interior dimensions ry at access building and stairways.
		Gross Sqft: 92,400 No of Floors: 1	Floor Height (LF): 10
N35	Pumping Stations		bir and transfers to a municipal system. ing with 3024 square feet of floor area. ened concrete walls and slabs that the second floor is enclosed in a and floor supports mechanical &
N36	Special Nuclear Materials Component Facility	40" thick. The interior partitions are a is a 1'-3" concrete mat foundation. Th comprised of industrial type siding an	erimeter is 1,041 LF and the height rtial first floor of 10,300 SF. The ck but there is a small area where it is a mix of CIP and drywall. The foundation here is a low entrance link building ad metalroofing (there is also a PH with are a combination of exposed structure og and acoustical wall panels. Heat is HP steam service. There are 11AHU's,

Model No.	Model Name	Model D	escription
N37	Assembly Cell	"spine" constructed with 12" thick re counterforts and a steel roof deck wit this spine (two from the North and tw reinforced concrete circular assembly beneath approximately 20ft of fill. Th Each assembly cell contains the follow gRadiatione support spaces; Mech ro	vo from the south) are four single story y cells each with a centenary roof e cells have blast resistant entry doors. wing reinforced concrete below om; tooling staging; SNM staging; ent airlock; personnel corridor. At each ilding with insulated metal siding ontaining the main mechanical and up also constructed from a
N38	High Explosives Subassembly	buried under compacted earth fill wir ringed by a 16 ft wide service corrido framing with a metal panel exterior c frame is specially reinforced at the en	d one vacuum chamber which are containment area. The central core is th erosion control. This central core is r constructed from structural steel losure & roofing system. The steel ntrance of each assembly bay to form a is constructed off a nmat foundation.
N39	High Explosives Machining Facility	divided into the HE Machining facility area (26,100 GSF). The HE machining lathe/milling rooms and one large eq constructed of blast resistant concret separated from a HE corridor by blast blast resistant doors. Each lathe/milli protected with blast resistant exit ma constructed on a 48" thick mat slab. 6" slab. The HE corridor has a precast constructed of a CIP concrete deck w supported on caissons. The roof is a f EIFS finish on reinforced CIP concrete contains a full height removable acce	uipment room. All the HE rooms are te walls & slabs. The rooms are t resistant CIP concrete vestibules and ing room contains an exterior door azes. The HE machining facility is Support areas and HE corridor are on a tslab and beams. Support spaces are ith rib joists and concrete columns lat EPDM roof and the exteriors are walls. Each lathe/milling room ess panel. Interior partitions are CMU or and are blast resistant CIP concrete in

Model No.	Model Name	Model D	escription
N40	Chilled Water Plant – 9,000T Centrifugal	based on a 9,000 Ton centrifugal chill	fort cooling. The design of this model is ler plant made up of 6-1500 Ton),000 square foot 1 story building. The
N41	Chilled Water Plant – 9,960T Absorption	based on a 9,960 Ton steam absorpti steam absorption chillers. The model building. The structure is steel frame metal roof.	Fort cooling. The design of this model is on chiller plant made up of 6-1660 Ton l is a 10,000 square foot 1 story , metal sandwiched exterior, with a
		Perimeter (LF): 450 Gross Sqft: 10,000 No of Floors: 1	Location: National Average Floor Height (LF): 14
N42	Building Steam Power Plant		
		Perimeter (LF): 700 Gross Sqft: 74,050 No of Floors: 4	Location: National Average Floor Height (LF): 18
N43	Steam Plant - Coal	Coal-fired boilers used to produce ste installation-wide distribution for indu The model is a 4 story, 74,050 steel fr basis of the shell is the N7 Height Bay Lb/Hr boilers, coal handling systems, necessary controls and instrumentati Perimeter (LF): 700 Gross Sqft: 74,050 No of Floors: 4	strial or personal comfort purposes. Tame structure with metal siding. The facility. The model includes 250,000 chemical treatment systems and all

Model No.	Model Name	Mode	el Description
N44	Steam Plant - Gas	installation-wide distribution for The model is a 4 story 74,050, st basis of the shell is the N7 Height	e steam or high temperature water for industrial or personal comfort purposes. eel frame structure with metal siding. The t Bay facility. The model includes 250,000 s, chemical treatment systems and all ntation.
		Perimeter (LF): 700 Gross Sqft: 74,050 No of Floors: 4	Location: National Average Floor Height (LF): 18
N45	Steam Plant - Oil	installation-wide distribution for The model is a 4 story, 74,050 sto basis of the shell is the N7 Height	steam or high temperature water for industrial or personal comfort purposes. eel frame structure with metal siding. The t Bay facility. The model includes 250,000 chemical treatment systems and all ntation. Location: National Average Floor Height (LF): 18
N46	Building Sewage Treatment Plant	secondary and tertiary sewage tr include the appropriate treatment	ant shell that can be used for primary, reatment. The model must be modified to nt equipment and building square footage, model is a 1 story structure with metal Location: National Average Floor Height (LF): 14
N50	Office Trailer - Mobile	office trailer. Attached to the tra	e and installation of a 10' x 50' construction iler are two 10' x 10' entry platforms and udes a perimeter skirt, power, grounding, ough the wall heat pumps. Location: National Average Floor Height (LF): 8
N51	Office Trailer – Single Wide	office trailer. Attached to the tra	e and installation of a 10' x 50' modular iler are two 10' x 10' entry platforms and perimeter skirt, power, grounding, fire n the wall heat pumps. Location: National Average Floor Height (LF): 8

Model No.	Model Name	Model D	escription
N52	Office Trailer – Double Wide	This model includes the purchase and office trailers. Attached are two 10'x installation includes a perimeter skirt sprinklers and roof-top HVAC units ar Perimeter (LF): 120 Gross Sqft: 840 No of Floors: 1	10' entry platforms and stairs. The t, power, grounding, fire alarm and
N53	Office Trailer – Multiple 4 units	This model includes the purchase and office trailers. Attached to the trailer stairs. The trailer installation includes fire alarm and sprinklers and roof-top Perimeter (LF): 164 Gross Sqft: 1,680 No of Floors: 1	are two 10' x 10' entry platforms and s a perimeter skirt, power, grounding,
N54	Office Trailer – 20,000 SF	This model includes the purchase and office trailer. Attached to the trailer a stairs. The trailer installation includes fire alarm and sprinklers and split sys Perimeter (LF): 510 Gross Sqft: 16,000 No of Floors: 1	are two 10'x 10' entry platforms and
N55	Fire Station 2 Story		•
N56	Metal Building–Shop 1,200SF	This model should be applied to all m type facilities. The model is based on feet of floor area. The structure is ste metal roof, and unit heaters and split Perimeter (LF): 138 Gross Sqft: 1,200 No of Floors: 1	eel frame, with metal siding exterior,

Model No.	Model Name	Mod	lel Description
N57	Metal Building – Shop 36,000SF	type facilities. The model is bas feet of floor area. The structure	o all maintenance, tRadiatione, and support ed on a 1-story building with 36,000 square e is steel frame, with metal siding exterior, d split system AC units with fan coils. Location: National Average Floor Height (LF): 14
N58	Metal Building – Shop 60,000SF	type facilities. The model is bas feet of floor area. The structure	e all maintenance, tRadiatione, and support eed on a 1-story building with 60,000 square e is steel frame, with metal siding exterior, d split system AC units with fan coils. Location: National Average Floor Height (LF): 14
N59	Metal Building – Office 20,000	model is based on a 1-story buil	o all office and support type facilities. The ding with 20,000 square feet of floor area. In metal siding exterior, metal roof, and split Location: National Average Floor Height (LF): 14
N60	Metal Building – Office 40,000	model is based on a 1-story buil	all office and support type facilities. The ding with 40,000 square feet of floor area. th metal siding exterior, metal roof, and split Location: National Average Floor Height (LF): 14
N61	Metal Building – Car Port		o all carport and storage type facilities. The cture with 570 square feet of floor area. The etal siding exterior, metal roof. Location: National Average Floor Height (LF): 10

Model No.	Model Name	Model D	escription
N62	Personnel Gate Turnstile		ecured pedestrian entry locations. The e with 300 square feet of floor area and Location: National Average Floor Height (LF): 14
N63	Metal Covered Walkways	This model should be applied to all er on a 1-story building with 1,400 squa steel frame, with metal siding exterio Perimeter (LF): 240 Gross Sqft: 1,400 No of Floors: 1	
N64	Lift Station Small	This model should be applied to pre- more than 75 GPM. Perimeter (LF): 44 Gross Sqft: 80 No of Floors: 1	engineered lift station, operating at no Location: National Average Floor Height (LF): 14
N65	Lift Station Large	This model should be applied to pre- more than 100 GPM. Perimeter (LF): 44 Gross Sqft: 120 No of Floors: 1	engineered lift station, operating at no Location: National Average Floor Height (LF): 14
N66	Substation Small	This model should be applied to a sub Perimeter (LF): 120 Gross Sqft: 840 No of Floors: 1	ostation with 500 kVa transformer. Location: National Average Floor Height (LF): 8
N67	Substation Large	This model should be applied to a sub Perimeter (LF): 240 Gross Sqft: 1,680 No of Floors: 1	ostation with 1,000 kVa transformer. Location: National Average Floor Height (LF): 8

Model No.	Model Name		del Description
N68	Office Cast In Place Concrete 2 Story	model is based on a 2-story bu The structure is Cast in Place v roof, and roof-top HVAC units	
		Perimeter (LF): 400	Location: National Average
		Gross Sqft: 20,000	Floor Height (LF): 12
		No of Floors: 2	
N69	Office Cast In Place Concrete 4 Story	model is based on a 4-story bu	to office facilities less than 80,000 SF. The uilding with 40,000 square feet of floor area. with precast wall panels, single-ply membran and central air system.
		Perimeter (LF): 400	Location: National Average
		Gross Sqft: 40,000	Floor Height (LF): 12
		No of Floors: 4	
N70	Shop Cast In Place Concrete 24,000SF	SF. The model is based on a 1 area. The structure is Castin I	to shop and support facilities less than 28,00 -story building with 24,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system.
		Perimeter (LF): 620	Location: National Average
		Gross Sqft: 24,000	Floor Height (LF): 16
		No of Floors: 1	
N71	Shop Cast In Place Concrete 42,000SF	This model should be applied SF. The model is based on a 1 area. The structure is Cast in l	
N71		This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a 2
	Concrete 42,000SF	This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with venti Perimeter (LF): 78	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a 2 ilation. Location: National Average
	Concrete 42,000SF	This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with venti Perimeter (LF): 78 Gross Sqft: 19,000	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a ilation.
	Concrete 42,000SF	This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with venti Perimeter (LF): 78	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a 2 ilation. Location: National Average
	Concrete 42,000SF	This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with vention Perimeter (LF): 78 Gross Sqft: 19,000 No of Floors: 50 This model should be applied	HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a 2 ilation. Location: National Average Floor Height (LF): 20 to tunnel and drifts. The model is based on a rea. The structure is reinforced concrete.
N73	Concrete 42,000SF Shaft with Elevator System	This model should be applied SF. The model is based on a 1 area. The structure is Cast in 1 membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with venti Perimeter (LF): 78 Gross Sqft: 19,000 No of Floors: 50 This model should be applied 20,000 square feet of floor at Ventilation provided via shaft	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 to elevator shafts. The model is based on a 2 ilation. Location: National Average Floor Height (LF): 20 to tunnel and drifts. The model is based on a rea. The structure is reinforced concrete. and elevator system.
N73	Concrete 42,000SF Shaft with Elevator System	This model should be applied SF. The model is based on a 1 area. The structure is Castin I membrane roof, and roof-top Perimeter (LF): 820 Gross Sqft: 42,000 No of Floors: 1 This model should be applied foot diameter shaft with vention Perimeter (LF): 78 Gross Sqft: 19,000 No of Floors: 50 This model should be applied 220,000 square feet of floor and	-story building with 42,000 square feet of flo Place with precast wall panels, single-ply HVAC units and central air system. Location: National Average Floor Height (LF): 16 Location: National Average I cocation: National Average Floor Height (LF): 20 to tunnel and drifts. The model is based on a rea. The structure is reinforced concrete.

Model No.	Model Name	Model Description		
N75	Underground Building	SF. The model is based on a 2-st	o office and support facilities less than 70,000 tory underground building with 40,000 ructure is Cast in Place structure. HVAC user. Location: National Average Floor Height (LF): 10	
N76	Guard Shack Metal		e guard shacks made primarily of metal. The uilding with 200 square feet of floor area. h metal panel walls and roof. Location: National Average Floor Height (LF): 8	
N77	Guard Shack Precast	concrete. The model is based up	o guard shacks made primarily of precast oon a 1-story building with 200 square feet of ast concrete wall panels and precast Location: National Average Floor Height (LF): 8	
N78	Shed 300SF Open	based upon a 1 story building wi	e storage sheds with open sides. The model is ith 300 square feet of floor area. The and headers with metal roof panels on light Location: National Average Floor Height (LF): 8	
N79	Shed 300SF Open, Electricity	This model should be applied to storage sheds with open sides and electrical service. The model is based upon a 1 story building with 300 square feet of floor area. The structure is tube steel columns and headers with metal roof panels on light gauge framing.Perimeter (LF): 74Location: National AverageGross Sqft: 300Floor Height (LF): 8No of Floors: 1		

Model No.	Model Name	Model Description		
N80	Shed 840SF Open	based upon a 1 story building v	to storage sheds with open sides. The model is with 840 square feet of floor area. The s and headers with metal roof panels on light Location: National Average Floor Height (LF): 8	
N81	Shed 840SF Open, Electricity	service. The model is based up	to storage sheds with open sides and electrical on a 1 story building with 840 square feet of e steel columns and headers with metal roof Location: National Average Floor Height (LF): 8	
N82	Shed 300SF Enclosed		o storage sheds with enclosed sides. The building with 300 square feet of floor area. ith metal panel walls and roof. Location: National Average Floor Height (LF): 8	
N83	Shed 300SF Enclosed, Electricity	electrical service. The model is	to storage sheds with enclosed sides and based upon a 1 story building with 300 tructure is metal studs with metal panel walls Location: National Average Floor Height (LF): 8	
N84	Shed 840SF Enclosed		o storage sheds with enclosed sides. The building with 840 square feet of floor area. ith metal panel walls and roof. Location: National Average Floor Height (LF): 8	

Model No.	Model Name	Model Description	
N85	Shed 840SF Enclosed, Electricity	This model should be applied to storage sheds with enclosed sides and electrical service. The model is based upon a 1 story building with 840 square feet of floor area. The structure is metal studs with metal panel w and roof. Perimeter (LF): 120 Location: National Average	
		Gross Sqft: 840	Floor Height (LF): 8
		No of Floors: 1	
N86	Guard Tower Metal	This model should be applied to Guard Towers made primarily of metal. The model is based upon a structure that has 200 square feet of floor area. The structure is made of structural steel shapes and headers, with an enclosed space.	
		Perimeter (LF): 60	Location: National Average
		Gross Sqft: 200	Floor Height (LF): 8
		No of Floors: 1	
N87	Guard Tower Precast	This model should be applied to Guard Towers made primarily of precast concrete. The model is based upon a structure that has 200 square feet of floor area. The structure is made of structural steel shapes and headers, with an enclosed precast space.	
		Perimeter (LF): 60	Location: National Average
		Gross Sqft: 200	Floor Height (LF): 8
		No of Floors: 1	
N88	High Security Nuclear Facility	This model should be applied to High Security Facilities. The model is based upon a 3-story structure that has 92500 square feet of floor area. The structure is steel reinforced concrete with multiple exterior closure types.	
		Perimeter (LF): 702	Location: National Average
		Gross Sqft: 92500	Floor Height (LF): 12
		No of Floors: 3	