	Unf L3		at II / WBS 9/18/06, Revision 2	E UOM	M UOM	Quantity Definition
		CTURE	- Communication of the Communi			
<u> </u>	SIKU	CIUKE	This system includes all work below the lowest floor construction (usually slab-on-grade) and	SF	M2	Footprint area at grade
			the enclosing horizontal and vertical elements required to form a basement, together with the			
			necessary mass excavation and backfill.			
A10	FOUNI	DATIONS	Foundations includes the following Standard Foundations: wall and column foundations;	SF	M2	Footprint area at grade
			foundation walls up to level of top of slab on grade; pile caps; foundation excavation, backfill,			
			and compaction; footings and bases; perimeter insulation; perimeter drainage; anchor plates; and dewatering. Special Foundations include pile foundations, caissons, underpinning,			
			dewatering, raft foundations, and pressure injected grouting. Slab on grade includes standard			
			slab on grade, structural slab on grade, inclined slab on grade, trenches, pits and bases, and			
			foundation drainage.			
	A1010	STANDAR	RD FOUNDATIONS	SF	M2	Footprint area at grade
			Continuous footings, spread footings, grade beams, foundation walls, pile caps, and column piers.			
						Length of footings and/or wall
		A101001	WALL FOUNDATIONS Continuous Footings - Assemblies include excavation, hand-shaped bottom, compacted	LF	М	foundations
			backfill, formwork and keyway, reinforcing steel, concrete and screed finish.			
			Foundation Walls - Include work items associated with CIP foundation walls, grade beams, or CMU walls. Assemblies include excavation, compacted backfill, perimeter insulation,			
			perimeter drainage, formwork, reinforcing steel, concrete or CMU, and wall finish.			
		A101002	COLUMN FOUNDATIONS & PILE CAPS	EA	EA	Number of footings, pile caps piers
		A101002	Spread Footings: Individual or part of continuous pier footings. Assemblies include			pioto
			excavation, backfill and compaction, formwork, reinforcing steel, and concrete and screed finish. If structural steel columns set directly on spread footings, anchor bolts are included in			
			this assembly.			
			Pile Caps - Assemblies include excavation if required (normally due to installation of piles, the			
			subgrade is at desired level for pile cap), hand-shaped bottom, compacted backfill, formwork, reinforcing steel, and concrete and screed finish. If structural steel columns set directly on			
			spread footings, anchor bolts are included in this assembly.			
			Column Piers - Assemblies include formwork, reinforcing steel, concrete or CMU, finish, break ties and patch, and set anchor bolts.			
		A101003	DEWATERING	SF	M2	Dewatered area
			Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around			
			the area and extracting the water by suction pump. Assemblies would include pumps or well			
			points and all associated dewatering materials and equipment.			
		A101090	OTHER STANDARD FOUNDATIONS	XX	XX	
			Standard foundations not described by the assembly categories listed above.			
	A1020	SPECIAL	FOUNDATIONS	SF	M2	Footprint area at grade
			All work associated with special foundations including piles, caissons, and any other special foundation situation.			
		A102001	PILE FOUNDATIONS	SF	M2	Footprint area at grade
			CIP concrete piles, precast concrete piles, steel pipe piles, steel H-piles, step-tapered steel piles, and treated wood piles. Applicable assemblies would include the material for piles, pile			
			driving, and pile cut-offs if required.			
		A102002	CAISSONS	SF	M2	Footprint area at grade
			Drilled Caissons - Assemblies include drilled caissons, steel casings if required, reinforcing			
			steel, bell bottom excavation, concrete, and loading and hauling of excavated material.		М	Length of underpinning
		A102003	UNDERPINNING	LF	M	Length of underpinning
		A102003	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their	LF	M	Length of underpinning
			UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials.			
		A102003	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include	LF	M M2	Length of underpinning Dewatered area
			UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around			
			UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well			
			UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS			
		A102004	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete	SF	M2	Dewatered area
		A102004	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING	SF	M2	Dewatered area
		A102004 A102005 A102006	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization.	SF SF	M2 M2	Dewatered area Area of raft foundation
		A102004 A102005	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING	SF SF	M2 M2	Dewatered area Area of raft foundation
		A102004 A102005 A102006	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special	SF SF	M2 M2	Dewatered area Area of raft foundation
		A102004 A102005 A102006 A102090	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition.	SF SF XX	M2 M2	Dewatered area Area of raft foundation
	A1030	A102004 A102005 A102006	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE	SF SF	M2 M2	Dewatered area Area of raft foundation
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil.	SF SF XX	M2 M2 XX M2	Area of raft foundation Footprint area at grade Footprint area at grade
	A1030	A102004 A102005 A102006 A102090	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing	SF SF XX	M2 M2 XX	Dewatered area Area of raft foundation Footprint area at grade
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab	SF SF XX	M2 M2 XX M2	Area of raft foundation Footprint area at grade Footprint area at grade
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing	SF SF XX	M2 M2 XX M2	Area of raft foundation Footprint area at grade Footprint area at grade
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab.	SF SF XX SF	M2 M2 XX M2 M2 M2	Area of raft foundation Footprint area at grade Footprint area at grade Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab.	SF SF XX	M2 M2 XX M2	Area of raft foundation Footprint area at grade Footprint area at grade
	A1030	A102004 A102005 A102006 A102090 SLAB ON	Underprinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab. STRUCTURAL SLAB ON GRADE A structural slab-on-grade is not supported by compacted earth or gravel fill. The soil bearing capacity is insufficient to support the slab. A stermblies include fine grade, gravel fill. The soil bearing capacity is insufficient to support the slab. A stermblies include fine grade, gravel fill. The soil bearing capacity is insufficient to support the slab. A stermblies include fine grade, gravel fill. The soil bearing capacity is insufficient to support the slab. A stermblies include fine grade, gravel fill.	SF SF XX SF	M2 M2 XX M2 M2 M2	Area of raft foundation Footprint area at grade Footprint area at grade Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab. STRUCTURAL SLAB ON GRADE A structural slab-on-grade is not supported by compacted earth or gravel fill. The soil bearing capacity is insufficient to support the slab. A structural slab is generally a minimum of eight inches thick and will be reinforced with reinforcing bars rather than welded wire fabric.	SF SF XX SF	M2 M2 XX M2 M2 M2	Area of raft foundation Footprint area at grade Footprint area at grade Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON	Underprinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies include fine grade, gravel fill, underslab include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing foundation, edge forms, termite treatment, (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing foundation, edge forms, termite treatment, (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and	SF SF XX SF	M2 M2 XX M2 M2 M2	Area of raft foundation Footprint area at grade Footprint area at grade Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON A103001	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab. STRUCTURAL SLAB ON GRADE A structural slab-on-grade is not supported by compacted earth or gravel fill. The soil bearing capacity is insufficient to support the slab. A structural slab is generally a minimum of eight inches thick and will be reinforced with reinforcing bars rather than welded wire fabric. Assemblies are based on thickness of slab.	SF SF XX SF SF	M2 M2 XX M2 M2 M2 M2 M2 M2	Dewatered area Area of raft foundation Footprint area at grade Footprint area at grade Area of slab Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON	Underprinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies include fine grade, gravel fill, underslab include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing foundation, edge forms, termite treatment, (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing foundation, edge forms, termite treatment, (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and	SF SF XX SF	M2 M2 XX M2 M2 M2	Area of raft foundation Footprint area at grade Footprint area at grade Area of slab
	A1030	A102004 A102005 A102006 A102090 SLAB ON A103001	UNDERPINNING Underpinning is the provision of permanent support for existing buildings by extending their foundations to a new, lower level containing the desired bearing stratum. Assemblies include excavation, backfill, and underpinning materials. DEWATERING Dewatering is the removal of water from excavations. The two principle methods of dewatering are by pump or by a system involving the sinking of a series of well-points around the area and extracting the water by suction pump. Assemblies would include pumps or well points and all associated dewatering materials and equipment. RAFT FOUNDATIONS Raft foundations or spread foundations consist of a solid slab of heavily reinforced concrete covering the entire building footprint area. PRESSURE INJECTED GROUTING Assemblies provide for injecting cement grout for foundation stabilization. OTHER SPECIAL FOUNDATIONS These could include cofferdams, soil compaction foundations, and other special foundations. Assemblies would include all material and labor necessary to perform the work for the special foundation condition. GRADE A slab poured on earth, whether on undisturbed or fill soil. STANDARD SLAB ON GRADE Standard slab-on-grade is supported by compacted earth or gravel fill. The soil bearing capacity is sufficient to support the slab. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment (interior slabs only), vapor barrier, reinforcing, expansion joints, control joints, and finish and curing. Assemblies are based on thickness of slab. STRUCTURAL SLAB ON GRADE A structural slab-on-grade is not supported by compacted earth or gravel fill. The soil bearing capacity is insufficient to support the slab. A structural slab is generally a minimum of eight inches thick and will be reinforced with reinforcing bars rather than welded wire fabric. Assemblies include fine grade, gravel fill, underslab insulation, edge forms, termite treatment, (interior slabs only), vapor barrier, reinforcing, expansion joints, control joint	SF SF XX SF SF	M2 M2 XX M2 M2 M2 M2 M2 M2	Area of slab Area of slab

US COST 1 UniformatWBSFinalRev2 (2).xls

Final	Com	bined	Uniforma	at II / WBS 9/18/06, Revision 2			
			WBS L4	Definition	E UOM	M UOM	Quantity Definition
				Cast-in-place pits and bases. Assemblies include excavation, hand-shaped bottoms, compacted backfill, formwork, reinforcing steel, concrete, and concrete finish. Examples include elevator pits, dock leveler pits, oil change pits, and bases for equipment.			
			A103005	FOUNDATION DRAINAGE Foundation drainage directly associated with draining the foundation. This category does not include storm drainage piping for site. It would include drain pipe or drain tile at foundation or basement for specific purposes of draining foundation or basement. Assemblies would include excavation, hand-shaped bottoms, gravel, compacted backfill, and drain pipe,	LF	M	Length of foundation
			A103090	including accessories. OTHER LOWEST FLOOR CONSTRUCTION Lowest floor construction not described by the assembly categories listed above.	XX	XX	
	• • • •			· · · · · · · · ·			
	A20	BASEN	IENI CO	NSTRUCTION Work Includes basement excavation, and basement walls.	CY	M3	Volume of excavation
				Work includes basement excavation, and basement waits.			
		A2010	BASEME	NT EXCAVATION Excavation work associated with constructing a basement.	CY	M3	Volume of excavation
			A201001	EXCAVATION FOR BASEMENTS	CY	M3	Volume of excavation
				All excavation, stockpiling, and hauling associated with basement excavations are included in this assembly.			
			A201002	STRUCTURE BACKFILL & COMPACTION	CY	M3	Volume of backfill
				All backfill including hauling in of suitable soils and all necessary compaction is included in this assembly.			
			A201003	SHORING This type of shoring is to resist horizontal pressure and not intended to carry vertical loads.	SF	M2	Shoring contact area
				Assemblies would include sheet piling or other material and labor used to hold back earth around the perimeter of an excavation.			
			A201090	OTHER BASEMENT EXCAVATION Basement excavation not described by the assembly categories listed above.	XX	XX	
		A2020	BASEME	NT WALLS	SF	M2	Area of wall
		AZOZO		Assembly includes basement perimeter walls that are below grade and below the ground floor level of the building; this also includes elevator pits and other pits.			Area of wall
			A202001	BASEMENT WALL CONSTRUCTION This includes work items associated with CIP foundation walls or CMU walls and	SF	M2	Area of wall
				penetrations. Assemblies include formwork, reinforcing steel, concrete or CMU, and wall			
			A202002	finish and curing. MOISTURE PROTECTION	SF	M2	Area of wall moisture protection
				This assembly would be based on the type and square footage of waterproofing used on the foundation wall.			
			A202003	BASEMENT WALL INSULATION	SF	M2	Area of wall insulation
				This assembly would be based on the type and square footage of insulation used on the foundation wall.			
			A202090	OTHER BASEMENT WALLS	XX	XX	
В	SHE	LL		Basement walls not described by the assembly categories listed above.	SF	M2	Area of supported floors
				This system includes all structural slabs, and decks and supports within basements and above grade. Note that the structural work will include both horizontal items (slabs, decks, etc.) and vertical structural components (columns and interior structural walls). Exterior load bearing walls are not included in this system but in System B2010, Exterior Walls.			
	B10	SUPER	STRUCT	Work includes floor construction and roof construction.	SF	M2	Area of supported floors
		B1010	FLOOR C	ONSTRUCTION	SF	M2	Area of supported floors
		B1010	LOOK	This construction can be wood, concrete, CMU, steel frame, etc.	OI .	IVIZ	Area or supported noors
			B101001	STRUCTURAL FRAME	SF	M2	Area of supported floors
				The structural frame could consist of structural steel including columns, beams, joists, and all associated items. It could be a concrete frame utilizing concrete or masonry columns and concrete girders and beams. The structural frame could be wood columns with wood beams or wood trusses. The structural frame could be a combination of the above. For example, concrete or masonry columns with structural steel beams and joists. All associated work items should be included in each assembly. Separate assemblies would be used for different types of construction. The unit of measure at the assembly level is the square footage of the supported area. Decks and slabs are not included in this assembly.			
			B101002	STRUCTURAL INTERIOR WALLS	SF	M2	Area of wall
				Assemblies would be CIP or CMU walls or other structural interior walls. The assemblies would include the labor and material required to perform the construction tasks associated			
			B101003	with this type of wall. FLOOR DECKS AND SLABS	SF	M2	Area of supported floors
				Slabs above grade should be broken into assemblies according to their particular type of construction (i.e., flat slab, pan slab, precast or pre-stressed slab, four-way slab, slabs on metal or wood decking with concrete fill, etc.). All associated work items should be included			
			B101004	in each assembly, such as expansion and contraction joints. INCLINED AND STEPPED FLOORS	SF	M2	Area of inclined & stepped floors
				This assembly should be broken down according to their particular type of construction (i.e., flat slab, pan slab, precast or pre-stressed slab, four-way slab, slabs on metal or wood decking with concrete fill, etc.). All associated work items should be included in each			
			B101005	assembly, such as expansion and contraction joints. BALCONY CONSTRUCTION	SF	M2	Area of supported balconies
			2101003		JI	IVIL	risea or supported balcoriles
				Balconies above grade should be broken into assemblies according to their particular type of construction. All associated items including handrails should be included in the assembly.			
			B101006	RAMPS	SF	M2	Area of supported ramps
				Ramps above grade should be broken into assemblies according to their type of construction.			
			<u> </u>	All associated items including handrails should be included in the assembly.			1

UIII LZ	Unf L3	WBS L4	at II / WBS 9/18/06, Revision 2 Definition	E UOM	M UOM	Quantity Definition
		B101007	FLOOR RACEWAY SYSTEMS	SF	M2	Gross floor area
	 	B101090	Under floor or in-slab conduit including conduit and all associated devices. OTHER FLOOR CONSTRUCTION	XX	XX	
			Any type of special floor construction not included above would fall in this category, such as catwalks, space frames, etc. All associated work items would be included in the assembly.			
	B1020	ROOF	NSTRUCTION	SF	M2	Area of supported roof
	020 د	NOOF CC	This construction is similar to floor construction except that is applies to the framework supporting the roof and roof decks. (See also System B30 Roofing.)	OF.	IVIZ	Area or supported foot
		B102001	STRUCTURAL FRAME The structural frame could consist of structural steel including columns, beams, joists, and all associated items. It could be a concrete frame utilizing concrete or masonry columns and concrete girders and beams. The structural frame could be wood columns with wood beams or wood trusses. The structural frame could be a combination of the above. For example, concrete or masonry columns with structural steel beams and joists. All associated work items should be included in each assembly. Separate assemblies would be used for different types of construction. The unit of measure at the assembly level is the square footage of the supported area. Decks and slabs are not included in this assembly.	SF	M2	Area of supported roof
		B102002	STRUCTURAL INTERIOR WALLS	SF	M2	Area of walls
			Assemblies would be CIP or CMU walls or other structural interior walls. The assemblies would include the labor and material required to perform the construction tasks associated with this trace of unit.			
		B102003	with this type of wall. ROOF DECKS AND SLABS Roof decks and slabs should be broken into assemblies according to their particular type of construction (i.e., flat slab, pan slab, precast or pre-stressed slab, four-way slab, slabs on metal or wood decking with concrete fill, etc.). All associated work items should be included in each assembly.	SF	M2	Area of supported roof
		B102004	CANOPIES	SF	M2	Area of supported canopies
			Canopies should be broken into assemblies according to their particular type of construction (i.e., flat slab, pan slab, precast or pre-stressed slab, four-way slab, slabs on metal or wood decking with concrete fill, etc.). All associated work items should be included in each assembly.			
		B102090	OTHER ROOF CONSTRUCTION Any type of special roof construction not included above would fall into this category. All	SF	M2	Area of supported roof
			associated work items would be included in this assembly.			
B20	EXTER	IOR ENC	LOSURE	SF	M2	Area of exterior walls
			This system consists of the exterior facing of the facility, which includes all vertical and horizontal exterior closure such as exterior walls, exterior windows, and exterior doors. This system excludes roofing (See System B30, Roof). Load bearing exterior walls will be included here, and not in System B10, Superstructure. Structural frame elements at exterior such as columns, beams, spandrels, etc., would be included in Superstructure with only the applied exterior finishes (i.e., paint, stucco, etc.) being included here. Finishes to the inside face of walls which are not an integral part of the wall construction will be included in System C30, Interior Finishes.			
	B2010	EXTERIO	R WALLS	SF	M2	Area of exterior walls
		B201001	All materials associated with the following construction: exterior load-bearing walls, insulation and vapor barrier, parapets, exterior louvers and screens, sun control devices (exterior), balcony walls and handrails, exterior soffits, screen walls, and exterior coatings. EXTERIOR CLOSURE	SF	M2	Area of exterior walls
		220.001	Assemblies would include material contained in exterior closure wall, such as masonry with brick veneer. Materials used for interior finishes on exterior walls are not included in this assembly. For example, if the interior side of this masonry wall is sheetrock applied on metal furring strips, the masonry wall is included in this assembly, but the furring strips and sheetrock are categorized as C3010 WALL FINISHES.			A TOOL OF SALES HOLD
		B201002	EXTERIOR WALL BACKUP CONSTRUCTION Assemblies used to support structure for the exterior skin and/or provide load-bearing walls	SF	M2	Area of backup walls
			Assembles used to support structure for the exterior skin and/or provide load-bearing wais for the facility. Materials used for interior finishes on exterior walls are not included in this assembly. For example, if the interior side of this masonry wall is sheetrock applied on metal furring strips, the masonry wall is included in this assembly, but the furring strips and sheetrock are categorized as C3010 WALL FINISHES.			
		B201003	INSULATION & VAPOR RETARDER Assemblies would include all types of insulation associated with the exterior wall. Rigid, batt	SF	M2	Area of insulation
		B201004	and poured insulation should be separated into different assemblies. PARAPETS Assemblies include materials used in association with parapets. Parapets are long walls or	LF	M	Length of parapets
		B201005	railings usually along the edge of a roof or balcony. EXTERIOR LOUVERS & SCREENS Assemblies include louvers and screens which are located in exterior walls. The unit of	SF	M2	Area of louvers and screens
		Dog (oc -	measure at the assembly level is each.			Lagarth of "
		B201006	BALCONY WALLS & HANDRAILS Assemblies would include materials associated with balcony walls and handrails. These rails are usually quardrails and not associated with stairs.	LF	М	Length of walls and handrails
		B201007	EXTERIOR SOFFITS Assemblies would include all associated materials which make up the soffit and supports for	SF	M2	Area of soffits
	l		the soffit. Typical materials would include wood, aluminum, exterior grade gypboard, stucco, etc.			
				SF	M2	Area of flashings
		B201008	FLASHING			
		B201008	FLASHING Assemblies include all flashings associated with the exterior walls except for thru-wall flashing.			
		B201008 B201009	Assemblies include all flashings associated with the exterior walls except for thru-wall flashing. EXTERIOR PAINTING AND SPECIAL COATINGS Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of	SF	M2	Area of exterior coatings
		B201009	Assemblies include all flashings associated with the exterior walls except for thru-wall flashing. EXTERIOR PAINTING AND SPECIAL COATINGS Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of exterior coatings.	SF LF	M2	
		B201009 B201010	Assemblies include all flashings associated with the exterior walls except for thru-wall flashing. EXTERIOR PAINTING AND SPECIAL COATINGS Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of exterior coatings. EXTERIOR JOINT SEALANT Exterior application of joint sealants to seal joints and prepare for finish material installation.	LF	M	Length of sealants
		B201009	Assemblies include all flashings associated with the exterior walls except for thru-wall flashing. EXTERIOR PAINTING AND SPECIAL COATINGS Assemblies include paint, stucco, etc. The unit of measure at the assembly level is area of exterior coatings. EXTERIOR JOINT SEALANT			

Fina	I Con	nbined	Uniforma	at II / WBS 9/18/06, Revision 2			
Unf L1	Unf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
		B2020	EXTERIOR	RWINDOWS	SF	M2	Area of windows
				All windows located in exterior walls or exterior skin.			
			B202001	WINDOWS	SF	M2	Area of windows
				Fixed or operable windows located in exterior walls or exterior skin. Assemblies would include frames, glazing, caulking, finishes and other associated work.			

al Con	nbined		at II / WBS 9/18/06, Revision 2			
L1 Unf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
		B202002	STOREFRONTS	SF	M2	Area of storefronts
			Fixed storefronts including associated doors in exterior walls or exterior skin. Assemblies would include integral storefront doors, frames, glazing, caulking, finishes, and other associated work.			
	+	B202003	CURTAIN WALLS	SF	M2	Area of curtain walls
			This applies to glass curtain walls and spandrel glass in exterior walls or exterior skin.			
			Assemblies would include integral curtainwall doors, frames, glazing, caulking, finishes, and			
		D000004	other associated work.	05	140	Assault Olasia
_		B202004 B202090	EXTERIOR GLAZING OTHER EXTERIOR WINDOWS	SF XX	M2 XX	Area of Glazing
_	-	B202090	Exterior windows not described by the assembly categories listed above.	^^	^^	
	B2030	EXTERIOR		EA	EA	Number of doors
		D000001	All doors located in exterior walls or exterior skin.			
_		B203001	SOLID DOORS Assemblies include all exterior solid doors, hollow metal or wood with frames. Solid doors	EA	EA	Number of doors
			may include glazing lites in doors. Door hardware is located in B203008 EXTERIOR DOOR			
			HARDWARE.			
		B203002	GLAZED DOORS	EA	EA	Number of doors
			and curtainwalls. These doors can be made of storefront materials but are not part of a curtainwall or storefront. Door hardware is located in B203008 EXTERIOR DOOR HARDWARE.			
_		B203003	REVOLVING DOORS	EA	EA	Number of doors
_	<u> </u>		Assemblies include all revolving doors at exterior of the facility.			
		B203004	OVERHEAD AND ROLL-UP DOORS	SF	M2	Area of doors
			Overhead and roll-up doors installed in exterior walls or exterior skin. Assemblies include			
			frames, hardware, hoisting devices, and finish and other associated work. The unit of		1	
		B203005	measure at the assembly level is each door. HANGAR DOORS	SF	M2	Area of doors
		B203005	Large aircraft doors used on medium and high bay hangars. Assemblies would include	51	IVIZ	Area of doors
			frames, hardware, hoisting devices, and finish and other associated work.			
	1	B203006	BLAST RESISTANT DOORS	SF	M2	Area of doors
			Special exterior doors used for blast resistance. Assemblies would include frames, hardware,			
			hoisting devices, and finish and other associated work.			
		B203007	GATES	SF	M2	Area of doors
			Any special gate type used in the exterior wall or exterior skin of the building. Assemblies would include frames, hardware, hoisting devices, and finish and other associated work. The			
		B203008	unit of measure at the assembly level is each gate. EXTERIOR DOOR HARDWARE	EA	EA	Number of doors
			Exterior door hardware includes items such as closers, hinges, locksets, panic hardware, etc.			
		B203090	OTHER EXTERIOR SPECIALTY DOORS	XX	XX	
			Any special type door used in the exterior wall or exterior skin of the building. Assemblies			
			would include frames, hardware, hoisting devices, and finish and other associated work. The unit measure at the assembly level is each door, or area of special doors, i.e., hangar doors.			
_	-	B203091	OTHER EXTERIOR PERSONNEL DOORS	XX	XX	
	+	DECCOOST	Exterior personnel doors not described by the assembly categories listed above.	7//	7//	
B30	ROOFI	NG		SF	M2	Gross area of roof
		T .	This System includes all waterproof roof coverings and insulation, expansion joints, together			
			with skylights, hatches, ventilators, and all required trim. In addition to roof coverings, the system includes all waterproof membranes and traffic toppings over below grade enclosed areas, balconies, and the like.			
	B3010	ROOF CO	VERINGS	SF	M2	Gross area of roof
		1	This System includes all waterproof roof coverings and insulation, expansion joints, together		1	
			with skylights, hatches, ventilators, and all required trim. In addition to roof coverings, the		1	
			system includes all waterproof membranes and traffic toppings over below grade enclosed		1	
_	 	B301001	areas, balconies, and the like. STEEP SLOPE ROOF SYSTEMS	SF	M2	Area of roof covering
+	 	2001001	Assemblies include roof coverings such as shingle, wood shake, structural standing seam,	JI	1712	, and or roof covering
			metal roofing, etc.		1	
		B301002	LOW SLOPE ROOF SYSTEMS	SF	M2	Area of topping or membrane
			Assemblies include roof coverings such as built-up, elastomeric, modified bitumen, etc Also,			
_	 	B301003	walkways and work areas (used to gain access to rooftop equipment) will be included here. ROOF INSULATION & FILL	SF	M2	Area of insulation
+	 	D301003	Assemblies include all types of insulation associated with the roof area.	OF.	IVIZ	AIRA UI IIISUIAUUII
	†	B301004	FLASHINGS & TRIM	SF	M2	Area of flashings
+	t		Assemblies include all flashings associated with the roof, i.e., eave flashing, gable flashing,			Ŭ-
			etc.			
			GUTTERS & DOWNSPOUTS	LF	M	Length of gutters and downspo
		B301005	GOTTERS & DOWNST GOTS	-	141	
		B301005			IVI	
			Assemblies include all gutters, downspouts, and associated work including splash blocks.			Area of openings
		B301005 B301006		SF	M2	Area of openings

Final	Comb	ined L	Jniforma	at II / WBS 9/18/06, Revision 2			
Unf L1	Unf L2 Ur			Definition	E UOM	M UOM	Quantity Definition
		E	B301090	OTHER ROOFING Roofing not described by the assembly categories listed above.	XX	XX	
С	INTER	IORS			SF	M2	Gross floor area
				Construction which takes place inside the exterior wall or exterior closure. The system does not include interior structural walls, which are included in B1010 FLOOR CONSTRUCTION and B1020 ROOF CONSTRUCTION.			
	C10 IN	NTERIC	OR CONS	STRUCTION	SF	M2	Gross floor area
	1		<i></i>	This assembly includes partitions, interior doors, and specialties.		in.	erece neer area
	0	4040	DARTITIO		05		
	C	1010 I	PARTITIO	Includes all interior partitions.	SF	M2	Area of partitions
		(C101001	FIXED PARTITIONS	SF	M2	Area of fixed partition walls
			0101000	Interior fixed partitions include metal or wood studs, sheetrock, masonry, and concrete walls.	05	110	
			C101002	DEMOUNTABLE PARTITIONS Assemblies would include all demountable partitions and associated work including tracks	SF	M2	Area of demountable partition walls
				and anchoring systems.			
		(C101003	RETRACTABLE PARTITIONS Assemblies would include all retractable or folding partitions and associated work including	SF	M2	Area of retractable partition walls
			C101004	tracks and anchoring systems. INTERIOR GUARDRAILS & SCREENS	LF	М	Length of balustrades and screens
				Assemblies include balustrades (balcony handrails and the row screen of posts that support them) and screens and associated work including tracks and anchoring systems. These balustrades/guardrails are related to interior balconies and are not associated with stairs.			
		(C101005	INTERIOR WINDOWS Fixed or operable windows. Assemblies would include frames, glazing, caulking and other	SF	M2	Area of windows
				associated work.			
		(C101006	GLAZED PARTITIONS & STOREFRONTS	SF	M2	Area of partitions and storefronts
				Fixed interior glazed partitions including interior storefronts with doors. Assemblies include frames, glazing, caulking, and other associated work.			
			C101007	INTERIOR GLAZING	SF	M2	Area of interior glazing
		(C101008	INTERIOR JOINT SEALANT Interior application of sealants to seal joints and prepare for finish material installation. The	LF	М	Length of sealants
				application shall include partitions, doors and fitting.			
		(C101090	OTHER PARTITIONS Interior partitions not described by the assembly categories listed above.	XX	XX	
	C	1020 I	INTERIOR	DOORS	LEF	LEF	Number of leaves
			C102001	All interior doors. STANDARD INTERIOR DOORS	LEF	LEF	Number of leaves
			C102001	Assemblies include all standard interior wood or hollow metal doors with frames, finish, etc	LEF	LEF	Number of leaves
				Standard interior door may include vision lites. Interior door hardware is located in C102007			
		(C102002	INTERIOR DOOR HARDWARE. GLAZED INTERIOR DOORS	LEF	LEF	Number of leaves
				Assemblies include all glazed interior doors with glass, frames, finish, including storefront,			
			C102003	etc Interior door hardware is located in C102007 INTERIOR DOOR HARDWARE. FIRE DOORS	LEF	LEF	Number of leaves
				Assemblies include all interior fire doors, including all necessary frames, and sensing devices integral with the door. Interior door hardware is located in C102007 INTERIOR DOOR HARDWARE.			
		(C102004	SLIDING & FOLDING DOORS	SF	M2	Area of sliding or folding door
				Assemblies include all sliding and folding doors with frames, hardware, locking devices, tracks, and supporting systems. The unit of measure at the assembly level is each.			
			C102005	INTERIOR OVERHEAD DOORS	SF	M2	Area of doors
				Overhead doors installed in the interior of a facility. Assemblies include frames, hardware, hoisting devices, and finish and other associated work. The unit of measure at the assembly level is each door.			
			C102006	INTERIOR GATES	SF	M2	Area of gates
				Any special type gate installed in the interior of a facility. Assemblies include frames, hardware, hoisting devices, and finish and other associated work. The unit measure at the			
		-	C102007	assembly level is each gate. INTERIOR DOOR HARDWARE	EA	EA	Number of doors
					1		
			C102090	Interior door hardware includes items such as closers, hinges, locksets, panic hardware, etc. OTHER INTERIOR SPECIALTY DOORS	XX	XX	1
			02030	Any special type door installed in the interior of a facility. Assemblies include frames, hardware, hoisting devices, and finish and other associated work. The unit measure at the			
			01000	assembly level is each gate.	107	V/V	
		(C102091	OTHER INTERIOR PERSONNEL DOORS Interior personnel doors not described by the assembly categories listed above.	XX	XX	1
	C	1030	SPECIAL1	· · · · ·	SF	M2	Gross floor area
				Most commonly used specialty items.			
		C	C103001	COMPARTMENTS, CUBICLES & TOILET PARTITIONS	EA	EA	Number of compartments, cubicles, or toilet partitions

			at II / WBS 9/18/06, Revision 2			
Unf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
			Assemblies include individual compartments, cubicles, toilet partitions, and urinal screens.			
		C103002	TOILET & BATH ACCESSORIES	EA	EA	Number of accessories
			Toilet and bath accessories. For example, soap dispensers, toilet paper holder, towel dispensers, grab bars, bathroom mirrors, etc.			
		C103003	MARKER BOARDS & TACK BOARDS	EA	EA	Each Board
			Assemblies include all marker boards, tackboards, and fastening devices. The unit of measure at the assembly level is each.			
		C103004	IDENTIFYING DEVICES	EA	EA	Number of identifying devices
			Assemblies include all signs, plaques, traffic markers, etc.			
		C103005	LOCKERS	EA	EA	Number of lockers
			Assemblies include all types of lockers, either wood or metal, single or double tier. Special bases used for lockers would be included in this assembly.			
		C103006	SHELVING	LF	M	Length of shelving
			Assemblies include all types of shelving with brackets and all supporting materials and finish,			
			if required.			
		C103007	FIRE EXTINGUISHER CABINETS	EA	EA	Number of fire extinguisher cab
			This assembly would include all types and sizes of fire extinguisher cabinets. Fire			
		C103008	extinguishers are not included in this assembly; they are included in D40. COUNTERS	LF	M	Length of counters
		0.00000	Assemblies include all counters and countertops with all necessary brackets and supporting			Longar or countere
		C402000	materials and finish, if required.			Langth of achinete
		C103009	CABINETS This assembly includes all cabinetry and millwork items with associated accessories and	LF	M	Length of cabinets
			anchoring devices. Cabinet finishes are included in this assembly. Metal cabinets and special			
			use cabinetry (medical, dental, libraries, etc.) are included in C103010 CASEWORK.			
	-	C103010	CASEWORK Assemblies would include built-in premanufactured cabinetry for specialized functions such			
	1		as labs, libraries, medical and dental facilities.			
		C103011	CLOSETS	LF	М	Length of closets
			This assembly includes all built-in closets with all associated work and finishes. These closets are millwork items or prefabricated coat closets for schools and dormitories.			
		C103012	FIRESTOPPING PENETRATIONS	EA	EA	Each Penetration
			Assembly includes sleeve, caulking, and flashing.			
		C103013	SPRAYED FIRE-RESISTIVE MATERIALS Sprayed Fire-Resistive Materials includes materials that are applied primarily to a building's	SF	M2	Area of coverage
			framework (columns, beams, bracing, metal decking) to prevent structural failure.			
		C103014	ENTRANCE FLOOR GRILLES AND MATS	SF	M2	Area of grilles/mats
			Assemblies include floor grilles and mats installed in a fixed arrangement at a building entrance.			
		C103015	ORNAMENTAL METALWORK	EA	EA	Number of metalwork items
			Building components made from ornamental metals. Ornamental stair handrails are included			
		C103090	in B1010 EXTERIOR STAIRS and C20 STAIRS. OTHER INTERIOR SPECIALTIES	EA	EA	Number of specialty items
		0.00000	Interior specialties not described by the assembly categories listed above.			rumber of opening nome
C20	STAIR	9		FLT	FLT	Number of flights
020	OTAIN	1	Work includes all stair construction.	FEI	FLI	Number of hights
	C2010	STAIR C	ONSTRUCTION	FLT	FLT	Number of flights
			All work items located within the building footprint. A flight of stairs is considered to be all the treads and risers with landings required to travel from one floor to the next.			
		C201001	INTERIOR AND EXTERIOR STAIRS	FLT	FLT	Number of flights
			All stair work items associated with non-fire escape stairs. The stairs can be either interior			
			stairs or stairs exposed to the weather. Exterior stairs are exposed to the outside and do not typically require HVAC. A flight of stairs is considered to be all the treads and risers with			
			landings required to travel from one floor to the next.			
		C201002	FIRE ESCAPE STAIRS	FLT	FLT	Number of flights
			Assemblies include exterior stairs which are used for emergency egress. These stairs are exposed to the weather. Handrails, finishes and associated work items are included in this			
	<u> </u>	<u> </u>	assembly.	<u> </u>		
		C201090	STAIR HANDRAILS, GUARDRAILS AND ACCESSORIES	XX	XX	
			Stair handrails, guardrails, and cast-in-place nosings for interior and exterior stairs.		1	
C30	INTER	OR FINIS	SHES	SF	M2	Area of finishing
			Includes wall finishes, floor finishes, and ceiling finishes.			
	i —	WALL FI	NISHES	SF	M2	Area of finished walls
	C3010		Finishes which are applied to interior wall surfaces. For coatings, refer to C3040.		.VIZ	,a or milandu wans
	C3010		CONCRETE WALL FINISHES	SF	M2	Area of finished walls
	C3010	C301001				
	C3010	C301001	This assembly would include a concrete finish applied directly to an interior wall surface. This assembly does not include items that directly apply to wall finishes covered elsewhere in this			1
	C3010	C301001	This assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem.			
	C3010	C301001 C301002	assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES	SF	M2	Area of finished walls
	C3010		assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES This assembly includes plaster or stucco applied directly to an interior wall surface. Lath and	SF	M2	Area of finished walls
	C3010		assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES	SF	M2	Area of finished walls
	C3010		assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES This assembly includes plaster or stucco applied directly to an interior wall surface. Lath and associated work would be included in this assembly. This assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. GYPSUM WALLBOARD FINISHES	SF	M2 M2	Area of finished walls Area of finished walls
	C3010	C301002	assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES This assembly includes plaster or stucco applied directly to an interior wall surface. Lath and associated work would be included in this assembly. This assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. GYPSUM WALLBOARD FINISHES This assembly includes gypsum wallboard applied directly to an interior wall surface. Furring			
	C3010	C301002	assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. PLASTER WALL FINISHES This assembly includes plaster or stucco applied directly to an interior wall surface. Lath and associated work would be included in this assembly. This assembly does not include items that directly apply to wall finishes covered elsewhere in this subsystem. GYPSUM WALLBOARD FINISHES			

				at II / WBS 9/18/06, Revision 2			
L1 Ur	nf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
			C301004	TILE & TERRAZZO WALL FINISHES	SF	M2	Area of finished walls
				This assembly includes tile and terrazzo applied directly to an interior wall surface. Each type			
				of tile would be a separate assembly.			
			C301005	WALL COVERINGS	SF	M2	Area of wall coverings
				This assembly includes wall coverings and protective strips applied directly to an interior wall			
				surface.			
			C301006	ACOUSTICAL PANELS ADHERED TO WALLS	SF	M2	Area of acoustical tiles and pane
				This assembly includes acoustical tiles and panels with associated work applied directly to an			
				interior wall surface.			
			C301090	OTHER WALL FINISHES	XX	XX	
				Assemblies include finishes to wall types not included above. These include, but are not			
				limited to, different types of shielding and the work and materials associated with each.			
		C3020	FLOOR F	FINISHES	SF	M2	Area of finished floors
				All flooring and floor finishes applied to interior floors. For coatings refer to C3040.			
			C302001	TILE FLOOR FINISHES	SF	M2	Area of tile floors
				Assemblies include ceramic, quarry, and other non-resilient tile floors.			
			C302002	TERRAZZO FLOOR FINISHES	SF	M2	Area of terrazzo floors
				Assemblies include terrazzo floors.			
			C302003	WOOD FLOORING	SF	M2	Area of wood floors
				Assemblies include wood floors.			
			C302004	RESILIENT FLOOR FINISHES	SF	M2	Area of resilient floors
				Assemblies include resilient floors.	-	1	
			C302005	CARPETING	SF	M2	Area of carpeting
			C302006	MASONRY & STONE FLOORING	SF	M2	Area of masonry or stone flooring
				Assemblies include masonry, concrete pavers, and stone flooring.	-		
			C302007	WALL BASE FINISHES	LF	M	Length of wall base
			0002007	WALE BACE I MOTES		141	Ecrigari or wan base
				Assemblies include wall base, consisting of various materials such as vinyl, ceramic tile, etc.			
			C302008	STAIR FINISHES	SF	M2	Area of coverage
			C302006	Includes field-applied finish materials (other than paint) to surfaces of stairs including treads,	OF.	IVIZ	Area or coverage
			C302009	risers and landings. FLOOR TOPPINGS AND TRAFFIC MEMBRANES	SF	M2	A
			C302009		5F	IVIZ	Area of coverage
			0000040	Assemblies include floor toppings and membrane systems.	0.5	140	A
			C302010	HARDENERS AND SEALERS	SF	M2	Area of coverage
				Assemblies include floor hardeners and sealers, typically applied on concrete floors.			
			C302011	RAISED ACCESS FLOORING	SF	M2	Area of special flooring
				Assemblies include all types of raised flooring, pedestal access floors and other types of			
				access flooring.			
			C302090	OTHER FLOORING & FLOOR FINISHES	XX	XX	
				Assemblies include floor finishes not described by the assembly categories listed above, such			
				as conductive, armored, etc			
		00000	OF# 1310	FINICUES	0.5		
		C3030	CEILING	FINISHES	SF	M2	Area of ceilings
				All ceilings and ceiling finishes applied to interiors. For coatings, refer to C3040.			
			C303001	ACOUSTICAL CEILING TILES & PANELS	SF	M2	Area of acoustical ceilings
				Assemblies include acoustical ceiling tiles and panels. The suspension system, if required, is			
				in Assembly Category C303005. This assembly does not include items that directly apply to			
				ceiling finishes covered elsewhere in this subsystem.			
			C303002	GYPSUM WALLBOARD CEILING FINISHES	SF	M2	Area of gypsum ceilings
				Assemblies include gypsum wallboard applied to interior ceilings. Furring strips or channels		1	
				are included in this assembly if they are applied directly to the ceiling surface. If the gypsum			
				board is applied to a suspended ceiling system, the suspended system would be in Assembly			
				Category C303005. This assembly does not include items that directly apply to ceiling finishes			
				covered elsewhere in this subsystem.			
			C303003	PLASTER CEILING FINISHES	SF	M2	Area of plaster ceiling finish
=				Assemblies include plaster or stucco finishes applied to interior ceilings. Lath and associated	1		5. plactor coming infinit
- 1				work would apply to this assembly. This assembly does not include items that directly apply to			

			at II / WBS 9/18/06, Revision 2	EUCH	MUCM	Occambility Definition
Unf L2	Unf L3	WBS L4	Definition WOOD CEILINGS	E UOM SF	M UOM	Quantity Definition
		C303004		SF	M2	Area of wood ceilings
			Assemblies include wood ceilings. Different types of wood ceilings should be separated into			
			different assemblies. If the wood ceiling is applied to a suspended ceiling system, the			
			suspended system would be in Assembly Category C303005. This assembly does not include			
			items that directly apply to ceiling finishes covered elsewhere in this subsystem.			
		C303005	SUSPENSIONS SYSTEMS	SF	M2	Area of suspension system
			This assembly includes any suspension system which is suspended or hung from the			
			structure for the purpose of fastening a ceiling.			
		C303006	METAL STRIP CEILINGS	SF	M2	Area of metal ceiling
			Assemblies include all metal strip materials applied to ceilings.			
		C303090	OTHER CEILING & CEILING FINISHES	XX	XX	
			Special ceilings and ceiling finishes not described by the assembly categories listed above.			
	00040	INITEDIO	COATINGS AND SPECIAL FINISHES	0=		
	C3040	INTERIO	R COATINGS AND SPECIAL FINISHES	SF	M2	Area of interior coatings
			This assembly includes surface preparation and application of coatings to interior surfaces.			
		C304001	GENERAL REQUIREMENTS	SF	M2	Area of coatings and finishes
		C304002	CONCRETE FINISHES	SF	M2	Area of concrete finishes
		C304003	CONCRETE MASONRY FINISHES	SF	M2	Area of concrete masonry finish
		C304004	METAL FINISHES	SF	M2	Area of metal finishes
		C304005	INTERIOR WOOD FINISHES	SF	M2	Area of wood finishes
		C304006	GYPSUM WALLBOARD FINISHES	SF	M2	Area of gypsum wallboard coat
		C304007	SPECIAL COATINGS ON WALLS	SF	M2	Area of special wall coatings
050	\/\O					
SER	VICES			EA	EA	
			Includes all methods of conveying, plumbing, HVAC, fire protection, and electrical.			
	00111/		included an included of controlling, plantating, 111710, into protection, and electrodis			
D10	CONVE	YING		STY	STY	Number of stories
			This system includes elevators, escalators, pneumatic tube systems, conveyors, chutes, etc.			
			Foundations for these systems are included in System A, Substructure.			
	D1010	ELEVATO	ORS AND LIFTS	STP	STP	Number of stops
			Includes passenger elevators and freight elevators.			
		D101001	GENERAL CONSTRUCTION ITEMS	EA	EA	Number of items
		2.0.00.	Includes construction work, other than conveying system work, which must be performed in	L/ \		Transpor or nome
			conjunction with this type of work to complete the system.			
		D101002	PASSENGER ELEVATORS	STP	STP	Number of stops
			The unit measure at the assembly level is each stop.			- Tanasar ar arapa
		D101003	FREIGHT ELEVATORS	STP	STP	Number of stops
		2.0.000	The unit measure at the assembly level is each stop.	0	0	rumber or deepe
		D101004	WHEELCHAIR LIFT	EA	EA	Number of lifts
		2.0.00.	Premanufactured lift to gain wheelchair access.			Transpor or mito
		D101005	DUMBWAITERS	STP	STP	Number of stops
		D101000	The unit measure of the assembly is each stop.	011	011	realiser of stops
		1	OTHER VERTICAL TRANSPORTATION EQUIPMENT	XX	XX	+
1		D101090				+
		D101090		^^		
		D101090	This includes elevators not described by the assembly categories listed above, such as	^^		
		D101090		^^		
	D1020		This includes elevators not described by the assembly categories listed above, such as people lifts.		EA	Number of items
	D1020	WEIGHT	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT	EA	EA EA	Number of items
	D1020	WEIGHT D102001	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS	EA EA	EA	Number of items
	D1020	WEIGHT D102001 D102002	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES	EA EA EA	EA EA	Number of items Number of items
	D1020	WEIGHT D102001	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS	EA EA	EA	Number of items
		WEIGHT D102001 D102002 D102003	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS	EA EA EA	EA EA EA	Number of items Number of items Number of items
	D1020	WEIGHT D102001 D102002 D102003 ESCALA	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS	EA EA EA	EA EA EA	Number of items Number of items Number of items Length of stairs or walks
		WEIGHT D102001 D102002 D102003 ESCALA	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS	EA EA EA EA LF	EA EA EA M	Number of items Number of items Number of items Length of stairs or walks Length of stairs
		WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS	EA EA EA EA LF LF	EA EA M M	Number of items Number of items Number of items Length of stairs or walks
		WEIGHT D102001 D102002 D102003 ESCALA	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS	EA EA EA EA LF	EA EA EA M	Number of items Number of items Number of items Length of stairs or walks Length of stairs
		WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS	EA EA EA EA LF LF	EA EA M M	Number of items Number of items Number of items Length of stairs or walks Length of stairs
		WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above.	EA EA EA LF LF LF	EA EA M M M XX	Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above.	EA EA EA EA LF LF	EA EA M M	Number of items Number of items Number of items Length of stairs or walks Length of stairs
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and	EA EA EA LF LF LF	EA EA M M M XX	Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks
	D1030	WEIGHT D102001 D102002 D102003 ESCALA' D103001 D103002 D103090	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and transportation systems.	EA EA EA EA LF LF LF XX	EA EA M M M XX	Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks Length of stairs Length of walks
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and	EA EA EA LF LF LF	EA EA M M M XX	Number of items Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks Number of systems Number of systems
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090 OTHER C	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and transportation systems. PNEUMATIC TUBE SYSTEMS	EA EA EA EA LF LF LF XX	EA EA M M M XX	Number of items Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks Number of systems Number of systems Number of material handling
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103009 OTHER C	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and transportation systems. PNEUMATIC TUBE SYSTEMS CONVEYORS	EA EA EA EA LF LF XX	EA EA M M M XX EA	Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks Length of walks Number of systems Number of systems Number of material handling systems
	D1030	WEIGHT D102001 D102002 D102003 ESCALA D103001 D103002 D103090 OTHER C	This includes elevators not described by the assembly categories listed above, such as people lifts. HANDLING EQUIPMENT BASIC REQUIREMENTS OF CRANES AND MONORAILS OVERHEAD CRANES MONORAILS TORS AND MOVING WALKS ESCALATORS MOVING WALKS ESCALATORS MOVING WALKS OTHER MOVING STAIRS & WALKS Moving stairs or walks not described by the assembly categories listed above. CONVEYING SYSTEMS Other conveying systems includes pneumatic tube systems, conveyor belts, chutes, and transportation systems. PNEUMATIC TUBE SYSTEMS	EA EA EA EA LF LF LF XX	EA EA M M M XX	Number of items Number of items Number of items Number of items Length of stairs or walks Length of stairs Length of walks Number of systems Number of systems Number of material handling

			at II / WBS 9/18/06, Revision 2	= 116		0 " 5 " "
Unf L2	Unf L3	WBS L4	Definition		M UOM	Quantity Definition
		D109006	TRANSPORTATION SYSTEMS	EA	EA	Number of systems
			This assembly includes baggage handling and aircraft loading systems.	SF	M2	Area of scaffolding
		D109090	OTHER MATERIAL HANDLING SYSTEMS	XX	XX	
			Material or handling systems not described by the assembly categories listed above.			
D20	PLUME	BING		EA	EA	Number of fixtures
			The plumbing system's primary function is the transfer of liquids and gases. This system			
			includes all water supply and waste items within the building.			
	D2010	PLUMBIN	IG FIXTURES	EA	EA	Number of fixtures
			All terminal devices on the domestic plumbing system which have water supplied to the fixture. Hot water heaters, hose bibbs, and special equipment are not counted as a fixture.			
		D201001	WATERCLOSETS	EA	EA	Number of fixtures
		D201001	URINALS	EA	EA	Number of fixtures
		D201002	LAVATORIES	EA	EA	Number of fixtures
		D201003	SINKS	EA	EA	Number of fixtures
		D201004	SHOWERS/TUBS	EA	EA	Number of fixtures
1		D201005	DRINKING FOUNTAINS & COOLERS	EA	EA	Number of fixtures
		D201000	BIDETS	EA	EA	Number of fixtures
		D201007	EMERGENCY FIXTURES	XX	XX	
			Emergency fixtures not described by the assembly categories listed above.			
	D2020	DOMEST	IC WATER DISTRIBUTION	EA	EA	Number of fixtures
	-2020		This system provides for human health and comfort. The water supply needed is determined	-/:	-/\	. ,
			by the number of fixtures attached. Hot water heaters, hose bibbs, and special equipment are			
			not counted as a fixture.			
		D202001	PIPES & FITTINGS	EA	EA	Number of fixtures
			Assemblies include all pipe, fittings, and associated work with regard to domestic water			
			supply. The unit of measure at the assembly level is number of fixtures.			
		D202002	VALVES & HYDRANTS	EA	EA	Number of valves and hydrar
			Assemblies include all valves and hydrants. Hose bibbs are included in this assembly. The			
			unit of measure at the assembly level is number of valves and hydrants.			
		D202003	DOMESTIC WATER EQUIPMENT	EA	EA	Number of fixtures
			This assembly includes equipment associated with the domestic water supply, including			
			fittings, and specialties required for hook-up. Assemblies include hot water heaters, water			
			treatment plant, i.e., water softeners, filters, distillers, etc.; pumps directly associated with			
			domestic water supply; and tanks for the potable hot or cold water system. The unit of			
			measure at the assembly level is pieces of equipment.			
		D202004	INSULATION & IDENTIFICATION	EA	EA	Number of fixtures
			Assemblies include insulation used in association with domestic water supply. The unit of			
<u></u>	<u> </u>		measure at the assembly level is number of fixtures.			
		D202005	SPECIALTIES	EA	EA	Pieces of equipment
			Any other special items associated with domestic water supply. All associated work items,			
			including pipes, fittings, valves, insulation, and hook-up should be included in this assembly.			
			The unit of measure at the assembly level is pieces of special equipment.			
		D202090	OTHER DOMESTIC WATER SUPPLY	XX	XX	
			Domestic water supply not described by the assembly categories listed above.			
	D2030	SANITAR	Y WASTE	EA	EA	Number of fixtures
			This system provides for human health and comfort. Fixtures include all terminal devices			
			which have a water supply (except water supply equipment and specialties), and also devices			
			that transfer fluids into the sanitary waste system that do not have a water supply. Floor			
			drains (not drain hubs) are included as a sanitary waste fixture.			
		D203001	WASTE PIPE & FITTINGS	EA	EA	Number of fixtures
			Assemblies include all pipe, fittings, and associated work with regard to sanitary waste pipe			
			and fittings. The unit of measure at the assembly level is number of fixtures.			
		D203002	VENT PIPE & FITTINGS	EA	EA	Number of fixtures
			Assemblies include all pipe, fittings, and associated work with regard to sanitary vent pipe			
			and fittings. The unit of measure at the assembly level is number of fixtures.			
i i	1	D203003	FLOOR DRAINS	EA	EA	Number of floor drains

			at II / WBS 9/18/06, Revision 2			
Unf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
			Assemblies include all floor drains. Hub drains are considered to be pipe and are not included			
		D203004	in this category. The unit of measure at the assembly level is number of drains. SANITARY AND VENT EQUIPMENT	EA	EA	Number of fixtures
		D203004	SANITART AND VENT EQUIPMENT	EA	EA	Number of fixtures
			This is equipment associated with the sanitary waste system, including fittings and specialties			
			required for hook-up. Assemblies include waste treatment equipment, i.e., sluice gates,			
			incinerators, etc.; pumps for sewage injection; and holding tanks for the domestic water			
			system. The unit of measure at the assembly level is pieces of equipment.			
		D203005	INSULATION & IDENTIFICATION	EA	EA	Number of fixtures
			Assemblies include insulation used in association with sanitary waste and vent system. The			
		D203090	unit of measure at the assembly level is number of fixtures. OTHER SANITARY WASTE	XX	XX	
		D203090	Sanitary waste and vent not described by the assembly categories listed above.	^^	^^	
	D2040	RAIN WA	TER DRAINAGE	SF	M2	Area of roof
			Roof drainage system. Gutter and downspouts are not included in this subsystem.			
		D204001	PIPE & FITTINGS	LF	M	Length of pipe
			Assemblies include pipe and fittings from the roof drains to the discharge points, including			
		D204002	supports and other associated work. ROOF DRAINS	EA	EA	Number of roof drains
		D204002	Assemblies include roof drains. The unit of measure at the assembly level is number of	LA	LA	Ivaniber of foot drains
			drains.			
		D204003	RAINWATER DRAINAGE EQUIPMENT	EA	EA	Pieces of equipment
			This is equipment associated with the rain water drainage, including fittings and specialties			
	1		required for hook-up. Assemblies include pumps and other associated items for drainage of			
			rain water.	L	ļ	
		D204004	INSULATION & IDENTIFICATION	LF	M	Length of pipe insulation
		D204090	Assemblies include insulation used in association with rain water drainage system. OTHER RAIN WATER DRAINAGE SYSTEM	VV	VV	
		D204090	Rain water drainage system not described by the assembly categories listed above.	XX	XX	
			Train water dramage system not described by the assembly eategories listed above.			
	D2090	OTHER P	LUMBING SYSTEMS	EA	EA	Number of special fixtures, etc.
			This subsystem includes all special plumbing systems which are not included in D2010			
			through D2040.			
						Number of special fixtures,
		D209001	SPECIAL PIPING SYSTEMS	EA	EA	interceptors, etc.
			Assemblies include all special pipe and fittings, excluding acid waste pipe and work with regard to special pipe. Medical gas and vacuum fittings, and associated systems piping are			
			included in this category. The unit of measure at the assembly level is the number of special			
			fixtures, interceptors, outlets, or systems.			
						Number of special fixtures,
		D209002	ACID WASTE SYSTEMS	EA	EA	interceptors, etc.
			Assemblies include all pipe, fittings, special acid waste equipment, and other associated work			
			items with regard to acid waste systems. The unit of measure at the assembly level is the			
		D209003	number of special fixtures, interceptors, outlets, or systems. INTERCEPTORS	EA	EA	Number of interceptors
		D209003	Assemblies include all interceptors. The unit of measure at the assembly level is number of	EA	LA	Number of interceptors
			interceptors.			
		D209004	POOL PIPING AND EQUIPMENT	GPM	M3/S	Gallons per minute
			Assemblies include pumps and associated equipment with pools, including specialties			
		1	required for hook-up. The unit of measure at the assembly level is each.			
	1	D209005	COMPRESSED AIR SYSTEM (NON-BREATHING)	PSI	KGM2	Pounds per square inch
1	+	D209090	OTHER SPECIAL PLUMBING SYSTEMS	XX	XX	
	1		This system includes special plumbing systems not described by the assembly categories listed above, such as fountain piping systems and devices.			
			parameter and the second of property of second and devices.	1		+
D30	HVAC			MBH	KW	Total MBH capacity
			This system includes all equipment, distribution systems, controls, and energy supply			
1		1	systems required by the heating, ventilating, and air conditioning system.	1		
	D3010	ENERGY	SLIPPI V	MBH	KW	Total power of heating system
	D3010	LINLINGT	The energy input to the facility (other than electrical) in the form of fuels or hot and cold water	IVIDITI	ICAA	Total power of fleating system
			distributed from a central base facility. Energy received from wind or solar power is included			
	1		in this subsystem.			
		D301001	OIL SUPPLY SYSTEM	MBH	KW	Calories per gallon
			Assemblies include storage equipment, transfer equipment, and distribution piping. The unit			
		1	of measure at the assembly level is each system.			
	1	D301002	GAS SUPPLY SYSTEM	MBH	KW	MBH
	1		This category includes both natural gas and LPG. Assemblies include metering and			
	1		regulation equipment, storage equipment, transfer equipment, and distribution piping. The			
1	1	D301003	unit of measure at the assembly level is each system. STEAM SUPPLY SYSTEM (FROM CENTRAL PLANT)	MBH	KW	Power
+	1	2301003	Assemblies include meters, valves, heat exchangers, fittings, and specialties required for	MOIT	1744	1 0461
1	1		hook-up and distribution piping, including supports, sleeves, and insulation. The unit of			

uı	Combi	ned U	niforma	at II / WBS 9/18/06, Revision 2			
	Jnf L2 Uni			Definition	E UOM	M UOM	Quantity Definition
		D	301004	HOT WATER SUPPLY SYSTEM (FROM CENTRAL PLANT)	MBH	KW	Power
				Assemblies include meters, valves, heat exchangers, fittings, and specialties required for hook-up and distribution piping, including supports, sleeves, and insulation. The unit of			
				measure at the assembly level is each system.			
		D	301005	SOLAR ENERGY SUPPLY SYSTEMS	MBH	KW	Power
				Assemblies include collector panels, heat exchangers, storage tanks, pumps, etc., including			
				pipe and fittings required for hook-up. The unit of measure at the assembly level is each			
			301006	System.	MBH	KW	Dower
		U	301006	WIND ENERGY SUPPLY SYSTEM Wind is used to turn a generator which generates electricity. This energy is either stored in a	IVIDIT	KVV	Power
				battery or used to generate hot water in an electric boiler. Assemblies would include the			
				required devices to make this a total electromechanical system. The unit of measure at the			
				assembly level is each system.			
		D	301007	COAL SUPPLY SYSTEM	MBH	KW	Power
				This category includes storage equipment, transfer equipment, processing equipment, and distribution piping. The unit of measure at the assembly level is each system.			
_		D	301090	OTHER ENERGY SUPPLY	XX	XX	
				Energy supply not described by the assembly categories listed above.	701	7.0.	
	D3	3020 H	IEAT GEN	NERATING SYSTEMS	MBH	KW	Total power of heating system
				This subsystem includes steam, hot water, furnace, and unit heater systems. Fuels include coal, oil, gas and electric unless otherwise noted.			
-+		n	302001	BOILERS	MBH	KW	Power
		- 1		Assemblies include steam or hot water boilers, expansion tanks, chemical feeders, air			
				separators, pumps, heat exchangers, boiler feed units, etc. This assembly would also include			
				fittings and specialties and the flue stack. The unit of measure at the assembly level is each			
-+		-	202002	system.	MDLI	KW	Power
-+		U	302002	FURNACES This is a system that heats air. Assemblies would include furnace and necessary fittings and	MBH	KW	Power
				specialties required for hook-up, including flue and stack. The unit of measure at the			
				assembly level is each.		<u> </u>	
		D	302003	FUEL-FIRED UNIT HEATERS	MBH	KW	Power
				Assemblies would include unit heaters and the energy supply system hook-up (other than			
				electrical), including all necessary pipe, fittings, and specialties required for hook-up. Flue and stack, if required, are included in this assembly. The unit of measure at the assembly level is			
				each.			
_		D	302004	AUXILIARY EQUIPMENT	MBH	KW	Power
				Assemblies would include any other equipment associated with heat generating systems. The			
		_		unit of measure at the assembly level is each.	05	140	
		U	302005	EQUIPMENT THERMAL INSULATION Assemblies would include insulation of any component in this subsystem. The unit of	SF	M2	Area of insulation
				measure at the assembly level is each.			
		D	302090	OTHER HEAT GENERATING SYSTEMS	XX	XX	
				Heat generating systems not described in the assembly categories listed above.			
	D3	3030 C	OOLING	GENERATING SYSTEMS	TON	KW	Total power of cooling capacity
\rightarrow	D3	0000	JOOLING	Cooling generating equipment of the absorption, centrifugal, reciprocating, and direct	TON	ICAA	Total power of cooling capacity
				expansion types.			
		D	303001	CHILLED WATER SYSTEMS	TON	KW	Power
				Assemblies include condensers, compressors, chillers, pumps, cooling towers, etc., including			
				fittings and specialties required for hook-up. The unit of measure at the assembly level is		1	
		n	303002	each. DIRECT EXPANSION SYSTEMS	TON	ĸw	Power
		D	303002	DIRECT EXPANSION SYSTEMS	TON	KW	Power
				DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each.			Power
			303002	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS	TON	KW	Power
				DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each.			Power
	D3	D	303090	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS	XX	XX	
	D3	D	303090	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above.			Power
	D3	D 3040 D	303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating.	XX MBH	xx	Power
	D3	D 3040 D	303090	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING	XX	XX	
	D3	D 3040 D	303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water	XX MBH	xx	Power
	D3	D 3040 D	303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return	XX MBH	xx	Power
	D3	D 3040 D	303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water	XX MBH	xx	Power
	D3	B040 D	0303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM.	MBH MCFM	kw	Power Volume of air flow
	D3	B040 D	303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS	XX MBH	xx	Power
	D3	B040 D	0303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation.	MBH MCFM	kw	Power Volume of air flow
	D3	D D D D	0303090 0ISTRIBU 0304001	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH.	MBH MBH	KW L/S	Power Volume of air flow Power
	D3	D D D D	0303090 DISTRIBU	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH. HOT WATER DISTRIBUTION SYSTEMS	MBH MCFM	kw	Power Volume of air flow
	D3	D D D D	0303090 0ISTRIBU 0304001	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH.	MBH MBH	KW L/S	Power Volume of air flow Power
	D3	D D D D	03303090 0ISTRIBU 03304001 03304002 03304003	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH. HOT WATER DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH. CHANGE OVER DISTRIBUTION SYSTEMS CHANGE OVER DISTRIBUTION SYSTEMS	MBH MBH MBH	KW L/S KW	Power Volume of air flow Power Power
	D3	D D D D	0303090 DISTRIBU 0304001 0304002	DIRECT EXPANSION SYSTEMS Assemblies include condensers, compressors, heat pumps, and refrigerant piping. The unit of measure at the assembly level is each. OTHER COOLING GENERATING SYSTEMS Cooling generating systems not described by the assembly categories listed above. TION SYSTEMS This includes systems that distribute heated and cooled air, ventilating and exhaust air, hot and chilled water, steam, and glycol heating. AIR DISTRIBUTION, HEATING & COOLING Assemblies include heating coils, cooling coils, and fittings and specialties required for water hook-up. This assembly also includes duct heaters, filters, humidifiers, supply and return ductwork, dampers, fire dampers, supply and return grilles, registers and diffusers, turning vanes, sound traps, and all associated insulation. The unit of measure at the assembly level is MCFM. STEAM DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH. HOT WATER DISTRIBUTION SYSTEMS Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation. The unit of measure at the assembly level is MBH.	MBH MBH	KW L/S KW	Power Volume of air flow Power Power

			at II / WBS 9/18/06, Revision 2			
L1 Unf L2	2 Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
		D304006	CHILLED WATER DISTRIBUTION SYSTEMS	TON	KW	Power
			Assemblies include pipe and fittings, supports, wall and floor sleeves, and pipe insulation.			
			The unit of measure at the assembly level is tons.			
		D304007	EXHAUST SYSTEMS	MCF	L/S	Volume of air flow
			Assemblies include ductwork grilles, registers, diffusers, fans, and all associated work. The			
			unit of measure at the assembly level is each system.			
		D304008	AIR HANDLING UNITS	MCFM	L/S	Volume of air flow
		D304090	OTHER DISTRIBUTION SYSTEMS	XX	XX	
			Distribution systems not described by the assembly categories listed above.			
	D3050	TEDMINIA	L & PACKAGE UNITS	MBH	KW	Power
_	D3030	ILIXIVIIIA	This category includes self-contained heating and cooling units.	IVIDITI	KVV	Fowel
		D305001	UNIT VENTILATORS	EA	EA	Number of units
		D000001	Assemblies include the complete terminal unit and wall sleeve with all controls.	L/\	L/1	14driber of drifts
		D305002	UNIT HEATERS	EA	EA	Number of units
_		2000002	Assemblies include the complete terminal unit and wall sleeve with all controls.			Transpor or armo
		D305003	FAN COIL UNITS	EA	EA	Number of units
_		D000000	Assemblies include the complete terminal unit and wall sleeve with all controls.	L/\		14dmber of drifts
+		D305004	FIN TUBE RADIATION	EA	EA	Number of units
_			Assemblies include the complete terminal unit and wall sleeve with all controls.			
_		D305005	ELECTRIC HEATING	EA	EA	Number of units
_			Assemblies include the complete terminal unit and wall sleeve with all controls.			
		D305006	PACKAGE UNITS	EA	EA	Number of units
				1		
			Assemblies include complete package units, with integral roof top curbs and all associated		1	
			devices. A heating system can be selected from hot water, steam coil, or gas furnace and			
			can be a single or multi-zone system. The unit of measure at the assembly level is each.			
		D305090	OTHER TERMINAL & PACKAGE UNITS	XX	XX	
			Terminal and package units not described by the assembly categories listed above.			
	D3060	CONTRO	LS & INSTRUMENTATION	МВН	KW	Power
	20000	COMMI	Includes devices such as thermostats, timers, sensors, control valves, etc., necessary to	IVIDIT	1000	i ower
			operate the system as designed.			
		D306001	HVAC CONTROLS	EA	EA	Power
		D000001	Includes devices such as thermostats, timers, sensors, control valves, etc., necessary to	L/\	L/1	i ower
			operate the total system. The unit of measure at the assembly level is each system.			
_		D306002	ELECTRONIC CONTROLS	EA	EA	Number of devices
_		D306003	PNEUMATIC CONTROLS	EA	EA	Number of devices
			Assemblies includes ball and butterfly valves, actuators, high pressure chokes, valve			
			positioners, sensors, regulators, etc.			
		D306004	INSTRUMENT AIR COMPRESSORS	EA	EA	Number of compressors
			Assemblies include air compressors, dryers, and distribution tubing, (only used with			·
			pneumatic control systems). The unit of measure at the assembly level is each.			
		D306005	GAS PURGING SYSTEMS	EA	EA	Number of systems
		<u> </u>	Assemblies include the removal of contaminated or unwanted gases from a structure or pipe.	<u> </u>		
		D306090	OTHER CONTROLS INSTRUMENTATION	XX	XX	
			Controls and instrumentation not described by the assembly categories listed above.			
	D2072	CVCTT	TECTING & DALANCING			
	D3070	SYSTEMS	S TESTING & BALANCING	MBH	KW	Power
			This includes operation of all systems to determine capacity and adjustment of water flow in		1	
			chilled water and hot water systems, air flow of air handling units, supply and exhaust fans,			
\bot		D00=:	and supply and return, and exhaust registers.	-		Number of day
		D307001	WATER SIDE TESTING & BALANCING - HEATING & COOLING	EA	EA	Number of devices
			Includes operating and testing of pumps, setting of all control valves, and determining system			
			capacity. The unit of measure at the assembly level is each device, i.e., boiler, chiller, fan coil. and unit heater.			
		D007000			F 4	No made an art alas dans
	1	D307002	AIR SIDE TESTING & BALANCING - HEATING, COOLING & EXHAUST Includes operating and testing of all air handling devices, adjusting of all fans to set rate of air	EA	EA	Number of devices
			flow, setting all fan motors at desired operation, setting of air flow at all registers, grilles,			
			diffusers, and louvers to deliver design CFM, and testing of air flow at all registers, grilles,		1	
			achieve desired space temperature. The unit of measure at the assembly level is each			
			device.			
		1	HVAC COMMISSIONING	LS	LS	Lump sum
		D307003				
_		D307003		LS	LO	Lump sum
		D307003 D307090	Final testing of operational system. OTHER SYSTEMS TESTING & BALANCING	XX	XX	Early sum

			at II / WBS 9/18/06, Revision 2			
Unf L2	Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition Number of special mechanical
	D3090	OTHER H	VAC SYSTEMS AND EQUIPMENT	EA	EA	systems
			This subsystem includes special mechanical systems that are not normally included as part of			
		D309001	standard HVAC systems. GENERAL CONSTRUCTION ITEMS	SF	M2	Area of special system
		D303001	Includes construction work other than mechanical which must be performed in conjunction	OI .	IVIZ	Area or special system
			with the special mechanical system to make the system complete.			
		D309002	REFRIGERATION SYSTEMS	TON	KW	Power
			Includes equipment for refrigeration in a cold storage facility. Both low and medium			
			temperature equipment are included. Assemblies include: condensing and compressor units,			
			evaporator blowers, refrigerant piping, and specialties, heat recovery systems (liquid or gas), heat recovery distribution systems (liquid or gas), and system testing and balancing.			
		D309090	OTHER SPECIAL MECHANICAL SYSTEMS	XX	XX	
			Any other mechanical system not defined in other categories. Assemblies would include			
			special systems and special devices. The unit of measure at the assembly level is each system or device.			
D40	FIRE P	ROTECT		SF	M2	Gross floor area
			This system includes standard and special fire protection systems. Fire alarm systems are			
	D 1010	=:==	included in D503001.			
	D4010	FIRE ALA	RM AND DETECTION SYSTEMS Assemblies include wire, conduit, conduit support or fastening systems, fire alarm devices,	SF	M2	Gross floor area
			fire detection devices, safety switches, mass notification, all electrical connections and other			
			associated items.			
		D401001	FIRE ALARM DISTRIBUTION	SF	M2	Gross floor area
		D401002	Wire, conduit, conduit support or fastening systems, switches and connections. FIRE ALARM DEVICES	EA	EA	Number of devices
			Fire alarm and fire detection devices			
	D4020	FIRE SUP	PRESSION WATER SUPPLY AND EQUIPMENT	LF	М	Length of system
			Requirements for water supply design criteria and any items located upstream of the suppression systems such as PIV's, backflow preventers, strainers, etc The water supply			
			distribution systems such as PIV's, backflow preventers, strainers, etc The water supply distribution system begins 5'-0" outside the building.			
		D402001	FIRE PROTECTION WATER PIPING AND EQUIPMENT	LF	М	Length of system
<u> </u>		D402002	Piping FIRE PUMP	EA	EA	Number of pumps
		D402002	FIRE FOMP	EA	EA	Number of pumps
	D4030	STANDPI	PE SYSTEMS	EA	EA	Number of sprinkler heads
		D403001	This subsystem includes the complete standpipe system. STANDPIPE EQUIPMENT & PIPING	EA	EA	Number of sprinkler heads
		D403001	STANDFIFE EQUIPMENT & FIFING	EA	EA	Number of sprinker rieaus
			Assemblies include standpipe risers and all other piping, fittings, and supports associated			
			with this category. Siamese connections, roof manifolds, cabinets, hoses, racks, and other			
			fire department connections are included in this assembly. All equipment including pumps, tanks, etc., with all required fittings and specialties for hook-up are included in this assembly.			
	D4040	SPRINKL		EA	EA	Number of sprinkler heads
			This subsystem includes the water supply equipment and related piping from the equipment			
		D404001	to the sprinkler head. SPRINKLERS AND RELEASING DEVICES	EA	EA	Number of sprinkler heads
		D404001	The fixture, device, or sprinkler head that releases the water to suppress the fire. The unit of	EA	EA	Number of sprinker rieaus
			measure at the assembly level is each sprinkler head.			
		D404002	SPRINKLER WATER SUPPLY EQUIPMENT AND PIPING	EA	EA	Number of sprinkler heads
			Assemblies include alarm valves, flow control valves, pipe and fittings from equipment to			
			sprinkler heads, including all supports and wall or floor sleeves. All equipment including			
			tanks, pumps, and other associated equipment, fittings and specialties required for hook-up			
	D4050	FIRE PRO	are in this assembly. The unit of measure at the assembly level is each sprinkler head. ITECTION SPECIALTIES	EA	EA	Number of extinguishers
	D4030	TIKETKO	This subsystem includes fire extinguishing devices.	EA	EA	14umber of extinguishers
		D405001	PORTABLE EXTINGUISHERS	EA	EA	Number of extinguishers
			Accomplies include all types of fire extinguishers in question development and the standard			
			Assemblies include all types of fire extinguishers, i.e., water, dry chemical, carbon dioxide, soda acid, etc. The brackets, sleeves, and supporting devices are included in this assembly.			
	D. 40			L.	L.	
1	D4090	OTHER F	RE PROTECTION SYSTEMS Requirements for all other suppression systems. Water based systems (e.g., foam systems)	EA	EA	Each system
			specified from water supply onwards, complete specification for gas systems, incidental			
			systems such as kitchen hood systems.			
		D409001	CARBON DIOXIDE SYSTEMS FOAM GENERATING EQUIPMENT	EA	EA	Number of systems
		D409002 D409003	CLEAN AGENT SYSTEMS	EA EA	EA EA	Pieces of equipment Number of systems
		D409004	HOOD & DUCT FIRE PROTECTION	EA	EA	Pieces of equipment
		D409090	OTHER SPECIAL FIRE PROTECTION SYSTEMS	EA	EA	Each system
			Assemblies includes other fire protection systems such as halon systems, exhaust hood systems, and special chemical suppression systems.			
DEC	FI FO	DICAL		Ī		
ט50	ELECT	KICAL	This system is defined by the electric current used or regarded as a source of power.	AMP	AMP	Gross floor area
	-			1	1	
	D5010	ELECTRIC	CAL SERVICE & DISTRIBUTION	AMP	AMP	Gross floor area
			This subsystem provides for all electrical devices that are required to deliver the main source of power to the facility and to distribute this power to subpanels.			
		D501001	MAIN TRANSFORMERS	AMP	AMP	Number of transformers
			Transformers used for primary electrical service and located within the building footprint.	1	1	
			Assemblies include transformers, raised pad, trenching, and backfill. This assembly will not			
			likely be used when an exterior transformer is required in G4010 ELECTRICAL DISTRIBUTION.			
		D501002	SERVICE ENTRANCE EQUIPMENT	AMP	AMP	Gross floor area
1			This includes the protection equipment and metering devices for main distribution.			
		1	Assemblies include main distribution panel, breaker, fuses, and meters.	1	1	1
		D501002	INTERIOR DISTRIBUTION TRANSFORMERS	AMP	AMD	Groce floor area
		D501003	INTERIOR DISTRIBUTION TRANSFORMERS Transformers fed downstream of the service entrance equipment. Assemblies include	AMP	AMP	Gross floor area

L1 Unf L2		WBS L4	at II / WBS 9/18/06, Revision 2	E UOM	M UOM	Quantity Definition
L1 Unf L2	Unf L3					
		D501004	PANELBOARDS	AMP	AMP	Gross floor area
			Branch circuit panelboards. Assemblies include panelboards, breakers ,conduit, and wire.			
		D501005	ENCLOSED CIRCUIT BREAKERS	AMP	AMP	Gross floor area
		D301003	Over-current protection device enclosed in its own housing. Assemblies include enclosed	Aivii	Alvii	Closs floor area
			circuit breaker, conduit, and wire.			
		D501006	MOTOR CONTROL CENTERS	AMP	AMP	Gross floor area
		200.000	This is a cabinet in which motor starters and operation devices are contained. Assemblies	,	7	0.000001 0.00
			include the motor control center cabinet, motor starters, contacts, switches, conduit, wire,			
			and all associated items.			
		D501090	OTHER SERVICE AND DISTRIBUTION	XX	XX	
			Service and distribution not described by the assembly categories listed above.			
			,			
	D5020	LIGHTING	G & BRANCH WIRING	SF	M2	Floor area
			Lighting systems including light fixtures and devices, i.e., switches, receptacles, and			
			equipment connections.			
		D502001	BRANCH WIRING	SF	M2	Floor area
			This assembly includes switches, receptacles, equipment connections, conduit, and wire.			
		D502002	LIGHTING EQUIPMENT	SF	M2	Floor area
			This assembly includes fixtures, conduit, wire, and switching devices.			
		D502090	OTHER LIGHTING AND BRANCH WIRING	XX	XX	
			Lighting and branch wiring not described by the assembly categories listed above.			
			WALLEY OF STREET	I		
	D5030	COMMUN	NICATIONS & SECURITY	SF	M2	Floor area
			This subsystem includes provisions for communication devices and alarm protection			
			systems.			
		D503001	TELECOMMUNICATIONS SYSTEMS	EA	EA	Number of outlets
			This system would include central switchboards, telephone sets, underground ducts, and			
			manholes. Assemblies include wire, conduit, backboards, cabinets, outlets, and power supply			
			connections.			
		D503002	PUBLIC ADDRESS SYSTEMS	SF	M2	Floor area
			Assemblies include wire, conduit, speakers, monitoring devices, amplifiers, switches, power			
		DECCOO	system tie-in devices, and detection devices.			N k f - t - f
		D503003	INTERCOMMUNICATIONS SYSTEMS Assemblies include wire, conduit, speakers, monitoring devices, amplifiers, switches, power	EA	EA	Number of stations
			system tie-in devices, and detection devices.			
		D503004	TELEVISION SYSTEMS	EA	EA	Number of outlets
		D303004	Assemblies include wire, conduit, grounding amplifiers, receivers, video equipment, and	EA	EA	Number of outlets
			outlets grouped according to use.			
		D503005	SECURITY SYSTEMS	EA	EA	Number of system control pane
+		2303003	Assemblies include wire, conduit, conduit support or fastening systems, security alarm		-^	Trainiber of System control parte
			devices, all electrical connections, and other associated items. Intrusion Detection Systems			
			(IDS) are included in this category.			
_	1	D503006	NURSE CALL SYSTEMS	EA	EA	Number of outlets
			Assemblies include wire, conduit, speakers, monitoring devices, amplifiers, switches, power			
	1		system tie-in devices, and detection devices.			
	1	D503007	CLOCK & PROGRAM SYSTEMS	EA	EA	Number of clocks
	1		Assemblies include wire, conduit, power systems tie-in, safety switches, control panels,			
			battery back-up devices, clocks and outlets.			
		D503090	OTHER COMMUNICATIONS & ALARM SYSTEMS	XX	XX	
			Communication and alarm systems not described by the assembly categories listed above.			
	D5090	OTHER E	ELECTRICAL SERVICES	SF	M2	Gross Floor area
			Systems not described in System D5030.			
		D509001	GENERAL CONSTRUCTION ITEMS (ELECTRICAL)	SF	M2	Gross Floor area
			Includes construction other than electrical which must be performed in conjunction with the			
			special electrical system to make the system complete.			
		D509002	EMERGENCY LIGHTING & POWER	SF	M2	Gross Floor area
			Assemblies include fixtures, motors used for power generation, connection and testing,			
			transfer switches, conduit, wire, battery chargers, batteries, and solar panels.			
			GROUNDING SYSTEMS		18.40	10 Fl
		D509003	This assembly includes grounding protection systems.	SF	M2	Gross Floor area

			at II / WBS 9/18/06, Revision 2			
1 Unf L2	Unf L3	WBS L4 D509004	Definition LIGHTNING PROTECTION	E UOM SF	M UOM M2	Quantity Definition Gross Floor area
		D509004	Assemblies include lightning protection devices (air terminals, mounting devices), clamps, ground rods, cadwells, conductors, trenching, backfill, and any other items used to ground metal structural frames with conduit and wire.	SF.	IVIZ	Gross Floor area
+		D509005	ELECTRIC HEATING Items could include baseboard heaters and wall and ceiling heaters. Assemblies include	SF	M2	Gross Floor area
		D509006	safety switches, control devices, heaters, conduit, and wire. ENERCY MANAGEMENT CONTROL SYSTEM Assemblies include wire, conduit, conduit support or fastening systems, sensor devices, and all electrical connections.	SF	M2	Gross Floor area
		D509090	OTHER SPECIAL SYSTEMS AND DEVICES	XX	XX	
			Special systems and devices not described by the assembly categories listed above.			
EQU	JIPMEN	IT & FU	RNISHINGS	SF	M2	Gross Floor area
			The types of equipment included in this assembly consist of the following: commercial, institutional, and vehicular. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs etc.			
E10	EQUIP	MENT	This could be a first to a single state of the state of t	SF	M2	Gross Floor area
_			This system refers to equipment not found in System C1030 (Fittings).			
	E1010		CIAL EQUIPMENT This equipment is not likely to be used in every building type. Subsystem C1030 includes those items likely to be found in every building type.	SF	M2	Floor area
		E101001	All associated work items including keys, tags, and storage cabinets would be included in this assembly.	EA	EA	Number of coat hanging device
		E101002		EA	EA	Pieces of equipment
+	 	E101003 E101004	VENDING EQUIPMENT LAUNDRY EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
		E101005	SECURITY & VAULT EQUIPMENT	EA	EA	Pieces of equipment
1		E101006 E101007	TELLER AND SERVICE EQUIPMENT MERCANTILE EQUIPMENT	EA EA	EA EA	Pieces of equipment
+		E101007 E101008	OFFICE EQUIPMENT	EA	EA	Pieces of equipment Pieces of equipment
	E1020		IONAL EQUIPMENT Institutional equipment includes items that are normally found in hospitals, laboratories,	SF	M2	Floor area
+		E102004	auditoriums, and libraries. MISCELLANEOUS COMMON FIXED & MOVEABLE EQUIPMENT	E^	EA	Diogos of oquinment
+		E102001 E102002	MISCELLANEOUS COMMON FIXED & MOVEABLE EQUIPMENT MEDICAL EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
		E102003	LABORATORY EQUIPMENT	EA	EA	Pieces of equipment
+	-	E102004 E102005	MORTUARY EQUIPMENT AUDITORIUM & STAGE EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
\pm		E102006	LIBRARY EQUIPMENT	EA	EA	Pieces of equipment
\perp		E102007	ECCLESIASTICAL EQUIPMENT	EA	EA	Pieces of equipment
+	-	E102008 E102009	INSTRUMENTAL EQUIPMENT AUDIO-VISUAL EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
		E102010		EA	EA	Pieces of equipment
	E1030	VEHICUL	AR EQUIPMENT Vehicular equipment includes for parking, loading docks, and warehouses.	EA	EA	Pieces of equipment
1		E103001	PARKING CONTROL EQUIPMENT	EA	EA	Pieces of equipment
		E103002	LOADING DOCK EQUIPMENT	EA	EA	Number of docks
+	-	E103003 E103004	WAREHOUSE EQUIPMENT AUTOMOTIVE SHOP EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
	E1040		MENT FURNISHED EQUIPMENT New and existing equipment provided to the Contractor by the Government.	EA	EA	Pieces of equipment
	E1090	OTHER E	QUIPMENT			
			The type of equipment found in his category include items for maintenance, food service, and waste handling.			
		E109001	BUILT-IN MAINTENANCE EQUIPMENT	SF	M2	Floor area
		E109002	The unit of measure at the assembly level is each. FOOD SERVICE EQUIPMENT The unit of measure at the assembly level is the total set of equipment needed in the	EA	EA	Seating capacity
-	-		particular functional space area.	1		Discount of a subsect
		F109003		FA	FA	
		E109003 E109004	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT	EA EA	EA EA	Pieces of equipment Pieces of equipment
		E109004 E109005	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS	EA EA	EA EA	Pieces of equipment Pieces of equipment
		E109004 E109005 E109006	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT	EA EA EA	EA EA EA	Pieces of equipment Pieces of equipment Pieces of equipment
		E109004 E109005 E109006 E109007 E109008	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT	EA EA EA EA	EA EA EA EA	Pieces of equipment
		E109004 E109005 E109006 E109007	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT	EA EA EA	EA EA EA	Pieces of equipment Pieces of equipment Pieces of equipment Pieces of equipment
		E109004 E109005 E109006 E109007 E109008 E109009 E109010	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT	EA EA EA EA EA EA	EA EA EA EA EA EA	Pieces of equipment
E20	FURNI	E109004 E109005 E109006 E109007 E109008 E109009 E109010	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above.	EA EA EA EA EA EA	EA EA EA EA EA EA	Pieces of equipment
E20	FURNI	E109004 E109005 E109006 E109007 E109008 E109009 E109010 E109090	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed	EA EA EA EA EA EA XX	EA EA EA EA EA EA	Pieces of equipment
E20	FURNI:	E109004 E109005 E109006 E109007 E109007 E109009 E109010 E109090 SHINGS	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OFFICE OF A CONTROL OF A CONTRO	EA EA EA EA EA EA EA SF	EA EA EA EA EA EA EA XX	Pieces of equipment
E20		E109004 E109005 E109006 E109007 E109007 E109009 E109009 E109009 E109010 E109090 SHINGS	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OFFICE SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK	EA EA EA EA EA EA SA EA SF SF	EA	Pieces of equipment
E20		E109004 E109005 E109006 E109007 E109007 E109009 E109010 E109090 SHINGS	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OFFICE OF A CONTROL OF A CONTRO	EA EA EA EA EA EA EA SF	EA EA EA EA EA EA EA XX	Pieces of equipment
E20		E109004 E109005 E109006 E109007 E109007 E109009 E109009 E109010 E109090 SHINGS	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK WINDOW TREATMENTS SEATING (FIXED) FIXED INTERIOR LANDSCAPING	EA EA EA EA EA EA EA EA EA SF EA	EA	Pieces of equipment Ricor area
E20		E109004 E109005 E109006 E109007 E109007 E109009 E109010 E109090 E109010 E109090 E109010 E201001 E201001 E201002 E201003 E201004 E201090	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OFFICE OF A CONTROL OF A CONTRO	EA EA EA EA EA EA SF EA SF EA	EA	Pieces of equipment
E20	E2010	E109004 E109005 E109006 E109007 E109008 E109007 E109009 E109010 E109010 E109010 E201001 E201001 E201002 E201003 E201004 E201090 MOVEABI	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT AGRICULTURAL EQUIPMENT OBSERVATORY EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK WINDOW TREATMENTS SEATING (FIXED) FIXED INTERIOR LANDSCAPING OTHER FIXED INTERIOR FURNISHINGS LE FURNISHINGS The types of furnishings found here include moveable artwork, furniture, rugs, etc.	EA EA EA EA EA EA EA EA EA SF EA	EA	Pieces of equipment Ricor area
E20	E2010	E109004 E109005 E109006 E109007 E109008 E109009 E109010 E109090 SHINGS FIXED FU E201001 E201002 E201003 E201004 E201090 MOVEABI E202001	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK WINDOW TREATMENTS SEATING (FIXED) FIXED INTERIOR LANDSCAPING OTHER FIXED INTERIOR FURNISHINGS LE FURNISHINGS The types of furnishings found here include moveable artwork, furniture, rugs, etc. MOVEABLE ART WORK	EA E	EA	Pieces of equipment Pieces of action Pieces of equipment Floor area Floor area Pieces of art work Area of window treatment Number of seats Number of items Number of furnishings
E20	E2010	E109004 E109005 E109006 E109007 E109008 E109009 E109010 E109090 SHINGS FIXED FU E201001 E201002 E201003 E201004 E201090 MOVEABI E202001 E202002	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK WINDOW TREATMENTS SEATING (FIXED) FIXED INTERIOR LANDSCAPING OTHER FIXED INTERIOR FURNISHINGS LE FURNISHINGS The types of furnishings found here include moveable artwork, furniture, rugs, etc. MOVEABLE ART WORK MOVEABLE ART WORK MOVEABLE ART WORK	EA EA EA EA EA EA EA EA SF EA EA SF	EA	Pieces of equipment Floor area Pieces of art work Area of window treatment Number of seats Number of items Number of items Number of furnishings Pieces of art work Pieces of prefabricated furnitur
E20	E2010	E109004 E109005 E109006 E109007 E109008 E109009 E109010 E109090 SHINGS FIXED FU E201001 E201002 E201003 E201004 E201090 MOVEABI E202001	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT AGRICULTURAL EQUIPMENT OFFICE OF A CONTROL OF A CONTRO	EA E	EA	Pieces of equipment Floor area Floor area Pieces of art work Area of window treatment Number of seats Number of items Number of furnishings
E20	E2010	E109004 E109005 E109006 E109006 E109007 E109009 E109010 E109090 SHINGS FIXED FU E201001 E201001 E201002 E201003 E201004 E201090 MOVEABI E202001 E202002 E202002 E202003	WASTE HANDLING EQUIPMENT RESIDENTIAL EQUIPMENT UNIT KITCHENS DARKROOM EQUIPMENT ATHLETIC, RECREATIONAL, & THERAPEUTIC EQUIPMENT PLANETARIUM EQUIPMENT OBSERVATORY EQUIPMENT OBSERVATORY EQUIPMENT OTHER SPECIALIZED FIXED AND MOVEABLE EQUIPMENT Specialized fixed and moveable equipment not described by the assembly categories listed above. The types of furnishings found here include artwork, window treatments, seating, furniture, rugs, etc. RNISHINGS The types of furnishings found here include artwork, window treatments, and seating. FIXED ARTWORK WINDOW TREATMENTS SEATING (FIXED) FIXED INTERIOR LANDSCAPING OTHER FIXED INTERIOR FURNISHINGS LE FURNISHINGS The types of furnishings found here include moveable artwork, furniture, rugs, etc. MOVEABLE ART WORK MODULAR PREFABRICATED FURNITURE FREESTANDING FURNITURE RUGS & ACCESSORIES Assemblies include rugs and accessories.	EA EA EA EA EA EA EA EA EA SF EA EA EA SF EA EA EA	EA	Pieces of equipment Floor area Pieces of art work Area of window treatment Number of seats Number of items Number of furnishings Pieces of art work Pieces of prefabricated furniture Pieces of furniture

			Uniforma	at II / WBS 9/18/06, Revision 2			
Unf L1	Unf L2	Unf L3		Definition	E UOM	M UOM	Quantity Definition
			E202090	OTHER MOVEABLE FURNISHINGS	EA	EA	Number of furnishings
F	SPE	CIAL (CONSTR	RUCTION & DEMOLITION	SF	M2	Floor area
				Special construction includes air-supported structures; pre-engineered structures; special			
				purpose rooms; sound, vibration, and seismic construction; radiation protection; special			
				security systems; aquatic facilities; ice rinks, site constructed incinerators; kennels and animal shelters; liquid and gas storage tanks; recording instrumentation; and building			
				automation systems. Selective building demolition includes demolition of existing buildings,			
				and site demolition.			
	E40	ODEOL	NI CONO	TRUCTION			
	F10	SPECIA	AL CONS	TRUCTION	SF	M2	Floor area
				Special construction includes air-supported structures; pre-engineered structures; special purpose rooms; sound, vibration, and seismic construction; radiation protection; special			
				security systems; aquatic facilities; ice rinks, site constructed incinerators; kennels and			
				animal shelters; liquid and gas storage tanks; recording instrumentation; and building			
				automation systems.			
		F1010	SPECIAL	STRUCTURES	SF	M2	Floor area
			0. 20.7.2	Special structures includes air-supported structures, and pre-engineered structures.	O.		. 1001 4104
			F101001	METAL BUILDING SYSTEMS	SF	M2	Floor area
			F101002	EXTERIOR UTILITY BUILDINGS	SF	M2	Floor area of exterior building
			F101003	AIR-SUPPORTED STRUCTURES	SF	M2	Floor area of exterior building
			F101090	OTHER SPECIAL CONSTRUCTION	XX	XX	
		F1020	INTEGRA	TED CONSTRUCTION	SF	M2	Floor area
				Integrated construction includes integrated assemblies and special purpose rooms.	-		
			F102001	SPECIAL PURPOSE ROOMS	SF	M2	Area of room
			F102002	INTEGRATED ASSEMBLIES	SF	M2	Area of room
			F102090	OTHER INTEGRATED CONSTRUCTION	SF	M2	Area of room
		F1030	SPECIAL	CONSTRUCTION SYSTEMS	SF	M2	Area of room
		1 1000	OI LOIAL	Special construction systems includes sound, vibration, and seismic construction; radiation	01	IVIZ	Alea of footif
				protection; special security systems; and built-in place vaults.			
			F103001	VAULTS	SF	M2	Area of vault
				This is a built-in-place vault. Prefabricated safes are not included in this assembly. The unit of			
			F103002	measure at the assembly level is each. SOUND, VIBRATION, AND SEISMIC CONSTRUCTION	SF	M2	Area of room
			F103002	RADIATION PROTECTION	SF	M2	Area of room
			F103090	OTHER SPECIAL CONSTRUCTION SYSTEMS	SF	M2	Area of room
		F1040	CDECIAL	FACILITIES	05		A
		F 1040	SPECIAL	Special facilities includes aquatic facilities; ice rinks, site constructed incinerators; kennels	SF	M2	Area of room
				and animal shelters; and liquid and gas storage tanks.			
			F104001	INTERIOR SWIMMING POOLS	SF	M2	Area of pool
			F104002	LIQUID AND GAS STORAGE TANKS	EA	EA	Number of storage tanks
			F104003	KENNELS AND ANIMAL SHELTERS	SF	M2	Area of kennel or animal shelter
			F104004 F104005	SITE CONSTRUCTED INCINERATORS ICE RINKS	EA SF	EA M2	Number of incinerators Area of ice rink
			F104003	OTHER SPECIAL FACILITIES	EA	EA	Number of special facilities
		F1050	SPECIAL	CONTROLS AND INSTRUMENTATION	XX	XX	
				Special controls and instrumentation includes recording instrumentation and building automation systems.			
			F105001	RECORDING INSTRUMENTATION	EA	EA	Number of instruments
			F105001	BUILDING AUTOMATION SYSTEMS	EA	EA	Number of systems
			F105002	OTHER SPECIAL CONTROLS AND INSTRUMENTATION	EA	EA	Number of controls and instruments
1							
	F20	SELEC	TIVE BUI	LDING DEMOLITION	LS	LS	
				Selective building demolition includes demolition of existing buildings, site demolition, and hazardous components abatement.			
					+		
		F2010	BUILDING	ELEMENTS DEMOLITION	LS	LS	
				Selective building demolition includes demolition of existing buildings, and site demolition.			
			F201001	SUBSTRUCTURE & SUPERSTRUCTURE	LS	LS	
			F201002	EXTERIOR CLOSURE	LS	LS	
			F201003	ROOFING	LS	LS	
			F201004	INTERIOR CONSTRUCTION & FINISHES	LS	LS	
			F201005 F201006	CONVEYING SYSTEMS MECHANICAL SYSTEMS	LS LS	LS LS	
			F201006	ELECTRICAL SYSTEMS	LS	LS	
			F201008	EQUIPMENT & FURNISHINGS	LS	LS	
- '				•			

Unf L2		WBS L4	at II / WBS 9/18/06, Revision 2	E UOM	M UOM	Quantity Definition
· · · · · ·	5 20	F201090	OTHER NON-HAZARDOUS SELECTIVE BUILDING DEMOLITION	XX	XX	Quantity Dominion
			Non-hazardous selective building demolition not described by the assembly categories listed above.			
	F2020	HAZARD	OUS COMPONENTS ABATEMENT	LS	LS	
			Hazardous components abatement includes the removal or encapsulation of hazardous building materials and components. Hazardous components include asbestos, lead based			
			paint, paint containing cadmium, chromium and lead, mercury and low level radioactive			
			components, PCBs, ozone depleting substances, animal droppings and molds and spores.			
		F202001	SUBSTRUCTURE & SUPERSTRUCTURE	LS	LS	
		F202002 F202003	EXTERIOR CLOSURE ROOFING	LS LS	LS LS	
		F202004	INTERIOR CONSTRUCTION & FINISHES	LS	LS	
		F202005	CONVEYING SYSTEMS	LS	LS	
-		F202006 F202007	MECHANICAL SYSTEMS ELECTRICAL SYSTEMS	LS LS	LS LS	
		F202008	EQUIPMENT & FURNISHINGS	LS	LS	
		F202090	OTHER HAZARDOUS SELECTIVE BUILDING DEMOLITION	XX	XX	
			Hazardous selective building demolition not described by the assembly categories listed above.			
BUI	LDING	SITEW		ACR	Hectare	Total area of site
			Building sitework includes site preparations, site improvements, site civil/mechanical utilities,			
			site electrical utilities, service and pedestrian tunnels, and other site construction, such as bridges, and railroad spurs.			
			phagos, and ramous spars.			
G10	SITE P	REPARA	TIONS	ACR	Hectare	Total area of site
			This quetom includes accomplies for the second seco			
			This system includes assemblies for miscellaneous sitework such as clearing and grubbing, demolition and relocation, various earthwork tasks, and other site preparation and cleanup			
			requirements. Hazardous cleanup is not included but is the subject of another WBS.			
	04040	OITE O: -				
	G1010	SITE CLE		ACR	Hectare	Area to be cleared
			This covers the different assemblies and options available for clearing of a site, tree and stump removal, burning, grubbing, chipping, and load and haul assemblies for removal of the			
L			cleared material.	<u>L</u>	<u>L_</u>	
		G101001	CLEARING	ACR	Hectare	Area to be cleared
			This is the removal of above ground vegetation including stumps. For a wet site, Low Ground Pressure (LGP) equipment is used.			
		G101002	TREE REMOVAL	EA	EA	Number of trees to be removed
			This is the selective removal of trees on the site. Various options exist for different sizes of			
		0.404000	trees to be removed.			
		G101003	STUMP REMOVAL This is the selective removal of stumps on the site. Various options exist for different sizes of	EA	EA	Number of stumps to be remove
			stumps to be removed.			
		G101004	GRUBBING	ACR	Hectare	Area to be grubbed
			Grubbing is the removal of sod and other topsoil that contains unsuitable organic material.			
			Various equipment types and size choices are available. Wet grubbing utilizes Low Ground Pressure (LGP) equipment. Haul-off of grubbed material is also included.			
		G101005	SELECTIVE THINNING	ACR	Hectare	Area to be thinned
			This is the selective removal of trees and underbrush without requiring extensive clearing			
		G101006	and/or grubbing of the site. DEBRIS DISPOSAL	CY	M3	Volume of material
		G101006	This is the disposal of the material that has been cleared and grubbed. Loading, hauling, and	CT	IVIS	volume of material
			dump charges are included.			
		G101090	OTHER SITE CLEARING	XX	XX	
			Site clearing not described by the assembly categories listed above.			
	G1020	SITE DEN	MOLITION & RELOCATIONS	SY	M2	Area to be demolished
			This includes the demolition and/or relocation of structures, pavements, fencing, and			
			underground utilities. Disposal of debris or demolished material, including loading and hauling, is also included.			
		G102001	BUILDING MASS DEMOLITION	CF	M3	Interior volume of building
			This is the complete demolition of buildings or structures. Options include steel, concrete,			
		G102002	masonry, and wood structures.	SY	M2	Area to be demolished
		G102002	ABOVE GROUND SITE DEMOLITION This is the demolition of pavements, fencing, and other non-building structures on a site.	31	IVIZ	Area to be demonstred
			Pavement include roads, sidewalks, driveways, and curbs. Fencing types include chain link,			
			barbed wire, and wood. This can also include removal and disposal of above ground storage			
		G102003	tanks, including tank contents, associated piping, etc. UNDERGROUND SITE DEMOLITION	SY	M2	Area to be demolished
		5132003	This is the demolition of underground utilities such as piping, manholes, and other non-	J.	. *12	, oa to be demonstred
			building underground structures. The unit of measure at the assembly level for piping is LF			
			and for manholes is CY. This can also include removal and disposal of under ground storage			
		G102004	tanks, including tank contents, associated piping, etc. BUILDING RELOCATION	SF	M2	Area of building to be relocated
			This is the process of dismantling a structure, and reassembling it on a different site.			III II IIIIII W TO DO TOTOCATEGO
		G102005	UTILITY RELOCATION	LF	М	Length of pipe run
			To remove and reset. This is the removal and relocation of underground utilities such as steel			
	1	G102006	and concrete pipe. FENCING RELOCATION	LF	М	Length of fencing
		G102007	SITE CLEANUP	SY	M2	Area of site to clean
			Covered in this assembly category are items for site and area cleanup and pavement sweeping. Disposal of the debris is also included.			
		G102090	OTHER SITE DEMOLITION & RELOCATIONS	XX	XX	
			Site demolition and relocation not described by the assembly categories listed above.			
	G1030	SITE EAR	RTHWORK	CV	M3	Volume of material
	3 1030	SILE EAR	Included are assemblies and options for site work such as grading, excavation, filling,	CY	IVIO	Volume of material
			compaction, stabilization, etc.			
		G103001	GRADING	SY	M2	Area to be graded
			Grading is leveling or flattening of the site in preparation for landscaping or other site			
		G103002	construction. Includes unlined stormwater collection ponds. COMMON EXCAVATION	CY	M3	Volume of material to be excava
		3100002	This is excavation for roads, sidewalks, curbs, and trenching for underground utilities.	31	.710	v s.umo or material to be extave
			Excavation may be carried out by a variety of equipment sizes and types. Disposal of the		1	
		0.400	excavated material is also included.	0)/		
			ROCK EXCAVATION	CY	M3	Volume of rock to be excavated
		G103003	This is excavation of rock by explosives. Different equipment selections and load and haul	0.		

al Con			at II / WBS 9/18/06, Revision 2	E UOM	M UOM	Quantity Definition
_1 UIII L2	UIII L3		FILL & BORROW	CY	M3	Volume of material to place
			This is filling or replacing the material that was removed during excavation. Either the			'
			excavated material may be used or soil and sand may be hauled in from off-site. Filling to basements and foundations is not included in the subsystem.			
		G103005	COMPACTION	CY	M3	Volume of material to compact
			Compaction is the process of packing the fill material once it is in place. This may be done by			
			machine or hand. Assemblies exist for both hand and machine compaction of soil, sand, and the excavated material.			
		G103006	SOIL STABILIZATION	CY	M3	Volume of soil to stabilize
		G103007	This is stabilization of the soil-in-place by the addition of lime or cement. SLOPE STABILIZATION	SY	M2	Area of slope
		G 103007	This is stabilization of the soil-in-place through the use of rip rap, gabions, slope paving, or	01	IVIZ	Area or slope
		C402000	other forms of soil armoring.	CV	MO	Area of soil to treat
		G103008	SOIL TREATMENT Treatment of soil prior to final construction for insect protection or other purposes.	SY	M2	Area of soil to treat
		G103009	SHORING	SF	M2	Area requiring shoring
			Shoring is the temporary support for existing structures or excavation during construction.			
		G103010	TEMPORARY DEWATERING	SY	M2	Area to dewater
			This is the dewatering of the site by wellpoints to lower the groundwater table. This will			
		G103011	facilitate excavation in areas with high water tables. TEMPORARY EROSION & SEDIMENT CONTROL	SF	M2	Area to be protected
			Interim measures to minimize erosion during construction.			, and the same
		G103090	OTHER SITE EARTHWORK	XX	XX	
			Site earthwork not described by the assembly categories listed above.			
	G1040	HAZARDO	OUS WASTE REMEDIATION	LS	LS	
	1		Hazardous waste remediation, removal, disaposal and restoration of contaminated soil and/or groundwater.		1	
	 	G104001	REMOVAL OF CONTAMINATED SOIL	CY	M3	Volume of contaminated soil
		G104002	SOIL RESTORATION AND TREATMENT	CY	M3	Volume of soil
		G104090	OTHER HAZARDOUS WASTE REMEDIATION	XX	XX	
			Hazardous waste remediation not described by the assembly categories listed above.	<u> </u>		
G20	SITE IN	IPROVEN		LS	LS	
			This includes improvements such as parking lots, sidewalks, roadways, fencing, retaining			
-	 		walls, and landscaping.	1	-	
	G2010	ROADWA		SY	M2	Area of roadway
			This subsystem includes options for access, arterial, or interstate roadways. A variety of pavement types and thickness are available.			
		G201001	BASES & SUBBASES	SY	M2	Area of roadway
			These are the compacted and prepared gravel or soil layers that are placed prior to the			
			installation of the final surface. The subbase is placed and compacted before the base layer is applied.			
		G201002	CURBS & GUTTERS	LF	М	Length of drainage pipe
			This is the drainage system for the selected roadway type. Options include curb and gutter			
		G201003	drains or area drains with grates. PAVED SURFACES	SY	M2	Area of roadway
			This is material that is placed atop the base layer to provide the driving surface.			7 irod or roddinay
		G201004	MARKING & SIGNAGE	SY	M2	Area of roadway
			This includes roadway signage and pavement painting. Assemblies are included for traffic			
			signs and posts and intersection, crosswalk, or other pavement painting or striping.			
		G201005	GUARDRAILS & BARRIERS	LF	M	Length of guardrail or barrier
			This is any associated guardrails or barriers that are required for the selected roadway type.			
		G201006	RESURFACING	SY	M2	Area of roadway
			This is the placement of an asphalt wearing course over the existing pavement surface. Assemblies exist for resurfacing of gravel, concrete, and asphalt roadways.			
		G201090	OTHER ROADWAYS	XX	XX	
			Roadways not described by the assembly categories listed above.			
	G2020	PARKING	LOTS	EA	EA	Number of spaces
			These are the areas required of vehicles parking and include different surfaces and drainage			1,
+	-	G202001	options. BASES & SUBBASES	SY	M2	Area of parking lot
+		3202001	These are the compacted and prepared gravel or soil layers that are placed prior to the	01	ıvı∠	Area of parking lot
	1		installation of the final surface. The subbase is placed and compacted before the base layer		1	
+	-	G202002	is applied. CURBS & GUTTERS	LF	M	Length of curbs & gutters
		2202002	This is the curb and gutter drains or area drains with grates.			Longin or ourse & guilers
		G202003	PAVED SURFACES	SY	M2	Area of parking lot
		G202004	This is material that is placed atop the base layer to provide the driving surface. MARKING & SIGNAGE	EA	EA	Number of spaces
1			This includes painting of the parking stalls, signage, etc.			. Tallibor or spaces
		G202005	GUARDRAILS & BARRIERS	LF	M	Length of guardrail or barrier
		G202006	Guardrails, barriers, parking stops and other similar devices. RESURFACING	SY	M2	Area of parking lot
			This is the placement of an asphalt wearing course over the existing parking surface.			
_	<u> </u>	G202007 G202090	MISCELLANEOUS STRUCTURES AND EQUIPMENT OTHER PARKING LOTS	EA XX	EA XX	Number of structures or equipm
		2202030	Parking areas not described by the assembly categories listed above.	^^	7.7	
	G2030	DEDESTR		ev	M2	Area of navement
-	32030	LEDESIK	IAN PAVING This subsystem includes options for sidewalks and other small paved areas.	SY	M2	Area of pavement
		G203001	BASES & SUBBASES	SY	M2	Area of pavement
			These are the compacted and prepared gravel or soil layers that are placed prior to the			
	1		installation of the final surface. The subbase is placed and compacted before the base layer is applied.		1	
		G203002	CURBS & GUTTERS	LF	M	Length of curbs & gutters
1	-	G203003	This is the curb and gutter drains or area drains with grates. PAVED SURFACES	SY	M2	Area of navoment
		3203003	I AYED SURFACES	01	ıvı∠	Area of pavement
			This is material that is placed atop the base layer to provide the walking or driving surface.			
		G203004	GUARDRAILS & BARRIERS	LF	M	Length of guardrail or barrier
		020000.	I his is any associated dijardrails or barriers that are required			
		G203005	This is any associated guardrails or barriers that are required. RESURFACING	SY	M2	Area of pavement
				SY	M2 XX	Area of pavement

UniformatWBSFinalRev2 (2).xls

	2 Unf L3	WBS L4	Definition	E UOM	M UOM	Quantity Definition
	G2040	SITE DEV	/ELOPMENT	EA	EA	Each Structure
			Included are assemblies for on-site construction of fences, retaining walls, playing fields,			
			fountains, and other site improvements.			
		G204001	FENCING & GATES	LF	М	Length of fence
			This includes installation or construction of security, boundary, or barbed wire fencing and all required gates.			
1		G204002	RETAINING WALLS AND FREESTANDING WALLS	SY	M2	Area of wall
			These are structures used to prevent the flow or lateral movement of soil. Assemblies exist			
			for cast-in-place concrete retaining walls.			
		G204003	EXTERIOR FURNISHINGS	EA	EA	Number of furnishings
			This includes the addition of such exterior furnishings as benches, planters, etc.			
		G204004	SECURITY STRUCTURES	EA	EA	Number of security structures
		0001005	This includes the construction or addition of security structures such as guard houses.			N
		G204005	SIGNAGE	EA	EA	Number of signs
			Signs displayed to convey direction or information such as building function or tenant except			
		G204006	for signs included in G201004 and G202004. FOUNTAINS & POOLS	EA	EA	Number of fountains or pools
+		G204006	This includes assemblies for swimming pools and decorative fountains.	EA	EA	Number of fountains of pools
+		G204007	PLAYING FIELDS	EA	EA	Number of playing fields
+	+	5204007	Playing fields such as baseball or tennis courts as well as back stops, bleachers, and other	-^	LA	ramber of playing fields
			playing field requirements are included.			
1	+	G204008	TERRACE AND PERIMETER WALLS	SY	M2	Area of wall
		G204009	FLAGPOLES	EA	EA	Number of flagpoles
		G204090	OTHER SITE IMPROVEMENTS	XX	XX	
_	-		This includes any other miscellaneous structures, such as a car wash, banking system, and			
			theatre equipment located on the site.			
	G2050	LANDSC	APING	SY	M2	Area to be landscaped
			Assemblies are included that improve the appearance of the site by planting, seeding, and			
			sodding.			
		G205001	FINE GRADING & SOIL PREPARATION	SY	M2	Area of site
			Fine grading of the site by hand or machine is required to prepare the soil for planting,			
			seeding, or sodding.			
		G205002	EROSION CONTROL MEASURES	SY	M2	Area of erosion
			Soil erosion or deterioration due to wind, rain or other factors can be controlled or remedied in			
			different ways. This includes slope protection by planting or vegetation or grass and/or			
_	_	C20E002	placement of manmade geotextiles.	CV	MO	Area of planting had
+	+	G205003	TOPSOIL & PLANTING BEDS	SY	M2	Area of planting bed
+		G205003	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to	SY	M2	Area of planting bed
			TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow.			. 0
		G205003 G205004	TOPSOIL & PLANTING BEDS TOPSOII is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING	SY	M2 M2	Area of planting bed Area of site
			TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow.			. 0
			TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on	SY		Area of site
		G205004	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site.		M2	. 0
		G205004	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS	SY	M2	Area of site
		G205004	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or	SY	M2	Area of site
		G205004 G205005 G205006	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees.	SY EA	M2 EA	Area of site Number of plants Number of planters
		G205004 G205005	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS	SY	M2 EA	Area of site Number of plants
		G205004 G205005 G205006	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees,	SY EA	M2 EA	Area of site Number of plants Number of planters
		G205004 G205005 G205006 G205007	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation.	SY EA EA SY	EA EA M2	Area of site Number of plants Number of planters
		G205004 G205005 G205006	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING	SY EA	M2 EA	Area of site Number of plants Number of planters
		G205004 G205005 G205006 G205007	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation.	SY EA EA SY	EA EA M2	Area of site Number of plants Number of planters
	G2060	G205004 G205005 G205006 G205007	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING Landscaping not described by the assembly categories listed above.	SY EA EA SY	EA EA M2	Area of site Number of plants Number of planters
	G2060	G205004 G205005 G205006 G205007 G205090 AIRFIELD	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING Landscaping not described by the assembly categories listed above. D PAVING Aircraft parking apron and runway paving.	EA SY XX	M2 EA EA XX M2	Area of site Number of plants Number of planters Area of site to be watered Area of paving
	G2060	G205004 G205005 G205006 G205007 G205090 AIRFIELD G206001	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING Landscaping not described by the assembly categories listed above. D PAVING Aircraft parking apron and runway paving. AIRFIELD PAVING CONSTRUCTION	EA SY XX SY SY	M2 EA EA M2 XX M2 M2	Area of site Number of plants Number of planters Area of site to be watered Area of paving Area of paving
	G2060	G205004 G205005 G205006 G205007 G205090 AIRFIELD G206001 G206002	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING Landscaping not described by the assembly categories listed above. DPAVING Aircraft parking apron and runway paving. AIRFIELD PAVING CONSTRUCTION OTHER PAVING	EA EA SY XX SY SY SY	M2 EA EA M2 XX M2 M2 M2 M2	Area of site Number of plants Number of planters Area of site to be watered Area of paving Area of paving Area of paving Area of paving
	G2060	G205004 G205005 G205006 G205007 G205090 AIRFIELD G206001	TOPSOIL & PLANTING BEDS Topsoil is placed to provide the nutritious soil bed which is required for plants or grass to grow. SEEDING, SPRIGGING AND SODDING This includes the seeding, sodding, fertilizing, watering, and mowing for the grass required on site. PLANTINGS This includes the planting of trees, shrubs, and other vegetation for site beautification or improvement. PLANTERS Planters are exterior decorative containers that contain plants or trees. IRRIGATION SYSTEMS This includes the installation of underground irrigation systems required for watering of trees, shrubs, and grass or other vegetation. OTHER LANDSCAPING Landscaping not described by the assembly categories listed above. D PAVING Aircraft parking apron and runway paving. AIRFIELD PAVING CONSTRUCTION	EA SY XX SY SY	M2 EA EA M2 XX M2 M2	Area of site Number of plants Number of planters Area of site to be watered Area of paving Area of paving

	Unf L3		tt II / WBS 9/18/06, Revision 2 Definition	E UOM	M UOM	Quantity Definition
G30	SITE C	IVIL/MEC	HANICAL UTILITIES	EA	EA	Each utility
			Site mechanical utilities includes water supply, sanitary sewer, storm sewer, heating distribution, cooling distribution, fuel distribution, and other site mechanical utilities, such as			
			industrial waste systems.			
	G3010	WATER SI	LIPPLY	LF	М	Length of system
	03010		This includes installation or construction of water distribution systems and facilities.			
		G301001	WELL SYSTEMS This includes all the components necessary to install a well, including drilling, installing	EA	EA	Each system
		0001000	casings, pumps, valves, etc.			
		G301002	POTABLE WATER DISTRIBUTION This includes construction and installation of underground piping, valve boxes, and valves.	LF	М	Length of system
		G301003	POTABLE WATER STORAGE This includes construction and installation of tanks, both at grade and elevated.	GAL	GAL	Amount stored
		G301004	FIRE PROTECTION WATER DISTRIBUTION	LF	М	Length of system
			This includes construction and installation of dedicated water piping for fire protection system only. This does not include potable water distribution systems that are used as a water			
			source for fire protection systems.			
		G301005	FIRE PROTECTION WATER STORAGE This includes tanks on grade and elevated for storage of water for fire protection only.	GAL	GAL	Amount stored
		G301006	NON-POTABLE WATER DISTRIBUTION	LF	М	Length of system
			This includes construction and installation of water distribution system not for consumption, such as irrigation or hydro-electric power generation and from reservoirs to treatment			
			facilities. PUMPING STATIONS	GPM	L/S	Operating capacity
			This includes construction and installation of pumps, valves, and piping.			
		G301008	PACKAGED WATER TREATMENT PLANTS This includes installation of completely assembled water treatment plants.	GPD	GPD	Operating capacity
			OTHER WATER SUPPLY	XX	XX	
	-		Water supply not described by the assembly categories listed above.	-		1
	G3020	SANITARY		LF	М	Length of system
		G302001	This includes all assemblies necessary for sewage collection systems. SANITARY SEWER PIPING	LF	М	Length of piping
		G302002	This includes installation of piping for collection of sewage. SANITARY SEWER MANHOLES & CLEANOUTS	EA	EA	Each manhole or cleanout
		G302002	This includes construction and installation of manholes and cleanouts in sewage collection	EA	EA.	Laci mannole of cleanout
	-	G302003	systems. LIFT STATIONS AND PUMPING STATIONS	GPM	L/S	Operating capacity
			This includes construction and installation of piping and equipment in lift stations.			
		G302004	PACKAGED SANITARY SEWER TREATMENT PLANTS This includes installation of pre-assembled sewage treatment plants.	GPD	L/S	Operating capacity
		G302005	SEPTIC TANKS	GAL	L	Volume of tank
			This includes installation of prefabricated septic tanks or the construction of septic tanks.			
		G302006	DRAIN FIELDS This includes installation of drain fields for disposal of effluent from septic tanks.	LF	М	Length of field
		G302090	OTHER SANITARY SEWER	XX	XX	
			Sanitary sewers not described by the assembly categories listed above.			
	G3030	STORM SE		LF	М	Length of system
		G303001	This includes construction of storm water collection systems. STORM SEWER PIPING	LF	M	Length of piping
			This includes installation of piping for collection of storm water.			
		G303002	STORM SEWER STRUCTURES	EA	EA	Each manhole or cleanout
		G303003	This includes construction and installation of manholes for storm water collection systems. LIFT STATIONS	GPM	L/S	Operating capacity
			This includes construction of lift stations including piping, pumps, and controls.			
		G303004	CULVERTS This includes construction and installation of culverts for storm water systems.	LF	М	Length of culvert
		G303005	HEADWALLS	EA	EA	Each structure
			This includes construction of headwalls and installation of catch basins for storm water systems.			
		G303006	EROSION & SEDIMENT CONTROL MEASURES This includes construction to control erosion due to runoff.	SY	M2	Area to control
			STORMWATER MANAGEMENT	GAL	GAL	Volume of collection area
			OTHER STORM SEWER Storm sewers not described by the assembly categories listed above.	XX	XX	
	G3040		DISTRIBUTION	LF	М	Length of system
-		G304001	This includes overhead and underground hot water, steam, and condensate piping. OVERHEAD HOT WATER SYSTEMS	LF	M	Length of system
			This includes installation of overhead hot water supply and return piping.			
		G304002	OVERHEAD STEAM SYSTEMS This includes installation of overhead steam supply and condensate return piping.	LF	М	Length of system
		G304003	UNDERGROUND HOT WATER SYSTEMS	LF	М	Length of system
		G304004	This includes installation of underground hot water supply and return piping. UNDERGROUND STEAM DISTRIBUTION SYSTEMS	LF	M	Length of system
		G304005	This includes installation of underground steam supply and condensate return piping. REINFORCED CONCRETE MANHOLES & VALVE BOXES			Each structure
			This includes installation of prefabricated trench boxes for shoring during installation of	EA	EA	Lauri suudlure
			piping. PUMPING STATIONS	EA	EA	Each pumping station
		G304090	OTHER HEATING DISTRIBUTION	XX	XX	East partiping station
	<u> </u>		Heating distribution not described by the assembly categories listed above.			1
	G3050	COOLING	DISTRIBUTION This is shaden assessment and installation of shilled under distribution systems.	LF	М	Length of system
		G305001	This includes construction and installation of chilled water distribution systems. OVERHEAD COOLING SYSTEMS	LF	M	Length of system
			This includes installation of overhead chilled water supply and return piping.			
		G305002	UNDERGROUND COOLING SYSTEMS This includes installation of underground chilled water supply and return piping.	LF	M	Length of system
-		G305003	TRENCHBOXES This includes installation of prefabricated trench boxes for shoring during installation of	LF	М	Length of trench
			piping.		<u> </u>	
			WELLS FOR COOLING PUMPING STATIONS	EA EA	EA EA	Each well Each pumping station
		G305006	ON-SITE COOLING TOWERS	EA	EA	Each cooling tower
		G305090	OTHER COOLING DISTRIBUTION	XX	XX	1

Unf L2 Unf L3			E UOM	M UOM	Quantity Definition
G3060	FUEL DIS	TRIBUTION This includes installation of piping and storage tanks for building and aviation fuels.	GAL	L	Volume of storage tank
	G306001	LIQUID FUEL DISTRIBUTION PIPING SYSTEM	LF	M	Length of piping
		This includes installation of piping for fuel and oil distribution. This includes equipment related to piping, system leak detection and tightness testing.			
	G306002	AVIATION FUEL DISTRIBUTION PIPING SYSTEM This includes installation of piping for aviation fuel distribution and equipment related to the	LF	M	Length of piping
		piping. This also includes system leak detection and tightness testing.			
	G306003	LIQUID FUEL STORAGE TANKS This includes installation of buried or above ground fuel tanks relating to liquid fuel or aviation	GAL	L	Volume of storage tank
	0000004	systems. LIQUID FUEL DISPENSING EQUIPMENT	F.		Foot wises of any investor
	G306004	This includes equipment relating to liquid fuel and aviation systems.	EA	EA	Each piece of equipment
	G306005	LIQUID FUEL SYSTEM TRENCHBOXES This includes installation of prefabricated trench boxes for shoring during installation of	LF	M	Length of trench
	0000000	piping.			I another forming
	G306006	GAS DISTRIBUTION PIPING (NATURAL AND PROPANE) This includes piping for distribution of natural or propane gas.	LF	M	Length of piping
	G306007	GAS STORAGE TANKS This includes installation of tanks for natural or propane gas.	GAL	L	Volume of storage tank
	G306008	GAS SYSTEM TRENCHBOXES	LF	M	Length of trench
		This includes installation of prefabricated trench boxes for shoring during installation of piping.			
	G306009	OTHER GAS DISTRIBUTION Gas distribution not described by the assembly categories listed above.	XX	XX	
	G306090	OTHER FUEL DISTRIBUTION	XX	XX	
		Fuel not described by the assembly categories listed above.			
G3090	OTHER S	TE MECHANICAL UTILITIES	LF	M	Length of system
		This includes all systems for collection of contaminated waste requiring special treatment.			
	G309001	INDUSTRIAL WASTE PIPE This includes construction and installation of all piping for collection of industrial waste.	LF	M	Length of piping
	G309002	INDUSTRIAL WASTE MANHOLES & CLEANOUTS This includes construction of manholes and cleanouts for industrial waste.	EA	EA	Each manhole or cleanout
	G309003	INDUSTRIAL WASTE LIFT STATIONS	GPM	L/S	Operating capacity
		This includes construction and installation of industrial waste lift stations and equipment.			
	G309004	INDUSTRIAL WASTE HOLDING TANKS & SEPARATORS	EA	EA	Number of tanks
		This includes construction or installation of special tanks such as silver recovery tanks or separators such as oil water separators.			
	G309005	INDUSTRIAL WASTE TRENCHBOXES This includes installation of prefabricated trench boxes for shoring during installation of	LF	M	Length of trench
		piping.			
	G309090	OTHER INDUSTRIAL WASTE Industrial waste not described by the assembly categories listed above, such as petroleum oil	XX	XX	
		and lubricant distribution systems.			
G40 SITE	ELECTRIC	AL UTILITIES	EA	EA	Systems total
		This system includes exterior electrical systems and equipment including substations, overhead and underground distribution systems, metering systems and equipment, exterior lighting, lightning protection systems, communication and alarm systems, and cathodic protection.			
G4010	ELECTRIC	CAL DISTRIBUTION	KVA	KVA	Total rated capacity
		Electrical distribution includes the following: substations; transformers; switches, controls and devices; overhead electric conductors; towers, poles, crossarms and insulators; underground electric conductors; ductbanks, manholes, handholes and raceways; grounding systems; and metering.			
	G401001	SUBSTATIONS	KVA	KVA	Total rated capacity
		This system includes substation equipment and materials required from the primary power source.			
	G401002	TRANSFORMERS	KVA	KVA	Total rated capacity
		Electrical power transformers used in conjunction with electrical substations. May include pole/tower or pad-mounted transformers located outside the building.			
	G401003	SWITCHES, CONTROLS & DEVICES Includes all components of switchgear, voltage regulators and busbars used with electrical	EA	EA	Number of separate compor
	C404004	substations.	10	M	Longth of sandust-
	G401004	OVERHEAD ELECTRIC CONDUCTORS Includes conductors used in conjunction with substations.	LF	M	Length of conductor
	G401005	TOWERS, POLES, CROSSARMS & INSULATORS Towers, poles, crossarms, and insulators used in conjunction with substations.	EA	EA	Number of towers and poles
	G401006	UNDERGROUND ELECTRIC CONDUCTORS	LF	М	Length of conductor
		Includes conductors used in conjunction with substations.			Number of ductbanks and a
		DUCTBANKS, MANHOLES, HANDHOLES & RACEWAYS	EA	EA	points
	G401007				Number of systems
	G401007 G401008	Components used in conjunction with electrical substations. GROUNDING SYSTEMS	EA	EA	
		Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other	EA	EA	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	G401008	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems.			
	G401008 G401009	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution.	EA	EA	Number of meters
	G401008	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING			
	G401008 G401009 G401010	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control.	EA EA	EA EA	Number of meters
	G401008 G401009	Components used in conjunction with electrical substations. GROUNDING SYSTEMS GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION	EA	EA	Number of meters
	G401008 G401009 G401010 G401011	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS	EA EA	EA EA	Number of meters
G4020	G401008 G401009 G401010 G401011 G401090	Components used in conjunction with electrical substations. GROUNDING SYSTEMS GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION Substations not described by the assembly categories listed above.	EA EA	EA EA	Number of meters
G4020	G401008 G401009 G401010 G401011 G401090	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION Substations not described by the assembly categories listed above. ITING Exterior electrical lighting systems including conductors, switches, controls and other devices, supporting structures, grounding systems, and all other equipment required to support a	EA EA XX	EA EA XX XX	Number of meters Each system
G4020	G401008 G401009 G401010 G401011 G401090 SITE LIGH	Components used in conjunction with electrical substations. GROUNDING SYSTEMS GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION Substations not described by the assembly categories listed above. ITING Exterior electrical lighting systems including conductors, switches, controls and other devices, supporting structures, grounding systems, and all other equipment required to support a lighting system.	EA EA XX XX LF	EA EA XX XX	Number of meters Each system Length of distribution
G4020	G401008 G401009 G401010 G401011 G401090 SITE LIGH	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION Substations not described by the assembly categories listed above. ITING Exterior electrical lighting systems including conductors, switches, controls and other devices, supporting structures, grounding systems, and all other equipment required to support a lighting system. EXTERIOR LIGHTING FIXTURES & CONTROLS Includes fixtures, controls, and all components used in conjunction with exterior lighting.	EA XX XX LF	EA EA XX XX M	Number of meters Each system Length of distribution Number of fixtures
G4020	G401008 G401009 G401010 G401011 G401090 SITE LIGH	Components used in conjunction with electrical substations. GROUNDING SYSTEMS Grounding systems used in conjunction with substations. Grounding systems for buildings, power distribution, and other electrical systems and subsystems are included with those other systems. METERING Includes components used in conjunction with exterior electrical distribution. CATHODIC PROTECTION Includes a system used in conjunction with exterior electrical distribution for corrosion control. EQUIPMENT REQUIREMENTS FOR COASTAL AND HIGH HUMIDITY AREAS OTHER ELECTRIC TRANSMISSION & DISTRIBUTION Substations not described by the assembly categories listed above. ITING Exterior electrical lighting systems including conductors, switches, controls and other devices, supporting structures, grounding systems, and all other equipment required to support a lighting system. EXTERIOR LIGHTING FIXTURES & CONTROLS	EA EA XX XX LF	EA EA XX XX	Number of meters Each system Length of distribution

Common Process				at II / WBS 9/18/06, Revision 2			
Comparison of the segont implication and autoprocess implement Comparison of continuous Comparison of Compar	L1 Unf L2 U	Jnf L3	WBS L4				Quantity Definition
Exclusive conductors for variety or despitural executed distribution to lighting systems CA GA Cores				Poles used to support lighting fixtures and support equipment.		LA	Number of towers and poles
DUCTRAMIS, MAMPLES & HAMPHOLES CARLOS DUCTRAMIS, MAMPLES & HAMPHOLES CARLOS STECOMMUNICATION AND SECURITY The speem includes cabes, ductors and extens righting. GA930 STECOMMUNICATION AND SECURITY The speem includes cabes, ductors, cabes, and solver explorers required to the complete of the speem includes cabes, ductors, cabes, and solver explorers required to the complete of the speem includes cabes, ductors, cabes, and solver explorers required to the complete of the	+		G402005		LF	М	Length of conductor
GAUSSIAN GROUNDING SYSTEES Consideration projection with soleton injuring. U. M. Amendment of options Consideration projection with soleton injuring. U. M.			G402006	DUCTBANKS, MANHOLES & HANDHOLES	EA	EA	points
G-4000 STEC COMMUNICATION AND SECURITY IN System includes castless, dusthanks, marrolates, and all other expapment required to support security communication and all states systems. AND STEE COMMUNICATION AND SECURITY IN SUPPORT SECURITY CONTROL AND SECURITY			G402007		FΔ	FΔ	Number of systems
This gratem notables cables, ductamens, marches, and all other equipment equations to expect the control of the			0402007		LA	LA	Number of Systems
The system related collects, during with the collection of the systems of the collection of the collec	c	G4030	SITE COM	IMUNICATION AND SECURITY	LF	М	Length of distribution
G4030001 TELECOMENUNCATIONS SYSTEMS INCLUDES CONTROLLED				This system includes cables, ductbanks, manholes, and all other equipment required to			J
Includes all components, cables, and equipment used in conjunction with exterior cable TV F M Length of distribution Final State (1997) Final Control of the State (1997) Final	+		G403001		LF	M	Length of distribution
G4690902 CABLE TV SYSTEMS (CATY) Includes and components, contains, and equipment used in conjunction with extentor security systems. G4690900 DUCTBANKS, MANINCLES & HANDROLES Includes cactable, mining, and equipment used in conjunction with extentor security systems. G4690900 DUCTBANKS, MANINCLES & HANDROLES Includes cactable, marrieds and shardbales used in conjunction with extentor security systems. G4690900 TOWERS, POLES & STANDS INCLUDES TOWERS, POLES & STANDS INCLUDES CONTROL AND ALL AND POLES AND ALL AND ALL AND ALL AND ALL AND POLES AND ALL				Includes all components, cables, and equipment used in conjunction with exterior telephone			J
Section Sect			G403002		LF	M	Length of distribution
G-49090 CABLES & WINNO Rocked college, winning, and equipment used in conjunction with extentor security systems. G-400004 DUCTBANKS, MANHOLES & HANDHOLES ROCKED COLLEGE CABLES AND CO							
G403094 DUCTBANCS, MANICLES & HANDHOLES			G403003		LF	M	Length of conductor
G40900 TOMER, POLES & STANDS				Includes cables, wiring, and equipment used in conjunction with exterior security systems.			Number of duathonks and access
G400005 TOWERS, POLES & STANDS			G403004	DUCTBANKS, MANHOLES & HANDHOLES	EA	EA	I .
Includes towers, police, stands, and equipment used in conjunction with exterior security EA				Includes ductbank, manholes, and handholes used in conjunction with exterior security			
Systems General Communication and patients used in conjunction with exterior security yesterns. EA			G403005		EA	EA	Number of towers, poles and star
G-493006 TV CAMERAS & MONTONS Components used in conjunction with exterior security Components Comp							
Section Sect			G403006		EA	EA	Number of cameras and monitors
G40900 ELECTRONIC SECURITY SYSTEMS (ESS) EA EA Number of systems Number of							
040909 OTHER COMMUNICATION & ALARM Not continued and			G403007	ELECTRONIC SECURITY SYSTEMS (ESS)	EA	EA	Number of systems
Includes all components, cables, and equipment used in conjunction with other special communication and altern systems not defined above. G400000 GROUNDING SYSTEMS G400000 THER SECURIT SYSTEMS includes all components and equipment used in conjunction with special security systems. XX XX includes all components and equipment used in conjunction with special security systems not defined above. G40000 OTHER SITE ELECTRICAL UTILITIES This system includes alternate energy sources. This system also includes sacrificial anodes, related acrurent conductors, and components used in conjunction with callodic protection. SACHIFICIAL ANODE CATROLOR PROTECTIONS SYSTEM This system includes alternate energy sources. This system also includes sacrificial anodes, related current conductors, and components used in conjunction with callodic protection. SACHIFICIAL ANODE CATROLOR PROTECTIONS SYSTEM G400000 SMERGENOY POWER GENERATION G400001 SERVICE OURSENT CATROLOR PROTECTIONS SYSTEM Includes conductors and termination required for cathodic protection. G4000001 SMERGENOY POWER GENERATION G500 OTHER SITE CONSTRUCTION G900 SERVICE AND PEDESTRIAN TUNNELS G9010 SERVICE AND PEDESTRIAN TUNNELS This assembly includes service and pedestrian tunnels. G9010 SERVICE AND PEDESTRIAN TUNNELS This assembly includes service and pedestrian tunnels. G90000 OTHER SITE CONSTRUCTION Other also construction includes bridges, railroad spurs, and show making systems are serviced and pedestrian tunnels. G90000 OTHER SITE CONSTRUCTION Other also construction includes bridges, railroad spurs, and show making systems. G90000 OTHER SITE CONSTRUCTION OF SERVICE AND PEDESTRIAN TUNNELS FEM M. Length of tunnel This assembly includes service and pedestrian tunnels. G90000 OTHER SITE CONSTRUCTION Other also construction includes bridges, railroad spurs and snow meiting systems. G90000 OTHER SIT			G403008		XX	XX	
G403090 GROUNDING SYSTEMS EA Number of systems CAUTION	+ +		2.30000	Includes all components, cables, and equipment used in conjunction with other special	,,,,	100	
Includes grounding systems used in conjunction with extends security systems. XX XX			G403009		FA	FA	Number of systems
Includes all components and equipment used in conjunction with special security systems not defined above. February				Includes grounding systems used in conjunction with exterior security systems.			Transcr or cyclome
G40900 The Site Condition of Condition			G403090		XX	XX	
This system includes alternate energy sources. This system also includes sacrificial anodes, included current conductors, and components used in conjunction with cathodic protection. G409001 SACRIFICIAL ANDOG CATHODIC PROTECTION SYSTEM G409002 INDUCED CURRENT CATHODIC PROTECTION SYSTEM Includes conductors and telemation required for cathodic protection. G409003 EMERCENCY POWER GENERATION G409003 IMPROVED PROTECTION Includes conductors and telemation required for cathodic protection. G409000 INTER CATHODIC PROTECTION Includes components and equipment used in conjunction with other cathodic protection systems not defined above. G90 OTHER SITE CONSTRUCTION Show melting systems. G9010 SERVICE AND PEDESTRIAN TUNNELS G9010 CONSTRUCTION OF SERVICE AND PEDESTRIAN TUNNELS G9010 This assembly includes service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes periabricated service and pedestrian tunnels. G9010 This assembly includes per							
Induced current conductors, and components used in conjunction with cathodic protection.	c	G4090	OTHER S	ITE ELECTRICAL UTILITIES	LF	М	Length of conductor
Induced current conductors, and components used in conjunction with cathodic protection.				This system includes alternate aparay sources. This system also includes specificial apades			
Includes all components required in conjunction with sacrificial anode system. LF				induced current conductors, and components used in conjunction with cathodic protection.			
George Induced Conductors and termination required for cathodic protection. Company Comp			G409001		EA	EA	Number of anodes
G409003 EMERGENCY POWER GENERATION			G409002	INDUCED CURRENT CATHODIC PROTECTION SYSTEM	LF	М	Length of conductor
G49090 OTHER CATHODIC PROTECTION Systems not defined above.			G409003		KVA	KVA	Total rated capacity
Systems not defined above. LS LS				OTHER CATHODIC PROTECTION			
Comparison of the construction includes service and pedestrian tunnels, bridges, railroad spurs, and snow melting systems. XX							
Comparison of the construction includes service and pedestrian tunnels, bridges, railroad spurs, and snow melting systems. XX	000 4	OT! E	OITE OF	MOTRUCTION			
G90101 SERVICE AND PEDESTRIAN TUNNELS XX	G90 C	DIHER	SILECC		LS	LS	
This assembly includes service and pedestrian tunnels. Construction of Service And PEDESTRIAN TUNNELS F M Length of tunnel				snow melting systems.			
G901001 CONSTRUCTION OF SERVICE AND PEDESTRIAN TUNNELS LF M Length of tunnel	0	G9010	SERVICE	AND PEDESTRIAN TUNNELS	xx	xx	
This assembly includes construction of service and pedestrian tunnels. G901002 PREFABRICATED SERVICE AND PEDESTRIAN TUNNELS This assembly includes pretabricated service and pedestrian tunnels. G9090 OTHER SITE CONSTRUCTION Other site construction includes bridges, railroad spurs and snow melting systems. G909001 BRIDGES Bridges included here are typically small spans or overpasses that are not meant to be used to estimate spans over large bodies of water. Options exist for cast-in-place concrete T-beam, precast bleam, precast beam, precas				· · · · · · · · · · · · · · · · · · ·			
G901002 PREFABRICATED SERVICE AND PEDESTRIAN TUNNELS LF M Length of tunnel			G901001		LF	М	Length of tunnel
This assembly includes prefabricated service and pedestrian tunnels. G9090 OTHER SITE CONSTRUCTION Other site construction includes bridges, railroad spurs and snow melting systems. G909001 BRIDGES Bridges included here are typically small spans or overpasses that are not meant to be used to estimate spans over large bodies of water. Options exist for cast-in-place concrete T-beam, precast beham, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options exist for cast-in-place concrete T-beam, precast bodies of water. Options, laminated timber deck bridges tructures. G909002 RAILROAD SPURS Railroad assemblies exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. Railroad assembles exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. Railroad assembles exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, fealleurs, stops, and bumpers are also included. Railroad assembles exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, fealleurs, stops, and bumpers are also included. Railroad assembles exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, fealleurs, stops, and bumpers are also			G901002		l F	М	I enath of tunnel
Other site construction includes bridges, railroad spurs and snow melting systems. G999001 BRIDGES Bridges included here are typically small spans or overpasses that are not meant to be used to estimate spans over large bodies of water. Options exist for cast-in-place concrete T-beam, precast beam, precast box, concrete and steel composite, laminated timber deck bridge structures. G999002 RAILROAD SPURS Railroad assemblies exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. G999003 SNOW MELTING SYSTEMS G999090 OTHER SPECIAL CONSTRUCTION Any special construction not covered in the above categories. H10 WATERFRONT STRUCTURES Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurturances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE H10101 PILE FOUNDATIONS H101002 PILE CAPS H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEWALLS H101007 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX XX			0301002			100	Longar or turner
Other site construction includes bridges, railroad spurs and snow melting systems.		20000	OTHER S	TE CONSTRUCTION	~~	~~	
Bridges included here are typically small spans or overpasses that are not meant to be used to estimate spans over large bodies of water. Options exist for cast-in-place concrete T-beam, precast I-beam, precast box, concrete and steel composite, laminated timber deck bridge structures. G909002 RAILROAD SPURS Railroad assemblies exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. G909003 NOW MELTING SYSTEMS G909090 OTHER SPECIAL CONSTRUCTION Any special construction not covered in the above categories. H10 WATERFRONT STRUCTURES Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurtenances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS H101003 QUAYS H101003 QUAYS H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEWAULLS XX XX H101007 BOAT RAMPS H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING		33030	OTTILK 3		^^	^^	
to estimate spans over large bodies of water. Options exist for cast-in-place concrete T-beam, precast Hobam, precast box, concrete and steel composite, laminated timber deck bridge structures. G999002 RAILROAD SPURS			G909001	BRIDGES	SY	M2	Area of structure
beam, precast I-beam, precast box, concrete and steel composite, laminated timber deck bridge structures. G909002 RAILROAD SPURS							
G909002 RAIROAD SPURS Railroad assemblies exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. Consings, derailleurs, stops, d							
Railroad assemblies exist for 110, 115, and 132 lb. tracks and ties. Turnouts, roadway crossings, derailleurs, stops, and bumpers are also included. G909003 SNOW MELTING SYSTEMS G90909 OTHER SPECIAL CONSTRUCTION Any special construction not covered in the above categories. H10 WATERFRONT STRUCTURES Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurtenances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE XX XX This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS XX XX H101003 QUAYS H101004 RELIEVING PLATFORMS H101005 REVETMENTS XX XX H101006 SEAWALLS H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101008 GUARD POSTS AND RAILING XX XX H101009 GUARD POSTS AND RAILING XX	+++		G909002	RAILROAD SPURS	LF	М	Length of track
G999003 SNOW MELTING SYSTEMS G990909 OTHER SPECIAL CONSTRUCTION Any special construction not covered in the above categories. H10 WATERFRONT STRUCTURES Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurtenances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE XX XX This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firevalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS H101003 QUAYS H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX XX XX H101009 GUARD POSTS AND RAILING							
Any special construction not covered in the above categories.				SNOW MELTING SYSTEMS			Number of systems
H10 WATERFRONT STRUCTURES Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurtenances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE XX XX This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS XX XX H101003 QUAYS XX XX H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS XX XX H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX XX XX XX XX XX XX XX XX	+		G909090		XX	XX	
Waterfront Structures including wharves, piers, dolphins, trestles, and other structures and appurtenances necessary for the safe mooring of vessels and to support waterfront operations. H1010 SUBSTRUCTURE This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS XX XX H101003 QUAYS XX XX H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX XX XX XX XX XX XX XX XX	H10 \	WATER	RFRONT		LS	LS	
perations. H1010 SUBSTRUCTURE This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS H101002 PILE CAPS XX XX H101003 QUAYS H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX							
This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS VLF VM Length of piles H101002 PILE CAPS XX XX H101003 QUAYS XX XX H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS XX XX H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX							
This assembly includes substructure components for waterfront structures, such as pile foundations, pile caps, quays, relieving platforms, revetments, seawalls, boat ramps, cut-off walls, firewalls, and hanging panels. H101001 PILE FOUNDATIONS VLF VM Length of piles H101002 PILE CAPS XX XX H101003 QUAYS XX XX H101004 RELIEVING PLATFORMS XX XX H101005 REVETMENTS XX XX H101006 SEAWALLS XX XX H101007 BOAT RAMPS XX XX H101008 CUT-OFF WALLS H101009 GUARD POSTS AND RAILING XX XX		H1010	SUBSTRI	ICTURE	YY	YY	
walls, firewalls, and hanging panels. walls, firewalls, and hanging panels. VLF	- '		JOBSIK	This assembly includes substructure components for waterfront structures, such as pile	^^	^^	
H101001 PILE FOUNDATIONS VLF VM Length of piles							
H101002				PILE FOUNDATIONS			Length of piles
H101004 RELIEVING PLATFORMS XX XX XX H101005 REVETMENTS XX XX XX H101006 SEAWALLS XX XX XX XX H101007 BOAT RAMPS XX XX XX H101008 CUT-OFF WALLS XX XX XX H101009 GUARD POSTS AND RAILING XX XX XX XX XX XX XX			H101002	PILE CAPS	XX	XX	
H101005 REVETMENTS XX XX XX H101006 SEAWALLS XX XX XX XX XX XX XX	+		H101004			XX	
H101007 BOAT RAMPS XX XX XX H101008 CUT-OFF WALLS XX XX XX XX XX XX XX			H101005	REVETMENTS	XX	XX	
H101008 CUT-OFF WALLS XX XX H101009 GUARD POSTS AND RAILING XX XX XX XX XX XX XX	+ +						
	1		H101008	CUT-OFF WALLS	XX	XX	
	1 1		H101009 H101010	OTHER SUBSTRUCTURE COMPONENTS	XX	XX	
H1020 SUPERSTRUCTURE XX XX							+

	Unf L3	WBS L4	at II / WBS 9/18/06, Revision 2	E UOM	M UOM	Quantity Definition
Ĺ	Jill LJ		This assembly includes superstructure components for waterfront structures, such as beams	_ 55141	55141	Saunity Definition
			and girders, columns, utility enclosures, and other features that support the operation deck			
		H102001	area. BEAMS AND GIRDERS	XX	XX	
		H102001	COLUMNS	XX	XX	
		H102003	UTILITY ENCLOSURES	XX	XX	
	<u> </u>	H102004	OTHER SUPERSTRUCTURE ELEMENTS	XX	XX	
	H1030	DECK		XX	XX	
			This assembly includes the components for the deck, including elevated deck, on-grade deck,			
			deck overlays, curbs and bullrails, mooring hardware foundation, high mast lighting			
			foundations, utility mounds, expansion joints, guard post and railings, paint striping and other related features.			
		H103001	DECK	XX	XX	
		H103002	ON-GRADE SLAB	XX	XX	
		H103003	DECK OVERLAY	XX	XX	
		H103004 H103005	CURBS AND BULLRAILS MOORING FOUNDATIONS	XX	XX	
		H103005	HIGH MAST LIGHTING FOUNDATIONS	XX	XX	
		H103007	UTILITY MOUNDS	XX	XX	
		H103008	EXPANSION JOINTS	XX	XX	
		H103009 H103010	GUARD POSTS AND RAILING PAINT STRIPING	XX	XX	
		H103010	OTHER DECK COMPONENTS	XX	XX	
	H1040	MOORING	AND BERTHING SYSTEM	XX	XX	
			This assembly includes the components for the mooring hardware and fendering systems, including foundations, anchor bolts, and support systems.			
		H104001	PRIMARY FENDER SYSTEM	XX	XX	
		H104001	SECONDARY FENDER SYSTEM	XX	XX	
		H104003	CORNER FENDER SYSTEM	XX	XX	
		H104004	DOLPHINS MOODING HARDWARE	XX	XX	
		H104005 H104006	MOORING HARDWARE OTHER MOORING AND BERTHING COMPONENTS	XX	XX	
	 			///	7//	
	H1050	REPAIR A	AND REHABILITATION	XX	XX	
	H1060	APPURTE	-NANCES	LS	LS	
	.11000	AFFURIE	This assembly includes the appurtenances such as handrails, brows, cable booms, floats,	LO	LO	
			safety ladders, life rings, oil containment booms, and other similar features.			
H20	GRAVI	NG DRYI		LS	LS	
			TECTION	LS	LS	
00	33,43		Coastal Protection System consists of all waterfront breakwaters, wave protection armor,			
			slope protection, revetments, and other features necessary and required for the protection of			
			waterfront facilities from damage by wave, tide and current.			
	H3010	WAVE PR	OTECTION	XX	XX	
			This assembly includes required wave protection features, such as breakwaters, wave protection armor for slope protection, revetment and scour protection.			
		H301001	WAVE PROTECTION ARMORS	XX	XX	
		H301002	BREAKWATERS	XX	XX	
	H3020	SLOPE P	ROTECTION	XX	XX	
			This assembly includes required slope protection features, such as revetment or embankment dikes.			
1		H302001	ROCK REVETMENTS	XX	XX	
			GRANULAR FILL REVETMENTS	1	XX	
		H302002		XX		
		H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS	XX	XX	
H40	NAVIG	H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION			
H40	NAVIG	H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels,	XX	XX	
H40	NAVIG	H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and	XX	XX	
H40	NAVIG	H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels,	XX	XX	
H40		H302002 H302003 ATION D	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities.	XX LS	XX LS	
H40		H302002 H302003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities.	XX	XX	
H40	H4010	H302002 H302003 ATION D	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities.	LS XX	LS XX	
H40		H302002 H302003 ATION D	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities.	XX LS XX XX	XX LS	
H40	H4010	H302002 H302003 ATION D DREDGIN DREDGIN H402001 H402002	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES	XX LS XX XX XX XX	XX LS XX XX XX XX	
H40	H4010	H302002 H302003 ATION D DREDGIN DREDGIN H402001	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL	XX LS XX XX XX	XX LS XX XX XX	
H40	H4010 H4020	DREDGIN H402001 H402003 H402001 H402002 H402003	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES	XX LS XX XX XX XX XX	XX LS XX XX XX XX XX	
	H4010 H4020 H4030	DREDGIN H402002 H402003 ATION D DREDGIN H402001 H402003 RECLAM	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION	XX LS XX XX XX XX XX XX XX XX	XX LS XX XX XX XX XX XX	
	H4010 H4020 H4030	DREDGIN H402002 H402003 ATION D DREDGIN H402001 H402003 RECLAM	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES	XX LS XX XX XX XX XX	XX LS XX XX XX XX XX	
	H4010 H4020 H4030	DREDGIN H402002 H402003 ATION D DREDGIN H402001 H402003 RECLAM	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION	XX LS XX XX XX XX XX XX XX XX	XX LS XX XX XX XX XX XX	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN DREDGIN H402001 H402003 RECLAM.	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures	XX LS XX XX XX XX XX XX XX XX XX XX	XX LS XX XX XX XX XX XX XX XX XX XX XX	
	H4010 H4020 H4030	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES	XX LS XX XX XX XX XX XX XX XX XX XX	XX LS XX XX XX XX XX XX XX XX XX	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN DREDGIN H402001 H402003 RECLAM. RFRONT	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER	XX LS XX XX XX XX XX XX XX LS	XX LS XX XX XX XX XX XX XX XX XX XX	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES	XX LS XX XX XX XX XX XX XX XX XX XX	XX LS XX XX XX XX XX XX XX XX XX	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANTARY SEWER BILGE AND OILY WASTE	XX LS XX XX XX XX XX XX XX XX XX XX XX XX XX	XX LS XX X	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT CIVIL/ME H501002 H501003 H501004 H501004 H501004	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR	XX LS XX	XX LS XX X	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN H402001 H402003 RECLAM. RFRONT CIVIL/ME H501001 H501003 H501003 H501005 H501005	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATE	H302002 H302003 ATION D DREDGIN H402001 H402001 H402003 RECLAM. RFRONT CIVIL/ME H501002 H501003 H501004 H501005 H501006 H501006 H501006	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SALTWATER SALTWATER SALTWATER SANTARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN H402001 H402001 H402003 RECLAM. RFRONT CIVIL/ME H501001 H501003 H501004 H501005 H501005 H501007 H501008	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SALTWATER SANITARY SEWER BILGE AND DILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATE	DREDGIN DREDGIN H402001 H402001 H402001 H402001 H501001 H501002 H5010001 H5010001 H5010005 H5010005 H5010006 H5010008 ELECTRII	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANTARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT CIVIL/ME H501002 H501003 H501004 H501005 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES CAL UTILITIES POWER DISTRIBUTION SYSTEM	XX LS XX	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN DREDGIN H402001 H402001 H402003 RECLAM RFRONT CIVIL/ME H501001 H501003 H501005 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. RFRONT CIVIL/ME H501002 H501003 H501004 H501005 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007 H501007	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES CAL UTILITIES POWER DISTRIBUTION SYSTEM	XX LS XX	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN DREDGIN H402001 H402001 H402003 RECLAM RFRONT CIVIL/ME H501003 H501003 H501005 H501007 H501008 H501007 H501008 H501007 H501008 H501007 H501008 H501007 H501008 H501007 H501008	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG IG IG IG ISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SALTWATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM LIGHTINING PROTECTION SYSTEM POWER BOOMS	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN H402001 H402002 H402003 RECLAM. CIVIL/ME H501002 H501003 H501004 H501005 H501007 H5010	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM TELECOMMUNICATION SYSTEM LIGHTING PROTECTION SYSTEM	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI H5010	H302002 H302003 ATION D DREDGIN H402001 H402001 H402003 RECLAM. RFRONT CIVIL/ME H501001 H501003 H501005 H501006 H501007 H501008 ELECTRI H502001 H502002 H502003 H5020003 H5020005 H502006	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM TELECOMMUNICATION SYSTEM LIGHTNING PROTECTION SYSTEM POWER BOOMS OTHER ELECTRICAL UTILITIES	XX LS XX X	XX LS XX X	
	H4010 H4020 H4030 WATEI	H302002 H302003 ATION D DREDGIN H402001 H402001 H402003 RECLAM. RFRONT CIVIL/ME H501001 H501003 H501005 H501006 H501007 H501008 ELECTRI H502001 H502002 H502003 H5020003 H5020005 H502006	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG IG IG IG ISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SALTWATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM LIGHTINING PROTECTION SYSTEM POWER BOOMS	XX LS XX X	XX LS XX X	
H50	H4010 H4020 H4030 WATEI H5010	H302002 H302003 ATION D DREDGIN H402001 H402003 RECLAM. RECLAM. RFRONT CIVIL/ME H501003 H501004 H501005 H501006 H501007 H501008 ELECTRI H502001 H502003 H502003 H502005 H502006 FIRE PRC	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG IG IG IG IG IG ISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PPIPE GUARDRAILS CAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM TELECOMMUNICATION SYSTEM LIGHTINIOR PROTECTION SYSTEM POWER BOOMS OTHER ELECTRICAL UTILITIES PIRE PROTECTION AND SUPPRESSION FIRE PROTECTION WATER DISTRIBUTION SYSTEM FIRE PROTECTION WATER DISTRIBUTION SYSTEM	XX LS XX X	XX LS XX X	
H50	H4010 H4020 H4030 WATEI H5010	H302002 H302003 ATION D DREDGIN H402001 H402003 RECLAM. RECLAM. RFRONT CIVIL/ME H501003 H501004 H501005 H501006 H501007 H501008 ELECTRI H502001 H502003 H502003 H502005 H502006 FIRE PRC	COMBINED ROCK AND GRANULAR FILL REVETMENTS REDGING AND RECLAMATION Navigation Dredging and Reclamation System consists of all dredging of navigation channels, approaches, turning basins, and berthing areas near piers, wharves, dolphins, and reclamation as necessary to navigate the vessels to the berths and produce reclaimed land to support construction of the waterfront facilities. IG IG DISPOSAL OCEAN DISPOSAL NEW CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES EXISTING CONFINED DISPOSAL FACILITIES ATION UTILITIES The Waterfront Utility System consists of civil/mechanical utilities, electrical utilities, and fire protection to be installed on waterfront structures CHANICAL UTILITIES POTABLE WATER SANITARY SEWER BILGE AND OILY WASTE COMPRESSED AIR STEAM OTHER CIVIL/MECHANICAL UTILITIES PIPE GUARDRAILS CAL UTILITIES POWER DISTRIBUTION SYSTEM TELECOMMUNICATION SYSTEM TELECOMMUNICATION SYSTEM TELECOMMUNICATION SYSTEM LIGHTING PROTECTION SYSTEM DOWER BOOMS OTHER ELECTRICAL UTILITIES DIFECTION AND SUPPRESSION FIRE PROTECTION WATER DISTRIBUTION SYSTEM FIRE PROTECTION WATER DISTRIBUTION SYSTEM	XX LS XX X	XX LS XX X	

Final Combined Uniformat II / WBS 9/18/06, Revision 2						
Unf L1	Unf L2	Unf L3	WBS L4 Definition	E UOM	M UOM	Quantity Definition
		H6020	NON IN OR OVER-WATER DEMOLITION	XX	XX	
		H6030	HAZARDOUS COMPONENTS ABATEMENT	XX	xx	
	H70	WATER	VATERFRONT ATFP		LS	
		H7010	WATERSIDE ATFP	XX	XX	
		H7020	LANDSIDE ATFP	XX	XX	
	Z10	GENER	RAL	LS	LS	
			The common or general requirements from the Performance Technical Specification Sections.			