

**Contents**

---

**Selection of Schedules .....2**

**Section 1 – General Commercial  
and Industrial .....12**

**Section 2 – Commercial and  
Industrial Yard Structures.....27**

**Section 3 – Special Use  
Commercial Properties.....42**

**Location Cost Multipliers.....44**

**Tables**

---

**Table G-1 –Location Cost  
Multipliers by County.....45**

**Selection of Schedules**

The following is an alphabetical list of various commercial and industrial improvements. The list shows the use-type from Schedule A or, if Schedule A does not apply, the proper schedule to be used in computing the replacement cost. The list refers to commercial and industrial type construction. If the improvement involved is either a dwelling or a converted dwelling, it would be more appropriate to use the residential pricing schedules in computing the replacement cost.

The following is the alphabetical listing:

- Airport facilities as follows:
  - Cargo facilities — GCI warehouse.
  - Maintenance and service buildings — GCI small shop.
  - Passenger terminals, ground floor — GCM hotel/motel service.
  - Passenger terminals, upper floor — GCM general office.
- Apartments as follows:
  - Commercial flats, one (1) through three (3) stories and wood joist framing — GCR apartment unit.
  - Commercial flats, four (4) or more stories — GCM apartment unit.
  - Club house — GCR service.
  - Elevator apartments, one (1) through three (3) stories and wood joist framing — GCR apartment unit.
  - Elevator apartments, four (4) or more stories — GCM apartment unit.
  - Fireproof steel apartments — GCM apartment unit.
  - Fire resistant apartments — GCM apartment unit.
  - Reinforced concrete apartments — GCM apartment unit.
  - Walk-up wood joist framed apartments — GCR apartment unit.
  - Service areas "1" — GCR motel service.
- Arenas — Schedule G.
- Auditoriums — GCM theater.
- Auto and truck agencies as follows:
  - Administrative offices as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Body shop — "1" — GCI commercial garage.
  - Parts storage — "1" — GCI utility storage.
  - Service garage — GCM auto service.
  - Showrooms — GCM auto showroom.
- Auto and truck repair as follows:
  - Auto agencies service departments — GCM auto service.
  - Body shops — "1" — GCI commercial garage.
  - Department store centers — GCM auto service.
  - Franchise type centers — GCM auto service.
  - Small private garages — GCM utility storage.
  - Truck terminal garage — GCI small shop.
  - Industrial related garages — GCI small shop.

- Bakeries — GCM general retail.
- Banks as follows:
  - One story wood joist framing — GCR bank.
  - Multi-story or fire resistant, reinforced concrete, or fire-proof steel framing — GCM bank.
- Barber shops — GCM general retail.
- Bars and grills — GCM general retail.
- Beauty shops — GCM general retail.
- Boat garages or storage — GCM utility storage.
- Boat sales and service — GCM general retail and utility storage.
- Body shops — GCI commercial garage.
- Bottling plants as follows:
  - Administrative office — GCI office.
  - Processing facilities — GCI manufacturing.
- Bowling alleys — GCM bowling alley.
- Bulk plants as follows:
  - Administrative offices — GCI office.
  - Maintenance and service facilities — GCI small shop.
  - Processing facilities — GCI manufacturing.
  - Tanks — Schedule G.
- Bus terminals as follows:
  - Inter-city — GCM hotel/motel service.
  - Urban-suburban — GCM general retail.
- Carry outs — GCM general retail and utility storage.
- Car washes as follows:
  - Auto wash — GCM car wash auto.
  - Drive-through — Schedule G.
- Churches — GCM theater.
- City clubs — GCM hotel.
- City halls as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Class and lectures as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Classroom multipurpose as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Club houses — GCR service.
- Cold storage — GCI small shop.

- College facilities as follows:
  - Class and lecture as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Laboratory as follows:
    - One store wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Student union as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Community recreational centers as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Condominiums as follows:
  - One (1) through three (3) stories and wood joist framing — GCR apartment unit.
  - Four (4) or more stories — GCM apartment unit.
  - Residential row type — Residential Schedule A.
- Convenience markets — GCM convenience market.
- Convents — GCM apartment.
- Correctional institutions as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Country clubs — GCM hotel service.
- Courthouses as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Credit unions as follows:
  - One story wood joist framing — GCR bank.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing - GCM bank.
- Dairies as follows:
  - Administrative offices — GCI office.
  - Plant — GCI manufacturing.
  - Small retail type -"2" — GCM general retail and utility storage.
- Data processing centers -"3" as follows:
  - One story wood joist framing — GCR general office.

- Multi-story or fire resistant, reinforced concrete, or fireproof steel framing
  - GCM general office.
- Day care centers as follows:
  - Commercial type as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
    - Residential type — Residential Schedule A.
- Dental laboratories as follows:
  - One story wood joist framing — GCR medical office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Dental offices as follows:
  - One story wood joist framing — GCR medical office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Department stores — GCM department stores.
- Discount stores — GCM discount.
- Dispensaries as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Dock facilities — Schedule E.
- Dormitories — GCM apartment.
- Drive-in theaters — Schedule G.
- Drug stores — GCM general retail.
- Dry cleaners as follows:
  - Administrative office — GCI office.
  - Plant — GCI small shop.
  - Small retail type — GCM general retail and utility storage "2".
- Electric generation as follows:
  - Auxiliary maintenance and service buildings — GCI small shop.
  - Processing facility — GCI power generating plant.
- Emergency medical centers as follows:
  - One story wood joist framing — GCR medical office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Factories — GCI manufacturing.
- Financial offices as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Fire stations — GCI office.
- Food and beverage processing facilities as follows:

- Administrative offices — GCI office.
- Plant — GCI manufacturing.
- Fraternal associations as follows:
  - Administrative offices as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Assembly hall — GCM theater.
  - Dining areas — GCM dining lounge.
- Fraternity houses as follows:
  - Residential type — Residential Schedule A.
  - Modern high rise — GCM apartment.
- Funeral homes as follows:
  - Residential type — Residential Schedule A.
  - Designed as follows:
    - One (1) through three (3) stories and wood joist framing — GCR funeral home.
    - Four (4) or more stories — GCM funeral home.
- Furniture marts as follows:
  - Sales area — GCM discount.
  - Warehouse area — GCM utility storage.
- Garage as follows:
  - Residential type — Yard improvement rule.
  - Commercial type — Commercial garage schedule.
- Golfing facilities as follows:
  - Club houses, private course — GCM hotel service.
  - Club houses, public course — GCM general retail.
  - Driving ranges — Schedule G.
  - Miniature courses — Schedule G.
  - Regulation play — Schedule G.
  - Short play — Schedule G.
- Governmental offices as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Grain elevators — Grain elevator schedule.
- Greenhouses as follows:
  - Commercial type — Schedule G.
  - Residential type — Residential Schedule G.
- Gymnasiums — GCM theater.
- Hangars — GCI hangar.
- Health clubs — GCM health club.
- Hospitals as follows:

- Convalescent as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Full line as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Hotels, resort lodge, as follows:
  - Guest rooms — GCM hotel/motel units.
  - Service — GCM hotel/motel service.
- Ice skating rinks — GCM ice rink.
- Industrial facilities as follows:
  - Administrative offices — GCI office.
  - Maintenance and service — "1" — GCI small shop.
  - Manufacturing, processing, and assembly — GCI manufacturing.
  - Receiving and storage — "1" — GCI warehouse.
- Labor associations as follows:
  - Administrative offices as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Assembly halls — GCM theater.
- Laundromats — GCM general retail.
- Libraries as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Lounges — GCM dining lounge.
- Maintenance and service shops — GCI small shop.
- Mall enclosures — Mall concourse area schedule.
- Manufacturing facilities as follows:
  - Manufacturing, processing, and assembly — GCI manufacturing.
  - Small shops — GCI small shop.
- Marinas as follows:
  - Boat sales — GCM general retail.
  - Boat service — GCM utility storage.
  - Boat garages or storage — GCM utility storage.
- Medical clinics as follows:
  - Full line — See hospitals.
  - Limited service as follows:
    - One story wood joist framing — GCR medical office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.

- Special purpose as follows:
  - One story wood joist framing — GCR medical office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Multipurpose as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Mini-warehouses — GCI mini-warehouse.
- Mobile home parks — commercial yard improvement rule.
- Motels as follows:
  - Low-rise walk-up type and wood joist framing — GCR motel units.
  - Elevator types as follows:
    - One (1) through three (3) stories and wood joist framing — GCR motel units.
    - Four (4) or more stories — GCM hotel/motel units.
  - Service as follows:
    - One (1) through (3) stories and wood joist framing — GCR motel service.
    - Four (4) or more stories — GCM hotel/motel service.
- Museums as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Night clubs — GCM dining lounge.
- Nursery schools as follows:
  - Residential type — Residential Schedule A.
  - Commercial type as follows:
    - One story wood joist — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Nursing homes as follows:
  - One (1) through three (3) stories and wood joist framing — GCR nursing home.
  - Four (4) or more stories — GCM nursing home.
- Offices as follows:
  - Governmental as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Multipurpose as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Special purpose — GCI office.



- Medical as follows:
  - One story wood joist framing — GCR medical office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM medical office.
- Open lumber storage — GCM utility storage (adjust for lack of walls and interior components).
- Parking garages — GCM parking garage.
- Photo labs as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Police stations — GCI office.
- Post offices as follows:
  - Designed as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
  - Rural type — GCM general retail.
  - Residential type — Residential Schedule A.
- Printing and publishing facilities as follows:
  - Administrative offices — GCI office.
  - Plants — GCI manufacturing.
  - Small commercial type — GCI small shop.
- Racquetball court building — GCM health club.
- Radio and television stations as follows:
  - Building — GCI office "4".
  - Small transmitting buildings as follows:
    - One story wood joist framing — GCR general office.
    - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Rectories — GCM apartment.
- Research and development facilities — GCI research/development.
- Reservoirs — Schedule G.
- Restaurants as follows:
  - Special purpose designs, supper club type — GCM dining lounge.
  - Multipurpose designs, neighborhood type — GCM general retail.
  - Fast food — Fast food schedule.
- Roller rinks — GCM bowling alley.
- Savings and loan as follows:
  - One story wood joist framing — GCR bank.
  - Multi-story or fire resistant, reinforced concrete, or fire-proof steel framing - GCM bank.
- Schools as follows:
  - Grades one (1) through twelve (12) as follows:

- One story wood joist framing — GCR general office.
- Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Grades thirteen (13) plus as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Service stations — Service station schedule.
- Showrooms as follows:
  - Auto agency — GCM auto showroom.
  - Auto service center — GCM auto service.
- Small shops — GCI small shop.
- Steam generating plants as follows:
  - Auxiliary maintenance and service buildings — GCI small shop.
  - Processing facility — GCI power generating plant.
- Storage — GCM utility storage.
- Stores as follows:
  - Bake shops — GCM general retail and utility storage "2".
  - Beverage carry-outs — GCM general retail and utility storage "2".
  - Drug stores — GCM general retail.
  - Personal service shops — GCM general retail.
- Student unions as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Supper clubs — GCM dining lounge.
- Swimming pools as follows:
  - Commercial — Schedule G.
  - Residential — Residential Schedule G.
  - Pool enclosure as follows:
    - Residential type — Residential Schedule G.
    - Commercial type — GCM general retail.
- Synagogues and temples — See churches.
- Taverns, neighborhood type — GCM general retail.
- Telephone exchange offices as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Tennis barns — GCM health club.
- Theaters as follows:
  - Community, live performance — GCM theater.
  - Drive-in — Schedule G.
  - Metropolitan, live performance or movie — GCM theater.

- Suburban, movie — GCM theater.
- Town halls as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Trailer courts — Yard improvement rule.
- Truck terminals, dock type and back-in type — GCI truck terminal.
- Tunnels — Basement rates from GCM or GCI, calculate using tunnel PAR.
- University facilities — See college facilities.
- Veterinary hospitals as follows:
  - One story wood joist framing — GCR general office.
  - Multi-story or fire resistant, reinforced concrete, or fireproof steel framing — GCM general office.
- Warehouses — GCI warehouse.
- Water storage tanks — Schedule G.
- Youth hostels — GCR nursing home.
  
- **Note:** If an item listed in the Selection of Schedules section contains a number, such as “1”, it means the following:
  - "1" means if priced as a separate building, section, or floor.
  - "2" means calculated percentage of each.
  - "3" means generally requires a floor adjustment from Schedule C.
  - "4" means a plus or minus design consideration.



# Appendix G

# Commercial and Industrial Cost Schedules

## Schedule A.1 (continued)

### GCM Base Prices (continued)

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	Fire Resistant										Wood			F P
					1	2	3	4	5	6	7	8	9	10	+1	Jst (-)	Rein (+)	
First	FD	Country Club	12'	1	92.23	99.18	108.73	117.97	126.06	134.32	143.47	155.54	163.65	173.61	9.44	7.34	13.52	16.19
					2	93.94	102.66	114.16	125.40	135.53	145.91	157.32	172.06	182.36	194.76	11.78	6.69	14.25
		Funeral Home	12'	1	87.02	93.87	103.20	112.25	120.24	128.39	137.40	149.27	157.28	167.11	9.39	7.55	13.93	16.68
					2	88.72	97.35	108.63	119.69	129.71	139.98	151.25	165.79	175.98	188.27	11.73	6.87	14.73
		Nursing Home	10'	1	80.12	86.32	94.79	103.03	110.26	117.66	125.79	136.58	143.80	152.72	8.51	9.82	14.12	16.97
					2	81.46	89.06	99.07	108.89	117.73	126.81	136.72	149.62	158.56	169.41	10.36	8.76	14.68
		Hotel - Motel Unit	10'	1	78.29	83.59	88.83	94.12	99.41	106.70	114.69	125.17	132.27	141.03	8.41	11.81	13.74	16.52
					2	79.79	86.60	93.34	100.10	106.88	115.85	125.61	138.20	147.02	157.72	10.26	12.40	14.28
		Apartment	10'	1	61.49	67.34	75.02	82.59	89.40	96.43	104.09	114.11	120.94	129.39	8.23	9.72	13.78	16.60
					2	62.83	70.08	79.30	88.45	96.88	105.57	115.01	127.14	135.70	146.09	10.08	10.33	14.58
Wall Hgt.	UF	+/-	1'	1	0.23	0.37	0.53	0.69	0.85	1.02	1.20	1.42	1.59	1.79	0.18	0.20	0.23	0.24
					2	0.41	0.74	1.10	1.48	1.85	2.25	2.66	3.16	3.56	4.02	0.43	0.35	0.40
	SF	+/-	1'	1	0.55	0.69	0.84	1.00	1.16	1.32	1.50	1.71	1.88	2.08	0.18	0.21	0.24	0.25
					2	0.73	1.05	1.41	1.78	2.16	2.55	2.96	3.45	3.86	4.31	0.43	0.37	0.41
	FO	+/-	1'	1	0.62	0.77	0.94	1.12	1.29	1.46	1.65	1.88	2.06	2.27	0.19	0.18	0.20	0.21
					2	0.80	1.13	1.51	1.90	2.29	2.69	3.11	3.62	4.03	4.50	0.44	0.25	0.28
	FD	+/-	1'	1	1.24	1.40	1.60	1.80	1.98	2.17	2.38	2.63	2.82	3.04	0.19	0.18	0.20	0.23
					2	1.42	1.77	2.17	2.58	2.98	3.39	3.84	4.37	4.79	5.27	0.44	0.24	0.27
Upper	UF	Utility/Storage	12'	1	27.48	30.80	34.68	39.63	42.57	46.93	51.95	58.73	63.76	69.85	9.45	11.30	12.55	15.23
					2	29.35	34.60	40.62	47.77	52.94	59.62	67.12	76.82	84.24	93.02	12.02	12.71	14.13
		Parking Garage*	10'	1	27.23	29.08	31.05	35.16	35.50	38.51	42.34	48.40	52.64	58.15	12.85	16.53	17.96	20.48
					2	31.48	36.74	42.72	49.96	55.15	61.88	69.35	79.53	86.71	95.83	13.26	17.25	18.99
				4	29.14	33.91	39.27	45.90	50.52	56.66	63.49	72.88	79.45	87.89	12.66	16.94	18.62	20.67
					1	75.89	79.39	82.58	86.88	90.88	95.08	101.63	110.59	116.87	124.41	10.29	8.23	9.15
	FO	Health Club***	12'	2	77.98	83.55	88.83	95.18	99.82	107.78	116.79	128.68	137.34	147.58	12.85	9.08	10.09	12.52
					1	60.17	64.57	70.41	77.09	81.32	86.96	93.48	102.34	108.64	116.20	10.40	11.15	12.39
		General Retail	12'	2	62.04	68.37	76.35	85.22	91.69	99.65	108.65	120.43	129.11	139.37	12.96	11.99	13.33	16.86
					1	62.30	67.76	74.80	82.69	88.14	95.01	102.89	113.39	121.01	130.08	12.00	10.24	11.38
		Mall Shops	14'	2	64.53	72.30	81.88	92.39	100.51	110.14	120.98	134.97	145.43	157.71	15.05	11.39	12.66	15.91
					1	73.17	77.39	81.31	86.32	91.04	95.98	103.31	113.16	120.21	128.62	11.16	11.97	13.31
		Department Store	14'	2	75.66	82.36	88.76	96.21	101.97	111.12	121.39	134.73	144.63	156.25	14.22	12.74	14.16	16.86
					1	82.25	87.12	93.98	101.52	106.32	112.52	119.71	129.57	136.41	144.59	10.71	8.13	9.04
		Dinning/Lounge	12'	2	84.11	90.92	99.92	109.66	116.69	125.21	134.88	147.66	156.88	167.76	13.28	8.86	9.85	12.47
					1	82.02	86.90	93.74	101.28	106.07	112.26	119.45	129.30	136.13	144.32	10.71	9.50	10.56
	FD	Hotel - Motel Service	12'	2	83.89	90.70	99.68	109.41	116.44	124.95	134.62	147.39	156.61	167.49	13.27	10.17	11.30	14.01
					1	81.02	84.42	91.17	98.62	103.36	109.50	116.63	126.38	133.17	141.29	10.69	9.54	10.61
		General Office	12'	2	82.19	88.23	97.11	106.76	113.73	122.20	131.80	144.47	153.64	164.46	13.25	10.26	11.39	14.41
					1	86.71	91.40	98.15	105.54	110.13	116.10	123.07	132.70	139.29	147.21	10.39	9.09	10.09
		Medical Office	11'	2	88.39	94.83	103.52	112.90	119.50	127.57	136.77	149.04	157.79	168.14	12.70	9.68	10.75	13.64
					1	77.21	81.38	87.36	94.04	98.02	103.37	109.66	118.39	124.37	131.58	9.83	9.39	10.44
		Nursing Home	10'	2	78.71	84.45	92.16	100.61	106.39	113.62	121.90	133.00	140.90	150.29	11.90	9.97	11.08	13.78
					1	73.85	78.20	81.05	85.01	88.64	92.48	98.61	107.07	112.95	120.04	9.85	9.01	10.02
		Motel Units	10'	2	76.73	81.56	86.10	91.71	95.61	102.73	110.85	121.67	129.48	138.74	11.92	9.62	10.69	13.32
					1	58.58	62.42	67.62	73.65	77.23	82.20	88.01	96.01	101.62	108.40	9.67	11.07	12.29
		Apartment	10'	2	60.09	65.49	72.42	80.22	85.61	92.45	100.25	110.61	118.15	127.11	11.73	11.70	12.99	13.56

\* Add to base price (1st floor) to account for roof deck parking

5.55

\*\* Adjust base price to account for balconies, per square foot of balcony area

29.56 1.96 2.74 5.49

\*\*\* Add per court

- racquetball

48,200

- squash

37,700

Add to base price (1st floor) to account for elevated floor construction<sup>1</sup>

7.09 5.60 0.71 2.18

Typical base price (1st floor) component for roof & framing

--

<sup>1</sup> These rates represent an amount of increased cost to elevate a floor over and above what is included in the model for a floor. For instance, most if not all of our first floor models, have included a concrete floor. These costs represent the increased cost to suspend (based on the framing types) a floor higher than the existing floor. An example of this type of entity would be a raised area in a department store, where a set of 3 or 4 steps is required to raise the customer onto a more specialized or exclusively priced area of the store. The raising of a floor over and above what is included in the models could occur in any of the GCM first floor models. These rates are only applicable to the area that is raised within a structure. If less than 100% of the structure or building section includes this feature, then the appropriate rate is multiplied by the percentage of the building or section that has this feature to determine the applicable adjustment.

**SCHEDULE A.2**

**GCI Base Prices**

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	Fire Resistant										Wood			Rein Conc		FP Steel
					1	2	3	4	5	6	7	8	9	10	+1	(-)	(+)	(+)		
Bsmt	UF	Light Utility/Storage	9'	1	28.73	31.43	33.09	35.81	37.10	39.87	40.40	45.03	48.24	52.34	9.52	9.37	10.25	12.32		
					29.96	33.93	36.99	41.16	43.92	48.22	50.37	56.92	61.70	67.58	11.21	9.06	9.92	11.93		
		Heavy Utility/Storage	9'	1	35.58	38.48	40.49	43.54	45.05	48.05	48.85	53.85	57.29	61.64	9.68	9.48	9.87	12.97		
					36.81	40.98	44.40	48.89	51.87	56.40	58.82	65.75	70.75	76.88	11.37	9.23	9.61	12.62		
	SF	Light Manufacturing	9'	1	49.65	52.82	55.45	59.01	60.86	64.18	65.37	70.96	74.71	79.43	9.38	10.82	11.85	14.24		
					50.87	55.32	59.36	64.36	67.68	72.53	75.35	82.86	88.17	94.67	11.06	10.40	11.39	13.69		
		Heavy Manufacturing	9'	1	60.13	63.61	66.80	70.86	73.06	76.73	78.34	84.52	88.61	93.73	9.62	10.69	11.13	14.62		
					61.36	66.11	70.71	76.21	79.88	85.08	88.32	96.42	102.07	108.97	11.31	10.37	10.79	14.18		
	FO	Truck Terminal	9'	1	47.54	50.94	53.77	57.56	59.66	63.26	64.73	70.64	74.67	79.71	9.58	9.84	10.77	12.95		
					48.77	53.44	57.68	62.91	66.49	71.60	74.71	82.54	88.14	94.95	11.27	9.57	10.48	12.60		
First	UF	Light Utility/Storage	14'	1	34.96	41.28	48.77	56.52	63.56	71.13	79.35	89.78	97.30	106.60	9.90	15.36	17.68	19.34		
					36.91	45.26	54.98	65.04	74.41	84.41	95.22	108.71	118.72	130.85	12.58	15.23	17.53	19.17		
		Heavy Utility/Storage	14'	1	41.81	48.33	56.18	64.25	71.52	79.31	87.80	98.61	106.34	115.91	10.06	15.37	17.18	19.86		
					43.76	52.30	62.39	72.76	82.37	92.59	103.67	117.54	127.77	140.15	12.74	15.26	17.05	19.71		
		Light Warehouse	18'	1	40.47	47.74	56.38	65.28	73.42	82.12	91.56	103.48	112.16	122.78	11.11	17.07	19.68	21.44		
					43.15	53.19	64.88	76.93	88.26	100.29	113.28	129.38	141.47	155.95	14.78	16.87	19.45	21.18		
		Mini Warehouse	12'	1	24.33	29.67	35.86	42.35	48.24	54.64	61.58	70.41	76.74	84.69	8.13	14.39	16.91	17.76		
					25.92	32.91	40.92	49.29	57.10	65.47	74.52	85.85	94.22	104.47	10.32	14.18	16.66	17.50		
		Commercial Garage	14'	1	47.07	53.61	61.61	69.78	77.08	84.90	93.43	104.34	112.09	121.68	10.01	15.59	17.94	19.63		
					49.03	57.59	67.82	78.30	87.93	98.17	109.30	123.27	133.52	145.92	12.69	15.44	17.78	19.45		
		Hanger	20'	1	50.55	58.42	67.94	77.67	86.51	95.93	106.17	119.13	128.52	139.97	11.78	17.97	20.73	22.56		
					53.58	64.60	77.59	90.89	103.35	116.54	130.81	148.51	161.78	177.61	15.95	17.74	20.47	22.27		
		Truck Terminal Warehouse	14'	1	39.92	46.96	54.56	62.42	69.40	77.34	86.13	96.05	103.91	113.69	10.31	15.50	17.84	19.52		
					41.87	50.94	60.78	70.94	80.25	90.61	102.00	114.98	125.33	137.93	13.00	15.35	17.67	19.33		
SF		Loft Warehouse	14'	1	31.87	38.28	45.81	53.62	60.77	68.45	76.78	87.32	94.96	104.40	10.08	15.46	17.79	19.46		
					33.82	42.26	52.02	62.13	71.61	81.73	92.65	106.25	116.38	128.65	12.76	15.30	17.61	19.26		
		Light Manufacturing	14'	1	56.85	63.72	72.29	80.97	88.65	96.85	105.82	117.35	125.48	135.50	9.83	16.83	19.38	21.20		
					58.80	67.69	78.50	89.48	99.50	110.13	121.69	136.27	146.90	159.75	12.51	16.54	19.04	20.83		
		Heavy Manufacturing	14'	1	59.32	66.64	75.77	85.00	93.22	101.97	111.54	123.78	132.47	143.13	10.41	16.75	18.72	21.64		
					61.27	70.62	81.98	93.52	104.07	115.24	127.41	142.71	153.90	167.38	13.09	16.49	18.42	21.30		
		Loft Manufacturing	12'	1	40.17	46.29	53.68	61.28	68.09	75.41	83.39	93.58	100.84	109.85	9.54	14.64	16.83	18.45		
					41.77	49.54	58.75	68.23	76.94	86.24	96.33	109.03	118.32	129.63	11.73	14.53	16.71	18.32		
		Mill Manufacturing	40'	1	79.68	90.66	98.56	135.73	146.18	163.06	181.37	204.06	221.08	241.19	19.33	27.40	29.90	36.10		
					87.05	100.85	149.81	164.48	186.14	211.97	239.82	273.77	299.98	330.48	29.21	26.74	29.18	35.25		
					78.36	110.57	120.75	129.11	137.99	153.02	169.34	189.62	204.68	222.55	17.18	28.23	30.81	37.21		
		Small Shop	14'	1	42.95	49.57	57.55	65.75	73.14	81.05	89.66	100.64	108.50	118.20	10.17	15.53	17.88	19.56		
					44.90	53.54	63.76	74.27	83.98	94.33	105.53	119.57	129.92	142.45	12.85	15.38	17.71	19.37		
		Power Generating Plant	30'	1	87.00	94.56	100.12	106.61	115.40	121.97	133.14	186.58	201.32	218.85	16.68	14.95	15.78	20.25		
					94.40	108.55	115.12	121.20	134.17	147.97	210.52	238.86	260.50	285.82	24.10	14.67	15.49	19.87		
FO		Truck Terminal Bunk Room	9'	1	44.96	50.48	57.33	64.33	70.44	77.03	84.26	93.64	100.14	108.32	8.06	13.91	15.96	17.57		
					47.19	55.02	64.42	74.05	82.84	92.21	102.40	115.25	124.60	135.99	11.11	13.71	15.73	17.32		
					44.81	50.19	56.87	63.70	69.65	76.07	83.10	92.24	98.56	106.52	7.85	14.07	16.14	17.77		
FD		Industrial Office	12'	1	81.21	88.49	98.06	107.58	115.76	124.44	134.02	146.48	155.07	165.63	9.88	14.96	17.20	18.85		
					82.80	91.74	103.13	114.52	124.61	135.27	146.97	161.92	172.55	185.41	12.07	14.86	17.09	18.74		
					80.66	87.37	96.33	105.18	112.79	120.79	129.63	141.13	148.97	158.65	9.03	15.11	17.37	19.05		
		Research/Devel.	12'	1	94.55	101.66	107.85	112.93	121.22	129.99	139.71	152.35	161.04	171.72	9.92	14.81	17.03	18.67		
					95.99	104.79	113.15	119.87	130.07	140.83	152.65	167.79	178.52	191.50	12.11	14.74	16.94	18.58		
					87.07	93.96	101.51	110.53	118.24	126.35	135.31	147.01	154.94	164.73	9.08	14.96	17.20	18.85		
Dock Floor			+1'	1	0.76	0.99	1.24	1.50	1.76	2.02	2.31	2.65	2.92	3.23	0.29	0	0	0		
					0.86	1.15	1.48	1.82	2.15	2.50	2.87	3.32	3.67	4.08	0.38	0	0	0		

# Appendix G

# Commercial and Industrial Cost Schedules

## SCHEDULE A.2 (continued)

### GCI Base Prices (continued)

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	2 Fire Resistant										1 Wood Jst	3 Rein Conc	4 FP Steel		
					1	2	3	4	5	6	7	8	9	10	+1 (-)	(+)	(+)		
Wall Hgt.	UF	+/-	I'	1	0.27	0.41	0.57	0.74	0.90	1.07	1.25	1.46	1.64	1.83	0.19	0.34	0.40	0.44	
					2	0.45	0.78	1.14	1.52	1.90	2.29	2.71	3.21	3.61	4.07	0.43	0.34	0.40	0.44
					3	0.23	0.33	0.44	0.55	0.66	0.78	0.91	1.06	1.17	1.31	0.13	0.41	0.47	0.52
	SF	+/-	I'	1	0.41	0.56	0.72	0.89	1.06	1.23	1.41	1.63	1.81	2.01	0.19	0.36	0.42	0.46	
					2	0.59	0.92	1.29	1.67	2.05	2.45	2.87	3.38	3.78	4.24	0.43	0.35	0.41	0.45
					3	0.37	0.47	0.59	0.71	0.82	0.94	1.07	1.22	1.35	1.49	0.13	0.44	0.52	0.55
	FO	+/-	I'	1	0.41	0.56	0.72	0.89	1.06	1.23	1.41	1.63	1.81	2.01	0.19	0.36	0.42	0.44	
					2	0.59	0.92	1.29	1.67	2.05	2.45	2.87	3.38	3.78	4.24	0.43	0.35	0.41	0.44
					3	0.37	0.47	0.59	0.71	0.82	0.94	1.07	1.22	1.35	1.49	0.13	0.43	0.50	0.50
	FD	+/-	I'	1	1.10	1.26	1.45	1.64	1.82	2.01	2.21	2.46	2.65	2.87	0.19	0.38	0.44	0.47	
					2	1.28	1.62	2.02	2.43	2.82	3.23	3.67	4.20	4.62	5.10	0.44	0.37	0.43	0.46
					3	1.06	1.17	1.32	1.46	1.59	1.72	1.87	2.05	2.19	2.34	0.14	0.43	0.51	0.51
Upper	UF	Light Utility/Storage	12'	1	28.04	32.28	35.70	40.19	43.29	48.05	50.66	57.44	62.44	68.54	10.60	10.66	11.75	13.95	
				2	30.07	36.41	42.15	49.03	54.56	61.84	67.14	77.10	84.69	93.73	13.38	10.54	11.62	13.80	
		Heavy Utility/Storage	12'	1	30.50	35.54	39.87	45.29	49.31	55.02	58.64	66.64	72.62	79.82	11.63	10.75	11.32	14.59	
				2	32.53	39.67	46.33	54.13	60.58	68.81	75.13	86.30	94.87	105.01	14.41	10.66	11.23	14.47	
	SF	Loft Warehouse	12'	1	32.49	36.94	40.68	45.48	48.82	53.83	56.71	63.86	69.11	75.50	10.81	12.88	14.44	16.58	
				2	34.52	41.07	47.14	54.32	60.09	67.62	73.20	83.52	91.36	100.68	13.59	12.73	14.27	16.39	
		Light Manufacturing	12'	1	45.68	50.37	54.67	59.92	63.55	68.83	72.05	79.72	85.23	91.92	10.46	11.97	13.19	15.67	
				2	47.71	54.50	61.12	68.76	74.82	82.62	88.54	99.38	107.48	117.11	13.24	11.65	12.84	15.25	
		Heavy Manufacturing	12'	1	48.15	53.63	58.84	65.02	69.57	75.79	80.04	88.93	95.41	103.20	11.49	11.97	12.61	16.25	
				2	50.18	57.76	65.30	73.87	80.84	89.59	96.52	108.59	117.66	128.39	14.27	11.71	12.33	15.89	
		Loft Manufacturing	12'	1	35.69	40.21	44.08	48.99	52.40	57.47	60.44	67.72	73.03	79.49	10.84	10.75	11.84	14.06	
				2	37.72	44.34	50.54	57.83	63.67	71.26	76.93	87.38	95.28	104.67	13.62	10.63	11.71	13.91	
		Small Shop	12'	1	37.42	41.99	45.96	50.95	54.42	59.56	62.60	69.97	75.35	81.88	10.88	10.84	11.94	14.18	
				2	39.45	46.12	52.41	59.79	65.69	73.35	79.08	89.63	97.60	107.06	13.67	10.70	11.80	14.01	
		Power Generating Plant	*	0	61.47	65.52	69.49	74.26	77.16	81.66	84.12	91.04	95.72	101.50	9.24	2.28	1.00	4.49	
	FO	Truck Terminal	9'	1	48.26	52.64	56.66	61.60	64.87	69.76	72.60	79.83	84.95	91.20	9.85	10.19	11.11	13.42	
				2	49.75	55.67	61.40	68.09	73.14	79.89	84.70	94.26	101.28	109.68	11.90	10.04	10.96	13.23	
	FD	Industrial Office	12'	1	76.73	82.40	88.47	95.28	100.07	106.50	111.08	120.61	127.26	135.27	11.18	11.02	12.14	14.42	
				2	78.76	86.53	94.92	104.13	111.34	120.29	127.56	140.27	149.51	160.45	13.97	10.92	12.03	14.29	
		Research/Devel.	12'	1	87.15	93.01	99.51	106.69	111.70	118.34	123.19	133.13	139.99	148.24	11.28	10.84	11.94	14.18	
				2	89.18	97.14	105.96	115.53	122.97	132.13	139.67	152.79	162.24	173.42	14.06	10.77	11.87	14.09	

\*Upper floor price exclusive of walls.

## SCHEDULE A.3

### GCR Base Prices

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	1 Wood Joist										2 Fire Res	
					1	2	3	4	5	6	7	8	9	10	+1 (+)	
Bsmt	UF	Utility/Storage	9'	1	20.60	21.77	23.22	25.02	26.21	27.87	30.16	33.94	36.52	39.88	7.08	10.85
					2	21.31	23.21	25.46	28.10	30.13	32.67	35.89	40.77	44.26	48.63	8.05
	FO	Dinning/Lounge	9'	1	70.47	72.88	76.81	80.75	83.43	86.54	90.58	96.85	100.86	105.87	8.01	12.59
					2	71.17	74.32	79.05	83.83	87.35	91.33	96.31	103.68	108.59	114.62	8.98
		Motel Service	9'	1	62.32	64.59	68.18	71.84	74.34	77.28	81.11	87.06	90.91	95.73	7.94	12.57
					2	63.03	66.03	70.42	74.91	78.25	82.08	86.84	93.89	98.64	104.48	8.91
	FD	General Office	9'	1	66.29	68.63	72.38	76.18	78.77	81.79	85.72	91.83	95.76	100.67	7.97	11.00
					2	67.00	70.07	74.63	79.26	82.68	86.59	91.45	98.66	103.49	109.42	8.94
		Apartment	9'	1	47.32	49.32	52.27	55.41	57.59	60.23	63.67	69.03	72.58	77.05	7.94	11.61
					2	48.02	50.76	54.52	58.49	61.51	65.02	69.40	75.86	80.31	85.81	8.91
First	FO	Motel Service	12'	1	72.20	78.11	85.98	93.37	99.84	106.26	113.56	123.18	129.95	137.34	7.08	
					2	75.11	84.25	95.36	105.72	115.25	124.85	135.49	149.30	159.41	170.75	8.21
		Dinning/Lounge	12'	1	78.32	84.33	92.46	100.06	106.66	113.21	120.67	130.53	137.41	144.95	7.13	
					2	81.22	90.47	101.84	112.41	122.07	131.80	142.59	156.65	166.87	178.36	8.27
	FD	Bank	10'	1	84.24	89.30	94.20	98.84	103.49	109.98	117.36	127.12	133.94	141.41	7.11	
					2	87.17	95.43	103.17	110.24	117.41	126.74	137.11	150.63	160.46	171.48	7.88
		General Office	10'	1	73.68	79.39	87.08	94.27	100.51	106.70	113.76	123.10	129.62	136.74	6.79	
					2	76.31	84.98	95.61	105.45	114.44	123.47	133.50	146.62	156.14	166.81	7.56
		Medical Office	10'	1	88.85	93.67	98.32	102.73	107.13	113.44	120.65	130.23	136.86	144.12	6.85	
					2	91.79	99.79	107.30	114.13	121.05	130.20	140.39	153.74	163.38	174.19	7.61

# Appendix G

# Commercial and Industrial Cost Schedules

## SCHEDULE A.3 (continued)

### GCR Base Prices

Floor Level	Fin Type	Use Type	Flr Hgt	Wall Type	1 Wood Joist										2 Fire Res (+)
					1	2	3	4	5	6	7	8	9	10	
First	FD	Motel Units	9'	1	65.35	70.05	74.58	77.35	83.15	88.89	95.41	104.00	110.08	116.69	6.51
				2	66.74	72.96	78.84	82.65	89.74	96.81	104.74	115.11	122.60	130.90	6.80
		Funeral Home	12'	1	78.93	84.96	93.11	100.73	107.34	113.90	121.38	131.27	138.16	145.71	7.14
				2	81.83	91.09	102.49	113.08	122.76	132.49	143.30	157.38	167.62	179.12	8.27
		Nursing Home	10'	1	80.47	85.29	89.94	94.35	98.75	104.90	111.92	121.20	127.69	134.77	6.78
				2	83.40	91.41	98.92	105.75	112.67	121.67	131.66	144.72	154.20	164.84	7.55
		Apartment	9'	1	53.00	58.34	65.16	71.63	77.43	83.19	89.71	98.25	104.36	111.00	6.61
				2	54.25	61.00	69.21	76.93	84.02	91.12	99.04	109.36	116.88	125.20	6.90
Upper	FO	Motel Service	12'	1	61.17	64.15	68.46	72.90	76.12	80.02	84.67	91.28	95.75	101.20	8.14
				2	62.64	67.06	73.02	79.08	84.03	89.98	96.59	105.49	111.86	120.09	9.00
		Dining/Lounge	12'	1	67.98	71.08	75.67	80.34	83.71	87.75	92.58	99.45	104.06	109.67	8.13
				2	69.44	73.99	80.23	86.53	91.62	97.72	104.50	113.67	120.17	128.56	8.98
	FD	Motel Units	9'	1	52.65	55.14	58.73	62.49	65.15	68.48	72.48	78.25	82.14	86.93	7.55
				2	53.71	57.23	62.01	66.92	70.82	75.70	81.12	88.56	93.83	100.82	7.85
		Apartment	9'	1	42.42	44.73	47.89	51.29	53.73	56.85	60.58	65.95	69.65	74.20	7.46
				2	43.48	46.82	51.17	55.73	59.41	64.07	69.23	76.26	81.34	88.09	7.75
		Nursing Home	10'	1	68.37	70.75	72.84	74.84	77.62	80.51	83.83	90.12	94.33	99.49	7.78
				2	69.70	72.76	76.16	79.36	82.22	87.58	93.56	101.74	107.50	115.04	8.26

## SCHEDULE A.4

### GCK Base Rates

Light pre-engineered steel and pole framed buildings (used for C/I occupancies)

Per square foot, average quality, 12' eaves height

	Perimeter/Area Ratio										
	1	2	3	4	5	6	7	8	9	10	+1
Light metal/wood siding, pole frame	9.78	11.54	13.06	15.31	17.09	17.12	19.39	20.02	22.95	24.48	4.12
Add per P/A ratio:											
Exterior sheathing	0.22	0.38	0.55	0.66	0.86	0.97	1.20	1.35	1.53	1.71	0.25
Insulation	0.12	0.21	0.30	0.36	0.46	0.52	0.65	0.73	0.82	0.92	0.13
Steel girts and purlins	0.57	0.63	0.68	0.74	0.80	0.86	0.91	0.97	1.03	1.08	0.95
Aluminum siding and roofing	2.83	3.10	3.37	3.55	3.87	4.06	4.44	4.69	4.98	5.27	0.41
Interior liner (1)	0.42	0.73	1.04	1.25	1.61	1.83	2.27	2.56	2.89	3.23	0.47
Heavy gauge siding and roofing (2)	0.61	0.67	0.72	0.76	0.83	0.87	0.95	1.01	1.07	1.13	0.09
Plastic panel siding	0.29	0.51	0.73	0.88	1.14	1.29	1.60	1.80	2.04	2.28	0.33
Sandwich paneling	6.59	7.22	7.85	8.27	9.01	9.45	10.33	10.91	11.59	12.26	0.96
Interior finish (3)											
Unfinished occupancies (UF)	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	4.45	
Semi-finished occupancies (SF)	15.77	15.77	15.77	15.77	15.77	15.77	15.77	15.77	15.77	15.77	
Finished open occupancies (FO)	22.79	23.24	23.71	24.14	24.70	25.06	25.75	26.22	26.92	27.36	0.82
Finished divided occupancies (FD)	42.82	43.27	43.74	44.17	44.73	45.09	45.78	46.25	46.95	47.39	0.82
Add per square foot for floor area for frame variations:											
Steel post and beam	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
Rigid steel frame construction	-0.33	-0.29	-0.25	-0.21	-0.18	-0.14	-0.10	-0.06	-0.02	0.02	
Deduct per square foot floor area for floor:											
Concrete floor	4.48	4.56	4.65	4.72	4.82	4.88	5.00	5.09	5.19	5.28	

Add or deduct 2% (against the total rate) per foot of wall height variation.

Deduct 2% (against the total rate) for low profile (1:12 or less pitch) roof construction.

Adjust for quality grade from Schedule F.

Note (1) Liner is included with manufactured sandwich paneling

Note (2) 24 to 20 gauge steel; .032" to .050" thick aluminum.

Note (3) Interior Components:	Walls/				Add			
	LF	Flooring	Ceiling	Ptns&OF	Lighting	Heating	A/C	Sprk
Unfinished occupancies (UF)	---	---	---	0.79	2.05	1.60	4.23	6
Semi-finished occupancies (SF)	---	1.95	0.49	1.86	6.85	4.96	2.63	6
Finished open occupancies (FO)	48.99	3.04	4.92	1.92	7.43	4.96	2.63	4
Finished divided occupancies (FD)	48.99	3.51	4.92	9.57	15.23	8.90	2.63	3



**SCHEDULE B**

**GC Base Price Adjustment for Story Height (BPA)**

BPA Factor	Story Height																
	B	1-3	4	5-7	8-9	10-11	12-13	14-15	16-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34
	*NA	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115

\*Basements and sub-basements are not included in the count of the story height, but the percentage multiplier is applicable to the base rates.

**SCHEDULE C**

**GC Base Price Components and Adjustments**

GCM ID	Floor Level	Fin Type	Use Type	CH	Interior Finish			P tns	Ltg	Htg Vent A.C.	Htg Only	Add for A.C.	Adjust Lighting	Spk **	
					Walls Per LF	Floors Per SF	Ceil Per SF								
	Sub	UF	Parking	8'	---	---	---	0.35	2.74	1.77	---	---	0.35	0.80	6
	Bsmt														
	Bsmt	UF	Utility/Storage	9'	---	---	---	0.79	2.05	---	1.33	4.23	0.38	0.63	6
			Stand Alone Basement	9'	---	---	---	0.79	2.05	---	1.33	4.23	0.38	0.63	6
			Parking Garage	8'	---	---	---	0.35	2.74	1.77	---	---	0.28	0.64	4
		FO	General Retail	10'	43.62	3.04	4.18	3.19	11.15	11.06	6.06	---	1.85	3.99	4
			Dinning/Lounge	8'	36.41	5.40	4.92	4.07	12.39	24.31	13.36	---	1.32	2.70	4
		FD	Office	8'	41.15	3.04	4.92	8.81	15.23	16.20	8.90	---	1.79	3.72	3
			Apartment	8'	44.06	3.24	4.90	11.72	6.35	---	4.96	2.63	1.82	3.78	2
	First	UF	Utility/Storage	14'	---	---	---	1.23	2.05	---	1.33	4.23	0.38	0.63	6
			Parking Garage	10'	---	---	---	0.44	2.74	0.89	---	---	0.28	0.64	4
		SF	Car Wash Auto	12'	11.69	---	---	4.23	6.85	---	1.33	---	0.81	1.83	6
			Ice Rink	18'	17.36	2.07	1.97	6.35	15.02	---	2.29	---	0.83	1.85	4
			Auto Service Center	14'	13.58	2.05	0.93	4.94	11.66	---	1.33	4.23	2.32	4.80	5
		FO	Auto Showroom	12'	58.79	3.04	4.92	4.14	12.39	11.06	6.06	---	1.60	3.30	4
			Bowling Alley	12'	58.79	0.75	4.67	3.40	15.02	13.72	7.52	---	1.12	2.35	4
			Theater	18'	88.62	3.90	4.92	8.82	15.02	16.25	8.94	---	1.01	2.11	1
			Health Club	10'	30.19	2.89	2.95	7.48	15.02	13.72	7.52	---	1.65	3.54	4
			General Retail	12'	44.09	3.04	4.18	3.68	11.15	11.06	6.06	---	1.85	3.99	4
			Discount	12'	47.03	2.41	3.94	3.68	10.74	10.19	5.60	---	2.38	4.94	4
			Regional Shopping Center	12'	46.36	3.50	3.94	3.68	10.74	11.06	6.06	---	1.40	2.91	4
			Neighborhood Shopping Ctr	14'	50.66	2.41	3.94	3.86	10.74	11.06	6.06	---	1.68	3.49	4
			Department Store	14'	50.66	3.07	3.94	6.25	10.74	13.00	7.12	---	0.90	1.86	4
			Supermarket	12'	43.42	1.82	3.94	5.51	11.02	13.72	7.52	---	1.64	3.50	4
			Convenience Market	10'	40.14	2.74	4.92	4.79	11.56	13.81	7.58	---	1.57	3.26	4
			Dinning/Lounge	10'	48.99	5.40	4.92	4.79	12.39	24.31	13.36	---	1.32	2.70	4
		FD	Hotel/Motel Service	10'	48.99	5.40	4.92	10.58	12.39	16.20	8.90	---	1.29	2.67	2
			Bank	12'	58.79	3.44	4.92	11.03	12.39	18.43	10.18	---	1.04	2.14	3
			General Office	10'	48.99	3.23	4.92	9.57	15.23	16.20	8.90	---	2.70	5.84	3
			Medical Office	10'	48.99	3.23	4.92	14.36	15.23	17.69	9.69	---	2.16	4.66	3
			Country Club	10'	40.43	7.04	4.90	9.57	12.39	24.31	13.36	---	1.51	3.12	3
			Funeral Home	10'	40.43	3.21	4.92	9.57	12.39	23.45	12.90	---	2.32	4.80	3
			Nursing Home	8'	32.34	3.56	4.92	10.84	12.39	16.35	8.99	---	2.38	4.91	3
			Hotel/Motel Unit	8'	39.19	3.56	4.97	11.97	6.35	4.75	4.96	---	1.32	2.74	2
			Apartment Units	8'	32.34	3.70	4.90	11.72	6.35	---	4.96	2.63	1.82	3.78	2
	Upper	UF	Utility/Storage	12'	---	---	---	1.06	2.05	---	1.33	4.23	0.38	0.63	6
			Parking Garage	10'	---	---	---	0.44	2.74	0.89	---	---	0.28	0.64	4
		FO	Health Club	10'	29.39	2.89	2.95	7.48	15.02	13.72	7.52	---	1.65	3.54	4
			General Retail	10'	41.64	3.04	4.18	3.19	11.15	11.06	6.06	---	1.85	3.99	4
			Department Store	14'	57.52	3.07	3.94	5.51	10.74	13.00	7.12	---	0.90	1.86	4
			Mall Shops	12'	43.42	3.50	3.94	3.68	10.74	11.06	6.06	---	1.40	2.91	4
			Dinning/Lounge	10'	48.99	5.40	4.92	4.79	12.39	24.31	13.36	---	1.32	2.70	4
		FD	Hotel/Motel Service	10'	48.99	5.40	4.92	10.58	12.39	16.20	7.52	---	1.29	2.67	2
			General Office	10'	48.99	3.23	4.92	9.57	15.23	16.20	7.52	---	2.70	5.84	3
			Medical Office	9'	38.79	3.23	4.92	13.28	15.23	17.69	9.69	---	2.16	4.66	3
			Nursing Home	8'	39.19	3.56	4.92	10.84	12.39	16.35	8.99	---	2.38	4.91	3
			Hotel/Motel Unit	8'	39.19	3.56	4.97	11.97	6.35	4.75	4.96	---	1.32	2.74	2
			Apartment Units	8'	39.19	3.70	4.90	11.72	6.35	---	4.96	2.63	1.82	3.78	2

# Appendix G

# Commercial and Industrial Cost Schedules

## SCHEDULE C (continued)

### GC Base Price Components and Adjustments (continued)

ID	Floor Level	Fin Type	Use Type	CH	Interior Finish			P tns	Ltg	Htg Vent A.C.	Htg Only	Add for A.C.	Adjust Lighting	Spk **			
					Walls Per LF	Floors Per SF	Ceil Per SF										
GCI	Bsm t	UF	Light Utility/Storage	9'	---	---	---	0.79	3.42	---	1.60	4.23	0.14	0.41	6		
			Heavy Utility/Storage	9'	---	---	---	0.79	3.42	---	1.60	4.23	0.14	0.41	6		
		SF	Light Manufacturing	9'	8.51	1.95	---	1.77	11.66	6.17	4.96	2.63	0.55	1.37	5		
				Heavy Manufacturing	9'	8.51	1.95	---	1.77	11.66	6.17	4.96	2.63	0.55	1.37	5	
			FO	Truck Terminal Bunk Room	9'	32.34	3.04	4.90	1.75	6.35	---	4.96	2.63	0.41	0.90	5	
		First	UF	Light Utility/Storage	14'	---	---	---	1.23	3.42	---	1.60	4.23	0.14	0.41	6	
	Heavy Utility/Storage			14'	---	---	---	1.23	3.42	---	1.60	4.23	0.14	0.41	6		
					Light Warehouse	18'	---	---	---	1.16	6.85	---	1.60	4.23	0.35	0.87	6
				Mini Warehouse	12'	---	---	---	6.30	1.37	---	---	**	0.10	0.15	5	
				Commercial Garage	14'	---	1.95	---	1.23	11.66	6.17	1.60	4.23	0.56	1.26	5	
				Hanger	20'	---	1.95	---	1.76	11.66	6.17	1.60	4.23	0.52	1.29	6	
				Truck Terminal Warehouse	14'	---	0.30	---	1.38	6.85	---	1.38	4.23	0.41	0.81	5	
		SF		Loft Warehouse	14'	13.23	---	---	1.53	5.48	---	4.71	4.23	0.31	0.62	6	
					Light Manufacturing	14'	13.23	1.95	---	2.76	11.66	6.17	4.96	2.63	0.55	1.37	5
					Heavy Manufacturing	14'	13.23	1.95	---	2.76	11.66	6.17	4.96	2.63	0.55	1.37	5
				Loft Manufacturing	12'	11.34	---	---	2.63	6.85	6.17	1.60	4.23	0.36	0.79	5	
				Mill Manufacturing	40'	37.80	2.92	---	7.88	11.66	9.92	6.17	4.75	0.63	1.30	5	
				Small Shop	14'	13.23	2.05	0.49	2.26	6.85	---	1.60	4.23	0.44	0.88	6	
				Power Generating Plant	30'	28.35	4.41	0.53	3.61	11.66	---	6.17	4.62	0.63	1.30	5	
			FO	Truck Terminal Bunk Room	8'	36.38	3.04	4.90	1.75	6.35	---	4.96	2.63	0.41	0.90	6	
		FD		Industrial Office	10'	48.99	3.51	4.92	9.57	15.23	13.67	8.90	---	0.87	1.74	3	
					Research/Development	10'	48.99	4.46	4.92	11.20	15.23	13.67	8.90	---	0.82	1.79	3
		Upper	UF	Light Utility/Storage	12'	---	---	---	1.06	2.05	---	1.60	4.23	0.08	0.24	6	
					Heavy Utility/Storage	12'	---	---	---	1.06	2.05	---	1.60	4.23	0.08	0.24	6
		SF		Loft Warehouse	12'	13.23	---	---	1.31	5.48	---	1.60	4.23	0.31	0.62	6	
					Light Manufacturing	12'	13.23	1.95	---	2.36	6.85	6.17	4.96	2.63	0.34	0.84	5
					Heavy Manufacturing	12'	13.23	1.95	---	2.36	6.85	6.17	4.96	2.63	0.34	0.84	5
				Loft Manufacturing	12'	11.34	---	---	2.63	6.85	6.17	1.60	4.23	0.36	0.79	5	
				Small Shop	12'	13.23	2.05	0.49	1.96	6.85	---	1.60	4.23	0.44	0.88	5	
				Power Generating Plant	*	---	4.41	0.53	1.44	11.66	---	6.17	4.75	0.63	1.30	5	
			FO	Truck Terminal Bunk Room	8'	36.38	3.04	4.90	1.75	7.43	---	4.96	2.63	0.41	0.90	5	
		FD		Industrial Office	10'	48.99	3.51	4.92	9.57	15.23	13.67	8.90	---	0.87	1.74	3	
					Research/Development	10'	48.99	4.46	4.92	11.20	15.23	13.67	8.90	---	0.82	1.79	3
GCR	Bsm t	UF	Utility/Storage	9'	---	---	---	0.79	3.42	---	1.60	---	0.13	0.19	6		
					Dinning/Lo unge	9'	29.76	5.25	3.37	3.06	12.39	24.31	13.36	---	1.50	2.19	4
				Motel Service	9'	29.76	3.23	4.70	4.59	15.23	16.20	8.90	---	1.00	1.46	2	
		FD		General Office	9'	29.76	3.23	3.37	6.63	15.23	16.20	8.90	---	1.00	1.46	3	
					Apartment Units	9'	29.76	2.99	4.90	8.82	6.35	---	4.96	2.63	0.50	0.73	2
		First	FO	Motel Service	12'	39.68	3.23	4.92	5.51	15.23	16.20	8.90	---	1.00	1.46	2	
					Dinning/Lo unge	12'	39.68	5.25	4.92	3.67	12.39	24.31	13.36	---	1.50	2.19	4
		FD		Bank	10'	33.07	3.23	4.92	6.20	12.39	18.43	10.18	---	1.14	1.66	3	
					General Office	10'	33.07	3.53	4.92	6.72	15.23	16.20	8.90	---	1.00	1.46	3
					Medical Office	10'	33.07	3.23	4.92	9.30	16.75	17.69	9.69	---	1.09	1.59	3
				Motel Units	9'	29.76	2.99	4.90	8.16	12.39	4.75	4.96	---	0.50	0.73	2	
				Funeral Home	12'	39.68	2.99	4.92	7.34	12.39	23.45	12.90	---	1.45	2.12	2	
				Nursing Home	10'	33.07	3.25	4.92	8.27	12.39	16.35	8.99	---	1.01	1.47	2	
				Apartment Units	9'	29.76	2.99	4.90	8.94	6.35	---	4.96	2.63	0.50	0.73	2	
		Upper	FO	Motel Service	12'	39.68	2.99	4.70	5.51	15.23	16.20	8.90	---	1.00	1.46	2	
					Dinning/Lo unge	12'	39.68	5.25	4.92	3.67	12.39	24.31	13.36	---	1.50	2.19	4
		FD		Motel Units	9'	29.76	2.99	4.90	8.16	12.39	4.75	4.96	---	0.50	0.73	2	
					Apartment Units	9'	29.76	2.99	4.90	8.82	6.35	---	4.96	2.63	0.50	0.73	2
				Nursing Home	10'	33.07	3.25	4.92	8.27	12.39	16.35	8.99	---	1.01	1.47	2	

\* Upper floor price exclusive of walls

\*\* Add for unit heat in mini warehouse at \$1.83 per square foot

Sprinkler Group	Total S.F. of Gross Coverage Per Floor									
	5,000	10,000	15,000	20,000	30,000	40,000	50,000	75,000	100,000	Over
1	5.46	4.32	3.90	3.72	3.49	3.25	3.04	2.94	2.82	2.82
2	5.39	4.22	3.77	3.60	3.43	3.20	2.90	2.87	2.75	2.71
3	5.29	4.16	3.71	3.54	3.37	3.14	2.87	2.81	2.70	2.64
4	4.97	3.95	3.53	3.36	3.18	3.01	2.75	2.75	2.58	2.58
5	4.75	3.74	3.34	3.30	3.07	2.90	2.70	2.63	2.52	2.51
6	3.67	2.99	2.68	2.57	2.45	2.29	2.17	2.07	1.98	1.96

**SCHEDULE C (continued)**

**Unit Cost Adjustments**

**WALL FINISH**

**Per square foot of wall surface**

Paint on masonry	1.40
Plaster on masonry, painted	3.30
Drywall, painted	0.84
Lath & plaster, painted	4.23
Hardboard paneling	
Patterned	2.53
Plain	2.53
Plywood paneling	
Softwood	2.58
Hardwood	3.57
Wood Paneling	
Softwood	3.60
Hardwood	8.22
Tile or block glazing	10.73
Ceramic or quarry tile	14.00
Enameled metal tile	7.99
Plastic tile	4.13
Acoustical tile	2.29
Marble	17.00
Add for canvas or cloth	2.79
Add for custom grade wallpaper	3.40
Add for standard grade wallpaper	1.60
Add for furring, wood	1.08
Add for furring, metal	2.32
Add for vinyl wall covering	1.67
Add insulation for masonry walls	1.34
Add insulation for studded walls	1.08

**FLOOR FINISH**

**Per square foot**

Softwood	5.15
Hard wood	7.34
Maple	9.50
Parquet	19.78
Add for sleepers	1.36
Parquet and mastic	8.74
Woodblock, creosoted	8.09
Steel plate tile, heavy duty industrial	17.32
Concrete topping, integral, plain, 1 1/2 to 2"	1.07
Concrete hardener and sealer	1.67
Acid proof brick, heavy duty industrial	36.65
Asphalt tile	1.66
Vinyl Tile	3.04
Cork and rubber tile	12.87
Vinyl composition tile	3.04
Sheet tile	4.37
Sheet linoleum	3.12
Ceramic and quarry tile	14.00
Terrazzo	10.66
Slate, grouted	19.04
Marble	37.99
Carpet and pad	3.29
Carpet, indoor, outdoor	1.69
Computer floor, elevated	21.97
Gym floor, hardwood, wood sub plus sleepers	12.13
Brick, common	7.32
Brick, pavers, in concrete	10.27
Flagstone, in concrete	15.35
Epoxy	8.47
Epoxy with colored chips	10.62
Grating, steel or aluminum	22.89

**CEILING FINISH**

**Per square foot**

Acoustical tile	
Mineral fiber	3.23
Organic fiber	2.52
Acoustical metal panel and pads	5.02
Drywall, taped and painted	1.77
Fiberboard panel	1.99
Luminous panels	7.09
Paint only, on under floor/roof structure	0.88
Plaster on lath, painted	4.96
Plaster on masonry, painted	4.96
Plywood paneling, hardwood	3.35
Wood tongue and groove, softwood	5.88
Add for furring, wood	1.08
Add for furring, metal	2.32
Add for ceiling structure	1.55
Add for ceiling insulation	0.79
Add for ceiling suspension system	1.61

**PARTITIONING**

**Per square of wall surface**

Framed, 3-1/2" metal studs	1- Side	2- Side
Drywall, painted	3.97	7.94
Lath and plaster, painted	4.23	8.47
Metal lath and plaster, painted	4.71	9.43
Plywood paneling:		
Softwood	4.72	7.65
Hardwood	6.42	11.03
Wood paneling:		
Softwood	6.52	11.26
Hardwood	11.89	19.78
Deduct for 2 X 4 wood studs	0.34	0.34

**Masonry, per thickness**      4"      6"      8"      12"

Concrete block				
Hollow exposed	7.62	8.82	10.56	13.88
Solid	10.01	11.20		
Clay tile	8.57	9.90	11.52	
Gypsum block	8.67	13.01		
Glazed tile				
1 face	10.73	13.75	15.67	
2 face	18.61	19.44	22.27	
Glazed block				
1 face	22.01	22.23	23.49	24.98
2 face	28.42	32.13	33.74	

Add per side for interior wall finish from above

Folding curtain	
Wood and plastic	19.40

Modular metal	
Single thickness	14.19
2" insulated	16.60
Modular hardboard	10.09
Modular softwood	13.19
Modular hardwood	18.35

    Add for glazing      2.07

Laminated gypsum 2 1/4"	8.11
Asbestos cement	14.33
Woven wire, including doors	7.86
Clear glass, full height	23.16

**SCHEDULE C (continued)**

**Unit Cost Adjustments**

**APARTMENTS**

Add per square foot per floor to account for variations in average unit size. The unit finish adjustment includes the cost of one (1) full bath, one (1) complete kitchen unit and air conditioning (if applicable). Thru-the-wall residential-type air conditioning units are not considered as real property in apartment units.

Average Unit Size	Add per S.F. W/O AC	Add per S.F. W/AC	Average Unit Size	Add per S.F. W/O AC	Add per S.F. W/AC
400	18.25	20.74	1350	4.74	7.24
450	16.24	18.73	1400	4.50	7.00
500	14.60	17.10	1450	4.31	6.81
550	13.24	15.74	1500	4.13	6.63
600	12.08	14.58	1550	3.95	6.44
650	11.07	13.57	1600	3.77	6.27
700	10.18	12.68	1650	3.63	6.13
750	9.39	11.89	1700	3.50	6.00
800	8.68	11.18	1750	3.38	5.87
850	8.13	10.62	1800	3.26	5.76
900	7.62	10.12	1850	3.12	5.62
950	7.17	9.67	1900	2.99	5.48
1000	6.75	9.25	1950	2.86	5.36
1050	6.39	8.89	2000	2.73	5.23
1100	6.06	8.56	2050	2.61	5.11
1150	5.75	8.25	2100	2.50	5.00
1200	5.50	8.00	2150	2.38	4.88
1250	5.24	7.74	2200	2.28	4.77
1300	5.00	7.50	Over	2.17	4.67

**MO TELS/HO TELS**

Add per square foot per floor to account for variations in average unit size. The unit finish adjustment includes the cost of one (1) full bath.

Average Unit Size	Arrangement		
	Strip	Back-Back	Center Hall
150	15.48	17.18	16.89
175	12.98	14.43	14.27
200	11.35	12.63	12.51
225	9.41	10.55	10.43
250	7.86	9.08	9.13
275	6.59	7.70	7.80
300	5.87	6.89	7.00
325	5.10	6.04	6.17
350	4.16	5.18	5.41
375	3.33	4.29	4.50
400	2.62	3.64	3.89
425	1.98	3.06	3.40
450	1.42	2.44	2.75
475	0.91	1.99	2.37
500	0.46	1.48	1.85
525	0.15	1.12	1.48
550	0.05	0.98	1.32
575	-0.22	0.67	1.01
600	-0.30	0.55	0.88
625	-0.53	0.29	0.61
650	-0.67	0.12	0.43
675	-0.72	0.04	0.34
700	-0.91	-0.18	0.12
Add per kitchen unit (cabinets and sink)			2,500

**STRIP RETAIL**

Add per square foot to account for division walls. The component for partitioning in retail models does not include the division walls that form the common walls with the adjoining units.

In the following table "X" equals:

$$X = \frac{\text{Area}}{N-1} \times \frac{1}{\text{Typical Depth}}$$

Example: The "X" value for an eleven (11) unit strip center, 200' x 80' deep, is twenty (20), calculated as follows: 16,000 SF/10 = 1,600, then 1,600/80 = 20.

The corresponding additive from the table is # per SF

X	RATE	X	RATE	X	RATE	X	RATE	X	RATE
10	7.85	30	2.61	50	1.59	70	1.15	90	0.90
12	6.57	32	2.49	52	1.53	72	1.08	92	0.83
14	5.62	34	2.29	54	1.47	74	1.08	94	0.83
16	4.91	36	2.17	56	1.40	76	1.02	96	0.83
18	4.40	38	2.04	58	1.34	78	1.02	98	0.83
20	3.95	40	1.98	60	1.34	80	0.96	100	0.76
22	3.57	42	1.85	62	1.28	82	0.96	120	0.64
24	3.25	44	1.79	64	1.21	84	0.96	140	0.58
26	2.99	46	1.72	66	1.21	86	0.90	160	0.51
28	2.81	48	1.66	68	1.15	88	0.90	180	0.44

**SCHEDULE D**

**Plumbing**

Average cost per fixture, including supply, waste and vent lines, materials for rough and finish, labor and contractors overhead and profit. The difference between the residential rate and the commercial/industrial prices is primarily attributable to the longer pipe and sewer runs required to accommodate the latter type of construction. The residential rate is to be used for commercial structures only when the average unit size schedule is issued from Schedule C

**CONVENTIONAL FIXTURES**

Residential	800
Commercial and Industrial	1600

**WASH FOUNTAINS ("Bradly's")**

	36"	54"
Circular		
Granito & Fiberglass	2600	3300
Enameled steel	2900	3700
Stainless steel	3100	4000
Semi-circular		
Granito & Fiberglass	2400	3000
Enameled steel	2600	3300
Stainless steel	2700	3500

**INDUSTRIAL GANG SINKS (30" wide)**

4' Long 4-man sink	
Fiberglass	1600
Enameled steel	1900
Stainless steel	2300
8' Long 8-man sink	
Fiberglass	2500
Enameled steel	3100
Stainless steel	3800

Industrial shower heads each	400
Drinking fountains	800
Refrigerated water coolers with hot and cold water	1300
	1400

**SHOWER UNITS**

	Enamel Steel	Stainless Steel
Column showers		
Circular, 5 person	2300	5300
Semi-circular, 3 person	1800	4200
Corner, 2 person	1800	3500
Multi-stall showers		
Circular, 5 person	3100	6900
Semi-circular, 3 person	2500	5600
Corner, 2 person	2300	4900
Emergency shower		1400
Emergency eye wash		700

**SCHEDULE E**

**GC Special Features**

**Mezzanines**

Per square foot, including, soffit finish, lighting, heating and plumbing unless noted.

	Frame Type			
	1	2	3	4
<b>Unfinished</b>				
Light Util/Storage	12.50	22.78	23.01	24.39
Heavy Util/Storage	---	26.07	27.45	27.68
<b>Semi - Finished</b>				
Light Mfg	22.59	32.92	33.41	34.75
Heavy Mfg	---	36.11	36.61	37.95
<b>Finished Open</b>				
Retail	29.24	40.41	40.70	41.62
Lobby, Access Way	33.12	44.21	44.50	45.41
Office	32.18	39.70	39.99	42.05
<b>Finished Divided</b>				
Dinning/Lounge	35.07	46.38	46.55	46.95
Office	36.08	44.29	44.23	44.63

Add for air conditioning and sprinkler.

**Mall Concourse Areas**

Per square foot.

Costs include paving, ramps, stairs, lighting and typical permanent focal elements, and architectural treatment, such as built-in seating, planters, etc.

**OPEN MALL**

Open air pedestrian concourse areas, generally referred to as an arcade or courtyard.

**COVERED MALL**

Covered common areas, consisting of roof cover and open entrance areas. Minimal protection from weather conditions. Typical roof finishes include mansards or canopies. Apply costs to covered area only.

**ENCLOSED MALL**

Enclosed common concourse areas, completely climatized typical of modern shopping malls where concourse area is bordered on all sides by shops and stores.

Per S. F., average quality construction.

Type	Construction	Rate	
Open		10.88	
Covered	Wood Frame	29.13	
	Steel Frame	38.56	
	Reinforced Concrete	40.30	
	F.P. Steel Frame	42.87	
Enclosed		First	Upper
	Wood Frame	47.67	39.54
	Steel Frame	57.07	51.48
	Reinforced Concrete	58.39	51.41
	F.P. Steel Frame	58.99	52.37
*Additive for walls		4.65	

Price basements from appropriate model in Schedule A. Adjust for quality grade from Schedule F.

NOTE: That the above rates are based on a zero (0) P/A ratio, add for walls by applying the additive rate to the subject P/A ratio, and adjusting the result to account for the percentage of walls priced with the shop enclosures. For example, a "T" shaped concourse area 60' x 200' and 60' x 100' x 20' high with shops 16' high would have a perimeter of 720 L/F and a P/A ratio of 4 (720 L/F / 18,000 SF) with 180 L/F of walls full height and 540 L/F clerestory walls 4' high. This amounts to an average of 40% wall coverage (.25 x 100% + .75 x 20%). The additive for walls would therefore be calculated as 4 x the additive rate x 40%.

**Penthouses**

Per square foot

**ELEVATORS AND STAIRWELLS**

	Area			
	50	75	100	150
Metal or Light Wood Frame	58.06	49.18	43.89	37.63
Concrete Block or Equal	112.96	94.88	84.11	71.36
Brick or Equal	131.09	109.65	96.94	81.78

**MECHANICAL ROOMS**

	Area									
	200	400	600	800	1000	1200	1400	1600	1800	2000
Metal or Light Wood Frame	33.84	26.76	23.66	21.74	20.50	19.54	18.78	18.23	17.75	17.34
Concrete Block or Equal	63.71	49.32	42.98	39.15	36.56	34.66	33.16	31.93	30.97	30.08
Brick or Equal	72.72	55.67	48.10	43.57	40.52	38.22	36.46	35.04	33.89	32.87

NOTE: Price larger structures off of the GCI utility/storage upper floor model.

**SCHEDULE E (continued)**

**GC Special Features**

**Banking Features**

Cost per square foot of floor area, based on an average 8' ceiling height, exclusive of floor and doors but including lighting, ventilation, and interior finish.

Type	Low Cost	Average	Good
Money Vault	126.37	165.76	205.14
Record Storage	52.35	62.37	72.39

Add for money vault doors (thickness of steel plating w/o locking mechanism)

Thickness	Rectangular	Circular
2"	7500	---
3"	10600	---
4"	19200	---
6"	27800	---
8"	34600	131800
10"	41700	139800
12"	51500	147900
14"	57000	156900
16"	68300	166200

Add for record storage vault doors

1/2 hour fire rating	1800
1 hour fire rating	3300
2 hour fire rating	3800
3 hour fire rating	4200
4 hour fire rating	4300
6 hour fire rating	5400

**DRIVE-IN TELLER BOOTHS**

Per square foot including finish, lighting, heating, air conditioning (average quality construction)  
add for drive-in windows, adjust for quality grade from Schedule F.

Wall Hgt.	P/A Ratio								
	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	+/-
8'	117.86	128.58	140.56	151.37	165.12	177.68	192.11	210.43	2.65
9'	127.07	139.05	152.39	164.49	179.76	193.77	209.80	230.10	2.95
10'	137.44	150.81	165.65	179.13	194.33	209.77	227.42	251.79	3.27
Add per canopy, per square foot				24.88	41.10				

**Atriums**

Typical of those found in contemporary office buildings, hotels and high rise apartments

Equivalent No. Stories	Perimeter Area Ratio								
	0	1	2	3	4	5	6	+1	
12'	1	77.50	80.03	83.29	85.84	89.98	93.38	97.68	5.16
22'	2	83.99	88.66	94.17	98.89	105.45	111.22	118.10	8.25
32'	3	90.49	97.30	105.05	111.92	120.94	129.07	138.51	11.35
42'	4	96.98	105.94	115.93	124.97	136.42	146.91	158.93	14.45
52'	5	103.48	114.58	126.81	138.02	151.90	164.75	179.35	17.54
62'	6	109.97	123.21	137.69	151.06	167.39	182.59	199.75	20.58
72'	7	116.47	131.86	148.57	164.10	182.87	200.43	220.17	23.68
82'	8	124.09	141.76	160.90	178.74	198.34	218.27	240.58	26.77
Add per add'l floor		7.61	9.91	12.32	14.64	15.48	17.84	20.41	3.10

Per square foot for average quality structural, glazed and fireproofed steel frame construction, adjust for variations in quality grade from Schedule F. It should be noted, however, that typical atrium construction is characterized by good quality materials, workmanship and features. Sprinkler system is priced from Group 4 of the sprinkler schedule. Air conditioning in atrium areas is considered overflow from the main structure and no separate square foot pricing is required to adjust the atrium value.

NOTE: The zero (0) perimeter-to-area ratio is applicable to those areas that have no perimeter walls and therefore must not include an allowance for walls in the square foot rate. These areas are typically found in high rise atriums where structural walls forming the perimeter of concourse shops, offices, hotel units and other such occupancies should be valued as part of that space by applying the appropriate model rather than part of the atrium proper.

Drive-up/walk-up teller windows, each	12100
Vision window only, per station	2000
Night depositories, each	14800

**Autotellers**

Complete with receptacle box, pneumatic tube, and intercom, each	23400
--	-------

**Tellervues**

Complete with receptacle box, pneumatic tube, 2-way screen and intercom, each	56200
---	-------

NOTE: The pneumatic tube described above refers to in-ground permanent type construction.

**A.T.M. Enclosures, per square foot, average quality**

# of ATM	w/o Lobby	w/Lobby
1	638.00	300.00
2	362.00	218.00

Add for canopy, per square foot	25.33
Adjust for quality grade from Schedule F.	

**SCHEDULE E (continued)**

**GC Special Features**

**Health/Recreational Club Facilities**

**SAUNA BATHS**

Per item including heater and controls

6 x 4 x 7' high	6300
6 x 5 x 7' high	7000
6 x 6 x 7' high	9300
6 x 9 x 7' high	11100
8 x 8 x 7' high	11900
8 x 10 x 7' high	14400
8 x 12 x 7' high	15800
10 x 12 x 7' high	17800

**STEAM BATHS**

Add 20% to sauna bath costs.

**WHIRLPOOLS (JACUZZI)**

For apartments, motels, health clubs and offices with employee health facilities.

Number of persons	Concrete	Fiberglass
4	9300	7400
6	11100	8900
8	14400	11500
10	15800	12800

Indoor swimming pools, see commercial swimming pool schedule.

**Marquees**

Per square foot of horizontal area

	Wood Frame	Steel Frame
Low Cost Installation	21.32	27.14
Average Installation	26.74	34.65
Good Installation, Elaborate Décor	33.04	43.96
High Cost Installation, Lavish Décor	46.11	60.90

**Conveying Systems**

**PASSENGER ELEVATORS**

Price per item (in hundreds of dollars)

Electric (passenger operated) geared, variable voltage control.

FPM	Capacity (100 lb)					
	15	20	25	30	40	50
100	565	786	801	816	845	891
150	660	900	915	928	946	987
200	736	996	1010	1016	1025	1061
250	801	1079	1085	1088	1090	1126
300	860	1152	1153	1151	1148	1176
350	914	1218	1213	1206	1197	1227
400	961	1276	1267	1260	1241	1269
Add per stop	81	81	81	81	81	81

For manual operated doors, deduct ten percent (10%) of total.

Electric (completely automatic, group controlled) gearless, hi speed, hi rise.

FPM	Capacity (100 lb)					
	20	25	30	35	40	50
300	1596	1664	1685	1700	1723	1754
400	1762	1833	1861	1875	1907	1938
500	1944	2027	2057	2072	2104	2138
600	2141	2241	2269	2287	2322	2361
700	2372	2472	2505	2527	2564	2605
800	2620	2707	2769	2795	2832	2879
1000	3198	3334	3374	3399	3453	3509
1200	3894	4061	4111	4146	4209	4275
1400	4755	4949	5024	5057	5128	5213
Add per stop	133	133	133	133	133	133

Add per express floor 1997

With openings, use cost per stop from table.

For attended, use eighty-five percent (85%) of total cost.

**Hydraulic passenger (power doors)**

FPM	Capacity (100 lb)					
	15	20	25	30	40	50
50	274	381	390	399	390	425
75	341	460	469	475	461	495
100	391	526	541	539	517	554
125	437	584	593	592	565	602
150	478	639	643	645	612	645
200	553	737	731	729	686	719
Add per stop	143	143	146	149	155	163

For manual operated doors, deduct ten percent (10%) of total.

Electric (residential type)

20 FPM	350 lb capacity, 2-stops	166
	500 lb capacity, 2-stops	332
	Add per additional stop	34

**Incline lifts**

Single passenger, 20' travel	8200
Two - passenger, 20' travel	10600
+/-1' travel	106

**SCHEDULE E (continued)**

**GC Special Features**

**Conveying Systems (continued)**

**FREIGHT ELEVATORS**

Per item (in hundreds of dollars)

Hydraulic, push button operation

FPM	Capacity (100 lb)									
	20	30	40	50	60	80	100	120	150	200
50	268	311	341	371	393	430	651	769	940	1223
100	358	389	425	452	472	509	766	898	1095	1407
125	414	447	477	498	519	543	830	969	1176	1505
150	471	507	535	557	578	608	901	1052	1265	1635
Add per stop for doors										
Manual	86	86	86	86	86	86	86	86	86	86
Power	188	188	188	188	188	188	188	188	188	188

Electric, variable voltage control, push button operation

FPM	Capacity (100 lb)									
	20	30	40	50	60	80	100	120	150	200
100	652	694	757	829	908	1010	1148	1297	1447	1707
200	746	801	875	937	1010	1148	1315	1571	1825	
300	845	918	1012	1089	1184	1356	1574			
400	958	1048	1163	1263	1385	1606	1899			
Add per stop for doors										
Manual	63	63	63	63	63	63	63	63	63	63
Power	96	96	96	96	96	96	96	96	96	96

Manual controls-deduct 10% from base cost and use manual door cost for stops.

**REAR DOORS**

Add to either the passenger or the freight elevators listed above:

Manual first stop	87
Additional stop	68
Power first stop	152
Additional stop	131

**SIDEWALK ELEVATORS (electric or hydraulic)**

One floor, 2000-3000 lb capacity 42700

**MOVING WALKS**

Per L/F at 2% gradient

Length (Ft)	Width		
	36"	48"	54"
100	2420	2615	2661
300	1803	1931	1983
500	1643	1740	1837
750	1563	1623	1722
1000	1485	1589	1651
1400	1378	1519	1548
1800	1322	1390	1496

**ESCALATORS**

Per moving stairway (in hundreds of dollars)

32" Width		40" Width	
Rise in Feet	Cost	Rise in Feet	Cost
10	1192	10	1220
14	1229	14	1284
18	1385	18	1486
22	1532	22	1559
25	1605	25	1642

For variations in gradients (percentage of rise per linear foot of run) add seven tenths percent (.7%) to the base rate for each additional percent of rise. For example, the base rate for a one hundred feet (100') walk with a rise of fifteen feet (15') (fifteen percent (15%)) would be increased by nine and one-tenth percent (9.1%) (15 - 2 x .7%); the rate for a one hundred fifty feet (150') walk with a rise of fifteen feet (15') (ten percent (10%)) would increase five and six-tenths percent (5.6%) (10 - 2 x .7%).



**SCHEDULE E (continued)**

**GC Special Features**

**Boilers - Gas and Light Oil Fired**

Costs are for industrial type package boilers including pumps, controls and gauges. Costs are for rated horsepower. Boiler output may also be rated in terms of B.T.U. per hour, or pounds of steam per hour at two hundred twelve degrees Fahrenheit (212 F).

1hp = 33,500 BTU per hour

= 139 square feet of steam radiation

= 223 square feet of water radiated

= 34.5 pounds of steam per hour

1 lb. steam per hour = 970 BTU per hour

1 sq.ft. of equivalent steam radiation = 240 BTU per hour

1 sq.ft. of equivalent water radiation = 150 BTU per hour

Low pressure, fifteen (15) pounds steam, thirty (30) pounds water.

Rated Horsepower	Fire Tube	Scotch Marine	Water Tube
4	---	---	3200
6	8600	---	4500
10	11400	---	6700
15	14800	11900	8600
20	17300	13900	10700
30	22200	18200	14400
40	26200	21300	18200
50	30200	24100	21300
75	37900	31000	28600
100	45100	36600	35400
150	57600	42700	47900
200	68100	56000	---
300	86600	71000	---
400	102800	84700	---
500	117700	96800	---
600	131000	108400	---

**High Pressure**

125 pounds water, factor above 1.29  
 150 pounds steam, factor above 1.44

**Cold Storage Facilities**

To estimate total cost of a cold storage plant, determine cost of basic building, then add for insulation and doors. Add for enclosure wall from unit cost tables.

**INSULATION**

Per square foot of surface area

Insulation Thickness	Cork Board	Styrene	Fiberglass Board	Foamglass Board	Mineral Wood Batts	Urethane
1"	6.25	5.05	5.58	6.39	5.05	5.58
2"	7.33	5.25	5.72	7.74	5.18	6.59
4"	9.76	5.72	6.25	9.82	5.72	8.33
6"	11.43	6.32	6.72	12.24	6.18	10.22
8"	13.45	6.86	7.20	14.60	6.72	12.04
10"	15.60	7.40	7.74	16.81	7.26	---

**COLD STORAGE DOORS**

Per square foot of surface area

Thickness	To 15 Sq. Ft.	16-25 Sq. Ft.	26-40 Sq. Ft.	Over 40 Sq. Ft.
4"	130.00	113.73	97.80	83.45
6"	138.96	123.44	109.02	95.07
8"	148.66	134.65	121.04	108.27

**Sliding doors**

Single add 25%  
 Double add 45%

**SCHEDULE E (continued)**

**GC Special Features**

**Dock Facilities**

Per square foot

**LOADING DOCKS**

Concrete on fill

	Height	Perimeter Area Ratio				
		5	10	15	20	30
Concrete Grade Walls	3'6"	7.80	10.62	12.49	15.56	20.75
	+/- 1'	0.13	0.18	0.23	0.30	0.47
Concrete Block Grade Walls	3'6"	7.25	9.45	10.88	13.37	17.47
	+/- 1'	0.13	0.18	0.23	0.30	0.47

A loading dock has either poured concrete or concrete block perimeter grade walls built on 12" x 18" strip footings with approximately 3'6" of the wall above grade. Many loading docks are 3 - sided additions to existing structures, so calculating the perimeter for the perimeter-to-area ratio represents only the length of the three (3) sides.

**DEPRESSED TRUCK AND TRACK AREAS (INSIDE)**

Concrete Grade Walls	
3'6" Deep , per linear foot	68.49
+/- 1' Deep	14.19
Concrete Block Grade Walls	
3'6" Deep , per linear foot	54.30
+/- 1' Deep	9.99
Add per cubic foot of depressed area for excavation	0.40
Deduct for earth floor, per square foot	4.79
Deduct for asphalt paving, per square foot	1.02

A depressed truck or track area occurs within the interior of a building. For example, a company builds a building at the surrounding grade level terrain and then excavates an area that is 3' 6" lower depression within that building to accommodate the movement of goods by either truck trailers or railroad cars. The square footage of this lower area is a depressed truck or track area.

**Canopies**

**INDUSTRIAL DOCK TYPE**

Per square foot

Basic, corrugated metal or composition, wood or steel deck and framing, without soffit or lighting	15.64 to 16.86
Add for soffit and lighting	3.65

**COMMERCIAL TYPE**

Per square foot including lighting and soffit

Low cost, unfinished soffit	21.67
Average, finished soffit	28.06
Good, finished soffit, lighting	30.98
High cost, finished soffit, lighting	28.60 to 33.42

NOTE: Refer to the residential schedule for patios, porches, porticos, wood decks, balconies, and other residential type features.

**STRUCTURAL DOCKS**

Wood Floor	
Light timber or steel supports	11.04
Heavy timber or steel supports	15.48
Concrete Floor	
Light steel or concrete supports	13.12
Heavy steel or concrete supports	19.78

Add for canopies from below.

A structural dock has either steel or concrete piers inserted into the ground that support the weight associated with a dock. The dock itself is built with either a steel or wood structural frame and capped with a wood or concrete floor.

**TRUCK WELLS AND RAMPS**

Concrete paving, per square foot (incl. fill or excavation)	4.79
Asphalt paving, per square foot (incl. fill or excavation)	3.77
Concrete grade walls, per linear foot	
0' to 3'6" deep or rise	
+/- 1' deep or rise	47.25
Concrete Block Grade Walls	13.56
0' to 3'6" deep or rise	
+/- 1' deep or rise	39.20

A ramp is an incline that starts at ground level and slopes upward to a specific point. A truckwell is an incline that begins

at ground level and slopes or falls downward to a specific level.

In both instances, side walls are constructed of either poured concrete or concrete block to hold in or hold out dirt or fill materials.

**SCHEDULE G (continued)**

**Yard Improvements**

**Fencing**

Per linear foot including normal walk-in gates

	Height						
	4'	6'	7'	8'	9'	10'	12'
Galvanize Chainlink							
7 Gauge	15.90	18.63	19.55	20.49	22.00	23.55	28.60
9 Gauge	13.77	15.94	16.83	17.71	19.09	20.46	24.88
Aluminum	28.91	43.38	50.59	57.84	65.09	72.29	86.75
Iron	65.30	97.91	114.21	130.59	146.90	163.18	195.89
Modular steel	28.91	43.38	50.59	57.84	65.09	72.29	86.75

Add for top rail		3.99
Add for 3 strands of barbed wire		1.89
Add for service gates, per square foot	8.35	to 10.81
Deduct for large installations		
1-3000 linear foot		-10%
3-6000 linear foot		-15%
Over		-20%

**WOOD FENCE**

Per linear foot

Basket weave

5' high	24.45
6' high	25.00

Plank

5' high	14.85
6' high	16.70

Split Redwood

5' high	12.90
6' high	14.05

**Masonry Walls**

Per linear foot

	6'	+/-1'
4" Concrete Block, painted	119.15	9.08
6" Concrete Block, painted	127.11	10.28
8" Concrete Block, painted	138.20	12.02
4" Solar Screening Block		
6" x 6"	226.21	19.42
8" x 8"	161.80	14.62
12" x 12"	112.31	11.12
8" Common Brick	283.71	36.92
12" Common Brick	393.51	55.22
4" Face Brick	194.62	26.24
8" Face Brick, 2 Sides	357.47	47.98
12" Face Brick, 2 Sides	469.08	59.30
4" Concrete	186.56	17.66
6" Concrete	214.83	19.49
8" Concrete	223.62	22.32

This schedule may be applicable to agricultural fertilizer containment walls as well.

**Paving**

Per square foot

**ASPHALT**

2" on 5" base	
Under 20,000 square feet	2.81
20,000-50,000 square feet	2.57
Over 50,000 square feet	2.24
Add for sand finish course, 3/4" thick	3.45
Add for gravel surfacing	0.32
Add or deduct per 3" base	0.40
Heavy duty or industrial work areas	3.05

**CONCRETE**

3" on 4" base	3.80
4" on 4" base	4.22
5" on 4" base	5.62
6" on 4" base	7.04
8" on 4" base	8.27
12" on 4" base	9.69
Add or deduct per 2" of base	0.26
Heavy duty roadways or industrial work areas	5.15

**MACADAM PENETRATION**

4" base	0.51
6" base	0.76
8" base	1.01

**CRUSHED STONE PAVING**

3/4", delivered	
3" deep	0.54
6" deep	0.95

NOTE: All paving prices, including service station and fast food restaurants, should be derived from the above schedules.

**Guardrails**

Per linear foot	
Metal guard rail, pipe or posts	23.76
Barriers posts or poles	18.17

**Railroad Siding**

Per linear foot, includes rails, wood ties and ballast

Weight of Rail	Cost	Add for Switch & Turnout
40#	68.06	18600
60#	85.53	22600
80#	100.83	25800
100#	114.22	28700
115#	123.78	30500
130#	132.41	32700

Add per linear foot of trestles	
Single track	306
Double track	518
Add per linear foot of steel ties embedded in concrete	106

**SCHEDULE G (continued)**

**Yard Improvements**

**Retaining Walls**

Per linear foot including excavation and backfill, to be considered only if they add value as an improvement over and above the curing contribution considered in the site valuation.

**PLAIN CONCRETE, GRAVITY TYPE, NO REINFORCING**

	6'	8'	10'
Level Backfill	291.91	383.44	568.97
Sloping Surcharge (33Deg)	321.59	446.52	629.58

**REINFORCED, CANTILEVER TYPE**

	6'	8'	10'	20'
Sloping Surcharge (33Deg)	291.91	354.99	491.05	---
500 Lb. Per LF. Surcharge	---	---	---	1360.58

**CONCRETE CRIBBING**

Per square foot of face including excavation and backfill

	Open Face	Closed Face
12' High	56.59	59.37

**STEEL BIN TYPE**

Per square foot, based on 10' wide section

Height	Depth	Cost
4'	5'6"	47.00
8'	5'6"	48.73
10'	7'6"	57.89
12'	7'6"	60.36
16'	7'6"	64.94
16'	10'	74.71
20'	10'	77.06
20'	12'	79.66
24'	12'	81.88
24'	14'	89.06
28'	14'	91.53

**Commercial Docking Facilities**

**SMALL BOAT MARINA**

Typical installation, including ramps, anchor piers, utilities, lockers, etc.:

Range (per slip) 5500 to 9400

Typical wood deck on posts & piling, per square foot

Light construction	24.00
Medium construction	37.00
Heavy construction	67.00

Heavy concrete deck on piling for major shipping 102.00

**MOORING CLUSTERS AND CELLS**

	20'	30'	40'
Cluster of 3 Wood Piles	1200	2000	2400
Cluster of 5 Wood Piles	2000	3100	4000

**Bridges**

Typical costs per square foot of deck, including erection foundation

**PEDESTRIAN**

	Width	Span	Costs	
Precast Concrete	8'	60'	85.90	
	8'	100'	94.10	
	8'	120'	106.38	
	8'	150'	118.66	
Steel, Trussed or Arched Meets NHA/NSBA Std:	8'	40'	81.82	
	8'	50'	85.90	
	138351	8'	60'	90.03
	447317	8'	80'	106.38
	2431	8'	100'	118.66
	16196	8'	120'	155.50
	105851	8'	150'	167.78
	842	8'	160'	175.93
	710988	10'	80'	77.69
	1481.23	10'	120'	122.79
per SF	10'	150'	143.16	
for 60' span	10'	200'	196.47	
Wood, Laminated type		80'	73.68	
		130'	81.88	

**HIGHWAY**

	Low Cost	Median	High Cost
Concrete	71.74	128.64	222.39
Steel	79.16	142.24	252.94

**SKYWAY**

	Low Cost	Median	High Cost
Enclosed Walkway	415.60	518.26	640.71

**CELLS, STEEL PILING, FILLED AND CAPPED**

Per each

		20'	30'	40'
3	' Square	7300	10500	13400
4	' Square	9700	14100	18200
6	' Square	14700	21700	27900
8	' Square	20500	29500	38100
4	' Diameter	8100	11700	15000
6	' Diameter	12300	17800	23100
8	' Diameter	16900	24500	31600
12	' Diameter	26800	38400	49400
20	' Diameter	49400	70000	89400

**SCHEDULE G (continued)**

**Yard Improvements**

**Tanks**

1 Barrel of oil = 42.0 gallons

1 Barrel of water = 31.5 gallons

1 Gallon of water = 8.34 pounds

1 Gallon of water = .1337 cubic feet

Capacity of cylindrical tanks or reservoirs (per foot of depth or height)

Diameter (Feet)	U.S. Gal	Barrels (42 gal)	Diameter (Feet)	U.S. Gal	Barrels (42 gal)
1'0"	5.87	0.1	27'	4283.00	102.0
1'6"	13.22	0.3	28'	4606.20	109.7
2'0"	23.50	0.6	29'	4941.00	117.6
2'6"	36.72	0.9	30'	5287.70	125.8
3'0"	52.87	1.3	31'	5645.70	134.4
3'6"	71.97	1.7	32'	6016.20	143.2
4'0"	94.00	2.2	33'	6398.10	152.3
4'6"	118.97	2.8	34'	6790.70	161.6
5'0"	146.88	3.5	35'	7196.00	171.3
5'6"	177.72	4.2	36'	7613.30	181.3
6'0"	211.51	5.0	37'	8041.90	191.5
6'6"	248.23	5.9	38'	8482.40	202.0
7'0"	287.88	6.8	39'	8934.90	212.7
7'6"	330.48	8.0	40'	9398.70	223.8
8'0"	376.01	9.0	41'	9875.80	235.1
8'6"	424.48	10.1	42'	10362.00	246.7
9'0"	475.89	11.3	43'	10861.60	258.6
9'6"	530.24	12.6	44'	11374.00	270.8
10'	587.48	14.0	45'	11895.30	283.2
11'	710.90	16.9	46'	12430.10	296.0
12'	846.03	20.2	47'	12976.10	309.0
13'	992.91	23.7	48'	13534.80	322.3
14'	1151.50	27.4	49'	14104.00	335.8
15'	1321.90	31.5	50'	14685.00	349.0
16'	1504.10	35.8	60'	21149.30	503.6
17'	1697.90	40.4	70'	28768.50	685.5
18'	1903.60	45.3	80'	37598.70	895.3
19'	2120.90	50.5	90'	47585.90	1,133.1
20'	2350.10	56.0	100'	58748.00	1,339.0
21'	2591.00	61.7	120'	84597.10	2,014.5
22'	2843.60	67.7	140'	115146.10	2,742.0
23'	3108.00	74.0	160'	150394.90	3,581.4
24'	3384.10	80.6	180'	190343.50	4,532.7
25'	3672.00	87.4	200'	234992.00	5,596.0
26'	3971.60	94.6	220'	284340.30	6,771.2

Capacity in barrels (oil) = D to power of 2 x .1399 x height  
(diameter and height in feet)

Capacity in gallons = D to power of 2 x 5.8748 x height  
(diameter and height in feet)

The following pages contain some typical costs of tanks. Price small miscellaneous tanks, or others not included, by applying the proper unit-in-place costs to the shell, foundation, and other components.

**Oil Storage**

**BOLTED STEEL TYPE**

Standard A. P. I. tanks. Costs include roof deck and supports, sand and gravel foundation with retaining ring, painting and typical basic fittings.

Capacity (Barrels)	Size Dia x Hgt	Cost
100	9' x 8'	8,500
200	9' x 16'	13,400
300	9' x 24'	18,800
400	9' x 32'	24,200
500	16' x 16'	29,400
750	16' x 24'	39,400
1000	22' x 16'	48,600
1500	22' x 24'	66,000
2000	30' x 16'	81,300
3000	30' x 24'	91,900
4000	39' x 16'	99,200
5000	39' x 24'	106,300
7500	39' x 36'	130,400
10000	55' x 24'	158,100
15000	55' x 36'	205,300

**WELDED STEEL TYPE**

Costs include foundations, cone roofs with support outside ladder, steel right curb.

Capacity (Barrels)	Size Dia x Hgt	Cost
2,000	30' x 16'	71,700
3,000	30' x 24'	81,000
4,000	30' x 32'	90,700
5,000	38' x 24'	103,200
7,500	38' x 36'	120,800
10,000	55' x 24'	152,000
15,000	55' x 36'	190,600
20,000	60' x 40'	231,600
25,000	60' x 50'	270,100
30,000	80' x 34'	308,700
40,000	80' x 45'	352,900
45,000	90' x 40'	397,300
50,000	90' x 44'	441,600
75,000	120' x 36'	617,400
100,000	140' x 37'	794,800
125,000	160' x 35'	966,300
150,000	180' x 33'	1,131,500
200,000	200' x 36'	1,381,400
250,000	220' x 36'	1,458,700
300,000	240' x 37'	2,056,000
350,000	260' x 37'	2,099,300
400,000	260' x 42'	2,315,400
500,000	280' x 46'	2,739,800

Add for pontoon floating roof  
per foot of diameter 1371 to 2457  
Add for double deck roof  
per foot of diameter 1514 to 1810

**SCHEDULE G (continued)**

**Yard Improvements**

**Elevated Steel Tanks**

Per item including foundation, riser pipe, frost case, ladder and walkway, completely installed.

Capacity (Gallons)	Cost (in \$1000) for Tower Heights			
	50'	75'	100'	150'
15,000	199	222	259	338
20,000	203	227	266	343
25,000	209	231	271	350
30,000	215	238	277	358
40,000	221	244	281	364
50,000	227	250	287	369
60,000	245	273	310	393
75,000	268	299	336	415
100,000	290	318	359	439
125,000	324	356	393	474
150,000	359	389	428	510
200,000	480	518	559	637
250,000	538	587	626	704
300,000	598	655	695	774
400,000	702	767	802	889
500,000	784	852	917	1,013
750,000	1,027	1,111	1,209	1,363
1,000,000	1,299	1,401	1,527	1,712
1,500,000	1,807	1,945	2,127	2,408
2,000,000	2,311	2,484	2,725	3,108
Factor*	1.15	1.15	1.15	1.20

\*For high stress hurricane and earthquake areas

Capacity in barrels (oil) = D to power of 2 x .1399 x height  
(diameter and height in feet)

Capacity in gallons = D to power of 2 x 5.8748 x height  
(diameter and height in feet)

**Welded Steel Pressure**

Costs include horizontal installation on legs or saddle pads including normal fittings but not foundations or base plates.

Capacity (Gallons)	Size Dia x Hgt	Cost
125	2' x 6'	700
250	2'6" x 9'	1,100
500	3'6" x 8'	2,100
1000	3'6" x 16'	3,600
1500	5' x 11'	5,300
2000	5' x 15'	6,800
2500	5' x 19'	8,400
3000	5' x 22'	10,000
4000	5' x 29'	13,100
5000	5' x 36'	16,500
7500	6' x 37'	24,400
10000	6' x 50'	32,300
12500	6' x 61'	45,400
15000	7'6" x 50'	53,100
20000	7'6" x 65'	66,600
25000	9'6" x 51'	79,900
30000	11' x 47'	93,000
35000	11' x 52'	106,600
40000	11' x 57'	119,800
45000	11' x 63'	132,900
60000	11' x 90'	172,900
90000	11' x 133'	253,700

**Towers**

Per item of painted towers for flat bottom tanks, including added cost of erection of tank above ground, footings, pipe to ground and balcony.

Capacity (Gallons)	Tower Height				
	12'	25'	50'	75'	100'
1,000	6,200	7,600	---	---	---
1,500	7,100	9,200	14,900	---	---
2,000	8,100	10,000	16,500	25,800	---
3,000	9,300	11,500	18,600	29,300	46,600
5,000	10,800	13,700	22,000	33,800	53,100
10,000	14,600	17,800	27,400	41,600	63,300
20,000	18,700	22,400	34,400	50,800	76,000
30,000	21,700	25,800	38,600	57,300	84,200
40,000	23,900	28,800	42,500	62,500	90,500
50,000	---	31,500	45,900	66,100	99,500
75,000	---	---	52,300	76,800	117,400

**Bulkhead Piling**

Sea walls, cost per linear foot where typically installed, 10' - 14' depth for small residential jobs. For large commercial projects, costs may be 50% lower.

Creosoted wood, 8" to 12" including tiebacks	272	414
Concrete, precast, 5" to 6" including ties and piling	504	840
Rubble stone, 3' including 1' of bedding	673	880

**Earth Dikes**

Per cubic foot 0.78

**SCHEDULE G (continued)**

**Yard Improvements**

**Wood Water Storage**

Per item, redwood or fir.

Capacity (Gallons)	Size (Dia x Hgt)	Tank Cost	Flat Cover	Conical Cover	Chime Joists	Wood Ladder	Steel Ladder
1,000	6 x 6	5030	710	1140	140	200	210
1,500	7 x 7	6380	820	1340	200	200	210
2,000	8 x 6	7650	950	1570	240	200	210
3,000	8 x 8	9560	950	1570	240	240	270
4,000	9 x 9	11470	1160	2040	380	240	270
5,000	11 x 8	13120	1490	2380	510	240	270
7,500	12 x 10	16440	1890	2660	560	310	330
10,000	14 x 10	19510	2200	3220	840	310	330
15,000	14 x 14	25490	2200	3220	840	390	450
20,000	16 x 14	30970	2430	3760	1150	390	450
30,000	18 x 16	39370	2700	4390	1460	450	530
50,000	22 x 18	53650	3310	5810	1790	520	590
75,000	26 x 20	68040	3940	7120	2160	560	630
100,000	30 x 20	81550	4650	8650	2600	560	630
150,000	37 x 20	103840	5910	11010	3580	560	630
200,000	43 x 20	123580	6730	13430	4390	560	630

Add 33% for cypress tanks.

Add tower cost for elevated tanks.

Add for concrete slab foundations per cubic foot 8.08 to 14.82

Add cover, joists, and ladders to basic tank cost as necessary.

**Standpipes and Surface Reservoirs**

Cost includes foundation, roof, ladders and typical accessories.

**WELDED STEEL STANDPIPE - (Height exceeds diameter)**

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
10,000	28,700	200,000	173,300	2,000,000	800,400
20,000	46,000	250,000	195,200	2,500,000	935,700
30,000	60,500	300,000	216,300	3,000,000	1,070,700
50,000	82,700	400,000	270,300	4,000,000	1,306,400
75,000	107,900	500,000	317,100	5,000,000	1,527,300
100,000	131,500	750,000	407,400	6,000,000	1,741,700
125,000	142,000	1,000,000	470,700	7,500,000	2,034,300
150,000	153,000	1,500,000	657,300	10,000,000	2,485,200

**CONCRETE WATER TANKS - (Surface reservoir)**

Capacity (Gallons)	Cost	Capacity (Gallons)	Cost	Capacity (Gallons)	Cost
10,000	54,100	200,000	319,800	2,000,000	1,181,500
20,000	82,100	250,000	363,300	2,500,000	1,346,200
30,000	103,900	300,000	409,100	3,000,000	1,515,200
50,000	143,100	400,000	484,300	4,000,000	1,853,500
75,000	179,200	500,000	548,000	5,000,000	2,193,700
100,000	212,300	750,000	702,800	6,000,000	2,527,500
125,000	240,300	1,000,000	828,400	7,500,000	3,044,900
150,000	271,200	1,500,000	1,006,600	10,000,000	3,896,000

Reservoirs-typical costs of cut and fill reservoirs with concrete or asphalt linings and wood roof structures, per unit of rated capacity \$ 0.31 per gallon or \$99,600 per acre foot.

**SCHEDULE G (continued)**

**Yard Improvements**

**Dry Storage Bins**

Typical cost per item for bolted steel industrial type bins (to 55# per cubic foot), installed complete.

CYLINDRICAL TYPE, including foundation and floor slab

Diameter	Height								
	24'	32'	40'	48'	56'	64'	72'	80'	88'
9'	7400	9400	10900	12500	14300	15600	17200	---	---
12'	11400	13600	18500	20400	22300	24200	26100	---	---
15'	15500	19300	23000	26500	30000	33500	36500	39900	---
18'	20100	25000	30000	34600	39200	43500	48100	52200	56400
21'	---	32800	38900	44600	50400	55400	60300	65600	70900
26'	---	45700	52900	60300	67700	75000	83300	90500	97900
32'	---	61900	73700	84400	94900	105100	115300	124600	133600

HOPPER TYPE, including structural supports and footings

Diameter	Height					
	16'	24'	32'	40'	48'	56'
9'	8700	10800	12000	13500	---	---
12'	12900	16000	17800	20400	22300	24200
15'	---	21000	25100	28300	31700	34200
18'	---	27100	32600	37700	41700	45800
21'	---	33100	41600	48800	54700	---

Factors for

80# Cylindrical	1.05 Hopper	1.10
100# Cylindrical	1.15 Hopper	1.15

**Bulk Storage Tanks**

**VERTICAL BULK STORAGE**

Costs are for 10 and 12 gauge bolted galvanized tanks, including sand & gravel foundations, fittings and roof.

Capacity (Gallons)		Capacity (Gallons)	
Cost		Cost	
2,000	5200	15,000	17200
3,000	6200	20,000	21300
4,000	7100	30,000	30100
5,000	8100	40,000	39200
7,500	10400	50,000	47600
10,000	12800	60,000	56800

Add for concrete slab foundations, per SF 4.41

**HORIZONTAL BULK STORAGE**

Costs are for completely installed tanks, including saddles or legs and fittings.

Capacity (Gallons)		Capacity (Gallons)	
Cost		Cost	
1,000	2800	7,500	8000
1,500	3100	10,000	9800
2,000	3500	12,500	11900
3,000	4500	15,000	13800
4,000	5100	20,000	17800
5,000	5800	25,000	21900
6,000	6500	30,000	25400

**Fuel Oil Tanks**

Per item for underground steel tanks, installed complete, including excavation and backfill.

Capacity (Gallons)	Shell	Cost
500	10 GA	4300
1,000	3/16"	6900
2,000	3/16"	10100
3,000	3/16"	11400
4,000	3/16"	12700
5,000	1/4"	12300
7,500	1/4"	16700
10,000	1/4"	18200
12,500	5/16"	18900
15,000	5/16"	17100
20,000	5/16"	23000
30,000	3/8"	34500



**SCHEDULE G (continued)**

**Yard Improvements**

**Grain Elevators**

Grain elevators are for the processing and storage of grain. Most facilities may consist of a combination of structures as listed below or from other categories in this section. Any separate offices, warehouses, or other non-farm structures should be priced from other sections of this manual.

Costs are based on total bushel capacity of the elevator and/or annex facility except for steel tanks and bins which are priced on a cost per tank basis. Special foundation work such as pilings or extremely large concrete pads are not included and must be added separately.

Annex costs are for vertical storage facilities. They are to be used for elevators when there is an exposed leg system and no headhouse or for additional detached storage which utilizes the headhouse of the original elevator as well as its basic machinery. If the annex has a headhouse, it should be priced from the elevator cost tables, using the total capacity of both the elevator and the annex.

Total Bushel Capacity	Cost Per Bushel			
	Wood Crib/Metal Clad Elevator		Concrete (Slip Form Construction) Annex	
	Elevator	Annex	Elevator	Annex
8,000	18.35	10.65	16.07	9.67
10,000	16.77	9.63	14.42	8.68
15,000	14.24	8.69	13.08	7.75
20,000	12.68	7.84	12.00	7.14
25,000	11.56	7.10	11.17	6.72
30,000	10.75	6.55	10.43	6.38
40,000	9.58	5.76	9.75	5.88
50,000	8.74	5.22	9.23	5.53
75,000	7.41	4.37	8.36	4.94
100,000	6.60	3.84	7.79	4.56
150,000	5.61	3.21	7.06	4.07
200,000	4.99	2.82	6.59	3.76
250,000	4.56	2.56	6.24	3.53
300,000	4.23	2.37	5.95	3.36
400,000	3.78	2.08	5.56	3.10
500,000	3.46	1.89	5.25	2.91
750,000	3.13	1.74	4.76	2.60
1,000,000	2.82	1.61	4.44	2.39
Over	2.54	1.53	3.64	1.91

Grain Elevator Depreciation: Refer to the Depreciation Section for special consideration relative to Grain Elevator Depreciation.

**Trench and Bunker Silos**

Per square foot

**Horizontal Silos**

	Ground Floor Area (square feet)					
	2000	3000	4000	5000	6000	8000
Tilt-up concrete panels and precast wall supports, sealed, concrete floor	16.73	14.44	13.19	12.29	11.65	10.41
Poles and braces, tilt-up concrete panels, concrete floor	13.52	11.76	10.81	10.12	9.66	8.64
Cantilevered poles, plywood or tongue and groove walls, concrete floor.	11.75	10.35	9.62	9.06	8.68	7.84

**Steel Tanks and Corrugated Metal Bins**

Capacity (Bushel)	Bolted or Welded Steel	Corrugated Metal (Per Bin)
	15,000	3.34
20,000	3.18	1.87
25,000	3.07	1.80
30,000	2.98	1.76
35,000	2.91	1.73
40,000	2.85	1.69
50,000	2.74	1.64
60,000	2.66	1.58
80,000	2.54	1.53
100,000	2.45	1.47
125,000	2.37	1.41
150,000	2.28	1.38
175,000	2.24	1.36
200,000	2.18	1.32
250,000	2.12	1.29
300,000	2.09	1.25

**Horizontal Storage**

The following costs are for horizontal or flat storage without loading and/or unloading systems.

Capacity (Bushel)	Cost Per Bushel	
	Wood	Steel
50,000	1.46	1.70
75,000	1.37	1.61
100,000	1.30	1.55
150,000	1.23	1.47
200,000	1.16	1.41
250,000	1.11	1.37
300,000	1.09	1.33
400,000	1.03	1.28
500,000	1.00	1.25
750,000	0.93	1.17
1,000,000+	0.89	1.14

**SCHEDULE G (continued)**

**Yard Improvements**

**Brick and Concrete Stacks**

Per item (in thousands of dollars)  
including normal foundation, brick lining for  
1/3 of the height, ladder and lightning rod.

Height	I.D. Top	Brick	Concrete
75'	4'	77	61
	5'	87	69
	6'	109	90
100'	4'	102	83
	5'	117	91
	6'	145	121
	7'	159	130
	8'	184	156
125'	5'	146	117
	6'	183	152
	7'	202	165
	8'	232	195
	9'	287	245
150'	6'	220	183
	7'	242	199
	8'	277	234
	9'	345	293
	10'	380	330
175'	7'	282	230
	8'	325	273
	9'	401	343
	10'	446	385
	12'	479	418
200'	8'	371	311
	9'	459	391
	10'	508	440
	12'	546	479
	14'	645	566
225'	8'	418	352
	10'	517	441
	12'	573	496
	14'	617	539
	16'	727	639
250'	10'	517	441
	12'	573	496
	14'	617	539
	16'	727	639
	18'	826	727

**Steel Stacks**

Per linear foot of height, installed complete  
including foundation and painted exterior.

Thickness (At Base)	Diameter at Base							
	18"	24"	30"	36"	48"	60"	72"	84"
10 Gauge	214	271	327	385	487	597	689	---
8 Gauge	245	312	377	432	550	661	772	---
1/4" Plate	---	404	477	550	698	835	964	1102
3/8" Plate	---	---	---	698	872	1055	1192	1332
1/2" Plate	---	---	---	---	1010	1192	1377	1562
Guy Wire (L.F.)	0.55	0.66	0.72	0.83	0.95	1.10	1.19	1.29
Guy Band (Each)	60	92	117	143	201	262	322	390
Roof Flashing	423	597	780	964	1377	1791	2204	2663
Umbrella Top (Each)	157	240	330	432	652	---	---	---

**SCHEDULE G (continued)**

**Yard Improvements**

**Incinerators**

**STEEL**

Costs include scrubber, but do not include chimney.

Pounds per Hour	Cost
50	20400
100	22800
200	28700
400	43500
600	67500
1000	159800
Add for feeder	7500 to 11600

**BRICK**

Costs include brick work, but do not include chimney or pollution control.

Pounds per Hour	Cost
100	13000
200	16500
400	24000
600	30500
1000	44100
2000	79200
3000	113800
5000	183200

For refractory lining, add 200%.

**Drive-In Theaters**

Costs are broken into major cost items on a per space basis. Some theaters may be mixed in quality requiring substitution from another grade.

	D	C	B	A
Engineering	130	161	201	246
Grading	126	154	192	236
Paving	393	504	649	835
Screens	143	197	274	378
Ticket Booth	14	17	21	24
Miscellaneous				
Landscaping, etc.	88	126	184	266
Cost per car space	893	1160	1520	1986

**UNIT COSTS**

The following costs may be used to either make adjustments to the cost per space pricing or as a build-up method to develop a complete theater cost.

	Low	Average	Good
Screen, per sq. ft. of screen area			
Wood frame on poles	22.16	24.04	28.28
Wood frame on timbers:			
Plain	26.89	25.26	29.41
Ornate	35.82	33.55	39.65
Steel frame:			
Plain	25.33	31.66	39.21
Ornate	34.04	31.98	37.73
Concrete, with steel-framed screen enclosure	47.80	58.82	71.70
Ticket Booths, each	6,978.70	7,017.20	8,451.18

NOTE: Refer to the 30-year life table for depreciation.

NOTE: All other buildings including projection booths and security fencing should be priced from the appropriate schedule.

**Chimneys**

**BRICK CHIMNEYS**

Average cost per foot of height with tile flues, including foundation.

	Per vertical LF
8" square or round flue	221.00
12" square or round flue	276.00
2-8" square or round flue	281.00
10" x 18" rectangle flue	296.00
1-8" and 1-12" square flue	403.00

**METAL CHIMNEYS**

Average cost per linear foot for round galvanized metal stacks.

Size	Single Wall	Double Wall	Triple Wall
6"	26.49	28.91	30.93
8"	30.59	35.03	45.24
10"	40.60	50.76	63.40
Add for thru-the-wall installations.		225	360
Add for box framed decorative chimney housing per linear foot:			
Wood or stucco		22.08	32.97
Metal		34.88	51.68

**SCHEDULE G (continued)**

**Yard Improvements**

**Greenhouses**

Price per square foot of floor space

Cost includes foundation, light masonry or frame sill walls, glazed upper walls (6' to 7' overall eaves height), roof ventilation, lighting, and water service.

Cost does not include heating and ventilation systems, special watering or sprinkler systems, and planting benches.

Type and Quality	Square Foot Area														
	500	1000	2000	3000	5000	10000	20000	30000	40000	50000	60000	70000	80000	90000	Over
Good aluminum/steel	75.40	50.53	36.61	29.74	26.94	25.12	22.07	20.68	19.52	19.06	18.03	17.26	16.74	16.31	15.88
Average steel	73.17	49.70	36.75	30.12	20.24	18.96	16.11	15.24	14.63	14.13	13.30	12.71	12.29	11.97	11.63
Average pipe	65.81	44.74	33.04	27.12	18.20	17.04	14.50	13.70	13.14	12.72	11.98	11.47	11.05	10.80	10.54
Low cost wood frame	54.91	37.61	28.18	23.39	15.52	14.58	12.28	11.59	11.08	10.72	10.13	9.72	9.40	9.14	8.90

Add for paved floors and walks

Concrete	4.65
Asphalt	3.16

Add for maintenance and utility buildings, per square foot

Cheap shed-type	12.88
Low cost frame, block or equal	25.38
Average cost block or equal	31.74
Average cost brick or equal	38.57
Good quality brick or equal	44.50

**INSTITUTIONAL AND CONSERVATORY GREENHOUSES**

Apply the following factors to the good aluminum and steel frame prices.

Typical installations	200%
High quality elaborate installation	300%

**Swimming Pools**

Per square foot of pool surface, reinforced concrete construction including piping & water treating equipment, heaters, boards, ladders.

**Car Wash Buildings**

DRIVE - THRU CAR WASH (Stationary Type, Exterior - Wash)  
Per square foot, average quality, completely installed.

	Good	Avg.	Low Cost
Masonry/Steel	84.67	82.92	72.34
Porcelain-Steel	109.88	100.20	90.51
Wood Frame/Stucco	74.07	68.23	62.38

Cost includes concrete slab, floor drains, basic electrical, lighting and water service and equipment enclosure. Add for restroom fixtures from general commercial schedule.

**DO-IT YOURSELF**

Per item, completely installed (excluding equipment)

Good quality	
2-bay	41000
Each additional bay	14200
Average quality	
2-bay	34100
Each additional bay	11000
Low cost	
2-bay	30800
Each additional bay	9500

**MOTEL AND APARTMENT COMPLEX TYPE**

Square Feet	Cost
1,000-1,200	75.50
1,300-1,500	73.20
1,600-2,200	68.80
2,300-2,500	62.70

**SWIM AND COUNTRY CLUB TYPE**

Square Feet	Cost
2,500-4,000	91.40
5,000-6,000	82.20
7,000-9,000	76.40
10,000-20,000	71.00
Over	65.80
Add for diving 'L	8.69

Irregular shape	Add 25%
Separate whirlpool bath (range)	7400 to 12700
Add for ceramic tile, per sq.ft. tiles area	10.83
Add for concrete apron, per square foot	5.68
Add for wading pool, per square foot	14.00
Price fencing from appropriate schedule.	
Price buildings from appropriate schedule.	

**LARGE MUNICIPAL POOLS**

Complete include bathhouse	
Per person capacity	4870 to 7280

**SCHEDULE G (continued)**

**Yard Improvements**

**Golf Courses**

**REGULATION PLAY**

Costs per hole are given for five (5) quality grades of golf courses, ranging from cheaply built courses to excellent quality courses designed for professional play.

The costs for each grade have been developed to include the following:

- 1 Architectural fees to include engineering, planning and on-site supervision (ranging from six percent (6%) to ten percent (10%)).
- 2 Normal site preparation and grading, and follow-up fairway seeding and landscaping.
- 3 Sprinkler installation to include the water source, pumps, piping and heads.
- 4 Roadway construction to include base preparation, paving and bridging for service roads and cart paths.
- 5 Green construction to include seeding and pre-opening maintenance.
- 6 Tee construction to include seeding and pre-opening maintenance.
- 7 Bunker construction to include pre-opening maintenance.

**GRADE AA**

Superior quality course, designed to accommodate professional championship play, eighteen (18) holes on one hundred eighty (180) acres of rolling and laked terrain, seven thousand two hundred (7,200) yards long, rated par seventy two (72) and featuring a completely automatic sprinkler system throughout, ten thousand (10,000) square feet tiled greens, two thousand four hundred (2,400) square feet tees with three (3) tee locations, an average of three (3) bunkers per hole and good quality asphalt paved roadways.

**GRADE A**

Excellent quality course, designed to accommodate professional championship play, eighteen (18) holes on one hundred sixty (160) acres of rolling and laked terrain, seven thousand two hundred (7,200) yards long, rated par seventy two (72) and featuring a completely automatic sprinkler system throughout, eight thousand (8,000) square feet tiled greens, two thousand one hundred (2,100) square feet tees with two (2) to three (3) tee locations, an average of three (3) bunkers per hole and good quality asphalt paved roadways.

**GRADE B**

Good quality private club type course, eighteen (18) holes on one hundred thirty (130) acres of rolling terrain, six thousand four hundred (6,400) to six thousand five hundred (6,500) yards long, rated par seventy (70) and featuring an automatic sprinkler system serving the greens and tees, and a manual system on fairways, five thousand (5,000) square feet tiled greens, one thousand eight hundred (1,800) square feet tees with two (2) tee locations, an average of two (2) bunkers per hole, and good quality asphalt paved roadways.

**GRADE C**

Average quality public and municipal type course, eighteen (18) holes on one hundred ten (110) acres of primarily flat terrain, six thousand (6,000) yards long, rated par sixty-seven (67) to seventy (70), featuring a semi-automatic sprinkler system, small tees and greens with few bunkers and average quality asphalt or gravel roads.

**GRADE D**

Fair quality course, eighteen (18) holes on ninety (90) acres of flat terrain, five thousand four hundred (5,400) yards long, rated par sixty-four (64) to sixty-seventh (67), and featuring a manual sprinkler system, small tees and greens with few bunkers and gravel roadways.

BASE COST PER HOLE

AA Grade	--
A Grade	--
B Grade	--
C Grade	--
D Grade	--

NOTE: The costs per hole, and components represent neither the best nor the cheapest quality courses and may be factored upward (ten percent (10%) to fifty percent (50%)) or downward (ten percent (10%) to fifty percent (50%)) as required.

For hybrid courses (courses exhibiting different quality grade features), it may be necessary to interpolate between grades.

TYPICAL COST-RANGE FOR COMPONENTS

Tees	--
Bunkers	--
Greens	
Flat	--
Elevated	--
Lakes	
Asphalt lined	--
Plastic & sand	--
Sprinkler systems	
Manual	--
Automatic	--
Site preparation and landscaping	--

**SHORT PLAY**

Cost range per hole, excluding structures and parking areas.

Executive courses, 18 holes on 50 to 60 acres, 4,600 yards long including sprinkler system, excluding lighting --

Par 3 course, 18 holes on 30 to 40 acres, 2,800 to 3,000 yards long, including sprinkler system, excluding lighting --

Pitch and putt, 9 holes on 10 to 15 acres, 1,400 to 1,500 yards long including sprinkler system, excluding lighting --

**GOLF COURSE LAND VALUES**

The reproduction cost for a regulation or short play golf course improvement includes a cost for the land of \$ \_\_\_\_\_ per acre without a consideration of productivity factors. The following formula is used to determine the true tax value of a golf course:

STEP ONE: Determine the number of holes in the golf course.

STEP TWO: Multiply the number of determined in STEP ONE by the base cost per hole

STEP THREE: Determine the amount of acreage in the parcel devoted to the golf course (greens, fairways, roughs, etc.).

STEP FOUR: Multiply the amount determined under STEP THREE by \$---

STEP FIVE: From the amount determined under STEP

TWO, subtract the amount determined under STEP FOUR.

STEP SIX: To the amount determined in STEP FIVE, apply the appropriate depreciation percentage.

The true tax value of the golf course land is \$---- per acre.

**SCHEDULE G (continued)**

**Yard Improvements**

**Miniature Golf Courses**

Typical cost per hole including plumbing but excluding building structures, fencing, and parking areas.

Excellent installation, professionally designed	20000
Good installation	13400
Average quality installation	6100
Low cost installation	2900

**Golf Driving Range**

Typical cost per station, including station paving, normal fencing, but excluding building structures and parking areas

Excellent installation	6200
Good installation	4100
Average installation	3200
Low cost installation	2100

**Artificial Turf**

Per square foot, for football and baseball, including pad 8.32 to 10.42

**Bleachers**

Typical cost

	Seats	Per S.F.*	Per Seat
Portable, steel frame, wood benches, outdoor	Up to 800	18.02	56.24
	Over 800	16.70	50.19
Permanent, wood frame and benches, outdoor	Up to 1000	23.38	73.72
	1000 to 2000	21.75	67.67
	Over 2000	20.36	62.31
Permanent, steel frame fiberglass benches, outdoor	Up to 1000	36.28	114.27
	1000 to 2000	33.73	104.88
	Over 2000	31.55	96.57
Add for roofed area	8.45 to	10.88	per S.F.

**OUTDOOR STANDS OVER DRESSING ROOMS**

including finish and plumbing

	Per S.F.*	Per Seat
Average wood seats, steel frame	75.98	238.88
Average steel seats, concrete or masonry walls	85.22	264.52
Average concrete seats, concrete or masonry walls	114.51	346.16
Add for roofed area; per sq.ft.	11.55	18.65 per S.F.

\*Square foot of projected horizontal area

**Running Tracks**

Per square foot

Gravel and cinder on stone base	1.34
Resilient paving, rubber cork base	
Plain	2.73
Colored	3.34
Rubberized asphalt, colored	3.64
Artificial resilient material, asphalt base	11.83

Typical cost for gravel track with minimal requirements for 440 yard oval 21' wide, 24' x 750' long straight-away, including high jump, pole vault, broad jump, discus and hammer throw and shot-put facilities 87,000 to 112,000

Typical cost to include football field 175,000 to 218,000

**Sports Stadium**

Typical cost range per seating capacity (baseball capacity) for all structural improvements in-place.

Older type parks	1500 to	1900
Modern type parks	1900 to	3100
Enclosed, roofed stadiums, artificial turf, scoreboard	2900 to	5900

**Tennis Courts**

Typical cost range per court, 60 x 120 including fencing

	Standard	Deluxe
Clay surfaced court	38300	53597
Add per additional court	30255	42379
Asphalt surfaced court	37507	52464
Add per additional court	29575	41359
Sod surfaced court	37507	52464
Add per additional court	29915	41926
Add for lighting	10171	14278
Per additional court	5086	7139

**Paddle Tennis Courts**

Typical costs range per set, 54' x 55' deck with two 18' x 39' playing courts, installed complete including deck and supports, accessories.

	Standard	Deluxe
Bituminous concrete deck, colored	37000	47000
Treated wood deck	44000	57000
Insulated steel deck	47000	57000

**Shuffle Board Courts**

Typical cost per court, 6' x 52' concrete 2100 to 3200

**SCHEDULE G (continued)**

**Yard Improvements**

**Mobile Home Parks**

General Specifications

**EXCELLENT "A"**

The excellent mobile home park provides deluxe accommodations for the largest single and double wide homes. It will have complete and various recreational facilities of top quality and feature generous amounts of landscaping, sprinkler systems, etc.

**GOOD 'B'**

The typical good park is one catering to the larger, permanent mobile home. It will accommodate a limited quantity of double wides and will feature complete recreational facilities. All utilities are underground and may include cable TV systems.

**AVERAGE 'C'**

This type of park is built more for permanent occupancy and will have spaces to accommodate the manufactured home up to sixty (60) feet but few if, any, double wide versions. They will have utility buildings, office and possibly recreational facilities, electrical costs include underground service and telephone

to most sites as well as street lighting.

**LOW COST "D"**

Developed for transient or semi-permanent occupancy, these parks usually have car-drawn trailers up to forty-five feet (45) long. They feature limited planning and facilities and have sewer or septic system hook-ups and water, but not gas hook-ups, except to utility buildings and electrical service is overhead.

**CHEAP 'E'**

Typical of sites developed in outlying rural areas where there is minimal or no building code enforcement. There will be close spacing and few facilities and are designed for smaller mobile homes. They feature water service to common hydrants with no trailer hook-ups.

**Cost per site**

Quality Grade	A		B		C		D		E						
*Site Size (Sq. Ft.)	2700	--	5100	2000	--	4700	1700	--	3700	1000	--	2900	700	--	2400
**Cost Range (\$)	13400	--	14230	9670	--	10850	6360	--	7520	4350	--	5370	2220	--	3140
<b>Components of Above Cost.</b>															
Engineering	1500		1620	1120		1250	760		880	520		620	250		360
Site Grading	1440		1540	1010		1140	630		770	410		520	200		290
Street Paving	2240		2380	1650		1850	1090		1300	830		1030	500		680
Patios and Walks	1940		2040	1250		1420	830		970	550		660	290		390
Sewers	1460		1550	1190		1350	910		1070	650		810	390		550
Water	1430		1500	1090		1210	760		880	550		660	320		450
Electric	2400		2540	1780		1990	1180		1410	810		990	420		590
Gas	940		990	650		740	410		470	250		320	0		0
Misc. (Landscaping, Recreation, Facilities, Etc.)	1990		2100	1310		1460	740		870	420		540	190		280
<b>Total</b>	<b>15340</b>		<b>16260</b>	<b>11050</b>		<b>12410</b>	<b>7310</b>		<b>8620</b>	<b>4990</b>		<b>6150</b>	<b>2560</b>		<b>3590</b>

\*Site size refers to the average of the actual site on which the mobile home is situated, exclusive of access drives, recreation areas, and service areas.

\*\*The cost range per site includes all of the components shown above, naturally, if the sites being appraised do not include all of the above components, proper deductions should be made according to the above schedule.

NOTE: In Appraising mobile home parks through the use of this schedule, complete the following steps:

1. Enter the number of sites and proper rate in the SUMMARY OF IMPROVEMENTS section and calculate reproduction cost.
2. Apply proper depreciation considering age, condition, and neighborhood desirability (use residential guidelines).

3. Appraise other structures (i.e. garages, community rooms, laundry buildings, etc.) from appropriate schedules.

NOTE: This schedule is NOT to be used for recreational vehicle parks.

**SCHEDULE G (continued)**

**Yard Improvements**

**Riverboat Cost Schedules**

For Indiana property tax purposes, the reproduction cost of a riverboat licensed under IC 4-33 shall be computed in accordance with Schedule A or B in this section. Typical cost range per certified capacity for all structural components in-place. Certified capacity is the maximum persons capacity as prescribed by the regulations of the Coast Guard, Department of Transportation. For purpose of this section, certified capacity includes both passengers and crew.

**SCHEDULE A**

Riverboats licensed in counties contiguous to Lake Michigan:

Certified capacity of 2,000	19,000,000	
More than 2,000, add		2,500 per person
Less than 2,000, deduct		2,500 per person

Example: A Lake Michigan riverboat has a certified capacity of 3,000 persons. The difference in capacity between the subject and the model is 1,000 people. To calculate the boat's reproduction cost, multiply the capacity difference of 1,000 by the per person cost and add it to the base as follows:

$$\begin{array}{rcl}
 2,500 \times 1,000 & = & 2,500,000 \\
 19,000,000 + 2,500,000 & = & 21,500,000
 \end{array}$$

**SCHEDULE B**

Riverboats licensed in counties contiguous to the Ohio River:

Certified capacity of 2,000	17,100,000	
More than 2,000, add		2,500 per person
Less than 2,000, deduct		2,500 per person

Example: An Ohio River riverboat has a certified capacity of 1,600 persons. The difference in capacity between the subject and the model is 400 people. To calculate the boat's reproduction cost, multiply the capacity difference of 400 by the per person cost and deduct it from the base as follows: and add it to the base as follows:

$$\begin{array}{rcl}
 2,500 \times 400 & = & 1,000,000 \\
 17,100,000 - 1,000,000 & = & 16,100,000
 \end{array}$$

**Landfill Liners**

The following schedule is to be used in assessing liners installed within landfills.

A landfill liner is a series of layers of special earth materials and plastic that is placed within the landfill cell to retain leachant within the structure and discourage subterranean water from infiltrating the cell. The rates given represent a composite build-up of the liner and can be used as either a system total or on a component basis depending on the subject landfill.

Once the subject's rate has been determined, multiply the desired rate by either the number of square feet or the acreage within each cell and calculate a depreciation percentage from the twenty (20) year life expectancy table. Record the true tax value as a sound value item in the "Summary of Improvements" section of the property record card.

The land value for the area underneath the cell should be valued at the commercial unusable undeveloped rate with a "floating one (1) acre" at the primary rate until the cell has been closed. After closure, the entire acreage of the cell is valued at the commercial unusable undeveloped rate.

	Per S.F.	Per Acre
Compacted soil barrier (10" to 24")	0.65	28300
Flexible membrane liner (60 mil.)	0.45	19600
Geosynthetic clay liner blanket (30")	0.55	24000
Sand drainage layer (12")	0.50	21800
<b>Total</b>	<b>2.15</b>	<b>93700</b>
Protective cover layer - part of unusable undeveloped rate.		



**SCHEDULE G (continued)**

**Yard Improvements**

**Commercial-Type Solar Heating and Cooling System Base Rates**

For large commercial applications, multiply the system's total collector square feet by the following square feet base rates. To arrive at the system's correct reproduction cost, determine the rate from the schedule below by choosing a rate, listed to the nearest five thousand (5,000) square feet, that is closest to the subject's system total area. Do not interpolate between rates.

	Per S.F.
5000 to 10,000	63.87
15,000	57.23
20,000	55.60
25,000	54.38
30,000	53.39
35,000	52.58
40,000	51.88
45,000	51.27
50,000 and over	50.73

**Geothermal Heating and Cooling System Base Rates**

**Horizontal Closed Loop Systems**

System Tonnage	HCLSWD	HCLSWOD
	w/distribution	w/o distribution
2 Ton	10400	9100
2.5 Ton	13300	11200
3 Ton	16300	13600
3.5 Ton	19100	15900
4 Ton	22000	18100
5 Ton	27200	22600
6 Ton	32400	27000

**Vertical Closed Loop Systems**

System Tonnage	VCLSWD	VCLSWOD
	w/distribution	w/o distribution
2 Ton	12400	10900
2.5 Ton	15700	13700
3 Ton	20600	17800
3.5 Ton	22600	19100
4 Ton	25600	22400
5 Ton	32200	27400
6 Ton	38400	33000

**Open Discharge Open Loop Systems**

System Tonnage	ODOLSWD	ODOLSWOD
	w/distribution	w/o distribution
2 Ton	8900	7600
2.5 Ton	11300	9300
3 Ton	13800	11100
3.5 Ton	16300	12800
4 Ton	18700	14600
5 Ton	22900	18200
6 Ton	27000	21800

**Return Well Open Loop Systems**

System Tonnage	RWOLSWD	RWOLSWOD
	w/distribution	w/o distribution
2 Ton	9700	8600
2.5 Ton	12200	10300
3 Ton	14700	12100
3.5 Ton	17000	13700
4 Ton	19600	15500
5 Ton	23700	19000
6 Ton	27900	22600

**SPECIAL USE COMMERCIAL PROPERTY COST SCHEDULES**

**Fast Food Base Costs**

Per square foot, C - Grade quality and design

Area	Cost	Area	Cost
700	288.53	2200	191.88
800	276.80	2300	189.85
900	267.02	2400	187.82
1000	247.12	2500	186.10
1100	238.88	2600	184.37
1200	230.64	2700	182.92
1300	224.66	2800	181.46
1400	218.67	2900	180.16
1500	214.14	3000	178.85
1600	209.60	3500	172.50
1700	206.01	4000	169.06
1800	202.41	4500	166.25
1900	199.52	5000	163.90
2000	196.62	5500	161.84
2100	194.25	6000	160.08

Add for basements per square foot

Area	Unfinished	Finished Open	Finished Divided
200	75.62	138.43	---
400	59.71	116.72	---
600	51.93	107.20	123.86
800	49.67	101.46	118.28
1000	47.42	97.50	114.43
1200	45.41	94.67	111.68
1400	43.41	92.37	109.45
1600	41.42	90.61	107.73
1800	39.42	89.11	106.28
2000	37.42	87.79	104.99
2200	38.20	86.73	103.96
2400	38.01	85.76	103.01
2600	37.81	84.96	102.24
2800	37.61	84.16	101.47
3000	36.42	83.46	100.87
3200	35.50	82.93	100.27
3400	34.56	82.31	99.75
3600	33.64	81.87	99.25
3800	32.70	81.35	98.81
4000	31.77	80.90	98.38

Add for canopies per square foot 23.10

**Quality Grade and Design Factors**

To be applied to the C - Grade prices above.

A	160	A
-1	150	
2	140	
+1	130	
B	120	B
-1	115	
+2	110	
+1	105	
C	100	C
-1	95	
+2	90	
+1	85	
D	80	D
-1	70	
+2	60	
+1	50	
E	40	E

**Paving**

Per square foot  
See commercial yard paving rates

**Detached Canopies**

Per square foot

Low cost installation	24.05
Average installation	26.45
Good installation	30.45
High cost installation, elaborate finish and décor	36.05

Note: Solariums should be included in the base area and priced using the appropriate base rate.

**SPECIAL USE COMMERCIAL PROPERTY COST SCHEDULES (continued)**

**Stations with Service Bays**

Per square foot C - Grade quality and design.

Area	Cost	Area	Cost
600	143.46	1400	106.31
700	134.31	1500	105.44
800	127.48	1600	104.57
900	122.15	1700	103.69
1000	117.88	1800	100.87
1100	114.40	2000	97.84
1200	111.50	2200	95.56
1300	109.04	2400	94.05

NOTE: For drive-thru car wash bays see car wash building schedule.

**Stations without Service Bays**

Per square foot C - Grade quality and design.

Area	Cost	Area	Cost
150	255.99	800	114.46
200	216.99	900	110.46
250	192.12	1000	107.25
300	174.79	1100	104.60
350	161.77	1200	102.39
400	151.72	1300	100.56
500	136.84	1400	98.41
600	126.36	1500	97.93
700	119.53	1600	97.48

Add for unfinished basements

Area	Cost	Area	Cost
200	64.16	1000	40.23
400	50.67	1200	38.53
600	44.06	1600	35.15
800	42.15		

Add for attached canopies, per square foot  
 Typical steel frame including soffit and lighting 42.02  
 Typical unfinished wood frame including lighting 12.81

**Public Restroom Building**

Per square foot

Area	Cost	Area	Cost
125	167.72	800	133.91
150	160.58	900	133.05
200	150.59	1000	132.62
250	143.77	1100	132.33
300	138.73	1200	132.28
400	131.60	1300	132.26
500	126.80	1400	132.25
600	123.17	1500	132.23
700	121.53	1600	132.22

**Paving**

Per square foot

See commercial yard paving rates

**Quality Grade and Design Factors**

To be applied to the C - Grade prices above.

<b>A</b>	160	-1	95
-1	150	+2	90
+2	140	+1	85
+1	130	<b>D</b>	80
<b>B</b>	120	-1	70
-1	115	+2	60
+2	110	+1	50
+1	105	<b>E</b>	40
<b>C</b>	100		

**Detached Canopies**

Per square foot

Includes lighting, soffits and supports.

	Steel	Wd, Frame and Sheath
Low Cost Installation	29.66	13.75
Average Quality Installation	38.16	17.11
Good Quality Installation	42.02	18.28
High Cost Elaborate Installation	45.53	18.91

Add 25% for round canopy

**Self - Service Cashier Booths**

LOW COST

Per square foot

Open style booth,  
 minimum elect.,  
 no plumbing

Area	Cost
25	396.81
50	310.15
75	223.37
100	207.07
125	194.81
150	181.50
175	171.04
200	162.67
225	155.64
250	149.81
275	144.72
300	140.24

AVERAGE (STEEL)

Per square foot

Typical cashier booth,  
 good elect.,  
 no plumbing

Area	Cost
50	407.52
75	326.83
100	306.15
125	247.62
150	230.71
175	217.40
200	206.76
225	197.83
250	190.42
275	183.96
300	178.26

Add 25% for bullet-proof glass.  
 Add for plumbing.

GOOD (STEEL)

Good security structure  
 with bullet-proof glass  
 and 2 plumbing fixtures.

Area	Cost
75	432.67
100	400.79
125	324.01
150	300.45
175	282.10
200	267.50
225	255.33
250	245.26
275	236.53
300	228.85

Add/deduct for plumbing  
 Add for intercom system

1600 per fixture.  
 397

**Location Cost Multipliers**

The residential cost schedules in this manual are based on the building costs for residential structures in the Indianapolis metropolitan area as of January 1, 2022. By applying these cost schedules, the assessing official is attempting to calculate the replacement cost new of a residential structure within his/her jurisdiction. Since construction costs vary from one jurisdiction to another, it shall be necessary to apply location cost multipliers to the costs published in this guideline in order to accurately reflect actual costs within his/her jurisdiction.

These location cost multipliers can be determined in one of two ways. The first and most accurate method is for the county assessor to develop a location cost multiplier for his/her respective county. This can be done using techniques such as surveying residential contractors to determine actual construction costs or by comparing the cost of residential structures built and sold on or about January 1, 2022 to the costs published in this manual. The county assessor may use any acceptable technique of estimating a location cost multiplier and must submit the technique and resultant multiplier to the DLGF for review and approval prior to its application in the county.

The second method, which is presented as an alternative to the preferred method, is to use the location cost multipliers listed in Table G-1 below. These multipliers have been developed by reviewing comparative cost multipliers for various Indiana localities as published in several national cost services.

The location cost multiplier is to be applied to all residential improvements, not just the main structure, in order to arrive at replacement cost new. The only exception to this is with manufactured and mobile homes, they will not receive a cost multiplier, as they are typically built in a given location and delivered to various locations to be used. The proper place for applying the location cost multiplier is discussed in Chapters 3, 4 and 5 of this manual.

**Table G-1--Location Cost Multipliers by County**

COUNTY	MULTIPLIER	COUNTY	MULTIPLIER	COUNTY	MULTIPLIER
Adams	96%	Hendricks	100%	Pike	88%
Allen	96%	Henry	86%	Porter	95%
Bartholomew	88%	Howard	92%	Posey	92%
Benton	92%	Huntington	96%	Pulaski	92%
Blackford	85%	Jackson	88%	Putnam	100%
Boone	100%	Jasper	93%	Randolph	85%
Brown	93%	Jay	85%	Ripley	93%
Carroll	92%	Jefferson	88%	Rush	100%
Cass	92%	Jennings	88%	Scott	87%
Clark	87%	Johnson	100%	Shelby	99%
Clay	95%	Knox	87%	Spencer	90%
Clinton	100%	Kosciusko	90%	St. Joseph	90%
Crawford	87%	LaGrange	94%	Starke	91%
Daviess	87%	Lake	95%	Steuben	96%
Dearborn	93%	LaPorte	95%	Sullivan	95%
Decatur	88%	Lawrence	91%	Switzerland	93%
Dekalb	96%	Madison	100%	Tippecanoe	92%
Delaware	85%	Marion	100%	Tipton	100%
Dubois	87%	Marshall	90%	Union	86%
Elkhart	90%	Martin	87%	Vanderburgh	92%
Fayette	86%	Miami	92%	Vermillion	94%
Floyd	87%	Monroe	91%	Vigo	95%
Fountain	92%	Montgomery	92%	Wabash	92%
Franklin	93%	Morgan	100%	Warren	92%
Fulton	92%	Newton	92%	Warrick	91%
Gibson	92%	Noble	96%	Washington	87%
Grant	92%	Ohio	93%	Wayne	85%
Greene	91%	Orange	90%	Wells	96%
Hamilton	100%	Owen	92%	White	92%
Hancock	100%	Parke	95%	Whitley	96%
Harrison	87%	Perry	87%		

<b><u>Index</u></b>	<b><u>Page</u></b>
Apartments	20
Artificial Turf	38
Atrium	22
Banking Features	22
Bleachers	38
Boiler	25
Bridge, Highway	28
Bridge, Pedestrian	28
Bridge, Skyway	28
Bulkhead Piling	30
Canopy, Commercial	26
Canopy, Industrial Dock	26
Car Wash Building	36
Cashier Booth, Self-Service	43
Ceiling Finish	19
Chimney	35
Cold Storage	25
Conveying System	23
Detached Canopy, Fast Food	42
Detached Canopy, Stations	43
Dock, Loading	26
Dock, Structural	26
Earth Dike	30
Elevator, Freight	24
Elevator, Passenger	23
Elevator, Sidewalk	24
Escalator	24
Fast Food Base Cost	42
Fencing	27
Floor Finish	19
GC Base Price Components and Adjustments	17
GCI Base Prices	14
GCK Base Rates	16
GCM Base Prices	12

<b><u>Index</u></b>	<b><u>Page</u></b>
GCR Base Prices	15
Geothermal	41
Golf, Driving Range	38
Golf, Miniature	38
Grain Elevator	33
Greenhouse	36
Guardrail	27
Health/Recreational Club	23
Marquee	23
Mechanical Room	21
Mezzanine	21
Mobile Home Parks	39
Mooring Clusters	28
Motels	20
Moving Walk	24
Oil Storage	29
Partitioning	19
Paving	27
Penthouse	21
Public Restroom Building	43
Railroad Siding	27
Riverboat	40
Running Track	38
Sauna Bath	23
Shower Units	20
Shuffle Board Court	38
Solar	41
Sports Stadium	38
Sprinkler Group	18
Stacks, Brick and Concrete	34
Stacks, Steel	34
Standpipes	31
Stations	43

<b><u>Index</u></b>	<b><u>Page</u></b>
Steam Bath	23
Steel Bin	28
Storage Bins, Dry	32
Storage, Cold	25
Story Height Adj	17
Strip Retail	20
Surface Reservoir	31
Swimming Pool	36
Tanks	29
Tanks, Bulk Storage	32
Wall, Retaining	28
Wash Fountains	20
Water Storage	31
Welded Steel Pressure	30
Whirlpool	23