

# ECONOMICAL REINFORCED CONCRETE CONSTRUCTION

## SUGGESTION:

Use the largest bar size that will meet design requirements. In many instances of reinforced concrete design, utilizing an equivalent area of larger sized bars can provide benefits leading to overall economy;

## BENEFITS:

- **MILL MANUFACTURE** - Larger bar sizes promote greater economies for the steel mill.
- **FABRICATION** - Fewer bars are cut, bent, and handled. This will increase fabrication efficiency and decrease fabrication time.
- **SHIPPING** - Fewer bars loaded and unloaded will reduce labour costs and improve speed. Shipping capacity is also increased since fewer bars can be loaded more efficiently.
- **PLACING** - Fewer bars to be placed in the field reduces field labour. Reduced bar congestion facilitates improved rebar and concrete placing.

## RESULT:

The greatest saving through the use of larger bar sizes is in slabs and walls where the placing of many bars is very labour intensive.

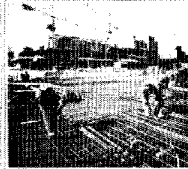
# WATCH FOR!

The next in the series of **RSIO Case History Reports**. This one will feature the DVP/CP Rail Grade Separation.

Read how this unique tunneling method benefited by using cast-in-place reinforced concrete.

# RSIO PUBLICATIONS AND DESIGN AIDS

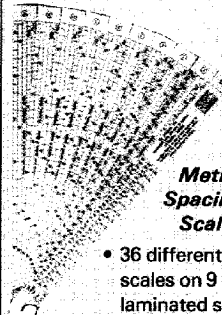
## REINFORCING STEEL



MANUAL OF STANDARD PRACTICE

### Manual of Standard Practice

- Industry Practices for Estimating Fabricating Detailing Placing
- Nationally accepted standard



### Metric Spacing Scales

- 36 different scales on 9 plastic laminated strips

Rebar Size	Weight (kg/m)	Area (mm <sup>2</sup> )	Area (in <sup>2</sup> )
10	0.617	78.5	1.21
12	0.888	110	1.68
14	1.21	154	2.37
16	1.57	201	3.11
18	2.00	254	3.93
20	2.47	314	4.91
22	2.98	380	5.94
24	3.53	452	7.02
26	4.12	531	8.16
28	4.73	616	9.36
30	5.37	707	10.63
32	6.03	804	12.07
34	6.72	908	13.58
36	7.43	1019	15.16
38	8.17	1137	16.81
40	8.94	1262	18.54
42	9.73	1394	20.35
44	10.56	1534	22.24
46	11.41	1681	24.21
48	12.30	1836	26.26
50	13.21	1999	28.39
52	14.15	2170	30.59
54	15.12	2349	32.87
56	16.12	2537	35.23
58	17.15	2734	37.67
60	18.21	2940	40.19
62	19.30	3155	42.79
64	20.42	3379	45.47
66	21.57	3612	48.23
68	22.75	3854	51.07
70	23.96	4106	54.00
72	25.20	4367	57.02
74	26.47	4638	60.13
76	27.77	4918	63.33
78	29.10	5208	66.62
80	30.46	5508	70.00
82	31.85	5818	73.47
84	33.27	6138	77.03
86	34.72	6468	80.68
88	36.20	6808	84.42
90	37.71	7158	88.25
92	39.25	7518	92.17
94	40.82	7888	96.18
96	42.42	8268	100.28
98	44.05	8658	104.47
100	45.71	9058	108.75

### Pocket Cards

- PC 2 - Rebar Identification - Mill Markings
- PC 3 - Bar information standard hooks and laps



### Case History Reports

- Shopping Mall
- Parking Structure
- Office Tower
- Office Buildings
- SkyDome

• For ordering and costs contact the Institute.



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