

- (1) பக்கங்களின் எண்ணிக்கை 56
 (2) புதுக்கித் திருப்பிய நாள் 16/6/1990
 (3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் long

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P. w. 2. துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	1586	அச்சகம் பலவகை
நாள் :	15.6.1893	198

பக்கவோ கண்டபடி கையாளவோ கூடாது

Sheet
B. 100/100

15TH JUNE 1893, No. 1586 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers:—

From H. IRWIN, Esq., C.E., Consulting Architect to Government, to the Chief Engineer, Public Works Department, dated Chépak, 10th February 1893, No. 3354.

With reference to G.O., No. 3197 W., dated the 30th November 1891, I have the honour to submit plans and estimates for kitchens for central and district jails with circular cooking ranges prepared in communication with the Inspector-General of Jails.

Estimate.

DESCRIPTIVE specification to accompany the standard plan and estimate for constructing a cook house for central jails with circular cooking range as per drawing sheet Nos. 1 and 2 signed by the Consulting Architect to Government, dated 27th January 1893.

Foundations.—A depth of four feet is provided in the quantities, but this should be settled locally in accordance with the nature of the soil.

Superstructure.—The walls will be constructed of well-burnt stock bricks two bricks thick about 18 inches) or of stone if the latter is cheaper.

Out sills.—Stone sills should be placed at bearings of trusses and for door sills; the side posts of doors to be let into a mortise in the stone about 2" square and 2" deep.

Woodwork.—The trusses to be of well-seasoned Burma teak; the minor roof supports may also be of teak or any other approved country wood proof against white ants.

Doors and windows.—Frames and shutter frames to be of well-seasoned Burma teak with 1/2 inch mesh galvanized iron wire netting stretched and secured to shutter frames.

Roof covering.—The roof covering to be of No. 3 patent Mangalore tiles or tiles of a somewhat similar description manufactured at the Government Brickfields at Madras.

Flooring.—The flooring to be of stone dressed two lines and set in mortar over concrete bed and the joints pointed with Portland cement.

Ceilings and iron work for fire place.—The cast and wrought iron fittings should be in accordance with the detailed drawings.

Estimate Form—Detail Measurements.

Detail of work	Number	Measurements in feet			Area or contents	Total quantity of each description of work
		Length	Breadth	Depth		
		1	2	3	4	5
<i>Estimate for foundations.</i>						
Circular fire place, 18" diameter	1	18.0	8.0	4.0	720	720
Outer walls of fire place shed	1	20.0	2.0	4.0	160	160
Do. of roof putting shed	1	20.0	2.0	4.0	160	160
For back to fire place shed	1	20.0	2.0	4.0	160	160
Do. as roof putting shed	1	20.0	2.0	4.0	160	160
Deduct for fire place, 18" diameter	1	18.0	8.0	4.0	720	720
Total cubic feet						2,140

15TH JUNE 1893, No. 1586 W., PUBLIC WORKS.

Estimate Form—Detail Measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<i>Concrete.</i>						
Circular fire place	1	185 0	area.	1 6	254	
Outer walls, fire place shed	1	96 0	3 6	1 6	604	
Do. ragi pudding shed	1	67 0	3 0	1 6	302	
For floor in fire place shed	1	22 6	22 6	0 6	253	
Do. in ragi pudding shed	1	26 0	14 0	0 6	182	
Deduct for fire place, 14' diameter	1	154 0	area.	0 6	1,525	
Total cubic feet	..	..	..	..	77	1,448
<i>Brick in chimneys for foundations.</i>						
Circular fire place, 14' diameter	..	..	..	..	..	..
Outer walls, fire place shed	..	154 0	area.	2 6	385	
Do. do.	..	96 0	2 0	0 9	144	
Do. ragi pudding shed	..	68 6	1 6	1 9	262	
Do. do.	..	69 0	1 6	1 9	77	
Total cubic feet	..	..	..	..	181	1,039
<i>Brick in chimneys for superstructure.</i>						
Circular fire place, 16' 6" diameter	..	214 0	area.	1 2 1/2	259	
Do. do. 14' 6" do.	..	154 0	1 6	1 7 1/2	250	
Outer walls of fire place shed	..	96 0	1 6	13 1	1,884	
Gables do.	..	25 6	1 6	4 0	306	
Outer walls, ragi pudding shed	2	69 0	1 6	9 9	1,009	
Gable do.	1	17 0	1 6	2 10 1/2	73	
Screen wall at sink	1	7 0	1 6	1 0	11	
Deductions—	..	3 0	0 9	3 0	18	
Flue, 2' diameter	..	..	..	..	..	3,810
Void below cast-iron plates	..	..	..	..	..	..
At fire places	1	3 1 1/2	area.	2 1 1/2	7	
Flues do.	3	10 6	2 6	1 6	113	
Door and archway	3	1 6	2 6	1 0	11	
Windows in fire place shed	2	2 9	0 10	0 6	3	
Do. in recessed cills	4	5 0	1 6	8 0	120	
Do. in ragi pudding shed	4	4 0	0 9	5 0	96	
Do. in recessed cills	4	4 0	1 6	3 0	198	
Arch work as per details	4	8 3	1 6	4 0	124	
Fire brick do.	4	8 3	0 9	5 0	66	
Total cubic feet	..	..	..	..	144	932
<i>Brick work in chimney.</i>						
Base	..	..	..	..	..	2,878
Shaft { Bottom 4' 8" diameter	..	..	..	..	..	..
{ Neck 2' 3" do.	..	17 0	area.	1 6	26	
Cap 6' 3" + 2' = (33' 1 1/2") mean diam.	..	..	..	..	..	..
Deduct—	..	..	..	..	..	..
Flue in base, 2' diameter	..	7 9	area.	18 6	145	
Do. in shaft { Bottom 2' 0" diameter	..	8 3	Do.	0 9	6	
{ Neck 0' 9" do.	..	3 1 1/2	Do.	1 6	5	177
2' 9" + 2' = 1' 4 1/2" mean diam.	..	..	..	..	..	..
Total cubic feet	..	1 5	area.	18 9	26	31
<i>Arch work in chimney.</i>						
Over door and archway	..	..	..	..	..	146
Do. windows	2	6 0	1 6	1 1 1/2	66	
Total cubic feet	4	6 3	1 6	1 1 1/2	..	66

15TH JUNE 1893, No. 1586 W., PUBLIC WORKS.

Estimate Form—Detail Measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<i>Fire bricks in fire clay.</i>						
Outer walls, 13' 3" diameter	..	41 9	0 9	1 11	60	
Inner 7' 1" do.	..	22 0	0 5	1 11	18	
Bottom of chambers	3	10 0	2 6	0 5	31	
Partitions in do.	3	2 6	0 5	1 11	6	
Fire places floor	3	3 1 1/2	1 7 1/2	0 5	6	
Do. sides	6	2 6	0 5	1 5	11	
Do. back	3	1 3	0 5	1 5	12	
Flues	3	2 8	4 3	0 5	..	144
Total cubic feet	..	..	..	..	..	..
<i>Cut stone ashlar two lines dressed.</i>						
Bed stones for trusses	4	1 6	1 6	0 6	9	
Door sill	1	6 0	1 6	0 6	..	9
Total cubic feet of cut stone work	..	..	..	..	..	..
<i>Teak wood wrought and put up.</i>						
Fire place shed—	..	..	..	..	..	..
Two trusses to { Tie beam	2	25 6	0 4 1/2	0 7	11	
span 22' 6". { Principal rafters	4	13 3	0 4 1/2	0 6 1/2	11	
{ Struts	4	6 6	0 4 1/2	0 4 1/2	4	
{ Block at head	2	1 3	0 9	0 9	1	
Purlins at ends	4	8 6	0 5	0 6	10	
Do. at centre	2	8 2	0 4	0 5	7	
Do. over wall at ends	4	8 6	0 3	0 6	3	
Do. do. at centre	2	8 2	0 3	0 4	27	
Ridge	2	11 0	0 3	0 4	2	
Rafters	20	16 0	0 3	0 4	..	..
Eave board	1	24 0	0 3	0 4	..	..
Do.	2	10 6	0 3	0 4	..	..
Ragi pudding shed—	..	..	..	..	..	..
Bressummers	2	18 0	0 4	0 6	9	
Do.	2	15 0	0 4	0 6	..	..
Rafters	28	14 3	0 3	0 5	84	
Braces	28	13 6	0 3	0 5	8	
Filling pieces between braces	14	2 0	0 3	0 4	2	
Struts in openings	20	3 6	0 3	0 4	..	..
Do. in piers	8	3 0	0 3	0 4	..	..
Cleats attached to rafters	28	0 10 1/2	0 3	0 2	1	
Do. to ventilator uprights	26	1 0	0 3	0 2	..	..
Brackets in piers	8	1 0	0 3	0 6	1	
Eave boards	2	26 6	0 3	0 8	2	
Cubic feet	..	..	..	..	..	182
<i>Wrought iron work in trusses, &c.</i>						
Fireplace shed—	..	..	..	..	..	..
1" king rod	2	7 9	X	2 62	41	
1" hexagon nut and head fords	6	..	X	0 27	2	
3" diam. 1/2" thick washers	6	..	X	0 32	2	
2" X 1/2" flat iron heel straps	4	3 6	X	2 50	35	
2 1/2" X 1/2" bearing plates for do.	4	0 7 1/2	X	3 13	8	
1/2" hexagon nut for plates for do.	8	..	X	0 14	1	
1" bolts to secure wall purlins to tie beam.	4	1 1 1/2	X	0 68	3	
1" hexagon nut and head	4	..	X	0 18	1	
2" diam. 1/2" thick washers	8	..	X	0 14	1	
Ragi pudding shed—	..	..	..	..	..	..
1/2" bolt at intersection of braces	14	0 10 1/2	X	0 66	36	
1/2" bolt to secure braces to rafters	56	0 7 1/2	X	0 13	11	
1/2" bolts to secure rafters at head	14	0 4 1/2	X	0 14	24	
1/2" hexagon nuts and heads	84	..	X	..	..	..
2" diam. 1/2" thick washers	168	..	X	..	..	..
Total lb.	..	..	..	..	..	164
<i>Sheet lead for valleys.</i>						
1/2" thick	2	8 0	1 6	..	per foot lb.	178 lb.

Estimate Form—Detail Measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Doors and windows with galvanised wire-netting 1/2" mesh stretched across sashes including frames and fastenings complete.						
Door ..	1	4 6			36	
Windows ..	4	3 5			140	
Total square feet ..						176
Galvanised iron wire netting 1/2" mesh in double teak frames.						
For ragi grinding shed	4	8 3			332	
Total square feet ..						332
Roofing with No. 3 patent Mangalore tiles including 2" X 1" teak reapers wind tie complete.						
Fire place shed	1	24 0	22 0		528	
Ragi grinding shed	1	20 0	28 0		560	
Total square feet ..						1,088
Flooring with stone slabs set in mortar and pointed with cement, 4" thick.						
Fire place shed	1	22 6	22 6		512	
Window recesses	4	4 0	0 9		12	
Archway	1	5 0	1 6		8	
Ragi pudding shed	1	26 0	14 0		364	
Do. window recesses	4	8 3	0 4 1/2		12	
Deduct for fire place 14 feet diameter						
Total square feet ..						902
Flastering with two coats of chunam.						
Interior walls—						
Fire place shed walls						
Do. gables	4	22 6			133	
Do. sides, 16" 6" diameter	2	24 0			158	
Do. upper part, 14" diameter		164 0	area		130	
Base of chimney, 4' 8" diameter		14 6	area		154	
Chimney		10 0	area		24	
Do. upper part, 8" diameter		7 0	area		196	
Door and arch jambs and soffits	2	21 3			7	
Window	4	18 6			46	
Do. recess below eills	8	0 9			80	
Ragi pudding shed walls		80 0			18	
Do. gables	2	14 0			720	
Do. window jambs	8	0 4 1/2			85	
Do. cilla	4	1 3			15	
Screen wall at sink	1	8 3			40	
Deduct—						
Door and archway	1	8 0			17	
Windows					54	
Do.	3	5 0			120	
Fire place, 16" diameter	4	4 0			80	
Chimney, 4' 8" diameter	4	8 3			132	
Do.		31 4	area		78	
Do.		17 0	area		17	
Total square feet ..						427
Pointing exterior.						
Walls						
Do.						
Gables						
Deduct—						
Door	2	102 0			1,335	
Windows	2	27 6			536	
Do.	1	26 6			204	
Do.	4	5 0			40	
Do.	4	4 0			80	
Do.	4	8 3			132	
Total square feet ..						2,075
						252
						1,823

Estimate Form—Detail measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Cornice for gables.						
	2	30 0			60	
	1	20 0			20	
Total lineal feet ..						80
Painting three coats silicate paint.						
Fireplace shed—						
Tie beams	2	25 6		1 11	98	
Principal rafters	4	13 3		1 10	97	
Struts	4	6 6		1 6	39	
Block	2	1 3		3 0	8	
Purlins	2	24 0		1 10	66	
Do.	2	24 0		1 6	72	
Ridge	1	24 0		1 6	36	
Rafters	20	16 0		1 2	373	
Eave board		45 0		1 5 1/2	66	
Ragi pudding shed—						
Bressummers	2	27 0		1 8	90	
Rafters	28	14 3		1 4	1,036	
Braces	28	13 6				
Struts	20	3 6		1 2	110	
Do.	8	3 0				
Ceats	28	0 10 1/2				
Do.	20	1 0		0 7	26	
Brackets	8	1 0		1 6	12	
Eave board	2	26 6		1 5 1/2	77	
Door frames	1	21 0		1 4	28	
Do. sashes	1	4 7		8 4	38	
Window frames	4	23 6		1 4	125	
Do. sashes	8	1 8 1/2		5 0	68	
Frames for ragi pudding shed window	3	3 3				
Do. do. do.	20	3 6		0 9	102	
Deduct—						
Space taken by wire-netting in fireplace shed door	2	1 6		6 6	20	2,559
Space taken by wire-netting in fireplace shed windows	8	1 0		4 0	32	
Total square feet ..						52
						2,537
Cast iron cover plates with T iron joints, bolts, &c., complete					12	No segments
Cast iron gratings complete					3	No.
Cast iron door for fireplace with fastenings complete					3	No.
Dampers with levers to raise and lower including fixing complete					3	No.
Iron cooking pots complete					12	No.
Petty supervision at 2 1/2 per cent.						
Contingencies at 5 per cent.						

Estimate Form—Abstract.

Quantity.	Description of work.	Rate.	Per.	Amount.	Total.
1	2	3	4	5	6
3,143 C. ft.	Excavation for foundation ..	Rs. A. P.			
1,448 "	Concrete with broken bricks in chunam		1,000 C. ft.	Rs.	Rs.
1,039 "	Brick work in chunam for foundations stock bricks ..		100 "		
			do.		

Estimate Form—Abstract—cont.

Quantity.	Description of work.	Rate.	Per.	Amount.	Total.
1	2	3	4	5	6
2,878 C. ft.	Brick work in chunam superstructure stock bricks	RS. A. P.		RS.	RS.
146 "	Brick work in chunam in chimney stock bricks		100 C. ft.		
56 "	Arch work in chunam		do.		
144 "	Fire brick in fire clay		do.		
9 "	Cut stone ashlar 2 line dressed		do.		
182 "	Teak wood wrought and put up		C. ft.		
164 lb.	Wrought iron work in trusses and roof work		do.		
173 "	Lead sheet in valley including fixing		lb.		
101 Sq. ft.	Doors and windows including frames galvanized iron wire-netting shutters, &c., complete		do.		
132 "	Galvanized iron inner netting in frames fixed		Sq. ft.		
1,510 "	Roofing with No. 3 patent Mangalore tiles including teak respers 2" x 1" &c., complete		do.		
748 "	Flooring with stone slabs set in mortar and pointed with cement		100 Sq. ft.		
2,449 "	Plastering with 2 coats of chunam		do.		
1,823 "	Pointing exterior, black, with tar asphalt and sand		do.		
80 L. ft.	Cornice for gables		do.		
2,537 Sq. ft.	Painting with Charlton silicate paint 3 coats		L. ft.		
12 Segments.	Cast iron cover plates with T iron joints, bolts, &c., complete		100 Sq. ft.		
3 No.	Cast iron gratings complete		Each		
3 "	Cast iron doors for fireplace with fastenings complete		do.		
3 "	Dampers with levers to raise and lower including fixing complete		do.		
12 "	Iron cooking pots complete		do.		
	Petty supervision at 2½ per cent.		do.		
	Contingencies at 5 per cent.		do.		
	Grand total				

MADRAS,
9th July 1893.(Signed) H. IRWIN,
Consulting Architect to Government.

DESCRIPTIVE specification to accompany the standard plan and estimate for constructing a cook house for district jails with circular cooking range as per drawings, sheet Nos. 3 and 4 signed by the Consulting Architect to Government, 27th January 1893.

Descriptive specification.

Foundations.—A depth of four feet is provided in the quantities, but this should be settled locally in accordance with the nature of the soil.

Superstructure.—The walls will be constructed of well burnt stock bricks, 2 bricks thick (about 18 inches) or of stone, if the latter is cheaper.

Cut stone.—Stone slabs should be placed at bearings of trusses and for door cills; the side posts of doors to be let into a mortice in the stone about 2 inches square and 2 inches deep.

Wood work.—The trusses to be of well-seasoned Burmah teak; the minor roof supports may also be of teak or any other approved country wood proof against white ants.

Doors and windows.—Frames and shutter frames to be of well-seasoned Burmah teak with ½ inch mesh galvanized iron wire-netting stretched and secured to shutter frames.

Roof covering.—The roof covering to be of No. 3 patent Mangalore tiles or tiles of a somewhat similar description manufactured at the Government brickfields at Madras.

Flooring.—The flooring to be of stone dressed 2 lines and set in mortar over concrete bed and the joints pointed with Portland cement.

Castings and iron work for fireplace.—The cast and wrought iron fittings should be in accordance with the detailed drawings.

(Signed) H. IRWIN,
Consulting Architect to Government.

Estimate Form—Detail measurements.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Excavation for foundation.						
Circular fireplace 13 feet 6 inches diameter	1	143 0	Area.	4 0	672	
Outer walls fireplace shed		78 0	3 0	4 0	936	
Do. ragi pudding shed		49 0	3 0	4 0	594	
For floor in fireplace shed		18 0	18 0	0 4	108	
Do. in ragi pudding shed		18 0	12 0	0 4	72	
Deduct—for fireplace 12 feet diameter		113 0	Area.	0 4	2,282	
Total cubic feet					38	
Concrete—						
Circular fireplace 13 feet 6 inches diameter.	1	143 0	Area.	1 6	216	2,244
Outer walls fireplace shed		78 0	3 0	1 6	351	
Do. ragi pudding shed		49 0	3 0	1 6	223	
Floor in fireplace shed	1	18 0	18 0	0 6	162	
Do. ragi pudding shed	1	18 0	12 0	0 6	108	
Deduct—for fireplace 12 feet diameter		113 0	Area.	0 6	1,059	
Total cubic feet					57	
Brick work in chunam for foundation.						
Circular fireplace 12 feet diameter	1	113 0	Area.	2 6	283	1,002
Outer walls fireplace shed		78 0	1 6	2 6	293	
Do. ragi pudding shed		51 0	1 6	2 6	191	
Total cubic feet						
Brick work in chunam for superstructure.						
Circular place 14 feet 6 inches diameter	1	165 0	Area.	1 2½	199	
Do. 12 feet diameter	1	113 0	do.	1 7½	184	
Outer walls of fireplace shed	1	78 0	1 6	12 10	1,602	
Gables	2	21 0	1 6	3 9	727	
Outer walls of ragi pudding shed		51 0	1 6	9 8	62	
Gable of ragi pudding shed	1	13 0	1 6	2 9	11	
Screen wall of sink	1	5 0	0 9	3 0		
Deductions—						
Flue 1 foot 6 inches diameter	2	12 6	2 6	1 6	94	
Void below cast iron plates	2	1 6	2 6	1 0	8	
Do. at fireplaces	2	2 0	0 10	0 6	2	
Flues	2	5 0	1 6	8 0	120	
Door and archway in fireplace shed	2	4 0	1 6	5 0	60	
Windows	4	5 3	1 6	4 0	180	
Do. recessed cills	4	6 3	0 9	5 0	94	
Do. in ragi pudding shed	4	6 3	0 9	5 0	88	
Do. recessed cills	4	6 3	0 9	5 0	111	
Arch work as per details						
Fire brick						
Total cubic feet					699	
Brick work in chimney.						
Lower portion 3' 6" diameter		9 9	Area.	1 6	16	2,322
Shaft bottom 3' 6" diameter } 5' 9" + 2 = 2' 10½"			do.	18 9	122	
Do. neck 2' 3" do. } mean diameter.	1	6 6	do.	0 9	3	
Cap		3 3				
Deduct.						
Flue at bottom 1' 6" diameter		1 9	Area.	1 6	19	139
Flue in shaft bottom 1' 6" diameter.		1 0	do.	18 9	3	
Flue at neck 0' 9" diameter } 2' 3" ÷ 2 = 1' 1½" mean diameter.						
Total cubic feet					22	
						117

Estimate Form—Detail measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<i>Arch work in chunam.</i>						
Over door and archway	2	6 0	1 6	1 1½	38	
Do. and windows	2	5 3				
Total cubic feet						28
<i>Fire bricks in fire clay.</i>						
Outer walls 11' 3" diameter						
Inner do. 8' 1" do.						
Bottom of chambers		35 2				
Partitions in chambers		15 0	0 9	1 11	51	
Fireplace floor	2	12 6	0 5	1 11	13	
Do. sides	2	2 6	0 5	0 5	26	
Do. back	2	3 1½	0 5	1 11	4	
Flues	2	2 6	0 5	1 5	7	
Do.	2	1 3	0 5	1 5		
Total cubic feet		1 0	4 3	0 5	6	
<i>Set stone ashlar 2 lines dressed.</i>						
Bed stones for trusses	4	1 6	1 6	0 6		
Door sill	1	6 0	1 6	0 6	9	
Total cubic feet						9
<i>Teak wood wrought and put up.</i>						
Fireplace shed—						
Two trusses to tie beam	2	21 0	0 4	0 6	7	
apart 16 feet. Struts	4	11 0	0 4	0 6	7	
Block at heads	4	5 6	0 4	0 6	2	
Purlins at ends	2	1 0	0 4	0 6	1	
Do. centre	4	7 0	0 7½	0 9	7	
Do. over wall at ends	2	7 0	0 4	0 6		
Do. do. centre	4	6 1½	0 4	0 6	4	
Ridge	2	7 0	0 3	0 5	2	
Rafters	2	6 1½	0 3	0 5	2	
Eave board	20	8 6	0 3	0 6	22	
Ragi pudding shed	2	13 0	0 3	0 4	2	
Bressummers	4	19 1½	0 0½	0 8	5	
Braces	20	10 6	0 1	0 4	46	
Filling piece between braces	20	18 0	0 2½	0 5		
Struts in openings	10	12 6	0 2½	0 5		
Do. in piers	15	3 0	0 2½	0 5	4	
Cheats attached to rafters	4	2 9	0 2½	0 4	1	
Do. do. to uprights	20	0 10½	0 2½	0 2	1	
Brackets in piers	16	0 10½	0 2½	0 2	1	
Eave boards	4	1 0	0 2½	0 5	2	
Total cubic feet		18 6	0 0½	0 8		114
<i>Wrought iron work.</i>						
Fireplace shed—						
1" King rod	2	6 9	X	2 62	35	
1" hexagon nuts and head	6		X	27	2	
3" diameter 1" thick washers	4		X	32	2	
1½" X 3" flat iron heel straps	4	3 0	X	1 87	22	
2" X 3" bearing plates	4	0 8	X	2 50	5	
1" hexagon nuts for bearing plates	8		X	14	1	
1" bolts to secure wall purlins to tie beams	4	1 0	X	66	3	
1" hexagon nut and head for tie beams	4		X	13	1	
2" diameter 1" thick washers for do.	8		X	14		
Ragi pudding shed—						
1" bolt at intersection of braces	10	0 9	X	66	20	
Do. to secure braces to rafters	40	0 6	X		8	
Do. to secure rafters at head	16	0 3½	X		17	
1" hexagon nuts and heads for do.	60		X			
2" diameter 1" thick washers for head	120		X			
Total lb.						117

Estimate form—Detail measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<i>Doors and windows including frames with galvanized iron wire-netting.</i>						
Door	1	4 6		8 6	38	
Windows	2	3 6		4 6	32	
Total square feet						70
<i>Galvanized iron wire-netting 3" mesh in double teak frames.</i>						
Ragi pudding shed	4	6 3		4 0	100	
Total square feet						100
<i>Roofing with No. 3 patent Mangalore tiles including teak rafters 2" X 1".</i>						
Fireplace shed	1	19 0		27 0	513	
Ragi pudding shed	1	18 6		26 0	481	
Total square feet						994
<i>Flooring with stone slabs, set in mortar and pointed with cement, 4" thick.</i>						
Fireplace shed	2	18 0		18 0	324	
Window recesses	1	4 0		0 9	6	
Archway	1	5 0		1 6	8	
Ragi pudding shed	1	18 0		12 0	216	
Do. window recesses	4	6 3		0 4½	9	
Deduct for fireplace 12' diameter		113 0 area			563	
Total square feet					113	
<i>Plastering with 2 coats chunam interior walls.</i>						
Fireplace shed	4	18 0		12 6	900	
Do. gables	2	21 0		2 9	116	
Fireplace sides 14' 6" diameter		45 6		2 6	114	
Do. upper part 12' diameter		113 0	Area.		113	
Base of chimney 3' 6" diameter		11 0		1 6	17	
Chimney, upper part		9 0		19 0	171	
Do. do. 3' diameter		7 0	Area.		7	
Door and arch jambs and soffits	2	21 3		1 1	46	
Windows do.	2	18 6		1 1	40	
Ragi pudding shed walls		60 0		9 0	540	
Do. gables	2	15 0		2 0	60	
Do. window jambs	8	0 4½		5 0	15	
Do. do. do.	8	1 3		4 0	40	
Do. sills	4	6 3		0 6	13	
Screen wall of sink	1	5 0		6 9	34	
Deduct—						
Doors and archway	3	5 0		8 0	120	
Windows	2	4 0		5 0	40	
Do.	4	6 3		4 0	100	
Fireplace 8' diameter		25 0		2 6	63	
Chimney 3' 6" do.		9 6	Area.		10	
Total square feet						333
<i>Pointing interior.</i>						
Walls	2	84 0		18 0	1,092	
Do.	2	19 6		3 9	380	
Gables	2	21 0		3 6	147	
Deduction—						
Door	1	5 0		8 0	40	
Windows	2	4 0		5 0	40	
Do.	4	6 3		4 0	100	
Total square feet						1,839
<i>Cornice—</i>						
For gables					66	
						66 Lineal ft.

Estimate form—Detail measurements—cont.

Detail of work.	Number.	MEASUREMENTS IN FEET.			Area or contents.	Total quantity of each description of work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<i>Painting with 3 coats silicate paint.</i>						
Fireplace shed	2	21 0	..	..	..	..
Tie beams	4	11 0	..	1 8	143	..
Principal rafters	4	5 6	..	1 8	..	..
Struts	2	1 0	..	1 4	29	..
Block	2	20 0	..	2 9	6	..
Purlins	2	20 0	..	1 8	67	..
Do. over walls	2	20 0	..	1 4	53	..
Ridge	2	8 6	..	1 6	26	..
Rafters	2	13 0	..	1 2	303	..
Eave board	2	19 1 1/2	..	1 6 1/2	56	..
Ragi pudding shed	2	20 0	..	..	..	..
Bressummers	20	13 0	..	1 4	53	..
Rafters	20	12 6	..	..	..	..
Braces	10	2 0	..	1 3	663	..
Filling pieces	16	3 3	..	..	..	..
Struts in openings	4	2 9	..	1 1	68	..
Do. in piers	20	0 10 1/2	..	0 4	11	..
Cleats	16	1 0	..	..	..	..
Do.	4	18 6	..	1 3	5	..
Bracket	1	21 0	..	1 5 1/2	54	..
Eave board	1	4 7	..	1 4	28	..
Door frames	2	23 6	..	8 4	33	..
Do. sashes frames	4	1 8 1/2	..	1 4	63	..
Window frames	8	6 3	..	5 0	34	..
Do. sashes	16	3 6	..	0 9	80	..
Frames for ragi pudding shed windows	..	..	..	..	..	..
Do.	..	..	..	..	..	..
Deduct—	..	..	..	..	..	..
Space taken up by wire-netting door	2	1 6	..	..	..	1,780
Do. do. windows	4	1 0	..	6 6	20	..
Do.	..	..	..	4 0	16	..
Total square feet	..	..	..	..	..	36
Cast iron cover plates with T iron joints, bolts, &c., complete	..	..	..	..	..	1,744
Cast iron gratings complete	..	..	..	..	No. 6	Segments.
Do. doors for fireplace complete	..	..	..	..	No. 2	..
Dampers with covers to raise and lower including fixing complete	..	..	..	..	No. 2	..
Iron cooking pots complete	..	..	..	..	No. 2	No. 2
Petty supervision at 2 1/2 per cent.	..	..	..	..	No. 6	.. 6
Contingencies at 5 per cent.	..	..	..	..	..	..

Estimate form—Abstract.

Quantity.	Description of work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
2,244 C. ft.	Excavation for foundation	RS. A. P.	1,000 C. ft.	..	..
1,002 "	Concrete with broken bricks in chunam	..	100 "	..	..
797 "	Brick work in chunam for foundation with stock bricks	..	..	..	..
2,222 "	Brick work in chunam for superstructure do.	..	..	..	..
117 "	Brick work in chimney do.	..	..	..	..
38 "	Archwork in chunam do.	..	..	..	..
111 "	Fire bricks in fire clay	..	..	..	..
9 "	Out-stone ashlar 2 lines dressed	..	..	..	..
114 "	Teak wood wrought and put up	..	C. ft.	..	..
117 lb.	Wrought iron in trusses and roof work	..	..	..	..
70 Sq. ft.	Doors and windows including frames galvanized iron wire-netting shutters complete	..	..	..	..
100 "	Galvanized iron wire-netting in frames fixed	..	Sq. ft.	..	..

Estimate form—Abstract—cont.

Quantity.	Description of work.	Rate.	Per	Amount.	Total.
1	2	3	4	5	6
994 Sq. ft.	Roofing with No. 3 patent Mangalore tiles including teak reapers 3" X 1", &c., complete	RS. A. P.	100 Sq. ft.	..	..
450 "	Flooring with stone slabs set in mortar and pointed with cement	..	..	..	..
1,893 "	Plastering with 2 coats of chunam	..	..	..	..
1,139 "	Pointing exterior black with tar asphalt and sand	..	..	..	..
66 L. ft.	Cornice for gables	..	L. ft.	..	..
1,744 Sq. ft.	Painting with Charlton silicate paint, 3 coats	..	100 Sq. ft.	..	..
6 Seg.	Cast iron cover plates with T iron joints, bolts, &c., complete	..	Each.	..	..
2 in No.	Cast iron gratings complete	..	..	..	..
2 "	Cast iron doors for fireplace complete	..	..	..	..
2 "	Dampers with levers to raise and lower including fixing complete	..	..	..	..
6 "	Iron cooking pots complete	..	..	..	..
..	Petty supervision at 2 1/2 per cent.	..	..	..	..
..	Contingencies at 5 per cent.	..	..	..	..
Grand total of estimate		..	..	..	..

No. 1716 C.

Forwarded for the approval of Government to the Judicial Department, with reference to G.O., dated 6th November 1891, No. 2286, Judicial.

13th April 1893.

(Signed) O. V. BODDY, Major, R.E.,
Under Secy. to Govt., P.W.D.

G.O., dated 10th May 1893, No. 975, Judicial.

Read—the following papers:—

Endorsement of the Public Works Department, dated 13th April 1893, No. 1716 C., forwarding letter from the Consulting Architect to the Government of Madras, dated 10th February 1893, No. 3354.

From the Inspector-General of Jails, dated 2nd May 1893, No. 1898.

I have the honour to return the papers received under Mr. Butterworth's endorsement, No. 776, dated 26th April 1893, and to state that, as reported by the Consulting Architect in his No. 3354, dated 10th February 1893, the plans were prepared by him in communication with me, and in pursuance of para. 4 of G.O., dated 6th November 1891, No. 2286, Judicial. They were countersigned by me on the 3rd February last, and as the construction of central kitchens in two Central Jails is deferred, pending the sanction of Government to these standard plans, I trust that early orders may be passed.

Order—dated 10th May 1893, No. 975, Judicial.

The standard plans and estimates for kitchens with circular cooking ranges for Central and District Jails are approved and will be transferred to the Public Works Department.

(True Extract.)

(Signed) J. F. PRICE,
Chief Secretary.

ORDER—dated 15th June 1893, No. 1586 W., Public Works.

The plans, estimates and specifications will be circulated to officers of the Public Works Department for information and guidance.

(True Extract.)

(Signed) J. HANNAN,
Ag. Joint Secy. to Govt., P.W.D.,
General, Buildings and Roads Branch.

To Superintending Engineers.
„ the Consulting Architect to Government.
„ the Judicial Department.

Exd. A. Grubert.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1893} Madras.
PUBLIC WORKS.

Dated June, 15th.

Recd.

Encl.

G.O., 15th June 1893, No. 1586 W.

JUNE.

Kitchens with circular cooking
ranges for Central and District
Jails

Circulating for information and guidance
standard plans, &c., for —.

No. 1.

P. W. D.

8

Office of the Consulting Architect to Govt.,
Chopank, Madras,
10th February 1893.

No. 3354

From

Henry Swin, Esq., C.I.E.,

Consulting Architect

to the Government of Madras,

To

The Chief Engineer

Public Works Department.

Sir,

11 Enclosures.

With reference to G.O. No. 31937
dated the 30th November 1891, I have the honor
to submit plans & estimates for Kitchens for
central and district jails with circular cooking
ranges prepared in communication with the
Inspector General of jails.

I have the honor to be

Sir

Your most obedient servant

Henry Swin

Consulting Architect

to Government.

From
THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,
To
The Chief Engineer
P. W. D.

No. 3354

Dated 10th
Received 10th February 1893.

No. of ENCLOSURES. 10 (4 plans)

Subject.

Submitting standard plans
& Estimates for kitchens with
circular cooking ranges for
Central & District jails.

No. 1716 of 13 April 1893

Forwarded for the
approval of Government
to the Judicial Depart-
ment, with reference
to G.O. dated 6 November
1891, No. 2286 Judicial.

Oppo. W. D.

Kindly send to Govt. W. D.

Descriptive Report and Specification to accompany the plan and estimate for

Constructing a back house for Central
Jails with circular cooking ranges
as per drawing sheet No. 112 signed by
the Consulting Architect to Govt. of
Madras, 1893.

Reference.

10

REPORT
Descriptive Specification

Foundations

A depth of four feet is provided
in the foundations, but this should be
settled locally in accordance with the
nature of the soil.

Superstructure

The walls will be constructed of well
burnt stock bricks 2 bricks thick (about
18 inches) or of stone if the latter is cheaper.

Roof Stones

Stone slabs should be placed at
bearings of trusses and for door sills.
The side parts of doors to be let into a
mortice in the stone about 2 square
and 2 deep.

Woodwork

Woodwork

The trusses to be of well seasoned Burmah teak. The minor roof rafters may also be of teak or any other approved country wood proof against white ants.

Doors and Windows.

Frames and shutters to be of well seasoned Burmah teak with mesh galvanized iron wire netting stretched and secured to shutter frames.

Roof Covering

The roof covering to be of 3 patent corrugated tiles or tiles of a somewhat similar description to those used at the Government Brickfields at Madras.

Flooring

The flooring to be of standard dressed lime and when finished over concrete and the joints painted with Portland Cement.

Castings of iron work for fire place.

The cast and wrought iron things should be in accordance with the detailed drawings.

Sanjivalingam Architect to Govt.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<u>Estimate for foundation.</u>						
Circular fire place 16" diam.	1	189	10	1	1890	1890
Outer walls of fire place shed.	1	96	12	1	1152	1152
do. Raggi puddling shed.	1	67	10	1	670	670
For floor in fire place shed.	1	22	6	22	169	169
do. Raggi puddling shed.	1	26	10	1	260	260
Deduct for fire place 14 ft diam.	1	157	10	1	1570	1570
					51	51
					Total Cub. feet	3142
<u>Concrete</u>						
Circular fire place	1	189	10	1	1890	1890
Outer walls fire place shed.	1	96	12	1	1152	1152
do. Raggi puddling shed.	1	67	10	1	670	670
For floor in fire place shed.	1	22	6	22	169	169
do. Raggi puddling shed.	1	26	10	1	260	260
Deduct for fire place 14 ft diam.	1	157	10	1	1570	1570
					77	77
					Total Cub. feet	1468
<u>Brick in chimneys for foundations.</u>						
Circular fire place 14 ft diam.	1	164	10	1	1640	1640
Outer walls fire place shed.	1	96	12	1	1152	1152
do. do.	1	96	12	1	1152	1152
do. Raggi puddling shed.	1	67	10	1	670	670
do. do.	1	67	10	1	670	670
					151	151
					Total Cub. feet	1029

ESTIMATE FORM.—Detail Measurements.

(P. W. D. Code, Edition of 1936—Pages 921, 921).

ESTIMATE FORM.—Detail Measurements.

P. W. D. Code,
No. M 204.

12

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brick in chimney for superstructure.						
Brickwork fire place 6-6 dia.	1	24	1	1	24	257
do do 14-6 dia	1	14	1	1	14	250
Outer walls of fire place shed.	1	26	1	1	26	1834
Gable do	2	25	1	1	25	206
Outer walls of gable end shed.	1	19	1	1	19	1009
Gable do	1	17	1	1	17	72
do	1	17	1	1	17	11
Shed with 4 sink	1	8.0	0.5	3.0	15	381
Reduction						
Shed 2 feet dia.	1	2	1	1	2	7
void below east lamp glass	1	1	1	1	1	103
44 fire places	1	1	1	1	1	11
Shed do	1	2	1	1	2	2
Shed and roadway	1	2	1	1	2	120
Wint. house in fire place shed.	1	4	1	1	4	120
do removed pit	1	4	1	1	4	26
Wint. house in gable end shed.	1	4	1	1	4	195
Shed	1	4	1	1	4	124
do removed pit	1	4	1	1	4	61
Arch work as per details						114
Fire brick do						932
Total bulioft						2878

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brickwork in chimney						
Base	1	4	1	1	4	17
Shaft bottom	1	4	1	1	4	26
neck	1	2	1	1	2	1
Top	1	6	1	1	6	1
Reduction	1	3	1	1	3	1
Shed in base 2 ft dia.	1	1	1	1	1	1
Shed shaft	1	3	1	1	3	1
bottom	1	2	1	1	2	1
neck	1	2	1	1	2	1
Arch work in chimney						
Base and arching	1	2	1	1	2	1
do Wint. house	1	4	1	1	4	1
Fire brick in fire clay						
Outer walls 13-3 dia	1	13	1	1	13	56
Inner	1	7	1	1	7	1
Bottom of chimney	1	22	1	1	22	60
Partitions in do	1	3	1	1	3	1
Fire places floor	1	2	1	1	2	31
do sides	1	3	1	1	3	6
do back	1	6	1	1	6	6
Shed	1	3	1	1	3	1
do	1	3	1	1	3	1
Total bulioft						141

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7

Coal plane collar & lines down side.
 Bed planes for trusses.
 Drove cills.

Teak wood wrought and put up
 Finer places shd.

2 Trusses { Tie beam
 to span { Principal rafters
 22 ft. { Struts
 Black at head
 Purlins at ends
 do at center
 do over wall at ends
 do do at center
 Ridge
 Rafters
 Case boards

do
 Ragged pudding shed
 Braces
 do
 Rafters
 Braces
 Filling pieces between braces
 Struts in openings
 do in piers
 Blocks attached to rafters
 do do to ventilate uprights

ESTIMATE FORM.—Detail Measurements.

13

P. W. D. Form,
No. M 204.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7

Brought forward 179
 brackets in piers
 Case boards

Wrought Iron work in Trussing
 Finer places shd.

1" Ring rods
 1" Box nut shed for do
 3/4" thick washers
 2 x 3/4" flat iron heel straps
 2 x 3/4" bearing plates for do
 1/2" hex nut for do do
 1/2" bolts to secure wall purlins
 to tie beam
 1/2" hex nut and head
 2" thick washers
 Ragged pudding shed
 1/2" bolt at intersection of purlins
 1/2" bolt to secure braces to rafters
 1/2" bolts to secure rafters at head
 1/2" hex nut & head do
 2" thick washers

Total lbs 164
 Sheet lead for Valley
 1/8" thick

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Doors and windows with galvanized wire netting 1/2 inch stretched across sashes including frames and fastenings complete						
Doors	1	14.6	8.8		128	✓
Windows	4	3.8	4.6		63	✓
					Total sq ft	101
Galvanized Iron wire netting 1/2 inch in double oak frames for ragge grinding shed	1	28.2	4.6		130	✓
					Total sq ft	132
Roofing with No. 3 patent manganese tiles including 2x12 oak rafters, wind tie complete	1	20.0	7.0		140	✓
Two place shed	1	20.0	7.0		140	✓
Ragge grinding shed	1	26.6	28.5		768	✓
					Total sq ft	1510
Flowering with stone slabs, set in mortar & painted with cement, 1/2 inch thick						
Two place shed	1	22.6	22.6		511	✓
Windows recessed	4	4.0	9.0		12	✓
Chimney	1	5.0	1.6		8	✓
Ragge padding shed	1	26.6	14.6		389	✓
do Windows recessed	4	8.3	0.4		12	✓
Product for two place 11 ft 10 in					900	✓
					164	✓
					Total sq ft	748

ESTIMATE FORM.—Detail Measurements.

P. W. D. Form,
No. M 204.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Flowering with 2 coats of Chenille						
Interior walls						
Two place shed walls	4	22.6	12.7		1133	✓
do gables	2	22.6	3.6		158	✓
Two place side 16.6 diam.	4	12.5	2.6		130	✓
do upper part 11 ft do		154.0 area			154	✓
Base of chimney 11.5 do	1	11.6	1.7		24	✓
Chimney	1	10.0	19.6		196	✓
do upper part 3 ft diam	1	7.0 area			7	✓
Doors & arch jambs & soffits	2	21.3	1.1		46	✓
Windows	4	18.6	1.1		80	✓
Ragge padding shed walls	8	10.5	3.0		158	✓
do gables	2	14.0	2.6		72	✓
do window jambs	8	0.4	5.6		15	✓
do do	8	1.3	4.6		40	✓
Screen wall & sink	1	8.0	6.9		54	2076
Product						
Doors and chimney	3	5.6	8.8		120	✓
Windows	4	4.6	5.6		80	✓
do	4	8.3	4.6		132	✓
Two place 10 ft diam.	1	31.4	2.6		98	✓
Chimney 11.5 diam.	1	7.0 area			7	227
					Total sq ft	2489

ESTIMATE FORM.—Detail Measurements.

ESTIMATE FORM.—Detail Measurements.

15

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<u>Painting Exterior</u>						
Walls	1	102	13	1	1335	✓
do	2	276	7	7	536	✓
Gables	2	256	4	0	204	✓
Deduct						2075
Door	1	5	8	1	40	✓
Windows	1	4	6	1	80	✓
do	1	8	4	1	132	✓
					252	✓
					Total Left	1820
<u>Cornices for gables</u>						
	1	2	6	1	60	✓
	1	20	2	1	20	✓
					Total Left	80
<u>Painting 3 coats Silestone</u>						
Store place shed	2	256	1	10	98	✓
See beams	4	133	1	10	91	✓
Principal rafters	4	66	1	6	39	✓
Struts	2	183	3	0	8	✓
Black	2	240	1	10	88	✓
Purlins	2	240	1	6	72	✓
do	1	240	1	6	36	✓
Ridge						
					438	✓

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brought forward					438	✓
Rafters	2	206	1	0	270	✓
Eave board	5	55	1	0	16	✓
Raggy purling shed	2	276	1	0	90	✓
Braces	2	284	1	4	1036	✓
Struts	2	200	1	2	110	✓
do	2	201	1	2	26	✓
Brackets	2	201	1	6	12	✓
Eave board	2	266	1	0	77	✓
Door frames	1	21	1	4	28	✓
do washes	1	47	8	0	38	✓
Window frames	1	22	1	4	125	✓
do washes	1	8	1	0	68	✓
Frames for raggy						
purling shed windows	2	203	1	0	102	✓
do do	2	203	1	0	102	✓
Deduct						2589
Space taken by wire						
nothing in job place						
Shed door	2	16	6	6	20	✓
do Windows	8	1	4	0	32	✓
					52	✓
					Total Right	5507

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Cast Iron plates with Iron joints bolts etc complete					12.10 sq ft	
Cast Iron gratings complete					3.1 sq ft	
20 doors for fire place with fastenings complete					2.1 sq ft	
Dampers with levers to raise and lower includ- ing facing complete					3.1 sq ft	
Iron booting job complete					12.12 sq ft	
Poly Superinsulation (27 per cent) booting union (25 per cent)						

OW 9.56
120493
4606

100

1130

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate as per Pricing Schedule	Per	Amount	Total.
1	2	3	4	5	6
2142	eff Excavation for foundation	15		32130	
1448	" Concrete with broken bricks in chumam	144		208512	
1039	" Brickwork in chumam for foundations, stock bricks	1980		20572	
2860	" 2nd 2nd Superstructure	2080		59488	
146	" 2nd 2nd in Chumam	2080		30368	
56	" Archwork in chumam	2080		11648	
1144	" Fire brick in fire clay	1020		116688	
9	" Cast stone ashlar & line dressed	2000	eff	18	
182	" Teak wood wrought and put up	380		6956	
164	the wrought ironwork in chumam	2080		34112	
172	" Lead sheet in valley cladding facing	1020		17544	
101	500 Doors and windows including frames gal- vanized iron, ^{wire} netting shutters complete	1000	eff	101	
132	" Galvanized iron ^{wire} netting in frames fixed	2080		27456	
Grand Total of Estimate					20279

STATION

Dated

189

Executive Engineer.

P. W. D. FORM
No. M 207.

CIRCLE—
DIVISION—
DISTRICT—
TALEK (OR ESTATE IN CASE OF ESTATE WORKS)—

ESTIMATE FORM.—Abstract.

Financial Head—
Budget Head—
Departmental Head—
Main Head—
Sub-Head—
Project of which
the work forms part—
Section—
Name of Work—
Amount of Estimate, Rs.—
To be carried out by—

REFERENCES.

ESTIMATE FORM.—Abstract.

17

Quantity.	Description of Work.	Rate.	Per	Amount.	TOTAL.
1	2	3	4	5	6
	Brought forward.			2079	
1570	Sqft. Roofing with No. 3 patent Mangalore tiles including laid teak rafters 2x1" &c. Complete.			120.84	398.30
748	" Flooring with stone slabs set in mortar and painted with cement off.			224	
1823	" Plastering with 2 coats of chunam.			12.80	60
80	Linear ft. painting with charcoal.			1.40	20
12	Segments back iron cover plates with iron joints complete.			90	
3	No. 1 cast iron gratings complete.			120	
3	" do doors for fire places with fastenings complete.			36	
3	" dampers with lever operation & lower including fixing complete.			75	
12	" Iron cooking pots complete.			115	
	petty supervision @ 25 p/ft.			146	3344
	Contingencies @ 5 p/ft.			80	3424
				161	3585
				100	3685
				100	3785
				100	3885
				100	3985
				100	4085
				100	4185
				100	4285
				100	4385
				100	4485
				100	4585
				100	4685
				100	4785
				100	4885
				100	4985
				100	5085
				100	5185
				100	5285
				100	5385
				100	5485
				100	5585
				100	5685
				100	5785
				100	5885
				100	5985
				100	6085
				100	6185
				100	6285
				100	6385
				100	6485
				100	6585
				100	6685
				100	6785
				100	6885
				100	6985
				100	7085
				100	7185
				100	7285
				100	7385
				100	7485
				100	7585
				100	7685
				100	7785
				100	7885
				100	7985
				100	8085
				100	8185
				100	8285
				100	8385
				100	8485
				100	8585
				100	8685
				100	8785
				100	8885
				100	8985
				100	9085
				100	9185
				100	9285
				100	9385
				100	9485
				100	9585
				100	9685
				100	9785
				100	9885
				100	9985
				100	10085

STATION Madras
Dated 9th July 189 2.

Grand Total of Estimate .. 3485

James J. J. J.
Consulting architect
Executive Engineer
to Govt.

CIRCLE—

DIVISION—

DISTRICT—

TALUK (OR ESTATE IN CASE OF ESTATE WORKS)—

ESTIMATE FORM.—Abstract.

Financial Head—

Budget Head—

Departmental Head—

Main Head—

Sub-Head—

Project of which
the work forms part—

Section—

Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

REFERENCES.

18
Description and Specification to accompany the plan and estimate for Constructing
a Cook House for Central Jail with circular
cooking ranges as per drawings ^{sketch} 10344 signed
by the Consulting Architect to Govt. 27 January
1893 Amount of Estimate, Rs.—

Reference.

REPORT.

Descriptive Specification
Foundations

A depth of four feet is provided
in the quantities, but this should be
settled locally in accordance with
the nature of the soil.

Superstructure

The walls will be constructed of
well burnt stock bricks 2 bricks thick
(about 18 inches) or of stone if the latter
is cheaper.

Butt Stones

Stone slabs should be placed
at bearings of trusses and for door
cills; the side posts of doors to be let
into a mortice in the stone about
2" square and 2" deep.

8.45
PW 1204/23

Wood work

The trusses to be of well seasoned
Burmah teak; the minor roof sup-
ports may also be of teak or any
other approved country wood proof
against white ants.

Doors and Windows.

Frames and shutter frames to be
of well seasoned Burmah teak with
1/2 inch galvanized Iron wire netting
stretched and secured to shutter frames.

Roof Covering

Roof Covering
The roof covering to be of 18 1/2 inch
Mangalore tile with of a somewhat
similar description manufactured at the
Government Brickfield at Mangalore.

Flamingo

The flooring to be of stone laid in
lines and set in mortar concrete
and the joints pointed with Portland
cemented and laid down

Castings and Iron work for fire place

The back and wrought iron fitting
should be in accordance with the detailed
drawings.

Consulting architect to Govt

Detail of Work.	MEASUREMENTS IN FEET.				Area or Contents.	Total Quantity of each description of Work.
	Number.	Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<u>Excavation for foundation</u>						
Circular fire place 13.6 diam	1	14.5	14.5	1.0	672	
Outer walls fire place shed		78	0.3	0.4	0	936
do raggs pudding shed		69	6.3	1.0	0	594
Flue place in fire place shed		18	0.18	0.0	11	108
do raggs pudding shed		18	0.18	0.0	11	72
					2282	
<u>Deduct for fire place 12 ft dia</u>		113	0.0000	0.11	36	
					2246	Cu yds
<u>Concrete</u>						
Circular fire place 13.6 diam	1	14.5	14.5	1.0	672	
Outer walls fire place shed		78	0.3	0.4	0	261
do raggs pudding shed		69	6.3	1.0	0	228
Flue in fire place shed		18	0.18	0.0	0	162
do raggs pudding shed		18	0.18	0.0	0	108
					1059	
<u>Deduct for fire place 12 ft dia</u>		113	0.0000	0.11	36	
					1023	Cu yds
<u>Brick work in chimney</u>						
<u>for foundation.</u>						
Circular fire place 12 ft dia	1	11.3	11.3	2.6	283	
Outer walls fire place shed		78	0.1	0.2	0	293
do raggs pudding shed		61	0.1	0.2	0	191
					767	
					767	Cu yds

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brick work in chimneys for superstructure						
Conical place 14" diam	1	1.65	area 1.29		1.29	1.29
do 10" diameter	1	1.13	area .71		.71	.71
Outer walls of fire place shed	1	7.8	4.6	12.6	150.2	
Gables	2	5.1	4.6	3.9	236.1	
Outer walls of raggy piddling shed	51	4.1	6.9	6.1	707.1	
Gables do	1	15.1	6.2	9	60.1	
Screen wall of sink	1	5.0	0.9	3.0	11	2921
Reductions						
Flue 1.6" diameter	1	7	area 2.4		2.4	
Vault below east iron plates	2	10.62	6.1	6	70.1	
do at fire place	2	1.62	6.1	6	8.1	
Flues	2	2.2	10.1	6	2.1	
Grass mid archway in fire place	25	4.1	6.8	6	120.0	
Windows do	2	4.4	6.5	6	60.0	
do recessed cells	2	4.4	0.9	5	18.1	
Windows in raggy piddling shed	16	3.1	6.4	6	150.0	
do recessed cells	16	3.1	9.5	6	94.1	
Archwork as per details					38	
Live brick					111	
					699	
Total bill ft					2221	

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brickwork in Chimney						
Lower portion 3.6" diameter	9.9	area 1.6		15.1		
Shaft bottom 3.6"						
do neck 3.6" x 2.10"	6.6	area 1.89		12.2		12
Cap 3.6" x 2.10"	1.3	area .9		2.1		139
Flue at bottom 1.6" diameter	1	7	area 1.6	3.1		
do in shaft						
bottom diameter 1.6"						
at neck do 0.9						
1.6" x 1.1"	1.0	area 1.39		19.1		20
2.3 x 1.1"						
bottom						
						117
Archwork in chimney						
Over door & archway	2.6					
do windows	6.5					
						38
						38
Fire brick in fire clay						
Outer walls 11.5" diam	35.3	9.1	1.1	5.1	21.1	
inner do 6.1" do	16.5	6.1	1.1	13.1		
bottom of chambers	2.12	6.2	6.0	26.1		
partitions in do	2.5	6.0	5.1	4.1		
fire place floor	2.3	1.2	1.7	0.5	1.1	
do sides	4.0	6.0	5.1	6.1		
do back	2.1	3.6	5.1	5.1	7.1	
flues	2.1	9.4	3.0	5.1	6.1	
						111
						111

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Brought forward					111	8
Brackets in piers	4	1.5	2.5	0.5	1	1
Gun Boards	2	18.6	2.0	0.8	2	5
					Total Cubic ft	114
Wrought Iron work						
Five places shed.						
1" King rods	5	6.9	x	2.62	36	13
1" Hex nuts & head	6		x	2.7	2	11
3" dia 1/2" thick washers	6		x	2.2	2	1
1/2" x 3/4" flat iron huck straps	4	3	x	1.87	20	4
2" x 3/4" bearing plates	11	1.6	x	2.50	5	11
3/8" hex nuts for do	8		x	1.14	1	1
1/2" bolts to secure wall						
1/2" pins to tie beams	4	1.0	x	0.66	3	1
1/2" Hex nut & head for do	4		x	1.2	1	1
2" dia 1/2" thick washers for do	8		x	1.14	1	1
Raggs puddling shed						
1/2" bolts at intersection of	10	0.9				
do to secure braces to rafters	20	0.6	x	0.66	20	4
do to secure rafters at head	10	0.3 1/2				
1/2" Hex nuts & heads for do	60			1.2	8	1
2" dia 1/2" thick washers for do	20			1.14	17	1
					Total lbs	117

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Doors and windows including frames with galvanized iron wire netting						
Door	1	1.4	8.6	3.8	5.4	
Windows	2	3.6	4.1	3.2	4.1	
						Total Sqft 10.5
Galvanized iron wire netting of mesh on double track frame						
	4	6.3	4.0	10.0	4.1	
						Total Sqft 10.5
Roofing with 103 patent mangle tiles including track keepers 2"x1"						
Fire place shed	1	1.9	2.7	5.1	5.1	
Ragge pudding shed	1	1.8	2.6	5.8	5.8	
						Total Sqft 29.4
Flooring with stone slabs set in mortar						
Fire place shed	1	1.8	1.8	3.2	3.2	
Window recesses	2	4.0	2.9	6.1	6.1	
Archway	1	1.5	1.6	8.1	8.1	
Ragge pudding shed	1	1.8	1.2	2.1	2.1	
do window recesses	4	6.3	1.4	9.1	9.1	
						56.3
Subtotal for fire place shed						11.8
						Total Sqft 45.2

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
Plastering with 2 coats chamois						
Interior walls						
Fire place shed	1	1.9	10.6	9.0	9.0	
do Gallies	2	2.1	2.7	11.8	11.8	
Fire place sides in 6' dia	1	4.5	2.6	11.8	11.8	
do upper part 12' dia	1	11.2	1.4	11.8	11.8	
Base of chimney 3.6' dia	1	11.2	1.6	17.1	17.1	
Chimney upper part	1	9.2	1.9	17.1	17.1	
do upper part 3' dia	1	9.2	1.9	17.1	17.1	
Doors and jambs & soffits	2	2.1	1.1	16.0	16.0	
Windows do	2	1.8	1.1	40.0	40.0	
Ragge pudding shed walls	1	10.0	9.0	54.0	54.0	
do Gallies	2	1.5	2.0	60.0	60.0	
do window jambs	8	2.1	5.0	15.0	15.0	
do do	1	1.3	4.0	40.0	40.0	
do Galls	4	6.0	0.6	12.0	12.0	
Screen work of arch	1	5.0	6.9	34.0	34.0	
Detail						
Doors and archway	1	3.0	8.0	12.0	12.0	
Windows	2	4.0	5.0	40.0	40.0	
do	1	4.6	4.0	10.0	10.0	
Fire place 8' dia	1	11.2	2.6	63.4	63.4	
Chimney 3.6' dia	1	9.6	1.0	10.0	10.0	
						333.1
						Total Sqft 189.3

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<u>Painting exterior</u>						
Walls	1	84	10		840	
do	1	19	7		133	
gables	2	21	2		84	
<u>Reduction</u>						1057
Doors	1	5	2		10	
Windows	1	24	5		120	
do	1	4	2		8	
<u>Carriage for gables</u>						Total 1057
<u>Painting with 2 coats white paint</u>						66 66 Linings
Fire place ches.						
Fire beams						
Principal rafters	2	21	1		42	
Studs	4	11	1		44	
Black	1	5	1		5	
Parties	2	1	2		4	
do over walls	2	20	1		40	
Ridge	1	20	2		40	
Rafter	2	9	1		18	
Truss board	20	12	1		240	
Rafter purling ches.	2	19	1		38	
Brasswork	1	20	1		20	
Rafter	20	12	1		240	
Truss	20	12	1		240	
Setting pieces	10	2	1		20	
						Total 1399

(P. W. D. Code, Edition of 1896—Paras. 921, 931).

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7
<u>Brought forward</u>						1399
Shut in openings	1	6	3		18	
do in frame	1	4	2		8	
Chutes	20	1	10		200	
do	1	16	1		16	
Brackets	1	1	1		1	
Truss board	2	13	1		26	
Door frame	1	21	1		42	
do trusses	1	4	1		4	
Window frame	2	23	1		46	
do trusses	1	1	5		5	
Trusses for rafter purling ches.						
Windows	4	6	3		72	
do	1	6	3		18	
<u>Brackets</u>						1780
Space taken up by rafter setting						
Doors	2	4	6		48	
do Windows	1	1	4		4	
						Total 1780
Cast Iron joint plates with						
7 Iron joints bolted & complete						2
Cast Iron girders complete						2
do Doors for fire place complete						2

ESTIMATE FORM.—Detail Measurements.

Detail of Work.	Number.	MEASUREMENTS IN FEET.			Area or Contents.	Total Quantity of each description of Work.
		Length.	Breadth.	Depth.		
1	2	3	4	5	6	7

Dampers with canvas to raise
and lower including fitting complete 3 2 2 ft.

Iron casting pots complete 6 6 ft.

Petty Supervision @ 24/100

Contingencies @ 5%

S. 23
Dec 1901/93

Note: No scale but not
the figures—

ESTIMATE FORM.—Abstract

24

Quantity.	Description of Work.	Rate.	Per	Amount	TOTAL.
1	2	3	4	5	6
		RS.		RS.	RS.
2344	Calff. Excavation for foundations	10			
1002	" Concrete with broken bricks in chunam	140			
767	" Brick work in chunam for foundation with stack bricks	1950		150	
3211	" Brick work in chunam for superstructure	2080		450	
117	" Brick work in chimney	23/100		27	
38	" Archwork in chunam	23/100		9	
111	" Fire bricks in fire clay	10320		114	
9	" Cut stone ashlar & lime dressed	2000		18	
114	" Teak wood wrought and put up	3500		399	
117	" Wrought Iron in trusses and roof work	2600		18	
70	3 ft Doors and windows including frames, gal. vanized iron wire netting shutter complete	100		70	
100	" Galvanized Iron wire netting iron frames	100		50	
Carried Over					1461
Grand Total of Estimate					1461

STATION

Dated

189

Executive Engineer.

TALUK (OR ESTATE IN CASE OF ESTATE WORKS).—

To be carried out by—

REFERENCES.

25

STATION *Madras*
Dated *9th Feb* 1893.

Kenneth D. Smith
Consulting Architect
Mechanical Engineer.
Boston

CIRCLE—
DIVISION—
DISTRICT—
TALUK (OR ESTATE IN CASE OF ESTATE WORKS)—

ESTIMATE FORM.—Abstract.

Financial Head—
Budget Head—
Departmental Head—
Main Head—
Sub-Head—
Project of which
the work forms part—

Section—
Name of Work—

Amount of Estimate, Rs.—

To be carried out by—

REFERENCES.

Judicial Department.



26

1893

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following paper—

Endowment of the Public Works Depart-
ment, dated 13th April 1893, No. 1716C.
forwarding letter from the Consulting Architect
to the Government of Madras, dated 10th
February 1893, No. 3354.

From the Inspector General of Jails,
dated 2nd May 1893, No. 1893.

I have the honor to return the paper
received under No. 1716C, the Endowment
No. 1716, dated 26th April 1893, and to state
that as reported by the Consulting Architect
in his No. 3354 dated 10th February 1893, the
plans were prepared by him in communication
with me, and in pursuance of paragraphs 4
of G.O. No. 1891, No. 2286, Judicial.
They were countersigned by me on the 3rd February
last, and as the construction of Central Jail
in 2 Central jails is deferred, pending the
Sanction.

8.12
Dated 1301/93
Sd/-

1893
Sd/-
1893

Sanction of Government to these Standard
plans, I trust that early orders may be passed.

Order: 10th May 1892, No. 975

The Standard plans and estimates for
Kitchens with circular cooking ranges for
Central and District Jails are approved and
will be transferred to the Public Works
Department.

/ True Extract /

Whistful (Signed)
Under Secretary
for Chief Secretary

To
The Public Works Dept.
with Plans &c.
Inspector General of Jails

2/5.8

P. W. CURRENT No. 4604
[9/16]

Gobt. of { 18 } Madras.

To

The Public Works Dept.

Encls: 11 (4 plans)

Recd: 17.5.93

Proceedings, dated 10 May 1893
No. 975

Subject.

Approving & transferring
to the P.W. Department
the standard plans
and estimates for kitchen
with circular cooking
ranges for Central
and District jails.

DESPATCHED

22 SEP. 93

Suptg. Engrs. ✓
C.A. to Govt. ✓
Judl. Dept. ✓
22/9/93
01/12/93-5

31974 32.11.91
31760 32.6.91
41570 32.9.92
42380 32.9.92
170 32.1.93
17160 32.4.93
20260 32.5.93

Cur 1201 32.6.91

12-15864 32.15 June 1893

~~12-11134 32.19 May 1893~~

1. 20 P was wrong

The plans, estimates
and specifications will
be circulated to officers
of the P.W. Department
for information and guidance.

O.V.B.
19.5.93

15.5.93

28

CW 4604

Govt. of Madras.
PUBLIC WORKS.

[Faint handwritten notes and signatures]

15th June 1893, 1586W
G.O. No. 4436

Kitchens with circular
cooking ranges for
Central and District
Jails

Circulating for
information and
guidance of
standard plans
for —

250
12

15/6
18/6