

Minutes of Pre - Bid Meeting held between Sikaria Mega Foodpark Private Limited (SMFPL) & Civil Contractors/Agencies/Companies, for Civil Works, Electrical & Services /Utilities at Mega Food Park project at Agartala, Tripura.

SMFPL/NIT/14/2012

Dt. 20/01/12.

This shall be treated as Addendum 1, dated 20/01/12 of Tender.

Venue of meeting: CF-9, Sector 1, Salt Lake City, Kolkata - 700064

Following persons were present for the meeting:

SMFPL	Contractors/Agencies/Companies
1) Mr. Gour Chandra Mukherjee (CEO)	1)Mr Nitesh Sharma (Authorized representative of Shaksi Trade Link Private Limited)
2) Mr. Rohit Jhunjhunwala (AVP Finance & Accounts)	2)Mr Mahadoom Bava (Authorized representative of Naftogaz India Private Limited)
3) Mr Nilesh Mahajan (authorized representative of PMC)	3)Md Salam (Authorized representative of SRC Company)
4) Mr Vishnu Kumar Suthar (authorized representative of PMC)	4)Mr Tapan Saha (Authorized representative of Mangal Mayee Hirise Private Limited)
	5) Mr. J Kumar (Authorized representative of J Kumar Infraprojects Limited)

Sr. No.	Description	Clarifications
1	Contractors asked so many technical queries & clarifications regarding terms & conditions.	SMFPL has clarified all the queries as raised by the contractors/agencies/companies and necessary amendments made. Also SMFPL will also issue soft copy of Buildings drawings and Brief item specifications.
2	Contractors asked about exemption of EMD, who registered with National Small Scale Industries Ltd.	SMFPL replied that all Contractors should submit EMD. Nobody is exempted.
3	Contractors requested to extend date for submission of tender	SMFPL after considering agreed on the same and date for submission of tenders was extended till 30 th January 2012 01.00 pm.

ENCL: AMENDMENTS

AMMENDMENT : 1

SIKARIA MEGA FOOD PARK PVT. LTD.

Amendment for Tender for Buildings.

General Technical Specifications for Building works:

1. Depth of excavation should be minimum 2 meter or as per design.
2. Filling should be in layer wise & minimum 95 % Proctor density to be achieve.
3. Anti Termite Treatment to be carried out as per PCI Specifications.
4. P.C.C. below Footings should be minimum 75 mm th & Grade M15.
5. All Concrete should be minimum M20 & M25 for water tanks.
6. All Brick / Block masonry in 1: 6 C.M. Bricks having compressive strength 35 Kg/ Sqmt to be used.
7. Partition wall should be in 1:4 C.M.
8. Internal Plaster 12 to 15 mm th. & 1:4 C.M.
9. External plaster 18 to 20 mm th (in coats) & 1: 4 C.M.
10. Reinforcement Steel should be Grade Fe 415.
11. External painting is Apex / Weather shield .
12. Water proofing for Terrace & Toilet sunk to be done.
13. Concrete flooring in M20 Grade with Tremix system with Floor Hardner @ 4 Kg/ Sqmt to be used.
14. Rolling shutter & M.S. Doors to be painted with one coat of Yellow Zinc Chromet primer & two coats of Enamel paint of Asian/ ICI/ Berger.
15. All Aluminium Doors & windows sections with Colour Anodized 20 Micron & 5 to 5.5 mm th Float glass to be used. 12 mm th. Minimum weight of Aluminium sections for windows should be 8 Kg / Sqmt & 11 Kg / sqmt for Doors. Panel should be Preliminated sheet of Novapan / equivalent make.
16. All Plumbing & Sanitary fittings of medium quality.
17. All materials to be used as mentioned in approved make.
18. Internal painting will be OBD / Plastic Emulsion / White wash as mentioned in Drawings.
19. 150 mm th. Stone Soling / Brick Soling to be done for Ware house, Cold storage .
20. All Structural Steel i.e. Trusses, Purlins, Columns, beams , Railing etc to be painted with one coat of Yellow Zinc Chromet primer & two coats of Enamel paint of Asian/ ICI/ Berger.
21. Acoustics false ceiling to be done for Auditorium.
22. All water supply pipes to be of B Class G.I. with anticorrosive paint.
23. Where ever not specified , CPWD specifications to be followed.

**WARE HOUSE , COLD STORAGE, PACKING UNIT, HIGH TECH COLD STORAGE, GRADING AND
STORING SHED**

1. 125 mm th R.C.C. Tremix Flooring with nominal Steel 8 mm dia. @ 150 c/c at top.
2. 600 x 600 mm Vitrified Tiles flooring & 80 /100 mm high skirting for Bank, Post office, Guest house, Bank, Post office, Insurance
3. 300 X 300 mm Ceramic tiles floor & 200 x 300 mm dado up to 2.1 meter height for Toilets.
4. Granite platform for Kitchen.

PREFACE**Points/Notes applicable to Specifications & Rates :**

- 1 **This is Plinth area basis Tender & with all materials supplied by Contractors.**
- 2 Work shall be carried out as specified in Technical Specifications.
- 3 Further to above the rates / offer shall also be inclusive of all taxes including sales tax, work contract tax , octroi, excise duty, local tax , import duty, Royalty, Royalty on excavation at site and other building materials brought from outside.
- 4 Service tax and Vat as applicable on Contract Amount shall be paid/ reimbursed by the Employer. The Employer shall have option to deposit the same directly with the concerned Commissariat or to reimburse on production of original documents specific to this project only.
- 5 All the water proofing work, roof slab and R W Piping items shall carry a guarantee for minimum 5 / 10 years or as specified for water tightness.
- 6 Plumbing work in toilets shall be concealed or exposed and clamped as directed. The concealed pipes shall be painted with 2 coats of black bitumastic paint before embedment. Chicken wire mesh shall be nailed and the chases shall be grouted properly.
- 7 In the Schedule for Water Supply, drainage, sanitary work :
The materials shall be of approved make and heavy quality.
- 8 The contractor shall clean the site completely including removal of debris, bushes, and loose materials. This work is a part of general mobilization and shall be at his own cost.
- 9 One total station, Theodolite, 1 leveling instruments and 1 competent surveyors shall be continuously deployed at site.
- 10 Contractor has to construct temporary Cement Godown for minimum 5000 Bags at his own cost. This godown should be such like that water / any leakages should not happen. Yard with Barbed wire fencing to be constructed at his own cost for storage of Steel. Contractor will be totally responsible for safe custody of Cement & Steel.

Cu.M.	Cubic Metric
Sq.M.	Square Meter
Rmt	Running Meter
Kg	Kilogram
Ltr	Liter

ADDITIONAL TECHNICAL SPECIFICATIONS
Metal Soling/ W B M

The compacted thickness shall be as mentioned in BOQ item. The materials shall consist of granite/ basalt, angular ballast of 50-75 mm G, 13.5 mm Nominal size aggregates, approved quality murrum, stone dust. Approximate quantities for a compacted thickness of 100mm and surface area of 10 square meters are as follows;

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Ballast	1.26 c met
13.5 mm aggregate as screening	0.28 c met
Murrum/ stone dust	0.09 c met

Flaky materials shall not be accepted. 10-12 ton capacity vibratory roller shall be used.

The sub grade / sub base shall be prepared to the required level, camber, super elevation, cleaned, watered and rolled. Pavement lines shall be marked by chalk powder using appropriate templates. Suitable angle/channel templates shall be set up at edges to facilitate level control.

Ballast shall be spread uniformly. Usually the spread thickness before compaction is taken 1.3 times the compacted thickness. The layer shall be dressed to level and compacted by roller moving from edge to centre. Small quantity of water shall be sprinkled during rolling operation. Rolling is continued till movement of ballast stops and sufficiently true surface is obtained.

Screenings are applied gradually filling the voids, simultaneously rolling is continued slowly, sprinkling the water copiously and pushing the screenings to fill all the voids.

This operation is continued till the ballast/screenings are well bound and well set to full depth and grout is formed.

Next, a thin layer of stone dust/ approved murrum is spread uniformly, surface is copiously watered and rolling is continued at a slow pace, the slurry is swept into the voids. The operation is continued till the roller wheels stop showing dents in the surface.

In case of road work earthen bunds are formed at the edges and the surface is submerged in water for 36 hrs. The bunds are removed and the surface cleaned.

Earth filling (Item No: 4 of Section A)

This is Structural filling. The concrete pavement to be cast on the compacted fill will be required to cater heavy loads without settlement. The work shall be carried out with approved quality murrum under expert supervision.

Work shall be carried out in layers not exceeding 200mm and compacted at O M C level using vibratory rollers or plate compactors. The O M C shall be determined by laboratory tests on representative samples of murrum to be used. The work shall progress from lowest region towards higher region. Compaction of not less than 95% shall be achieved at every layer.

One proctor test shall be done for 500 C met of filling, one CBR test for 500 sq met area and 6-8 tests for modulus of sub grade reaction shall be performed.

The BOQ rates include such tests.

Structural Steel Fabrication Work.

Concrete platform for fabrication shall be level, reasonably smooth finish and of adequate strength. DC welding Generators or rectifiers shall be used for welding

Structural sections shall be thoroughly cleaned and fully straightened before use.

Welding process shall be Shielded manual arc welding. DC Welding Generators or Rectifiers shall be used. Welding transformers not acceptable.

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Contractor shall select appropriate welding sequence to control distortions/shrinkage.

The prescribed thickness shall be achieved in 2 passes.

For root pass electrodes of 2.5 mm G (E 6011) and for further passes 3.5 mm G (E 7018) shall be used.

Truss hoisting shall be with 2 cranes or derricks of adequate strength. During erection, Trusses shall be temporarily braced/ stiffened during to cater for erection stresses.

The acceptable upper limits for geometrical aberrations in the installation:

Truss verticality 15 mm

Purlins 5 mm

Level of base plates 5mm

Concrete flooring

Flooring work shall be carried out as per the detailed drawing. The PCC base surface shall be cleaned and steel channels to suit the concrete thickness shall be set up to create panels, with correct top level, plumb and line. The channel surface shall be clean and well oiled. The channels shall have provision for steel reinforcement dowels. The channels shall be rigidly secured by driving steel pins and lateral supports. PVC membrane shall be provided if directed. The surface shall be well watered 24 hours ahead.

Before commencing concreting operation the excess water shall be removed and reinforcement and dowels provided as per drawing. Concrete mix shall be stiff. The aggregates shall be angular. Sand shall be used. As fine aggregate, Concrete shall be laid in the panel from edge towards centre and shall be vibrated by needle vibrator till the panel is completely filled and finally with batten mounted screed vibrator, simultaneously filling depressions with fresh concrete and removing excess if any. Float, excess water, mud will appear on the surface which has to be removed manually. The operation is continued to obtain absolutely level top surface.

The concrete is allowed to set for a time period such that the surface becomes hard enough to give metallic sound when struck with steel trowel and no foot mark can form on the surface. Trowelling is done at this stage with power trowels to obtain smooth and level finish. No cement slurry/ mortar/ neat cement shall be used at any stage.

Curing shall be done by 'ponding' for minimum 15 days.

The grooves shall be as per drawing and shall be saw cut with a heavy duty mechanically operated circular saw. The groove filling shall be done as shown in the drawing.

Joints in Concrete Flooring and panel dimensions

The flooring panels shall be laid as per detailed drawing. The panel width is governed by length of the batten, which is generally 3.6 M. After allowing margins, the limiting width becomes 3.00 M the flooring shall be cast in alternate longitudinal strips, keeping construction joints in a planned way to match drawing.

Thus, during casting operation, 2 types of joints are formed. 1) The longitudinal joint. 2) Construction joint. In addition transverse contraction joints have to be provided these joints are saw cut between 72 hrs and 120 hrs of casting. The dowels shall be provided as shown in the detailed drawing. The saw cut dimensions shall be 10 mm width and 50 mm depth. The joints shall be filled and sealed as per drawing. The sealants shall be polysulphide

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based. It is important to ensure that saw cut line is collinear with longitudinal casting line and the construction joint edge, as the case may be. Usually this is achieved by providing markers.

Specifications of Galvalume profiled roofing sheets

Base metal: C R Steel to ASTM A-792 M grade 80, minimum yield strength= 550 MPa. Zinkalume alloys per AS 1397., coating class AZ150 (minimum 150gms per sq met. Coating alloy-55% Al, 43.5% Zn, 1.5% Si. coating mass given above is for two sides. Paint coating Epoxy primer 5-7microns, silicon modified polyester exterior 20 microns, Polyester back coat 10 microns on the interior side, LDPE guard film 40 micron thick.

Profile

Fasteners Galvanized, heavy quality, no12 self tapping, hexagonal head, with integral Washer and one EPDM/neoprene

Specifications for kotah stone flooring:

The sub base surface shall be thoroughly cleaned and brought to the desired level within a tolerance of 5mm. The undulations shall be made up by chipping or adding pcc 1:2:4 bedding as directed by the Engineer. Water shall be sprinkled just before laying the bedding.

Stones shall be fresh green or blue free from cracks, veins cleavages and other defects. The thickness shall be as described in BOQ. The edges shall be straight cut and vertical for the full depth. Stones prepared for laying shall be soaked for 30 minutes in water and inspected before laying.

Cement sand mortar in the proportion 1:4 shall be used for bedding. A single batch of mortar shall be such that it is consumed in less than 40 minutes.

Proper level reference `dhadas` shall be established for maintaining level. The bedding shall be 25 mm to 30 mm. Before putting stone the bedding is compacted with wooden battens.

Stone is laid on the bedding and brought to proper position and level by using mallet and then removed to see the void portion. The voids are filled with mortar, and cement slurry is spread on the bedding and handpicked with spatula. Thick cement paste of butter consistency is applied on edges and the stone is set in position while lightly tapping with mallet till the cement slurry rises to the surface from the joints. The joints shall be 1.5mm thick. .

The joints are grouted with cement slurry of pouring consistency for a depth of at least 5-10mm. Just before grouting the joint is cleaned with a sharp knife. The joint grouting is done 12-24 hrs after setting of the stones.

The area thus completed shall be water ponded and cured for 15 days when polishing will be started.

Machine polishing is done in 3 coats using grinding stones of 120 no for the first run and 320 no for the second run. The flooring joints are again grouted with thin white cement slurry and the final run is applied to obtain smooth surface free of undulations and free from polishing stone marks.

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Finally the floor is washed with clean water and oxalic acid solution of strength 35gms per sq met of floor area. Approx 4.5 kg of grey cement will be used for slurry over bedding and side buttering per sq met of laid area, The stone thickness, machine cut/hand cut, and final wax polishing if any will be as stated in the BOQ.

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LIST OF THE APPROVED MAKE AND QUALITY OF MATERIALS TO BE USED IN THE CONSTRUCTION WORK.

Sr. No.	Item	Make
1.	Cement Opc:43 Grade IS : 8112 OPC : 53 Grade IS : 12269 PPC : 455/ IS : 1489	ORDINARY PORTLAND CEMENT CONFORMING TO IS: 269 (1989) OR APPROVED BY EMPLOYER / ARCHITECT/ CONSULTANTS. ULTRATECH/JK/ SANGHI/ ACC/ AMBUJA/ SIDDHI/ BINANI
2	White Cement	Birla. J.K.
3.	Reinforcement Tor Steel & Mild Steel Bars Fe 415	AS PER IS: 2502/ IS: 2751/ IS: 1786 (1979) OR APPROVED MAKE AS DECIDED BY EMPLOYER Re. Steel - TATA/ SAIL/ RNL/ THERMEX/ VIZAG
4	Structural Steel sections- Channels, Angles, Plate, Beams, Flats , Bars (Square & Round)	AS PER IS : 226 (1975)/ IS : 961 (1975)/ IS : 1977 (1975)/ IS : 2062 (1984)/ IS : 8500 (1977) / IS : 432 OR APPROVED MAKE BY EMPLOYER / Consultants SAIL/ TATA/ VIZAG / RINL / JINDAL
5	Coarse And Fine Aggregate	AS PER IS: 383. OR Quarry approved by Consultants / Employer
6	Cement Paint	SNOWCEM / ASIAN PAINT / BERGER
7	Ceramic Tiles (Glazed/Matt/Other)	NITCO / SPL / KAJARIA / HR JOHNSON
8	Tile Grouts	LATICRETE / BAL ADHESIVE
9	Paint (Emulsion/Distemper/ WP Cement Based)	ASIAN PAINT / ICI/ BERGER PAINT
11	A.C. Sheets (Asbestos Free)	EVEREST / CHARMINAR/ RAMCO
12	Rolling Shutters	SWASTIK / SARVODAYA / BHARAT/ SHIVAM/ MILESTONES/ RAMA/ APPROVED MAKE
13	Fire Proof Doors	R.D.G. ENGINEERING / F.T.E./SHAKTI MAT-DOR
14	Steel Windows	AGEW / SEN HARVIC/ DEVAS METAL/ DHIMAN
15	PVC Water Stoppers	CALIPLAST/FIXOPAN
16	Floor Hardener	FOSROC /J.B.ASSOCIATES /MBT / PIDILITE
17	Floor Sealing	FOSROC / J.B.ASSOCIATES/ NINA
18	Light Gauge Cold Rolled 'Z' Section For Purlins & Cladding Runners	ADVANCE / PMC / NSL / TIGER / KIRBY
19	Welding Rods	ADVANI / ESSAB
20	Erection Nuts And Bolts	GKW / F.T. & N.B. LTD. / IS:1367./ HILTI / FISCHER
21	All Sanitary Fittings Like W.C. Pan/ Wash Basin/ Urinals Etc.	HINDUSTAN SANITARY WARE / PARRY WARE
22	All Plumbing Fixtures	JAQUAR(CHROME PLATED)/PLUMBER

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Sr. No.	Item	Make
23	Glasses For Doors And Windows & Mirrors	MODI GUARD / SAINT GOBAIN / ASAHI
24	Shuttering Plywood	ANCHOR / KITPLY / JAYSHREE / MANGALAM
25	Anti-Termite Treatment	BAYER/ TRISUL/ NOCIL
26	Aluminum Glazing And Windows	INDRAJIT ASSOCIATES / SUPREME / CRYSTAL
27	Bricks	APPROVED LOCAL MAKE.
28	Partition Board	NOVAPAN/ BISON/ GREENPLY
29	Construction Chemical	FOSROC / PIDILITE / MBT
30	P.V.C. & uPVC Pipe	FINOLEX / PRINCE / SUPREME/JAIN
31	G.I. Pipe	TATA / JINDAL / ZENITH
32	R.H.S. Sections	TATA/ JINDAL
33	False Ceiling Systems	EVEREST / RAMCO
34	Vinyl Floor	ARMSTRONG/ L G/ NITTOBO
35	Sealant- Silicone/ Polysulphide	GE/ PIDILITE/ FOSROC/ JBASSOCIATES
36	Epoxy Over Flooring	FOSROC/ MBT/CIPY
37	Water Proofing Membrane - Bitumen Based	STP/ BITUMAT
38	Non Shrink Grouts	FOSROC/ MBT
39	FRP Gutter	Everest Vadodara, Jay Raj Vadodara, Roofit
40	Bitumen	SHALIMAR TAR PRODUCTS/ MATHURA OIL REFINERY
41	Flush Door	Anchor / KIT / Green
42	Deleted	
43	DELETED	
44	Laminates	NOVAPAN/ GREENPLY/ FORMICA
45	Plywood	Century / Archid / GREENPLY / Duro
46	Terrazzo Tile	NITCO/SONA
46	Free Access Flooring	UNITILE - UNITED ACCESS FLOORS P LTD/ TEJAS
47	Paving Stones	UNISTONE OR EQUIVALENT
48	Wax Polish	MANSION OR EQUIVALENT
49	Sanitary Fixtures	HINDWARE/ PARRYWARE
50	Urinal Sensors	SMS DEVICES / ADS/TOSHI
51	Stainless Steel Hinges	CANON/ UNION
52	Door Hardware / Closer	GEZE/ DORMA/ BRITON
53	Locks And Handles	Godrej / DORSET/ Yale / Steel Door Lock
54	Anchor Fastener / Anchor Bolts	HILTI/ FISHER
55	Corner Beads & Specials	ARPITHA OR EQUIVALENT
56	Gypsum Partition & Gypsum Ceiling	INDIA GYPSUM
57	Electrodes	ADVANI / ESSAB
58	Mineral Fiber Ceiling System	ARMSTRONG/ NITTOBO/ INDIA GYPSUM/

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Sr. No.	Item	Make
		CELOTEX
59	H.T. Bolts	UNBRAKO
60	Steel Doors (General Purpose)	UNBRAKO/SHAKTI MAT -DOR/ DHIMAN
61	DELETED	
62	Aluminum Sections	INDAL / JINDAL/ HINDALCO
63	DELETED	
64	Bare Galvalume sheets for roof & Cladding (Substrate)	NIPON/DONGBU/ BHP/ BLUESCOPE/ SHREE PRECOATED /JSW/ ISPAT
65	Roof /Cladding System Manufacturer	SHREE PRECOATED / CRIL / BLUESCOPE/LLOYD
66	Glass Wool And Related Products/ Mineral Wool & Insulation	UP-TWIGA/ OWENS CORNING/ LLOYDS / TASMAN/ POLYNUM
67	Polycarbonate Sheets	GE PLASTICS / FLEXITUFF/ JAIN
68	Self Drilling Screws	HILTI/ BUILTEX
69	Logo/ Signs/ Name Plates	SIGNAGE SYSTEMS INDIA
70	Pre - Engineered Building	KIRBY BUILDING / VARCO PRUDEN/ LLOYD STEEL
71	Ms Sliding Motorized Door	HEIDZ INDIA LTD./GANDHI AUTOMATION
72	DELETED	DELETED
73	G.I. Fitting And Valves	UNION/ZOLOTO/ R Brand
74	Stainless Steel Sink	NIRALI/ KINGSTONE/ NEELKANTH
75	Deleted	
76.	Gunmetal Valve (Fullway Valve)	ZOLOTO/LEADER/ GG (Bronz)
77	C.I. Manhole Cover	RIF/B.C/KAJECO / NECO
78	Stone Wore Pipe And Gully Traps	HIND/ PERFECT

Notes:-

1. The contractor must quote the tender considering the above make of materials.
2. Before procurement of the all materials contractor shall submit the sample and shall have the same approved by Consultants / SMFP
3. Alternative makes if any shall be assessed by Consultants / SMFP & their decision shall binding.

REFERENCE LIST OF BIS CODES

The General reference list is given below. It is clarified that mode of measurement as per Technical Specifications & Bill of Quantities shall take precedence over these codes.

Sr. No.	INDIAN STANDARD	SUBJECT
1.	DELETED	
2.	269-1976	Ordinary, Rapid Hardening And Low Heat Portland Cement
3.	383-1970	Coarse And Fine Aggregates From Natural Sources For Concrete
4.	455-1976	Portland Blast Furnace Slag Cement
5.	650-1976	Standard Sand For Testing Of Cement
6.	1489-1967	Portland Pozzolana Cement
7.	1727-1967	Methods Of Tests For Pozzolanic Materials
8.	2386 PT III-1963	Methods Of Test For Aggregates For Concrete
9.	2386 PT I - 1963	Particle Size And Shape
10.	2386 PT 11 - 1963	Estimation Of Deleterious Materials And Organic Impurities
11.	4031 1968	Methods Of Physical Tests For Hydraulic Cement
12.	4032-1968	Method Of Chemical Analysis Of Hydraulic Cement
13.	383-1970	Coarse And Fine Aggregates From Natural Sources For Concrete
14.	456-1978	Code Of Practice For Plain And Reinforced Concrete
15.	1322-1970	Bitumen Felts For Water Proofing And Damp Proofing
16.	DELETED	
17.	2386 (PT I) 1963	Test For Particle Size And Shape
18.	2386 (PT II) 1963	Test For Estimation Of Deleterious Materials And Organic Impurities
19.	2386 (PT III) 1963	Test For Specific Gravity, Density, Voids, Absorption And Bulking

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Sr. No.	INDIAN STANDARD	SUBJECT
20.	2386	Method Of Test For Aggregate For Concrete
21.	2386 (PT IV) 1963	1963 Mechanical Properties
22.	2645 - 1975	Specifications For Integral Water Proofing Compounds
23.	432 - 1966	Mild Steel And Medium Tensile Steel Bars And Hard Drawn Steel Wire And Concrete Reinforcement
24.	432 (PT I) 1966	Mild Steel And Medium Tensile Bards
25.	456 - 1984	Code Of Practice For Plain And Reinforced Concrete
26.	516 - 1959	Methods Of Test For Strength Of Concrete
27.	1139 - 1966	Hot Rolled Mild Steel, Medium Tensile Steel And High Yield Strength Steel Deformed Bars For Concrete Reinforcement
28.	1199 - 1959	Method Of Sampling & Analysis Of Concrete
29.	1566 - 1967	Hard Drawn Steel Wire Fabric For Concrete Reinforcements
30.	1786 - 1979	Cold Drawn Steel Wire Fabric For Concrete Reinforcements
31.	DELETED	
32.	DELETED	
33.	2502 - 1963	Code Of Practice For Bending And Fixing Of Bars For Concrete Reinforcement
34.	1077 - 1970	Common Burnt Clay Building Bricks
35.	DELETED	
36.	2212 - 1962	Code Of Practice For Brick Work
37.	3102 - 1971	Classification Of Brunt Clay Solid Bricks
38.	3495 (PTS I To IV)	Method Of Test For Clay Building Work
39.	5454 - 1974	Method For Sampling Of Clay Building Bricks
40.	1122 - 1974	Method For Determination Of Specific Gravity & Porosity Of Natural Building Stones

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Sr. No.	INDIAN STANDARD	SUBJECT
41.	1124 - 1974	Method Of Test For Water Absorption Of Natural Building Stones
42.	1130 - 1969	Marble (Blocks, Slabs & Tiles)
43.	205 - 1966	Non Ferrous Metal Butt Hinges
44.	206 - 1973	Tee And Starp Hinges
45.	287 - 1973	Recommendation For Maximum Permissible Moisture Contents Of Timber Used For Different Purpose
46.	303 - 1975	Plywood For General Purpose
47.	451 - 1972	Technical Supply Condition For Wood Screws
48.	723 - 1972	Steel Counter Sunk Head Wire Nails
49.	1003	Timber Paneled And Glazed Shutters
50.	1003 (PT I) 1966	Door Shutters
51.	1003 (PT II) 1966	Window & Ventilators Shutters
52.	1141 - 1973	Code Of Practice For Seasoning Of Timber
53.	DELETED	
54.	1200 (PT XIV) 1970	Glazing
55.	1200 (PT XXI) 1973	Wood Work And Joinery
56.	1328 - 1970	Veneered Decorative Plywood
57.	1341 - 1970	Steel Butt Hinges
58.	1659 - 1969	Fibre Hard Board
59.	1659 - 1969	Block Board
60.	1761 - 1960	Transparent Sheet Glass For Glazing & Framing Purpose
61.	1911 - 1967	Schedule Of Unit Weights Of Building Material
62.	2191	Wooden Flush Door Shutter (Cellar & Hollow Core Type)

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Sr. No.	INDIAN STANDARD	SUBJECT
63.	2191 (PT I) 1973	Plywood Face Panels
64.	2202	Wooden Flush Door Shutters (Solid Core Type)
65.	2202 (PT I) 1973	Plywood Face Panels For Wooden Flush Door Shutters
66.	3618 - 1966	Phosphate Treatment Of Iron And Steel For Protection Against Corrosion
67.	4021 - 1967	Timber Door, Window And Ventilator Frames
68.	63 - 1964	Whiting For Paints
69.	226 - 1975	Structural Steel (Standard Quality)
70.	277 - 1962	Specification For Galvanized Steel Sheets (Plain And Corrugated)
71.	800 - 1984	Code Of Practice For Use Of Structural Steel In General Building Construction
72.	806 - 1968	Code Of Practice For Use Of Steel Tube In General Building Construction
73.	813 - 1961	Scheme Of Symbols For Welding
74.	814 - 1974	Covered Electrodes For Metal Arc Welding Of Structural Steel
75.	814 (PT II) 1974	For Welding Sheets
76.	815 - 1966	Classification And Code Of Covered Electrodes For Metal Arc Welding Of Mild Steel And Low Alloy High Tensile Steel
77.	818 - 1968	Code Of Practice For Safety And Health Requirements In Electric And Gas Welding And Cutting Operation
78.	1938 - 1975	Steel Doors, Windows And Ventilators
79.	DELETED	
80.	DELETED	
81.	1608 - 1972	Method For Bend Test For Steel Products Other Than Sheet, Strip, Wire And Tube

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Sr. No.	INDIAN STANDARD	SUBJECT
82.	1977 - 1975	Method Of Tensile Testing Of Steel Products
83.	2062 - 1984	Structural Steel (Ordinary Quality)
84.	4351 - 1967	Structural Steel (Fusion Welding Quality)
85.	777 - 1970	Steel Door, Door Frames
86.	1130 -1969	Glazed Earthen Ware Tiles
87.	120 (PT XI) 1971	Marble (Blocks, Slabs And Tiles)
88.	DELETED	
89.	1443 - 1972	Cement Concrete Flooring Tiles
90.	1661 - 1972	Code Of Practice For Laying And Finishing Of Cement Concrete Floor In Tiles
91.	2571 - 1971	Code Of Practice For Application Of Cement Lime Plaster Finishes
92.	102 - 1962	Code Of Practice For Laying In Situ Cement Concrete
93.	103 - 1962	Ready Mixed Paint, Brushing, Red, Lead Nonsetting, Priming
94.	133 - 1975	Ready Mixed Paint, Brushing, White Lead, For Priming And General Purpose
95.	137 - 1965	Enamel, Interior (A) Under Coating (N) Finishing Color As Required
96.	158 - 1968	Ready Mixed Paint, Brushing, Matt Or Egg Shell Flat, Finishing, Interior, To Indian Standard Color As Required
97.	218 - 1961	Ready Mixed Paint, Brushing Bituminous, Black, Lead Free, Acid Alkali, Water And Heat Resisting For General Purpose
98.	1200 (PT XII) 1971 69	Creosote And Anthracene Oil For Use As Wood

Finishing Schedule for sikaria mega food park

Sr.No	Item name/Building Name	Common Utility building					ENTARNCE & STAIR CASE
		STAFF QUARTER	GUEST HOUSE	LIBRARY	TOILET	AUDITORIUM	
2	Flooring	600mmX600mm vetrified tiles	600mmX600mm vetrified tiles	600mmX600mm vetrified tiles	300mm X 300mm Antiskid tiles	75 mm thk ips flooring + Carpet	Tread and Riser with Polish kotah stone
3	Skirting	80mm/100mm Height	80mm/100mm Height	80mm/100mm Height	Nil	Wooden panelling upto 900 mm ht.	150mm kotah stone
4	Dado		-	-	200x300 ceramic tiles up to lintel lvl	-	
5	Painting inside	Acrylic emulsion	Acrylic emulsion	Acrylic emulsion	plastic emulsion	Acrylic emulsion	Acrylic emulsion
6	Painting outside	apex/weather paint	apex/weather paint	apex/weather paint	apex/weather paint	apex/weather paint	apex/weather paint
7	Window& window frame	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm frosted glass fixed louvers windows	Nil	Nil
8	Door Frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	-
9	Door panel	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting	-
10	False Ceiling					Acoustic Panles	
11	Railing	-	-	-	-	-	1000mm with M.S. Railing with paint
12	counter						

Finishing Schedule for sikaria mega food park

Sr.No	Item name/Building Name	WARE HOUSE	Cold storage	Dry Ware House	Fire Station
2	Flooring	125 mm thk Concrete flooring	125 mm thk Concrete flooring	125 mm thk Concrete flooring	125 mm thk Concrete flooring
3	Skirting	80mm/100mm Kota stone	Nil	80mm/100mm Kota stone	80mm/100mm Kota stone
4	Dado				
5	Painting inside	Oil Bound Destemper	Nil	Oil Bound Destemper	Oil Bound Destemper
6	Painting outside	apex/weather paint	Nil	apex/weather paint	
7	Window& window frame	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window		colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net
8	Door Frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame
9	Door panel	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting
10	False Ceiling	-			
11	Railing	-			
12	counter				

Finishing Schedule for sikaria mega food park

Sr.No	Item name/Building Name	STANDARD DESIGN		
		FACTORY	TOILET	OFFICE AREA
2	Flooring	125 mm thk Concrete flooring	300mm X 300mm Antiskid tiles	600mmX600mm vetrified tiles
3	Skirting	80mm/100mm Height	Nil	80mm/100mm Height
4	Dado		200 x 300 ceramic tiles	
5	Painting inside	Oil Bound Destemper	plastic emulsion	Oil Bound Destemper
6	Painting outside	apex/weather paint	apex/weather paint	apex/weather paint
7	Window& window frame	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window	colour anodised aluminium section with 5.5mm to 6mm frosted glass fixed louvers windows	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net
8	Door Frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame
9	Door panel	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting
10	False Ceiling			
11	Railing			
12	counter			

Finishing Schedule for sikaria mega food park

Sr.No	Item name/Building Name	CANTEEN			
		Dinning area	kitchen	wash area	Entarance
2	Flooring	600mmX600mm vetrified tiles	600mmX600mm vetrified tiles	600mmX600mm vetrified tiles	600mm X 600mm vetrified tiles
3	Skirting	80mm/100mm Height	80mm/100mm Height	80mm/100mm Height	100mm vetrified tiles
4	Dado	200 x 300 Ceramic tiles upto Lintel level	200 x 300 Ceramic tiles upto Lintel level	--	-
5	Painting inside	Acrylic emulsion	plastic emulsion	plastic emulsion	Acrylic emulsion
6	Painting outside	apex/weather paint	apex/weather paint	apex/weather paint	apex/weather paint
7	Window& window frame	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net
8	Door Frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame
9	Door panel	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting	38mm thk flush door both side painting
10	False Ceiling	--	--	--	--
11	Railing	--	--	--	--
12	counter	Granite counter top with Cuddappa or wall support	Granite counter top with Cuddappa or wall support	Granite counter top with Cuddappa or wall support	--

Finishing Schedule for sikaria mega food park

Sr.No	Item name/Building Name	SECURITY GATE HOUSE	
			TOILET
2	Flooring	600mm X 600mm vetrified tiles	300mm X 300mm Antiskid tiles
3	Skirting	80mm/100mm Height	Nil
4	Dado	-	200 x 300 Ceramic tiles upto Lintel level
5	Painting inside	Oil Bound Destemper	Oil Bound Destemper
6	Painting outside	apex/weather paint	apex/weather paint
7	Window& window frame	colour anodised aluminium section with 5.5mm to 6mm plain glass sliding/openable/fixd window with mosquito net	colour anodised aluminium section with 5.5mm to 6mm frosted glass fixed louvers windows
8	Door Frame	hollow metal Pressed steel frame	hollow metal Pressed steel frame
9	Door panel	30mm GI powder coateed flush door/GI PU painted flush door with virew panel	38mm thk flush door both side painting
10	False Ceiling		
11	Railing		
12	counter	Granite counter top with Cuddappa or wall support	

Tender for Civil work

Statement of Standard Consumption of Cement for Various Items

Item no.	Description	Unit	Bags
Section 'B' : P.C.C. / R.C.C. Work :			
1	P.C.C. in Foundation and Floor		
(a)	M15 Concrete (1:2:4)	Cu.M.	6.20
(b)	M10 (1:3:6)	Cu.M.	4.40
	P.C.C. 1:4:8	Cu.M.	3.25
2	R.C.C. M:25	Cu.M	8.00
3	R.C.C. M:20	Cu.M	7.00
10	DPC	Sq.M	0.36
Section 'C' : Masonary Work :			
1 & 4	UCR Masonry 1: 6	Cu.M	1.60
2 & 3	Brick Masonary C.M. 1:6	Cu.M.	1.30
5	Brick Partition Wall - 115mm thk.	Sq.M.	0.23
6 & 7	Concrete Block Masonry wall C.M. 1: 6	Cu.M.	1.20
Section 'F' : Doors / Windows / Ventilators			
1	Rolling Shutter	Sq.M.	0.06
2	Box type Door Frame 125mm x 60mm - Pressed Steel Sheets	R.M.	0.14
6	Fire Proof Door	Sq.M.	0.12
7 & 9	M.S. Door	Sq.M.	0.06
10	Steel Windows	Sq.M.	0.06
Section 'G' : Plastering			
1	12 to 15 mm thk. Cement Plaster to all surface	Sq.M.	0.17
2	20 to 25 mm thk. Sand faced Plaster to all surface	Sq.M.	0.24
3	25 mm thk. Water proof cement plaster.	Sq.M.	0.25
Section 'I' : Flooring / Skirting / Dado			
1	Polished Kota Stone Flooring	Sq.M.	0.30
3	Polished Kota Stone 150mm high Skirting fixing by Mortar	R.M.	0.03
4	Providing and Laying Granolithic Floor		
(a)	40mm thick. Granolithic floor.	Sq.M.	0.28
(b)	50mm thick. Granolithic floor.	Sq.M.	0.36
(c) & (d)	75mm thick. Granolithic floor.	Sq.M.	0.53
6	Ceramic Tiles – 6 / 8 mm thk.		
(a)	In Floors	Sq.M.	0.18
(b)	In Dado	Sq.M.	0.18
7	Minimum 10mm thick Vitrified Tiles in floor	Sq.M.	0.20
9	Polish Kota stone for Staircase etc	Sq.M.	0.30
10 & 11	PKS Sills & Marble frame	Rmt	0.10

Tender for Civil work

Item no.	Description	Unit	Bags
12	M25 for Floor	Cu. M	7.10
14, 15, 16	Granite Floor / Platform etc	Sq.M.	0.30
	Section J : Water Proofing		
1	India Type waterproofing	Sq.M.	1.00
2	Extra Thickness	Cu. M.	7.00
3 & 4	For Sunken & Chajja etc	Sq. M	0.45
5	Water proofing for R.A. Trenches, Water tank etc	Sq. M	0.20
	Section 'K' : Miscellaneous Items		
1	M25 Concrete Fillet 75 x 75 mm size	R.M.	0.02
12	ATD Doors.	No.	0.45
14	Fixing Damper	Sq. M	0.10
	Section 'L' : Sanitary Installation, Water Supply & Drainage		
1	Water Closet European	No	0.50
2	Wash Basin	No.	0.25
6	PKS Partition 1200 x 600	No.	0.02
7	White China Water Closet (Orissa type)	No.	1.50
8	Stainless Steel Sink	No.	0.25
14	Marble Partition 1200 x 650	No.	0.02
15	Floor Trap / N.T.	No.	0.30
21	Chamber 300 x 300	No.	2.00
22	Stoneware pipe 1.50 mtr. Deep		
(a)	100 mm dia. S.W. pipe	R.M.	0.10
(b)	150 mm dia. S.W. pipe	R.M.	0.15
23 (b)	230 mm dia. S.W. pipe	R.M.	0.23
	300 mm dia. S.W. pipe	R.M.	0.30
24	Stone ware Gully trap	No.	1.00
25	Inspection Chamber	No	5.00
26	Manhole Chamber up to 1.50 mtr. Depth	No.	8.00
27	Manhole Chamber from 1.50 mtr to 2.1 meter	R.M.	11.00
27 (a)	Circular M.H.	No.	14.00
29 & 30	Sink	No.	0.10
39	Oil / Grease chamber	No	5.00
43	Honey comb masonry	Cu. M	1.20
	Section 'M' : Road Work & S.W. Drains	Cu. M	7.10
10	Pre cast Kerbing		

Tender for Civil work

Item no.	Description	Unit	Bags
11 (a)	80 mm th Precast slab	Sq. M	0.57
11(b)	100 mm th. Precast Slab	Sq. M	0.71
14 & 15	P/L N.P2 / NP3 Class Hume Pipes		
	200mm dia.	R.M.	0.08
	300mm dia.	R.M.	0.15
	450mm dia.	R.M.	0.19
	600mm dia.	R.M.	0.23
	750mm dia.	R.M.	0.30
	900mm dia.	R.M.	0.50
19	Stone pitching with pointing	Sq. M	0.10