

**ANDHRA PRADESH EDUCATION & WELFARE
INFRASTRUCTURE DEVELOPMENT CORPORATION**



AGREEMENT

Name of the work :

Procurement of Dual Desks Type I, II, III & IV to the Government Schools (Educational Institutions) of Srikakulam, Vizianagaram, Visakhapatnam and East Godavari (4) Districts as Package-I in Andhra Pradesh Under MANABADI: NADU-NEDU (Phase-II)

Name of the Agency :

**Zenith Metaplast Pvt Ltd,
F-18, MIDC Satpur, Nasik-422007,
Maharashtra**

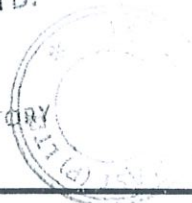
Estimate Cost:

Rs. 72.40 Crores

**O/o The Managing Director,
APEWIDC, Vaddeswaram (V)
Tadepally (M), Guntur District**

ZENITH METAPLAST PVT. LTD.

[Signature]
AUTHORIZED SIGNATORY



Annexure-A

Name of the Work: Procurement of Dual Desks Type I, II, III & IV to the Government Schools (Educational Institutions) of Srikakulam, Vizianagaram, Visakhapatnam and East Godavari (4) District as Package-I in Andhra Pradesh Under MANABADI: NADU-NEDU (Phase-II)

Sl.No	Quantity in Numbers	Description of Item	Rate per number	Amount in Rs.
1	7600	<p>Supply & assembling of Dual Desk TYPE-I [for class I and II] (Multi Color)</p> <p>The overall dimensions of desk will be <u>W 1066mm x D 890mm x H 628mm</u> (For table top). The seating bench height shall be 383 mm. The desk shall be manufactured as per the specifications mentioned below:</p> <ol style="list-style-type: none"> Table top shall be made up of 18.0 mm thick plywood (tolerance as per IS 303) of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish). Table top dimensions shall be <u>W 1015.20 mm x D 380.0 mm</u>. Edge towards bench shall be post formed with round edge. The remaining three edges must be sealed with 2mm thick PVC edge banding tape. Edge band must be trimmed on edges and corners. Make of Plywood: Greenply / Century / Kitply. Make of Laminate & balancer: Marino / Greenlam / ASIS / Century. Side frame structure: Made of CRCA press-formed section having two Nos of 50mmx25.4mm Rectangular Pipe sections 1.2mm thick and joined by "C" channel of size 65mmx25.4mmx25.4mm and 1.2mm thickness and MIG Welded to rectangular pipe of 25.4 mm x 50.0 mm x 1.2mm thickness (850mm Bottom length) by using extra stiffeners of C-section made up of 62.60mmx 25mmx25mm & 3.0 mm thickness sheet and 100mm long. Side frame structure top 50mmx25.4mm x1.2mm Rectangular Pipes covered with CRCA sheet 165mmx134.60mmx1.2mm including top folding, and 105mmx161.20mm x1.2mm including top & bottom folding and 110mm x 137.2mm (average) x 1.2mm including top & bottom folding as per drawing appended. Make for CRCA sheet – ESSAR / TATA / SAIL / JINDAL. Proposed desk should be ROHS certified from INTERTEK / UL. Valid certificate to be submitted along with the bid. Seat and back rest frame structure: Made of CRCA press formed section having two no's of 50mm x 25.4mm Rectangular pipe sections 1.20mm thick and joined by C-channel of size 65mm x 25.4mm x 25.4mm and 1.20mm thickness and MIG welded to pipe at the bottom and on top welded to MS pipe of 25.4mm diameter and 1.20mm thickness. Seat, Back Rest & table top are supported by 8 numbers of stiffeners with MS Tube of 25.4 mm x 25.4mm 1.2 mm thickness square Pipe section (each of length 1015.20mm) MIG welded to side frames at relevant locations. Square pipe of size 20.0 mm x 20.0 mm x 1.2 mm thickness and 100.0 mm long shall be welded to the frame to hold the horizontal supports. Raw materials of MS tubes shall be from ESSAR / TATA / SAIL / JINDAL. MS Rectangular Pipe sections of dimensions 50.0 mm x 25.40 mm x 1.2 mm thickness shall be closed with PPCP (Poly Propylene Copolymer) cap at both the ends. Pipe diameter 25.4 mm x 1.2 mm thickness shall be closed with PPCP cap at back side and under the seat. Upper modesty panel and shelf shall be made of 0.8 mm thick CRCA sheet. The dimensions for upper modesty panel shall be H 175.0 mm x W 1015.20 mm x D 23.0 mm. The dimensions of shelf shall be W 1015.20 mm X D 300.0 mm X H 23.0 mm. The shelf shall have vertical partition at the center. This partition shall be made up of square MS Pipe having size 25.40 mm x 25.40 mm x 1.2 mm thickness. Stiffeners of MS pipe having sizes as 20.0 mm x 20.0 mm x 1.2 mm thickness shall be provided in upper modesty panel. And shelf front fascia of upper modesty panel of desk shall have embossed design. The corners of shelf (projecting towards the seating bench) shall be rounded through corner-forming technology (without welding) to avoid injury in case of accidental impact. The thickness of sheet of shelf shall be 0.80mm. Front face of Upper Modesty panel should have embossed letters of NADU-NEDU 2021 as shown in drawing. Additional lower modesty panel having size H 150.0 mm x W 1015.20 mm X D 23.0 mm shall be made up of 0.8 mm thick CRCA sheet with designer square perforations. 	10515	7,99,14,000

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Managing Director, WAPEWIDC, Vijayawada

29/11/22

Stiffeners of MS pipe having size 20.0 mm x 20.0 mm x 1.2 mm thickness shall be fixed across the length at the bottom side of lower modesty panel.

7. Seat and back rest shall be made of 18mm thick plywood of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish) except back rest. Back rest shall have both sides colour lamination

Technical details of seat and back rest are mentioned below:

Seating bench dimensions shall be W 1066.0 mm X D 300.0 mm: Front side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

7.1 Back rest dimensions shall be W 1066.0 mm x D 250.0 mm: Upper side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

7.2 Seat and back rest shall be fitted to the frame with MAZAK self Tapping inserts (Make: ebco/HETTICH) of size M6 x 13mm.

7.3 Leg space between top and seat shall be **110mm.**

8. Bag/bottle hooks shall be made of CRCA sheet. The overall size of hook shall be 135 mmx25.4mmx3mm, (80mm+23mm+32mm) It shall be welded on inner facia of both the vertical press-fitted steel sections.

9. The MIG / Spot welding shall be done as per technical requirement.

10. All metal components shall be powder coated in satin finish with pretreatment process. Powder coating shall be tested and certified on following parameters from NABL Accredited/ Government Laboratory, Valid certificates / test reports to be submitted along with the bid.

10.1 Adhesion test: EN ISO 2409 (2 mm).

10.2 Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kg of impact load.

10.3 1000 hrs. humidity test as per ISO 6270.

10.4 Salt spray (FOG) test: 1000 hours as per ASTM B 117.

10.5 Cross Hatch Adhesion test as per ASTM: D3359.

10.6 Conical Mandrel Test as per ASTM: D522.

10.7 Scratch Test as per IS:101-1964 by applying 2 kg load.

Laminate Sheets Makes & Color codes:

Sl. No	Luminate colour	Make	Shade/ Colour Code	Make	Shade/ Colour code	Make	Shade/ Colour code
1	Parrot Green	Merino	21143	Green lam	251 SF	ASIS	172
2	Ink Blue	Merino	21032	Green lam	304 SF	ASIS	1027
3	Bubble Gum (pink)	Merino	21114	Green lam	173 SF	ASIS	1111
4	Saffron (orange)	Merino	21024	Green lam	217 SF	ASIS	1150
5	Cardinal Red	Merino	21065	Green lam	203 SF	ASIS	1114

STRUCTURE POWDER COATING COLOUR-CODE-Ral-9010

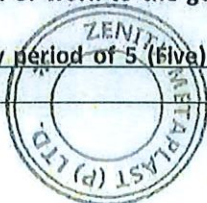
(Make: AKZONobel/Nerolac/ Asian/ JOTUN)

Supply & delivery of finished item including cost and conveyance of all materials ,loading ,unloading, stacking at school site and fixing , inclusive of GST and all other Taxes etc., complete as applicable from time to time, and all other incidental charges etc., complete for finished item of work to the government schools in the state of Andhra Pradesh.

The item shall carry a warranty period of 5 (five) years from the date of supply & fixing.

ZENITH APEWIDC PVT. LTD.

Authorized Signatory of the firm/company



Managing Director, APEWIDC, Vijayawada

Annexure-A

Sl.No	Quantity in Numbers	Description of Item	Rate per number	Amount in Rs.
2	14695	<p align="center">Supply & Placing Dual TYPE-II for class III to V (Multi Color)</p> <p>The overall dimensions of desk will be <u>W 1066mm x D 905mm x H 688mm</u> (For table top). The seating bench height shall be <u>423 mm</u>. The desk shall be manufactured as per the specifications mentioned below:</p> <ol style="list-style-type: none"> Table top shall be made up of 18.0 mm thick plywood (tolerance as per IS 303) of MR Grade OSB (one side shall be laminated, and other side shall have balancer finish). Table top dimensions shall be <u>W 1015.20 mm x D 380.0 mm</u>. Edge towards bench shall be post formed with round edge. The remaining three edges must be sealed with 2mm thick PVC edge banding tape. Edge band must be trimmed on edges and corners. Make of Plywood: Greenply / Century / Kitply. Make of Laminate & balancer: Marino / Greenlam / ASIS / Century. Side frame structure: Made of CRCA press-formed section having two Nos of 50mmx25.4mm Rectangular Pipe sections 1.2mm thick and joined by "C" channel of size 65mmx25.4mmx25.4mm and 1.2mm thickness and MIG Welded to rectangular pipe of 25.4 mm x 50.0 mm x 1.2mm thickness (865mm Bottom length) by using extra stiffeners of C-section made up of 62.60mmx 25mmx25mm & 3.0 mm thickness sheet and 100mm long. Side frame structure top 50mmx25.4mm x1.2mm Rectangular Pipes covered with CRCA sheet 165mmx134.60mmx1.2mm including top folding, and 105mmx161.20mm x1.2mm including top & bottom folding and 110mm x 137.2mm (average) x 1.2mm including top & bottom folding as per drawing appended. Make for CRCA sheet – ESSAR / TATA / SAIL / JINDAL. Proposed desk should be ROHS certified from INTERTEK / UL. Valid certificate to be submitted along with the bid. Seat and back rest frame structure: Made of CRCA press formed section having two no's of 50mm x 25.4mm Rectangular pipe sections 1.20mm thick and joined by C-channel of size 65mm x 25.4mm x 25.4mm and 1.20mm thickness and MIG welded to pipe at the bottom and on top welded to MS pipe of 25.4mm diameter and 1.20mm thickness. Seat, Back Rest & table top are supported by 8 numbers of stiffeners with MS Tube of 25.4 mm x 25.4mm 1.2 mm thickness square Pipe section (each of length 1015.20mm) MIG welded to side frames at relevant locations. Square pipe of size 20.0 mm x 20.0 mm x 1.2 mm thickness and 100.0 mm long shall be welded to the frame to hold the horizontal supports. Raw materials of MS tubes shall be from ESSAR / TATA / SAIL / JINDAL. MS Rectangular Pipe sections of dimensions 50.0 mm x 25.40 mm x 1.2 mm thickness shall be closed with PPCP (Poly Propylene Copolymer) cap at both the ends. Pipe diameter 25.4 mm x 1.2 mm thickness shall be closed with PPCP cap at back side and under the seat. Upper modesty panel and shelf shall be made of 0.8 mm thick CRCA sheet. The dimensions for upper modesty panel shall be H 175.0 mm x W 1015.20 mm x D 23.0 mm. The dimensions of shelf shall be W 1015.20 mm X D 300.0 mm X H 23.0 mm. The shelf shall have vertical partition at the center. This partition shall be made up of square MS Pipe having size 25.40 mm x 25.40 mm x 1.2 mm thickness. Stiffeners of MS pipe having sizes as 20.0 mm x 20.0 mm x 1.2 mm thickness shall be provided in upper modesty panel. And shelf front fascia of upper modesty panel of desk shall have embossed design. The corners of shelf (projecting towards the seating bench) shall be rounded through corner-forming technology (without welding) to avoid injury in case of accidental impact. The thickness of sheet of shelf shall be 0.80mm. Front face of Upper Modesty panel should have embossed letters of NABU-NEBU 2021 as shown in drawing. 	10531	15,47,53,045

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Managing Director,
APEWIDC, Vijayawada

6 Additional lower modesty panel having size H 150.0 mm x W 1015.20 mm x D 23.0 mm shall be made up of 0.8 mm thick CRCA sheet with designer square perforations. Stiffeners of MS pipe having size 20.0 mm x 20.0 mm x 1.2 mm thickness shall be fixed across the length at the bottom side of lower modesty panel.

7. Seat and back rest shall be made of 18mm thick plywood of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish) except back rest. Back rest shall have both sides colour lamination

Technical details of seat and back rest are mentioned below:

Seating bench dimensions shall be W 1066.0 mm X D 300.0 mm: Front side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

7.1 Back rest dimensions shall be W 1066.0 mm x D 250.0 mm: Upper side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

7.2 Seat and back rest shall be fitted to the frame with MAZAK self Tapping inserts (Make: ebco/HETTICH) of size M6 x 13mm.

7.3 Leg space between top and seat shall be 125mm.

8. Bag/bottle hooks shall be made of CRCA sheet. The overall size of hook shall be 135 mmx25.4mmx3mm, (80mm+23mm+32mm) It shall be welded on inner facia of both the vertical press-fitted steel sections.

9. The MIG / Spot welding shall be done as per technical requirement.

10. All metal components shall be powder coated in satin finish with pretreatment process. Powder coating shall be tested and certified on following parameters from NABL Accredited/ Government Laboratory, Valid certificates / test reports to be submitted along with the bid.

10.1 Adhesion test: EN ISO 2409 (2 mm).

10.2 Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kg of impact load.

10.3 1000 hrs. humidity test as per ISO 6270.

10.4 Salt spray (FOG) test: 1000 hours as per ASTM B 117.

10.5 Cross Hatch Adhesion test as per ASTM: D3359.

10.6 Conical Mandrel Test as per ASTM: D522.

10.7 Scratch Test as per IS:101-1964 by applying 2 kg load.

Laminate Sheets Makes & Color codes:

Sl. No	Luminate colour	Make	Shade/ Colour Code	Make	Shade/ Colour code	Make	Shade/ Colour code
1	Parrot Green	Merino	21143	Green lam	251 SF	ASIS	172
2	Ink Blue	Merino	21032	Green lam	304 SF	ASIS	1027
3	Bubble Gum (pink)	Merino	21114	Green lam	173 SF	ASIS	1111
4	Saffron (orange)	Merino	21024	Green lam	217 SF	ASIS	1150
5	Cardinal Red	Merino	21065	Green lam	203 SF	ASIS	1114

STRUCTURE POWDER COATING COLOUR CODE:RAL-9010
(Make: AKZO/Nobel/Nerolac/Asian/JOTUN)

Authorized Signature of the firm/company

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Managing Director,
APEWIDC, Vijayawada

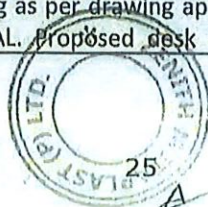
Supply & delivery of finished item including cost and conveyance of all materials ,loading ,unloading, stacking at school site and fixing , inclusive of GST and all other Taxes etc., complete as applicable from time to time, and all other incidental charges etc., complete for finished item of work to the government schools in the state of Andhra Pradesh.

The item shall carry a warranty period of 5 (Five) years from the date of supply & fixing.



Annexure-A				
Sl.No	Quantity in Numbers	Description of Item	Rate per number	Amount in Rs.
3	19314	<p>Supply & Placing Dual TYPE-III for class VI to VII (Multi Color)</p> <p>The overall dimensions of desk will be W 1066mm x D 930mm x H 760mm (For table top). The seating bench height shall be 452 mm. The desk shall be manufactured as per the specifications mentioned below:</p> <ol style="list-style-type: none"> Table top shall be made up of 18.0 mm thick plywood (tolerance as per IS 303) of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish). Table top dimensions shall be W 1015.20 mm x D 380.0 mm. Edge towards bench shall be post formed with round edge. The remaining three edges must be sealed with 2mm thick PVC edge banding tape. Edge band must be trimmed on edges and corners. Make of Plywood: Greenply / Century / Kitply. Make of Laminate & balancer: Marino / Greenlam / ASIS / Century. Side frame structure: Made of CRCA press-formed section having two Nos of 50mmx25.4mm Rectangular Pipe sections 1.2mm thick and joined by "C" channel of size 65mmx25.4mmx25.4mm and 1.2mm thickness and MIG Welded to rectangular pipe of 25.4 mm x 50.0 mm x 1.2mm thickness (890mm Bottom length) by using extra stiffeners of C-section made up of 62.60mmx 25mmx25mm & 3.0 mm thickness sheet and 100mm long. Side frame structure top 50mmx25.4mm x1.2mm Rectangular Pipes covered with CRCA sheet 165mmx134.60mmx1.2mm including top folding, and 105mmx161.20mm x1.2mm including top & bottom folding and 110mm x 137.2mm (average) x 1.2mm including top & bottom folding as per drawing appended. Make for CRCA sheet - ESSAR / TATA / SAIL / JINDAL. Proposed desk should be ROHS certified from 	10612	20,49,60,168

Authorized Signature of the firm/company



Managing Director,
APEWIDC, Vijayawada

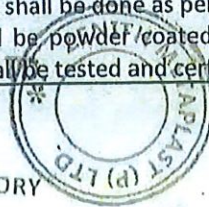
- INTERTEK / UL. Valid certificate to be submitted along with the bid.
3. Seat and back rest frame structure: Made of CRCA press formed section having two no's of 50mm x 25.4mm Rectangular pipe sections **1.20mm thick** and joined by C-channel of size 65mm x 25.4mm x 25.4mm and 1.20mm thickness and MIG welded to pipe at the bottom and on top welded to MS pipe of 25.4mm diameter and 1.20mm thickness. Seat, Back Rest & table top are supported by 8 numbers of **stiffeners with MS Tube of 25.4 mm x 25.4mm 1.2 mm thickness square Pipe section** (each of length 1015.20mm) MIG welded to side frames at relevant locations. Square pipe of size 20.0 mm x 20.0 mm x 1.2 mm thickness and 100.0 mm long shall be welded to the frame to hold the horizontal supports. Raw materials of MS tubes shall be from ESSAR / TATA / SAIL / JINDAL.
 4. MS Rectangular Pipe sections of dimensions 50.0 mm x 25.40 mm x 1.2 mm thickness shall be closed with PPCP (Poly Propylene Copolymer) cap at both the ends. Pipe diameter 25.4 mm x 1.2 mm thickness shall be closed with PPCP cap at back side and under the seat.
 5. Upper modesty panel and shelf shall be made of 0.8 mm thick CRCA sheet. The dimensions for upper modesty panel shall be H 175.0 mm x W 1015.20 mm x D 23.0 mm. The dimensions of shelf shall be W 1015.20 mm X D 300.0 mm X H 23.0 mm. The shelf shall have vertical partition at the center. This partition shall be made up of square MS Pipe having size 25.40 mm x 25.40 mm x 1.2 mm thickness. Stiffeners of MS pipe having sizes as 20.0 mm x 20.0 mm x 1.2 mm thickness shall be provided in upper modesty panel. And shelf front fascia of upper modesty panel of desk shall have embossed design. The corners of shelf (projecting towards the seating bench) shall be rounded through corner-forming technology (without welding) to avoid injury in case of accidental impact. **The thickness of sheet of shelf shall be 0.80mm.** Front face of Upper Modesty panel should have embossed letters of **NADU-NEDU 2021** as shown in drawing.
 6. Additional lower modesty panel having size H 150.0 mm x W 1015.20 mm X D 23.0 mm shall be made up of 0.8 mm thick CRCA sheet with designer square perforations. Stiffeners of MS pipe having size 20.0 mm x 20.0 mm x 1.2 mm thickness shall be fixed across the length at the bottom side of lower modesty panel.
 7. Seat and back rest shall be made of 18mm thick plywood of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish) except back rest. Back rest shall have both sides colour lamination

Technical details of seat and back rest are mentioned below:

Seating bench dimensions shall be W 1066.0 mm X D 300.0 mm: Front side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

- 7.3 Back rest dimensions shall be W 1066.0 mm x D 250.0 mm: Upper side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.
- 7.4 Seat and back rest shall be fitted to the frame with MAZAK self Tapping inserts (Make: ebco/HETTICH) of size M6 x 13mm.
- 7.3 Leg space between top and seat shall be **150mm.**
8. Bag/bottle hooks shall be made of CRCA sheet. The overall size of hook shall be 135 mmx25.4mmx3mm, (80mm+23mm+32mm) It shall be welded on inner facia of both the vertical press-fitted steel sections.
9. The MIG / Spot welding shall be done as per technical requirement.
10. All metal components shall be powder coated in satin finish with pretreatment process. Powder coating shall be tested and certified on following parameters from

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Managing Director,
APEWIDC, Vijayawada

NABL Accredited/ Government Laboratory, Valid certificates / test reports to be submitted along with the bid.

10.8 Adhesion test: EN ISO 2409 (2 mm).

10.2 Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kg of impact load.

10.9 1000 hrs. humidity test as per ISO 6270.

10.4 Salt spray (FOG) test: 1000 hours as per ASTM B 117.

10.5 Cross Hatch Adhesion test as per ASTM: D3359.

10.6 Conical Mandrel Test as per ASTM: D522.

10.7 Scratch Test as per IS:101-1964 by applying 2 kg load.

Laminate Sheets Makes & Color codes:

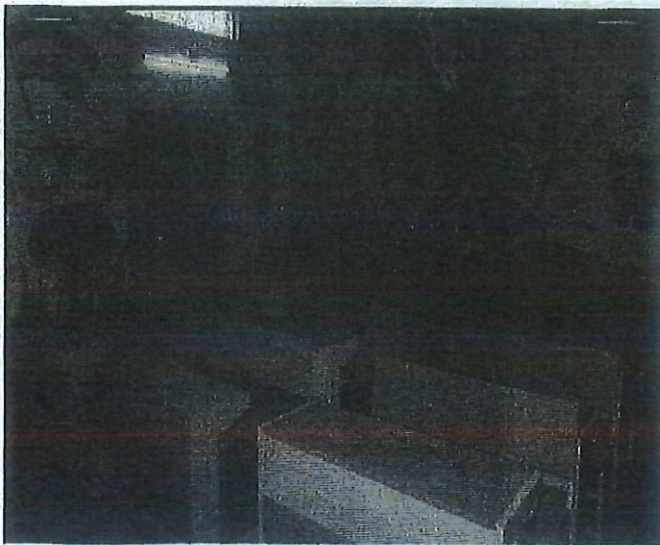
Sl. No	Luminate colour	Make	Shade/ Colour Code	Make	Shade/ Colour code	Make	Shade/ Colour code
1	Parrot Green	Merino	21143	Green lam	251 SF	ASIS	172
2	Ink Blue	Merino	21032	Green lam	304 SF	ASIS	1027
3	Bubble Gum (pink)	Merino	21114	Green lam	173 SF	ASIS	1111
4	Saffron (orange)	Merino	21024	Green lam	217 SF	ASIS	1150
5	Cardinal Red	Merino	21065	Green lam	203 SF	ASIS	1114

STRUCTURE POWDER COATING COLOUR-CODE-Ral-9010

(Make: AKZONobel/Nerolac/ Asian/ JOTUN)

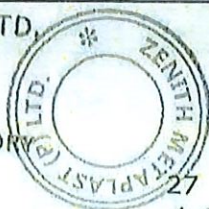
Supply & delivery of finished item including cost and conveyance of all materials ,loading ,unloading, stacking at school site and fixing , inclusive of GST and all other Taxes etc., complete as applicable from time to time, and all other incidental charges etc., complete for finished item of work to the government schools in the state of Andhra Pradesh.

The item shall carry a warranty period of 5 (Five) years from the date of supply & fixing.



ZENITH METAPLAST PVT. LTD.

[Signature]
 AUTHORIZED SIGNATORY
 Authorized Signature of the
 firm/company



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[Signature]
 Managing Director,
 APEWIDC, Vijayawada

Annexure-A

Sl.No	Quantity in Numbers	Description of Item	Rate per number	Amount in Rs.
4	27124	<p>Supply & Placing Dual TYPE-IV for class VIII to X and junior collage (Multi Color)</p> <p>The overall dimensions of desk will be <u>W 1066mm x D 930mm x H 780mm</u> (For table top). The seating bench height shall be 452 mm. The desk shall be manufactured as per the specifications mentioned below:</p> <ol style="list-style-type: none"> 1. Table top shall be made up of 18.0 mm thick plywood (tolerance as per IS 303) of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish). Table top dimensions shall be <u>W 1015.20 mm x D 380.0 mm</u>. Edge towards bench shall be post formed with round edge. The remaining three edges must be sealed with 2mm thick PVC edge banding tape. Edge band must be trimmed on edges and corners. Make of Plywood: Greenply / Century / Kitply. Make of Laminate & balancer: Marino / Greenlam / ASIS / Century. 2. Side frame structure: Made of CRCA press-formed section having two Nos of 50mmx25.4mm Rectangular Pipe sections 1.2mm thick and joined by "C" channel of size 65mmx25.4mmx25.4mm and 1.2mm thickness and MIG Welded to rectangular pipe of 25.4 mm x 50.0 mm x 1.2mm thickness (890mm Bottom length) by using extra stiffeners of C-section made up of 62.60mmx 25mmx25mm & 3.0 mm thickness sheet and 100mm long. Side frame structure top 50mmx25.4mm x1.2mm Rectangular Pipes covered with CRCA sheet 165mmx134.60mmx1.2mm including top folding, and 105mmx161.20mm x1.2mm including top & bottom folding and 110mm x 137.2mm (average) x 1.2mm including top & bottom folding as per drawing appended. Make for CRCA sheet – ESSAR / TATA / SAIL / JINDAL. Proposed desk should be ROHS certified from INTERTEK / UL. Valid certificate to be submitted along with the bid. 3. Seat and back rest frame structure: Made of CRCA press formed section having two no's of 50mm x 25.4mm Rectangular pipe sections 1.20mm thick and joined by C-channel of size 65mm x 25.4mm x 25.4mm and 1.20mm thickness and MIG welded to pipe at the bottom and on top welded to MS pipe of 25.4mm diameter and 1.20mm thickness. Seat, Back Rest & table top are supported by 8 numbers of stiffeners with MS Tube of 25.4 mm x 25.4mm 1.2 mm thickness square Pipe section (each of length 1015.20mm) MIG welded to side frames at relevant locations. Square pipe of size 20.0 mm x 20.0 mm x 1.2 mm thickness and 100.0 mm long shall be welded to the frame to hold the horizontal supports. Raw materials of MS tubes shall be from ESSAR / TATA / SAIL / JINDAL. 4. MS Rectangular Pipe sections of dimensions 50.0 mm x 25.40 mm x 1.2 mm thickness shall be closed with PPCP (Poly Propylene Copolymer) cap at both the ends. Pipe diameter 25.4 mm x 1.2 mm thickness shall be closed with PPCP cap at back side and under the seat. 5. Upper modesty panel and shelf shall be made of 0.8 mm thick CRCA sheet. The dimensions for upper modesty panel shall be H 175.0 mm x W 1015.20 mm x D 23.0 mm. The dimensions of shelf shall be W 1015.20 mm X D 300.0 mm X H 23.0 mm. The shelf shall have vertical partition at the center. This partition shall be made up of square MS Pipe having size 25.40 mm x 25.40 mm x 1.2 mm thickness. Stiffeners of MS pipe having sizes as 20.0 mm x 20.0 mm x 1.2 mm thickness shall be provided in upper modesty panel. And shelf front fascia of upper modesty panel of desk shall have embossed design. The corners of shelf (projecting towards the seating bench) shall be rounded through corner-forming technology (without welding) to avoid injury in case of accidental impact. The thickness of sheet of shelf shall be 0.80mm. Front face of Upper Modesty panel should have embossed letters of NADU-NEDU 2021 as shown in drawing. <p>6 Additional lower modesty panel having size H 150.0 mm x W 1015.20 mm X D 23.0</p>	10693	29,00,36,931

Authorized Signature of the
firm/company



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Managing Director,
APEWIDC, Vijayawada

mm shall be made up of 0.8 mm thick CRCA sheet with designer square perforations. Stiffeners of MS pipe having size 20.0 mm x 20.0 mm x 1.2 mm thickness shall be fixed across the length at the bottom side of lower modesty panel.

7. Seat and back rest shall be made of 18mm thick plywood of MR Grade OSL (one side shall be laminated, and other side shall have balancer finish) except back rest. Back rest shall have both sides colour lamination

Technical details of seat and back rest are mentioned below:

Seating bench dimensions shall be W 1066.0 mm X D 300.0 mm: Front side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.

- 7.5 Back rest dimensions shall be W 1066.0 mm x D 250.0 mm: Upper side shall be rounded with post forming. Remaining three edges shall be sealed with 2mm thick PVC edge banding tape.
- 7.6 Seat and back rest shall be fitted to the frame with MAZAK self Tapping inserts (Make: ebco/HETTICH) of size M6 x 13mm.
- 7.3 Leg space between top and seat shall be **150mm**.
8. Bag/bottle hooks shall be made of CRCA sheet. The overall size of hook shall be 135 mmx25.4mmx3mm, (80mm+23mm+32mm) It shall be welded on inner facia of both the vertical press-fitted steel sections.
9. The MIG / Spot welding shall be done as per technical requirement.
10. All metal components shall be powder coated in satin finish with pretreatment process. Powder coating shall be tested and certified on following parameters from NABL Accredited/ Government Laboratory, Valid certificates / test reports to be submitted along with the bid.
- 10.1 Adhesion test: EN ISO 2409 (2 mm).
- 10.2 Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kg of impact load.
- 10.21000 hrs. humidity test as per ISO 6270.
- 10.7Salt spray (FOG) test: 1000 hours as per ASTM B 117.
- 10.8Cross Hatch Adhesion test as per ASTM: D3359.
- 10.9Conical Mandrel Test as per ASTM: D522.
- 10.7 Scratch Test as per IS:101-1964 by applying 2 kg load.
- Laminate Sheets Makes & Color codes:**

Sl. No	Luminate colour	Make	Shade/ Colour Code	Make	Shade/ Colour code	Make	Shade/ Colour code
1	Parrot Green	Merino	21143	Green lam	251 SF	ASIS	172
2	Ink Blue	Merino	21032	Green lam	304 SF	ASIS	1027
3	Bubble Gum (pink)	Merino	21114	Green lam	173 SF	ASIS	1111
4	Saffron (orange)	Merino	21024	Green lam	217 SF	ASIS	1150
5	Cardinal Red	Merino	21065	Green lam	203 SF	ASIS	1114

STRUCTURE POWDER COATING COLOUR-CODE-Ral-9010

(Make: AKZONobel/Nerolac/ Asian/ JOTUN)

Supply & delivery of finished item including cost and conveyance of all materials

Authorized Signature of the firm/company



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,loading ,unloading, stacking at school site and fixing , inclusive of GST and all other Taxes etc., complete as applicable from time to time, and all other incidental charges etc., complete for finished item of work to the government schools in the state of Andhra Pradesh.

The item shall carry a warranty period of 5 (Five) years from the date of supply & fixing.



Grand Total for 1 to 4 items (Including GST and all other Taxes etc.,)

Rs. 72,96,64,144/-

Rupees Seventy Two Crores Ninety Six Lakhs Sixty Four Thousand One Hundred Forty Four Only

ZENITH METAPLAST PVT.

Authorized Signature of the firm/company



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