

PROJECT NAME_ South Wasgebeta School Capacity Enhancement Project	
SITE_ Hadiya Zone , Misha Wereda , South Wasgebeta Kebele	
Engineering Estimates for South Wasgebeta Primary School	
Ventilated Improved Pit Latrine (VIPL) Construction	
Four Seat for Girls	
Description	Total Price (ETB)
1. Latrine Block	
A. Sub-Structure	
Excavation & Earth Work	
Clear off the site to remove top soil to an average depth of 30 cm	
Bulk excavation to reduce level excavation to ordinary soil not exceeding 1.5m	
Over 1.5m not exceeding 3.0 m	
Back fill around masonry with selected granular borrowed material from out side & well ram in layers not exceeding 20 cm thick until it attains a minimum of 95 % proctor density.	
Cart away surplus excavated material & deposit at a distance not exceeding 1km from the site.	
25cm thick basaltic or equivalent stone hardcore, well rolled, consolidated and blinded with crushed stone	
Total to summary	16.956,44
Concrete Work	
5cm thick lean concrete class C-5 , 150 kg cement / m3 concrete, under masonry foundation wall.	
a) under masonry	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) in grade beam	
In 15 cm thick RC ground floor slab class C-20 with minimum cement content of 320 kg/m3 evenly spread	
Provide cut and fix in position sawn zigba forkwork or equivalent.	
a) for grade beam	
b) for ground slab	
c) support poles of 8mm diameter & 3m length	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position & tying wires.	

a) Φ 6mm	
Total to summary	76.637,06
Masonry Work	
500mm thick trachytic or equivalent stone masonry below ground level bedded without cement mortar.	
The top 50 cm masonry bedded with cement mortar(1:3)	
20X20X40cm Solid Concrete Block Pit Partition Wall	
"class C" bedded in cement sand mortar 1:3 both side left for plastering	
Total to summary	93.619,79
B. Super-Structure	
Concrete Work	
Reinforced concrete, C-25, 360 kg cement/m ³ of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) In elevation columns	
b) In top tie beam	
Provide cut and fix in position sawn zigba formwork or equivalent.	
a) to elevation columns	
b) to top tie beam	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position.	
a) Φ 6mm	
b) Φ 12mm	
Total to summary	20.008,46
Concrete Block Work Above Grade Walls	
20X20X40cm HCB Wall "class B" bedded in cement sand mortar 1:3 both side left for plastering	
15X20X40cm HCB Wall "class B" bedded in cement sand mortar 1:3 both side left for plastering	
Total to summary	21.464,70
Roof Work	
Roof cover in G32 CIS Nailed to 5x7cm battens as proposed by the Engineer.	
Supply and fix G-32 galvanized sheet metal gutter and down pipe	
a) Gutter 60cm developed .	
b) Down pipe 33cm developed	
Vent Pipe	
a) PVC vent pipe \varnothing 110 mm	
Total to summary	20.954,60
Carpentry Work	

All structure truss members shall be in seasoned eucalyptus wood and painted two coats of anti termite solution and shall be tight fixed with top tie beam with 6mm diameter plain bar.	
Diameter 8cm eucalyptus upper and lower chord	
Diameter 6cm eucalyptus vertical and diagonal members	
50x70mm zigba roof purloin	
Total to summary	19.112,40
Metal Work (Door)	
All metal doors are manufactured from locally produced LTZ seiko steel profile frames. All works should be cut and assembled to sizes and shapes of the door schedule upon submitting workshop drawing by the contractor.	
Unit price includes cylinder lock or similar, door stoppers and other necessary accessories for completing the work.	
All according to doors schedule and as specified.	
Type D1, size:- 90x210cm	
Type D2, size:- 70x210cm	
Door Lock	
Total to summary	20.100,00
Plastering and Pointing	
Pointing to all Internal and External HCB wall surfaces with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Average thickness of 5cm roughened cement sand screed with 0.1 aggregate mix, price includes chiseling of floor	
Stone riprap foot path in front and around the latrine	
Total to summary	25.300,00
II. Urinal Block	
A. Sub-Structure	
Excavation & Earth Work	
Clear off the site to remove top soil to an average depth of 30 cm	
Bulk excavation to reduce level excavation to ordinary soil not exceeding 1.5m	
Back fill under hard core & around masonry with selected granular borrowed material from out side & well ram in layers not exceeding 20 cm thick until it attains a minimum of 95 % proctor density.	
Cart away surplus excavated material and deposit at a distance not exceeding 1km from the site.	
25cm thick basaltic or equivalent stone hardcore, well rolled, consolidated & blinded with crushed stone	
Total to summary	2.056,10
Concrete Work	
5cm thick lean concrete class C-5 , 150 kg cement / m3	

concrete, under masonry foundation wall.	
a) under masonry	
Reinforced concrete, C-25, 360 kg cement/m ³ of concrete	
filled in to form work and vibrated around reinforcement	
measured separately.	
a) For grade beam	
Provide cut and fix in position sawn zigba formwork	
or equivalent.	
a) For grade beam	
Steel reinforcement according to drawing cut, bend	
& placed in position, unit price shall include cutting,	
bending & placing in position & tying wires.	
Φ 6mm	
Φ 12mm	
Total to summary	6.623,24
Stone masonry	
500mm thick trachytic or equivalent stone masonry	
ground level bedded in cement mortar (1:4) in full joints.	
Urinal trough masonry	
Total to summary	3.005,15
B. Super-Structure	
Concrete work	
Reinforced concrete, C-25, 360 kg cement/m ³ of concrete	
filled in to form work and vibrated around reinforcement	
measured separately.	
a) in elevation columns	
Provide cut and fix in position sawn zigba form work or	
equivalent.	
a) to elevation columns	
Steel reinforcement according to drawing cut, bend &	
placed in position, unit price shall include cutting, bending	
& placing in position.	
a) Φ 6mm	
b) Φ12mm	
Total to summary	4.081,62
Concrete Block Work Above Grade Walls	
20X20X40cm HCB Wall "class B" bedded in cement	
sand mortar 1:3 both side left for plastering	
Total to summary	5.826,45
Finishing work	
Apply three coats of plastering to internal wall surface	
Pointing to Internal and External HCB wall surfaces	
with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Plastering urinal trough	
Supply and made an average thickness of 5cm roughened	

Cement sand screed with 0.1 aggregate mix, price Includes chiseling of floor.	
Total to summary	4.255,00
Painting	
Apply three coats of approved type oil paint to internal Plastered wall surface H=1000	
Total to summary	2.137,60
III. Hand Washing Facility	
Water trough masonry work	
400 mm thick trachytic or equivalent stone masonry above ground level bedded in cement mortar (1:3) in full Joints.	
Apply three coats of plastering to External trough surface	
Supply & install a 25 lit fiber plastic ground water tank with an out let ½" pipe price shall include fixing in position and complete the system with all its necessary Accessories to make the system workable.	
Total to summary	26.692,80
Grand Total	368.831,41
Four Seat for Boys	
Description	Total
1. Latrine Block	
A. Sub-Structure	
Excavation & Earth Work	
Clear off the site to remove top soil to an average depth of 30 cm	
Bulk excavation to reduce level excavation to ordinary soil not exceeding 1.5m	
Over 1.5m not exceeding 3.0 m	
Back fill around masonry with selected granular borrowed material from out side & well ram in layers not exceeding 20 cm thick until it attains a minimum of 95 % proctor density.	
Cart away surplus excavated material & deposit at a distance not exceeding 1km from the site.	
25cm thick basaltic or equivalent stone hardcore, well rolled, consolidated and blinded with crushed stone	

Total to summary	16.956,44
Concrete Work	
5cm thick lean concrete class C-5 , 150 kg cement / m3 concrete, under masonry foundation wall.	
a) under masonry	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) in grade beam	
In 15 cm thick RC ground floor slab class C-20 with minimum cement content of 320 kg/m3 evenly spread Provide cut and fix in position sawn zigba forkwork or equivalent.	
a) for grade beam	
b) for ground slab	
c) support poles of 8mm diameter & 3m length	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position & tying wires.	
a) Φ 6mm	
Total to summary	76.637,06
Masonry Work	
500mm thick trachytic or equivalent stone masonry below ground level bedded without cement mortar.	
The top 50 cm masonry bedded with cement mortar(1:3) 20X20X40cm Solid Concrete Block Pit Partition Wall "class C" bedded in cement sand mortar 1:3 both side left for plastering	
Total to summary	93.619,79
B. Super-Structure	
Concrete Work	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) In elevation columns	
b) In top tie beam	
Provide cut and fix in position sawn zigba formwork or equivalent.	
a) to elevation columns	
b) to top tie beam	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position.	
a) Φ 6mm	
b) Φ 12mm	
Total to summary	20.008,46

Concrete Block Work Above Grade Walls	
20X20X40cm HCB Wall "class B" bedded in cement	
sand mortar 1:3 both side left for plastering	
15X20X40cm HCB Wall "class B" bedded in cement	
sand mortar 1:3 both side left for plastering	
Total to summary	21.464,70
Roof Work	
Roof cover in G32 CIS Nailed to 5x7cm battens as proposed by the Engineer.	
Supply and fix G-32 galvanized sheet metal gutter and down pipe	
a) Gutter 60cm developed .	
b) Down pipe 33cm developed	
Vent Pipe	
a) PVC vent pipe ø 110 mm	
Total to summary	20.954,60
Carpentry Work	
All structure truss members shall be in seasoned eucalyptus wood and painted two coats of anti termite solution and shall be tight fixed with top tie beam with 6mm diameter plain bar.	
Diameter 8cm eucalyptus upper and lower chord	
Diameter 6cm eucalyptus vertical and diagonal members	
50x70mm zigba roof purloin	
Total to summary	19.112,40
Metal Work (Door)	
All metal doors are manufactured from locally produced LTZ seiko steel profile frames. All works should be cut and assembled to sizes and shapes of the door schedule upon submitting workshop drawing by the contractor.	
Unit price includes cylinder lock or similar, door stoppers and other necessary accessories for completing the work.	
All according to doors schedule and as specified.	
Type D1, size:- 90x210cm	
Type D2, size:- 70x210cm	
Door Lock	
Total to summary	20.100,00
Plastering and Pointing	
Pointing to all Internal and External HCB wall surfaces with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Average thickness of 5cm roughened cement sand screed with 0.1 aggregate mix, price includes chiseling of floor	
Stone riprap foot path in front and around the latrine	

Total to summary	25.300,00
II. Urinal Block	
A. Sub-Structure	
Excavation & Earth Work	
Clear off the site to remove top soil to an average depth of 30 cm	
Bulk excavation to reduce level excavation to ordinary soil not exceeding 1.5m	
Back fill under hard core & around masonry with selected granular borrowed material from out side & well ram in layers not exceeding 20 cm thick until it attains a minimum of 95 % proctor density.	
Cart away surplus excavated material and deposit at a distance not exceeding 1km from the site.	
25cm thick basaltic or equivalent stone hardcore, well rolled, consolidated & blinded with crushed stone	
Total to summary	2.056,10
Concrete Work	
5cm thick lean concrete class C-5 , 150 kg cement / m3 concrete, under masonry foundation wall.	
a) under masonry	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) For grade beam	
Provide cut and fix in position sawn zigba formwork or equivalent.	
a) For grade beam	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position & tying wires.	
Φ 6mm	
Φ 12mm	
Total to summary	6.623,24
Stone masonry	
500mm thick trachytic or equivalent stone masonry ground level bedded in cement mortar (1:4) in full joints.	
Urinal trough masonry	
Total to summary	3.005,15
B. Super-Structure	
Concrete work	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) in elevation columns	
Provide cut and fix in position sawn zigba form work or	

equivalent.	
a) to elevation columns	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position.	
a) Φ 6mm	
b) Φ 12mm	
Total to summary	4.081,62
Concrete Block Work Above Grade Walls	
20X20X40cm HCB Wall "class B" bedded in cement sand mortar 1:3 both side left for plastering	
Total to summary	5.826,45
Finishing work	
Apply three coats of plastering to internal wall surface	
Pointing to Internal and External HCB wall surfaces with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Plastering urinal trough	
Supply and made an average thickness of 5cm roughened Cement sand screed with 0.1 aggregate mix, price Includes chiseling of floor.	
Total to summary	4.255,00
Painting	
Apply three coats of approved type oil paint to internal Plastered wall surface H=1000	
Total to summary	2.137,60
III. Hand Washing Facility	
Water trough masonry work	
400 mm thick trachytic or equivalent stone masonry above ground level bedded in cement mortar (1:3) in full Joints.	
Apply three coats of plastering to External trough surface	
Supply & install a 25 lit fiber plastic ground water tank with an out let $\frac{1}{2}$ inch pipe price shall include fixing in position and complete the system with all its necessary Accessories to make the system workable.	
Total to summary	26.692,80
Grand Total	368.831,41

Classrooms Finishing Work	
Description	Total Price (ETB)
1. Latrine Block	
A. Sub-Structure	
Excavation & Earth Work	
Clear off the site to remove top soil to an average depth of 30 cm	
Bulk excavation to reduce level excavation to ordinary soil not exceeding 1.5m	
Over 1.5m not exceeding 3.0 m	
Back fill around masonry with selected granular borrowed material from out side & well ram in layers not exceeding 20 cm thick until it attains a minimum of 95 % proctor density.	
Cart away surplus excavated material & deposit at a distance not exceeding 1km from the site.	
25cm thick basaltic or equivalent stone hardcore, well rolled, consolidated and blinded with crushed stone	
Total to summary	14.569,24
Concrete Work	
5cm thick lean concrete class C-5 , 150 kg cement / m3 concrete, under masonry foundation wall.	
a) under masonry	
Reinforced concrete, C-25, 360 kg cement/m3 of concrete filled in to form work and vibrated around reinforcement measured separately.	
a) in grade beam	
In 15 cm thick RC ground floor slab class C-20 with minimum cement content of 320 kg/m3 evenly spread	
Steel reinforcement according to drawing cut, bend & placed in position, unit price shall include cutting, bending & placing in position & tying wires.	
a) Φ 6mm	
Total to summary	55.208,66
Masonry Work	
500mm thick trachytic or equivalent stone masonry below ground level bedded without cement mortar.	
The top 50 cm masonry bedded with cement mortar(1:3)	
20cm thick both faces for plaster	
15cm thick both faces for plaster	
Total to summary	68.504,18
B. Super-Structure	
Wall plastering and smoothing works	

Completion of roof works	
Metal works	
Total to summary	47.200,00
Carpentry Work	
All structure truss members shall be in seasoned eucalyptus wood and painted two coats of anti termite solution and shall be tight fixed with top tie beam with 6mm diameter plain bar.	
Diameter 8cm eucalyptus upper and lower chord	
Diameter 6cm eucalyptus vertical and diagonal members	
50x70mm zigba roof purloin	
Total to summary	19.123,80
Door and window	
All metal doors are manufactured from locally produced LTZ seiko steel profile frames. All works should be cut and assembled to sizes and shapes of the door schedule upon submitting workshop drawing by the contractor.	
Unit price includes cylinder lock or similar, door stoppers and other necessary accessories for completing the work.	
All according to doors schedule and as specified.	
Door, size:- as recommended by the engineer	
Window, size:- as recommended by the engineer	
Door and window Lock	
Total to summary	40.800,00
Plastering and Pointing	
Pointing to all Internal and External HCB wall surfaces with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Average thickness of 5cm roughened cement sand screed with 0.1 aggregate mix, price includes chiseling of floor	
Total to summary	16.599,00
Finishing work	
Apply three coats of plastering to internal wall surface	
Pointing to Internal and External HCB wall surfaces with cement sand mortar 1:2	
Apply three coats of plastering to beam & columns surface	
Supply and made an average thickness of 5cm roughened Cement sand screed with 0.1 aggregate mix, price Includes chiseling of floor.	
Total to summary	37.730,00
Painting	
Apply three coats of approved type oil paint to internal Plastered wall surface H=1000	
Total to summary	2.137,60

Grand Total	301.872,48
Project cost summary	
Description	Total price (Birr)
Cost estimate of four seats Ventilated Improved Pit Latrine (for girls)	368.831,41
Cost estimate of four seats Ventilated Improved Pit Latrine (for boys)	368.831,41
Cost estimate for Classrooms Completion Works (four rooms)	301.872,48
Total	1.039.535,30
Rebate if any,.....	
Total After Rebate	1.039.535,30
EECMY-DASSC SCS Monitoring & Supervision Cost	51.976,77
Grand Total	1.091.512,07