



THE SHAIKH AYAZ UNIVERSITY,
SHIKARPUR



**CONSTRUCTION OF ROAD NETWORK,
SEWERAGE SYSTEM, AND LIBRARY +
LANGUAGE LAB FOR THE PROJECT TITLED
“PROVISION OF MISSING FACILITIES FOR THE
SHAIKH AYAZ UNIVERSITY SHIKARPUR”**

**VOLUME-II
BILL OF QUANTITIES
December, 2022**

Issued to: _____

Dated: _____ Signed: _____

**CONSTRUCTION OF ROAD NETWORK, SEWERAGE SYSTEM, AND LIBRARY +
LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR**

Bill of Quantities

Sr. No.	DESCRIPTION	AMOUNT
A	Road Works	
B	Sewerage System	
C	Library and Language Lab	
	Grand Total (A+B+C)	

Amount in Words:

Contractor

Client

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

SUMMARY OF COST

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

BILL NO.	ITEM OF WORK	AMOUNT (RS.)
1	EARTHWORKS	26,806,149
2	SUB BASE AND BASE COURSES	
a	Cost of Schedule Items	9,579,307
b	Add/ Deduct _____ % above/ below on Scheduled Items	
	TOTAL OF SUB BASE AND BASE COURSES - 2	
3	SURFACING	
a	Cost of Schedule Items	13,919,965
b	Add/ Deduct _____ % above/ below on Scheduled Items	
	TOTAL OF SURFACING - 3	
4	CULVERTS	
a	Cost of Schedule Items	992,028
b	Add/ Deduct _____ % above/ below on Scheduled Items	
c	Cost of Non-Schedule Items	
	TOTAL OF CULVERTS - 4	
5	DIFFERENCE OF COST OF MATERIAL	5,202,949
	SUB TOTAL	
	5% SST	
	GRAND TOTAL	

Amount in Words:

Contractor

Client

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

BILL NO. 1 : EARTH WORKS

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

Sr. No.	Item No.	Item Description	Unit	Quantity	Unit Rate	Amount (Rs.)
1	Ch-1-1	Clearing and grubbing the site by cutting, uprooting and removing all rubbish and shrubs including disposal to (outside limits) designated places.	100Sft.	269,159.000	97.07	261,272.64
2	Ch-1-2	Compaction of Natural ground upto a depth of 20cm (8") below the natural ground level compacted upto 90% density modified AASHTO. (as per NHA specification 104)	100Sft	269,159.000	177.56	47,791.87
3	Ch-1-6-II(a) + 8(a)	Earthwork for road embankments by bulldozer including ploughing, mixing, clod breaking, dressing and compaction with optimum moisture content. Lead upto 100ft and lift upto 5ft in all types of soil except rock. Earth work is done by other than departmental agency. For 95-100% modified AASHTO density. (lead will be paid as per actual but not more than 2 Km)	1000Cft	1,364,665.810	19,416.54	26,497,084.47
GRAND TOTAL OF BILL NO 01: EARTHWORKS						26,806,148.98

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

BILL NO. 2 : SUB-BASE AND BASE COURSES

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

Sr. No.	Item No.	Item Description	Unit	Quantity	Unit Rate	Amount (Rs.)
1	Ch-1-11 a	Preparing sub-base by supplying and spreading stone metal 1-1/2" - 2" guage of approved quality from approved quarry in required thickness to proper camber and grade including hand packing filling voids with 20 cft of pit / canal sand having plasticity index not more than 6% of suitable quality, watering & compacting to achive 98 - 100% density as per modified AASHO specifications. (Rate includes all cost of materials T&P and carriage upto 3 chains).	100Cft	82,954.726	4,381.76	3,634,876.98
2	Ch-1-13 A	Preparing base course i/c supplying and spreading stone metal of approved quality properly graded to maximum size of 1-1/2" in required thickness to proper camber and grade including supplying and spreading 15 cft screenings & nonplastic quarry fines, filling depressions with stone metal after initial rolling including watering & compaction the same so as to achieve 100% density as per modified AASHO specifications. (Rate includes providing and using templates, camber plates, screens, forms as directed) (Rate includes all cost of materials T&P and carriage upto 3 chains).	100Cft	90,280.109	5,252.41	4,741,881.47
3	SOR (General) C-4/5(f)	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate), 1:2:4	100Cft	8,260.498	14,429.25	1,191,927.97
4	Ch-1-12	Laying brick on end edging including supplying 9"x4-1/2"x3" first class bricks, excavation for laying edging with small side parallel to the road (Rate includes lead upto 3 chains).	100Rft	427.750	2,482.94	10,620.78
GRAND TOTAL OF BILL NO. 2 : SUB-BASE AND BASE COURSES						9,579,307.20

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

BILL NO. 3 : SURFACING

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

Sr. No.	Item No.	Item Description	Unit	Quantity	Unit Rate	Amount (Rs.)
1	Ch-1-31	Applying priming coat or tack coat with approved binder at the required rate including cleaning the road surface thoroughly, heating to the required temperature and spraying the binder with pressure as directed etc, complete.	100Sft	153,502.000	64.96	99,714.90
2	Ch-1-15 (A)	Providing surface dressing 1st coat on new or existing surface with 40 lbs bitumen and 5.5 Cft of bajri of required size including cleaning the road surface rolling etc. (Rate includes all cost of materials T&P and carriage upto 3 chains). (b) using Crushed Bajri	100Sft	153,502.000	1,954.42	3,000,073.79
3	Ch-1-17(B)	Providing surface dressing 2nd coat on new or existing surface with 25 lbs bitumen and 3.50 cft of bajri of required size including cleaning the road surface rolling etc, complete. (Rate includes all cost of materials T&P and carriage upto 3 chains). (b) using Crushed Bajri	100Sft	153,502.000	1,236.09	1,897,422.87
4	Ch-1-39(14)	Providing and fixing Precast Edge Block 3750 PSI industrial made size 6" thick x 12" long x 12" high including the cost of cartage, excavation, form work for haunching, 1450 PSI lean concrete, 2250 PSI concrete for haunching, 1:4 cement sand mortar.	Rft	11,606.860	297.01	3,447,353.49
5	SOR (General) Ch-4-2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100Cft	5,892.881	3,327.50	196,085.62
6	SOR (General) Ch-8-72	Providing & fixing cement paving blocks flooring having size of 197 x 97 x 60 (mm) of city / quddra / cobble shape with pigmented, having strength b/w 5000 psi to 8500 psi l/c filling the joints with hill sand and laying in specified manner / patter and design etc: complete.	P.Sft	23,571.525	223.97	5,279,314.45
GRAND TOTAL OF SURFACING						13,919,965.13

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

BILL NO. 4: CULVERTS

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

Sr. No.	Item No.	Item Description	Unit	Quantity	Unit Rate	Amount (Rs.)
1	SOR (General) C-1/18(b)	Excavation in foundation of Building, Bridges and other structures including dagbelling dressing, refilling around structure with excavated earth watering and ramming lead upto 5 ft in Ordinary Soil.	1000Cft	6162.000	3,176.25	19,572.05
2	SOR (General) C-5/29	Supplying and filling sand under floor and plugging in walls.	100Cft	1,540.500	1,141.25	17,580.96
3	SOR (General) Ch-4/4(d)	Cement concrete brick or stone ballast 1½ " to 2" (40 mm to 50 mm) gauge. (1:6:12)	100Cft	1,540.500	8,122.95	125,134.04
4	SOR (General) C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing of stone aggregate without shuttering. (Mix 1:2:4)	100Cft	163.333	14,429.25	23,567.78
5	SOR (General) Ch-5/4-I(c)	Pacca brick work in foundation and plinth in:- Cement, sand mortar:- Ratio 1:4	100Cft	4,696.524	12,501.41	587,131.72
6	SOR (General) C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. For slab & parapet	P.Cft	649.976	337.00	219,041.74
GRAND TOTAL OF BILL NO.4: CULVERTS						992,028.29

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

BILL NO. 4: CULVERTS

Non-Scheduled Items

Sr. No.	Item No.	Item Description	Unit	Quantity	Unit Rate	Amount (Rs.)
1	NSI	Providing and laying hard grade ribbed deformed (minimum yeild point 60,000 psi) reinforcement bars of all sizes with & including the cost of straightening, cutting, bending, binding, wastage, overlaps other than those shown on drawings, steel chairs, precast chairs, removal of rust, placing in position on cement concrete complete in all respect Amreli Steel, Agha Steel, Razaque Steel or equivalent approved by engineer incharge.	P.Kg	2,313.615		
Total of NSI CULVERTS						

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
ROAD WORKS**

Bill of Quantities

Rates Based on Composite Schedule of Rate 2012 (Public Highway Works Volume-III Part-VI)

Note: Difference in cost of material is allowed as per Govt. Notification dated: 28-10-2022 issued by standing rates of committee Govt. Sindh vide NO.SO(Admn-I)P&D/12(165)/2018
The rate of difference in Cost of materials as approved by standing rates of committee Govt. Sindh will be paid only.

Sr. No.	Item	Quantity	Unit	Rate taken from SoR notification dated 28-10-2022	Amount (Rs.)
1	Cement (Bags)	1922.56	P.Bags	650.00	1,249,661
2	Bricks (No.)	64634.99	%0No.	6000.00	387,810
3	Hill Sand (Cft)	7414.99	%Cft	736.00	54,574
4	Stone Ballast (Cft)	179127.72	%Cft	1960.00	3,510,903
Total of Difference of Material Cost					5,202,949

Contractor Sign & Stamp

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
SEWERAGE SYSTEM**

Bill of Quantities

SUMMARY OF COST

Rates Based on Composite Schedule of Rate (2012) Sindh

Sr. No.	DESCRIPTION	AMOUNT
1.	SEWERAGE LINE & MANHOLE	
a	Cost of Schedule Items	12,417,068
b	Add/ Deduct _____ % above/ below on Scheduled Items	
c	Cost of Non-Schedule Items	
d	Difference of Cost of Material	6,802,162
SUB TOTAL		
5% SST		
GRAND TOTAL		

Amount in Words:

Contractor

Client

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
SEWERAGE SYSTEM**

Bill of Quantities

Rates Based on Composite Schedule of Rate (2012) Sindh

Sr. No.	Item No.	Item Description	Unit	Estimated Quantity	Unit Rate (Rs.)	Amount (Rs.)
		SEWER LINE				
1		Excavation of pipeline in trenches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joints holes and disposal of surplus earth within a one chain as directed by Engineer incharge . Providing fence guards, lights, flags, and temporary crossings for non vehicular traffic where ever required lift upto 5 ft. and lead upto one chain (30.5m).				
	SOR (PHE Works) Part-B (III) A-1	i) upto 5 ft	1000 Cft	202549.92	3,600.00	729,180
	SOR (PHE Works) Part-B (III) A-1 + B-16	ii) 5 ft to 8 ft	1000 Cft	122243.41	4,150.00	507,310
	SOR (PHE Works) Part-B (III) A-1 + B-16	iii) 8 ft to 11 ft	1000 Cft	144783.81	4,700.00	680,484
	SOR (PHE Works) Part-B (III) A-1 + B-16	iii) 11 ft to 14 ft	1000 Cft	46640.53	5,250.00	244,863
2	4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	100 Cft	38333.12	3,327.50	1,275,535
3	SOR (PHE works) Part-B (II) A-2	Providing and laying R.C.C. pipe & collors of class "B" and fixing in trench i/c cutting,fitting and jointing with maxphalt composition and cement mortar (1:1) i/e. testing with water to a head of 22.5 meter or 76 ft.				
		(d) 225 mm (9") dia	Ft	217	163.00	35,366
		(e) 300mm (12") dia	Ft	8021	286.00	2,294,028
		(f) 375 mm (15") dia	Ft	709	367.00	260,373
		(g) 450 mm (18") dia	Ft	947	412.00	390,205
		(i) 600 mm (24") dia	Ft	496	617.00	305,993
		(l) 900 mm (36") dia	Ft	1285	1,425.00	1,830,572
4	1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a Shovel.	1000 Cft	305703.70	756.25	231,188
5	1/13 (a)	Earth work compaction (Soft, ordinary or hard soil). a) 95% to 100% maximum modified AASHO dry density.	1000 Cft	402696.70	263.00	105,909
6	1/13 (d)	Compaction of earthwork (soft, ordinary or hard soil) (preparation of bed) :- d) Ramming earthwork (all types of soil).	1000 Cft	474650.39	453.75	215,373
7	5/29	Supplying and filling sand under floor and plugging in walls.	100 Cft	34706.01	1,141.25	396,082
		MANHOLES				

Sr. No.	Item No.	Item Description	Unit	Estimated Quantity	Unit Rate (Rs.)	Amount (Rs.)
8		Excavation of pipeline in trenches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joints holes and disposal of surplus earth within a one chain as directed by Engineer incharge . Providing fence guards, lights, flags, and temporary crossings for non vehicular traffic where ever required lift upto 5 ft. and lead upto one chain (30.5m).				
	SOR (PHE Works) Part-B (III) A-1	i) upto 5 ft	1000 Cft	20064.61	3,600.00	72,233
	SOR (PHE Works) Part-B (III) A-1 + B-16	ii) 5 ft to 8 ft	1000 Cft	10804.02	4,150.00	44,837
	SOR (PHE Works) Part-B (III) A-1 + B-16	iii) 8 ft to 11 ft	1000 Cft	11535.55	4,700.00	54,217
	SOR (PHE Works) Part-B (III) A-1 + B-16	iii) 11 ft to 14 ft	1000 Cft	4943.81	5,250.00	25,955
9	Ch 4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	100 Cft	2639.30	3,327.50	87,823
10	4/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		i) Ratio 1:4:8	100 Cft	2688.04	11,288.75	303,446
		f) Ratio 1:2:4	100 Cft	2160.01	14,429.25	311,673
11	5/7 (I) b + 5/10	pacca brick work other than building including striking of joints upto 20 feet height, extra for circular masonry.				
		(b) Cement sand mortar. 1:3				
		up to 20' height	100 Cft	8880.31	14,519.32	1,289,361
12	9/17 (b)	Cement pointing flush up to 20' (6.00m) height:-				
		b) ratio 1:3	100 Sq.ft	10399.20	1,077.45	112,046
13	9/10 (b)	Cement plaster 1:3 upto 20' (6.0 m) ht:				
		b) 1/2"(13mm) thick	100 Sq.ft	15940.98	2,344.59	373,751
14	SOR (Vo-III) Part V-B (16-10)	Manufacturing and supplying of 21' RCC manhole cover cast in 1:2:4 concrete ratio 3 inch deep at center, reinforced with 1/2" wide dia or steel bar at 4: c/c welded to 3/16" thick 2" wide MS plate two hook of 3/8" dia bar including compacting o/c curing, and transportation with in 10 miles.	Each	72.00	1,051.25	75,690
15	11/9	Bitumen coating to plastered or cement concrete surface.	100 Sq.ft	15940.98	778.09	124,035
16	1/9 (a)	Rehandling of earthwork, lead up to a single throw of kassi, phaorah or shovel.	1000 Cft	37223.99	756.25	28,151
17	1/13 (a)	Earth work compaction (Soft, ordinary or hard soil):				
		i) 95% to 100% maximum modified AASHO dry density.	1000 Cft	37223.99	263.00	9,790
18	1/13 (d)	Compaction of earthwork (soft, ordinary or hard soil) (preparation of bed) :-				
		d) Ramming earthwork (all types of soil).	1000 Cft	3527.97	453.75	1,601
Total of SOR Items						12,417,068

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
SEWERAGE SYSTEM**

Bill of Quantities

Non-Scheduled Items

Sr. No.	Item No.	Item Description	Unit	Estimated Quantity	Unit Rate (Rs.)	Amount (Rs.)
		MANHOLES				
1	NSI	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	612		
Total of Non SOR Items						

**CONSTRUCTION OF THE SHAIKH AYAZ UNIVERSITY SHIKARPUR
SEWERAGE SYSTEM**

Bill of Quantities

Rates Based on Composite Schedule of Rate (2012) Sindh

Note: Difference in cost of material is allowed as per Govt. Notification dated: 28-10-2022 issued by standing rates of committee Govt. Sindh vide NO.SO(Admn-I)P&D/12(165)/2018

The rate of difference in Cost of materials as approved by standing rates of committee Govt. Sindh will be paid only.

Sr. No.	Item	Quantity	Unit	Rate taken from SoR notification dated 28-10-2022 & 23-2-2022	Amount (Rs.)
1	Cement (Bags)	1351.34	P.Bags	650.00	878,371
2	Steel (Ton)	0.00	P.Ton	112000.00	0
3	Bricks (No.)	119884.18	%0No.	6000.00	719,305
4	Hill Sand (Cft)	39694.72	%Cft	736.00	292,153
5	Stone Ballast (Cft)	40972.42	%Cft	1960.00	803,060
6	RCC Pipe 12" (Rft)	8021.08	P.Rft	223.75	1,794,716
7	RCC Pipe 15" (Rft)	709.46	P.Rft	225.00	159,629
8	RCC Pipe 18" (Rft)	947.10	P.Rft	420.00	397,782
9	RCC Pipe 24" (Rft)	495.94	P.Rft	370.00	183,496
10	RCC Pipe 36" (Rft)	1284.61	P.Rft	1225.00	1,573,650
Total of Difference of Material Cost					6,802,162

Contractor Sign & Stamp

**CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ
UNIVERSITY SHIKARPUR**

Bill of Quantities

SUMMARY OF COST

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	DESCRIPTION	AMOUNT
1.	CIVIL WORKS	
a	Cost of Schedule Items	29,495,466
b	Add/ Deduct _____ % above/ below on Scheduled Items	
c	Cost of Non-Schedule Items	
d	Difference of Cost of Material	8,976,797
	TOTAL OF CIVIL WORKS - A	
2.	PUBLIC HEALTH WORKS	
a	Cost of Schedule Items	1,238,434
b	Add/ Deduct _____ % above/ below on Scheduled Items	
c	Cost of Non-Schedule Items	
	TOTAL OF PHE WORKS - B	
3.	ELECTRIC WORKS	
a	Cost of Schedule Items	2,044,222
b	Add/ Deduct _____ % above/ below on Scheduled Items	
c	Cost of Non-Schedule Items	
	TOTAL OF ELECTRICAL WORKS - C	
	SUB TOTAL (A+B+C)	
	5% SST	
	GRAND TOTAL	

Amount in Words:

Contractor

Client

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

CIVIL WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavation in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%Cft	61234.03	3176.25	194,494.58
2	C/1-16	Earth for slush or Daldal including dewatering.	%Cft	61234.03	2420.00	148,186.35
3	C-18/92	Providing Anti -termite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	44037.28	9.74	428,923.09
4	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:4:8)	%Cft	3084.38	11288.75	348,188.38
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Foundation)	P.Cft	11132.93	337.00	3,751,796.24
6	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Ground Floor)	P.Cft	11387.54	337.00	3,837,600.91
7	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (First Floor)	P.Cft	3050.01	349.10	1,064,757.67
8	C-4/6 b-i + c	Precast reinforced cement concrete in columns, beams lintels stair cases, shelves, etc. (I) Ratio 1 : 2: 4 including erecting and fixing in position precast cement concrete or stone slab in roofs or Lintels, etc, lift upto 20 feet including all charges. (Terrace Railing)	P.Cft	543.19	351.55	190,956.95
9	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) UPL	P.Cft	2079.90	349.00	725,885.54
10	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) G.F	P.Cft	2647.72	349.00	924,055.59
11	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) F.F	P.Cft	342.13	361.10	123,541.34
12	C-5/4-l(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	11220.24	11948.36	1,340,634.26
13	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift upto 5 feet.	%Cft	20411.34	1512.50	30,872.16
14	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain and lift upto 5 feet.	%Cft	75323.42	3630.00	273,424.00
15	C-5/5-l(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	%Cft	12798.35	12902.08	1,651,253.05
16	C-5/5-l(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	%Cft	430.71	13227.41	56,971.90
17	C-5/5-l(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	2043.74	13340.71	272,648.88

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
18	C-9/12(b)	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) Ground Floor	%Sft	17211.71	2241.80	385,852.20
19	C-9/12(b)+29	Cement plaster 1:5 upto 12' height:- b) ½" (13 mm) thick. (Internal) First Floor	%Sft	3351.66	2382.77	79,862.26
20	C-9/12(c)	Cement plaster 1:5 upto 12' height:- b) ¾" (20 mm) thick. (Internal) Ground Floor	%Sft	4258.02	2678.50	114,051.00
21	C-9/12(c)+29	Cement plaster 1:5 upto 12' height:- b) ¾" (20 mm) thick. (Internal) First Floor	%Sft	698.69	2819.47	19,699.28
22	C-9/11(c)	Cement plaster 1:4 Ground Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	16137.37	3015.76	486,664.31
23	C-9/11(c)+29	Cement plaster 1:4 First Floor upto 12' height:- c) ¾" (20 mm) thick. (External)	%Sft	13289.63	3156.73	419,517.87
24	C-9/24(c)	Distempering:- New surface:- three coats	%Sft	25520.08	1079.65	275,527.49
25	C-9/(38.A+38.B)	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick / sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make.:- three coats	%Sft	20738.67	2567.95	532,558.59
26	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	6272.00	1141.25	71,579.15
27	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	6306.07	3327.50	209,834.32
28	C-8/16-a	Providing and laying 1" thick topping cement concrete (1:2:4) including Surface finishing and dividing into panels:(a) 1" thick Ground Floor.	%Sft	11443.91	1915.13	219,165.75
29	C-8/55	Laying mosaic topping 1/2" thick in pannels of approved any pattern of one part of white cement to two parts of marble chips of required shade and size and of approved pigment in the ratio of 1: 12 of cement used in topping including rubbing and polishing etc. complete. Ground Floor	%Sft	11443.91	12316.49	1,409,488.03
30	C-8/41	Mosaic dado or skirting one apart of white cement and two parts of marble chips laid over 1/2" thick plaster 1:3 complete with finishing 1/2"thick.. Ground Floor	%Sft	461.94	11174.93	51,621.87
31	C-8/16-a + C-8/17	Providing and laying 1" thick topping cement concrete (1:2:4) including Surface finishing and dividing into panels:(a) 1" thick First Floor.	%Sft	499.62	2986.53	14,921.30
32	C-8/55 + C-8/18	Laying mosaic topping 1/2" thick in pannels of approved any pattern of one part of white cement to two parts of marble chips of required shade and size and of approved pigment in the ratio of 1: 12 of cement used in topping including rubbing and polishing etc. complete. First Floor	%Sft	499.62	12543.37	62,669.19
33	C-8/41 + C-8/18	Mosaic dado or skirting one apart of white cement and two parts of marble chips laid over 1/2" thick plaster 1:3 complete with finishing 1/2"thick.. First Floor	%Sft	56.73	11401.81	6,468.51
34	C-8/75	Providing & fixing glass strips 4 mm for flooring upto 1" depth l/c fixing in flooring with cement in specified pattern & design.	P.Sft	15571.64	11.16	173,779
35	C-7/43	Providing & fixing false ceiling of thermopile in panels of required design and size including frame work of Aluminum T-section hanged with nail wire to ceiling etc: completed.	P.Sft	16032.62	91.50	1,466,985
36	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without for all shuttering.(Mix 1:2:4)	%Cft	3469.88	14429.25	500,678.00
37	C-8/16-c	Providing and laying 2" thick topping cement concrete (1:2:4) including Surface finishing and dividing into panels:	%Sft	3628.11	3275.50	118,838.69
38	C-8/75	Providing & fixing glass strips 4 mm for flooring upto 1" depth l/c fixing in flooring with cement in specified pattern & design.	P.Sft	15571.64	11.16	173,779
39	C-7/5	Single layer of tiles 9" x4 1/2" x 2" laid over 4" earth 1" mud plaster without Bhoosa grouted with cement sand 1:3 on top of R.C.C slab provide with 34 Lbs. Bitumen coating sand blinded.	%Sft	16486.69	5628.97	928,031.00
40	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	14.00	358.68	5,021.52
41	C-10/59	First class Sheesham wood wrought framed and fixed in place including chowkhats hold fasts, tower bolts, chocks, cleats, handles card with hooks and cost of nails and screws, etc. panelled or panelled and glazed or fully glazed 1-1/2" thick.	P.Sft	315.00	662.24	208,605.60

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
42	C-10/19-(A)-ii	Providing and fixing sliding bolt to doors.Iron sliding bolt 12" long.(a) Panelled or panelled and glazed or fully glazed 2" thick.	Each	9.00	222.23	2,000.07
43	C-10/21	Providing and fixing, approved quality mortice lock.	Each	9.00	1786.13	16,075.17
44	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges).Three Coats.	%Sft	630.00	2116.41	13,333.38
45	C-18/83(a)	Supplying & fixing in position Aluminium channels framing for hinged doors or Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks l/c handles, stoppers etc. (a) Deluxe model (White)	P.Sft	1632.66	1450.76	2,368,597.82
46	C-18/84(a)	Supplying & fixing in position Aluminium channels framing for slidding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen l/c handles stoppers & locking arrangement etc. complete. (a) Deluxe model (White).	P.Sft	1298.00	1592.69	2,067,311.62
47	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	1298.00	180.50	234,289.00
48	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	%Sft	46.91	1934.82	907.63
49	C-11/ 9	Bitumen coating to plastered or cement concrete surface.	%Sft	38088.06	778.09	296,359.35
50	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	71061.44	10.70	760,357.36
51	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	380.00	459.80	174,724.00
52	C-4/11	Providing and fixing ornamental cement jalli 2" thick (1 : 2 : 4) without steel.	P.Sft	210.16	226.02	47,500.54
O.H.W.T						
1	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2 : 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Second Floor)	P.Cft	535.72	361.20	193,503.19
2	C-4/6 a-ii +6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) S.F	P.Cft	56.58	373.20	21,116.03
Total of SOR Items						29,495,465.71

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

CIVIL WORKS

Non-Scheduled Items

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	NSI	Providing and laying hard grade ribbed deformed (minimum yeild point 60,000 psi) reinforcement bars of all sizes with & including the cost of straightening, cutting, bending, binding, wastage, overlaps other than those shown on drawings, steel chairs, precast chairs, removal of rust, placing in position on cement concrete complete in all respect Amreli Steel, Agha Steel, Razaque Steel or equivalent approved by engineer incharge.	P.Kg	133209.28		
2	NSI	Providing and laying false ceiling comprising of 5/8" thick plaster of paris sheet of required size in approved design with one line of 6" wide niche all around , hanging with Copper wire (16 SWG) duly enriched with POP and flaxen i/c thecost of making space for rope light /screws/jute/making holes for lights and rawal plugs including paint complete in all respects as approved and directed by the Incharge.	P.Sft	718.38		
3	NSI	Providing and laying Stone filling of size upto 1 feet for foundation made of selected granular fill material (Mixture of 70% Stone and 30% River sand of approved quality and grade) including placing, mixing, spreading and compaction of sub-base material to required depth in layers not more then 6" thick, grade to achieve 95% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as approved by the Engineer incharge.	P.Cft	3673.92		
4	NSI	Providing and laying granular filling for foundation made of selected granular fill material (Mixture of 70% gravel/ hard core and 30% River sand of approved quality and grade) including placing, mixing, spreading and compaction of sub-base material to required depth in layers not more then 6" thick, grade to achieve 95% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as approved by the Engineer incharge.	P.Cft	7347.84		
5	NSI	Providing and applying wall putty (Kansai or equivalent) two coats on plastered surface to prepare the surface even and smooth complete in all respect as approved and directed by the Engineer Incharge.	P.Sft	51040.15		
6	NSI	Providing and laying Porcelain tiles flooring 24"x24"x3/8" light polished SB laid in cement over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement or matching pigment complete in all respect. (MASTER or Equivalent)	P.Sft	1734.93		
7	NSI	Providing and laying Porcelain tiles skirting/ dado 24"x4"x3/8" light polished SB laid in cement over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement or matching pigment complete in all respect. (MASTER or Equivalent)	P.Sft	258.95		
8	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for flooring size 12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	561.22		
9	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for skirting / dado size12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	2083.66		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
10	NSI	Providing and fixing 3/4" thick Botocina Marble full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment,including Polished and making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Stairs, Podium, Vanity)	P.Sft	1367.30		
11	NSI	Providing and fixing steel Fire Rated Emergency Exit Door ,Door manufactured as per NFPA 252 & UL 10C standards Steel Door (MS) Size: 60" x 98" Double Leaf door, Filled with fire-rated material With Inner Steel Stiffeners for reinforcement. Door Leaf 1.2-1.5mm, Door Frame 1.5- 2.0mm, Accessories: Hinges, Panic Bar On single Leaf, SS Handle, Glass 12x24 ft, and Door closer including carriage complete in all respect as approved & directed by the Engineer/ Incharge. (MULLA EBRAHIMJI KARIMBHOY (PVT) LTD or Equivalent)	Each	5.00		
12	NSI	Providing and fixing steel Fire Rated Emergency Exit Door ,Door manufactured as per NFPA 252 & UL 10C standards Steel Door (MS) Size: 36" x 98" Single Leaf door, Filled with fire-rated material With Inner Steel Stiffeners for reinforcement. Door Leaf 1.2-1.5mm, Door Frame 1.5- 2.0mm, Accessories: Hinges, Panic Bar, SS Handle, Glass 12x24 ft, and Door closer including carriage complete in all respect as approved & directed by the Engineer/ Incharge. (MULLA EBRAHIMJI KARIMBHOY (PVT) LTD or Equivalent)	Each	2.00		
13	NSI	Providing and fixing UPVC Doors 38mm thickness i/c deluex matching color UPVC frame matt or glossy finish having color (white-Gray-Marble Gray-Oak Wood- Dard Oak Wood, Coffee Wood Honey Pine Wood-Mahagony-Marry Gold-Chocolate Brown-Honey Dew) i/c all accessories i/c mortice locks complete in all respect as approval by the Engineer Incharge.	P.Sft	465.50		
14	NSI	Providing and fixing SS railing 2'-6" height, 2" dia SS pole 16 SWG at 4 ft c/c, 2" dia SS 16 SWG pipe on top, 3 no. 3/4" dia SS 16 SWG horizontal pipe from pole to pole, buffing and polishing complete in all respect including the cost of base plate, base plate cap, rawl bolt etc. as per approval of Engineer/ Incharge.	P.Rft	208.00		
15	NSI	Providing & laying face work by using gutka 9" x 2-1/4"x2-1/4" of approved quality in cement sand surkhi mortar (1:1:3) i/c back filling 3/8" thick with 1:4 cement sand mortar making trapezoidal groove / set back of 1/4" depth during fresh masonry work laid with M.S flat for wall ties, one side embedded in the masonry work and other side in gutka at 12" center to center vertically and 36" center to center horizontally, racking out joints, curing and its removal, including carriage complete (contractor shall prepare samples at site) as approved by the engineer incharge.	P.Sft	8688.34		
16	NSI	Providing and fixing metal (chicken mesh) mesh of 16 guage fixed with nails for concrete and bricks joint complete in all respect and as approved and directed by the Engineer Incharge.	P.Sft	5376.00		
17	NSI	Providing and fixing Stainless Steel (24 SWG) Letters with CNC laser cutting i/c all hardware required complete in all respect as per drawings and direction of Engineer In-charge.	Each	13.00		
18	NSI	Providing and fixing Stainless Steel Logo with colour print including the cost of fitting accessories complete in all respect as per drawings and approval of Engineer Incharge.	Each	1.00		
O.H.W.T						
1	NSI	Providing and laying hard grade ribbed deformed (minimum yeild point 60,000 psi) reinforcement bars of all sizes with & including the cost of straightening, cutting, bending, binding, wastage, overlaps other than those shown on drawings, steel chairs, precast chairs, removal of rust, placing in position on cement concrete complete in all respect Amreli Steel, Agha Steel, Razaque Steel or equivalent approved by engineer incharge.	P.Kg	1998.06		
2	NSI	Providing embedding 10" (250 mm) wide 1/4" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab, tanks complete in all respects.	P.Rft	60.42		
Total of Non SOR Items						

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR					
Bill of Quantities					
CIVIL WORKS					
Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh					
Note: Difference in cost of material is allowed as per Govt. Notification dated: 28-10-2022 issued by standing rates of committee Govt. Sindh vide NO.SO(Admn-I)P&D/12(165)/2018 The rate of difference in Cost of materials as approved by standing rates of committee Govt. Sindh will be paid only.					
Sr. No.	Item	Quantity	Unit	Rate taken from SoR notification dated 28-10-2022	Amount (Rs.)
1	Cement (Bags)	8868.73	P.Bags	650.00	5,764,672
2	Bricks (No.)	357655.92	%0 No.	6000.00	2,145,936
3	Stone Ballast (Cft)	41506.38	%Cft	1960.00	813,525
4	Hill Sand (Cft)	34329.42	%Cft	736.00	252,665
Total of Difference of Material Cost					8,976,797

Contractor Sign & Stamp

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

PUBLIC HEALTH WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012)

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		SANITARY FIXTURES AND FITTINGS				
1	SOR(Water supply & Sewerage (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hinges and buffers, 3 gallons white glazed earthen ware low level foushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled fluish bend 3/4" dia and making requiste number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4.	Each	11.00	11,477.40	126,251.40
2	V-B (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble.	Each	2.00	5,772.80	11,545.60
3	SOR(Water supply & Sewerage (Ch 6/19 (a)	Providing and fixing CP Musliim shower with double bib cock & ring pipe etc complete.	Each	13.00	3,432.00	44,616.00
4	SOR(Water supply & Sewerage (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	11.00	497.20	5,469.20
5	SOR(Water supply & Sewerage (Ch 2/1 (iii-b)	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	5.00	1,082.95	5,414.75
6	SOR(Water supply & Sewerage (Ch 2/2 (b)	Providing and fixing c,p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyford's design No 1108) (b) Superior Quality	Each	13.00	1,071.40	13,928.20
7	SOR(Water supply & Sewerage (Ch 1/22)	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	35.00	689.70	24,139.50
8	SOR(Water supply & Sewerage (Ch 10/1 (i)	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6" C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	5.00	1,220.67	6,103.35
9	SOR (PHE works) Part-B (II) A-2	Providing and laying R.C.C. pipe & collors of class "B" and fixing in trench i/c cutting,fitting and jointing with maxphalt composition and cement mortar (1:1) i/e. testing with water to a head of 22.5 meter or 76 ft. (e) 300mm (12") i/d	P.Rft	480.00	543.75	261,000.00
10	SOR (PHE works) Part-B (III) A-1	Excavation for pipeline in trechches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge.Providing fence guards, lights, flags and temperory crossings for non-vehicular traffic where ever required lift upto 5ft. (1.52 m) and lead upto one chain (30.5 m).	1000 Cft	4,320.00	3,600.00	15,552.00
11	Ch/1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	4,320.00	453.75	1,960.20
12	Ch/1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	4,320.00	756.25	3,267.00

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
13	SOR(Water supply & Sewerage (Ch 6/4 (iv)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(iv) 1-1/4" (Light pattern)	Each	6.00	337.92	2,027.52
14	SOR(Water supply & Sewerage (Ch 6/4 (v)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flabged ends with rubber washing.(v) 1-1/2" (Light pattern)	Each	6.00	695.42	4,172.52
15		MANHOLE				
	VI-B (ii) P (1)	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth waith walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embaded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	Job	16.00	14,748.00	235,968.00
16	SOR (Water supply & Sanitary works) Ch 1-13	Providing & fixing 22"x 16" lavatory basin in white glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6 inches built into walls, painted white in 2 coats after a primary coat of red lead paint, a pair of 1/2" rubber plug & chrome brass waste of approved pattern 1-1/4" dia malleable iron or CP brass trap, malleable iron or brass unions and making requisite number of holes in walls plinth and floor for pipe connection &making good in cement concrete 1:2:4 (Foreign or Equivalent)	Each	11.00	6,237.00	68,607.00
17	SOR (Water supply & Sanitary works) Ch 6-14 (b)	Providing and fixing, wash hand basin mixture of superior quality with CP head 1/2' dia.	Each	11.00	3,179.00	34,969.00
18	SOR (Water supply & Sanitary works) Ch 1-20	Providing and fixing 6" x 2" or 6" x 3" C.I floor trap of the approved self cleaning design with a C.I screwed down grating without a vent arm complete with & i/c making requisite number of holes in walls, plinth & floor for pipe connections & makinggood cement concrete 1:2:4.	Each	24.00	2,042.43	49,018.32
19	SOR (Water supply & Sanitary works) Ch 1-26 (b)	Providing and fixing 24"x 18" bavelled edge mirror of belgium glass complete with 1/8" thick hard board and c.p screws fixed to wooden pleat. (Superior Quality)	Sft	93.00	2,376.00	220,968.00
		VALVES				
20	SOR (Water supply & Sanitary works) Ch 6-5	Providing and fixing handle valves (China) 16bars or equivalent complete in all respects as approved by the engineer incharge.				
	ii	3/4 inch	Each	4.00	271.92	1,087.68
	i	1/2 inch	Each	2.00	200.42	400.84
21	SOR (Water supply & Sanitary works) Ch 6-6 (iv)	Providing, fixing and testing PPRC ball valve 32mm , (with unsoldered copper ball) made to B.B.S 1212.	Each	2.00	510.84	1,021.68
22	SOR (Water supply & Sanitary works) Ch 6-6 (v)	Providing, fixing and testing PPRC ball valve 40mm , (with unsoldered copper ball) made to B.B.S 1212.	Each	2.00	573.70	1,147.40

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
23	SOR (Water supply & Sanitary works) Ch 4-1	Providing G.I Pipes, specials, and clamps etc. including fixing cutting & fitting complete with and I/c the cost of breaking through walls and roof, making good etc. Painting two coats after cleaning the pipe etc. with white zink paint with pigment to match the color of the building and testing with water to a pressure head of 200 feet and handling.				
	v	1-1/2" dia G.I pipe	Rft	130.00	188.97	24,566.10
	vi	2" dia G.I pipe	Rft	90.00	233.00	20,970.00
		1 no. Bore				
24	SOR (PHE works) Part-B (II) (O-1 (a))	Boring for tubewell in all water bearing soils from ground level upto 100 ft. (30.5 m) depth, including sinking and with drawing of casing pipe:- 3" (80 mm)	Rft	170.00	160.00	27,200.00
25	SOR (PHE works) Part-B (II) (O-9 (a))	Providing and installing P.V.C. strainers 'B' class of approved design quality and make including necessary sockets and solvent, etc. complete: 3" (80 mm)	Rft	100.00	166.35	16,635.00
26	SOR (PHE works) Part-B (II) (O-8 (b))	Supplying & fixing M.S bail plug.	Each	4.00	2,607.00	10,428.00
Total of SOR ITEMS						1,238,434.26

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

PUBLIC HEALTH WORKS

Non-Scheduled Items

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
1	NSI	UPVC Multi Floor Trap (110x75mm) including strainer; making required number of connections; breaking concrete or masonry work & then making it good; etc. of approved make.	Each	8.00		
2	NSI	Providing, Fixing Dadex Class D or equivalent UPVC clean out with cover making requisite number of holes in walls, plinth or floor for pipe connection and making good the same as necessary to the structure complete including, rubber gasket and clamp.	Each	4.00		
3	NSI	Providing and fitting "P" trap:ii) 10 cm (4") glazed.	Each	13.00		
4		WATER SUPPLY PIPES AND FITTINGS				
		P/F Polypropylene Random copolymer (PPRC) PN-20 pipe with fusion / threaded joints including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular /Beta or equivalent) complete in all respect.				
	i	1 1/2" (40 mm) dia.	Rft	150.00		
	ii	1" (25 mm) dia.	Rft	240.00		
	iii	2" (50 mm) dia.	Rft	180.00		
	iv	3/4" (20 mm) dia.	Rft	390.00		
5		SOIL, WASTE, VENTILATING PIPES & FITTINGS				
		Providing , fixing and testing UPVC Nikasi type "B" with solution of same quality make including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular/Beta or equivalent) complete in all respect.				
	i	100 mm (4") dia.	Rft	290.00		
	ii	80 mm (3") dia.	Rft	250.00		
		GAS GESYER				
6	NSI	Providing and Fixing Sui Gas Geyser 50 gallon capacity comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 22-SWG covering with proper foot rests dully enamel painted, 4" thick heigh density glass wool insulation with proper warranty with thermostat temperature gauge including fixing and making connection at site etc. complete in all respects as approved by the Engineer Incharge. (Ambassador/Firex/Exquire)	No	1.00		
7	NSI	Providing and Fixing Electric Geyser 15 gallon capacity comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 22-SWG covering with proper foot rests dully enamel painted, 4" thick heigh density glass wool insulation with proper warranty with thermostat temperature gauge including fixing and making connection at site etc. complete in all respects as approved by the Engineer Incharge. (Ambassador/Firex/Exquire)	No	1.00		
8	NSI	Providing and fixing Gate valve 1 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	1.00		
9	NSI	Providing and fixing Gate valve 2 bars, RUV(itly) or equivalent complete in all respects as approved by the Engineer incharge.	Each	2.00		
10	NSI	Providing and fixing of 5.5 HP Centrifugal motor pump having 50mm suction and 100m head (non-automatic) from approved manufacturer complete in all respect as per approval of Engineer Incharge.	Each	2.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		1 no. Bore				
11	NSI	Supplying and installing PVC blind pipe 'B' Class of approved design quality and make i/c necessary sockets etc. complete.				
	a	1¼" i/d (30 mm) 1 x 70	Rft	170.00		
	b	1½" i/d (40 mm) 1 x 40	Rft	170.00		
	c	2" i/d (50 mm) 1 x 50	Rft	170.00		
Total of Non SOR ITEMS						

CONSTRUCTION OF LIBRARY AND LANGUAGE LAB FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

ELECTRICAL WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		DISTRIBUTION BOARDS				
		(General Description) Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp enginring or equivalent as per instructions by engineer inchargege				
		(General Description) All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instructions by engineer incharge				
i)		Main Distribution Board				
		INCOMMING				
a	ELECT SH-X(208)	Providing and fixing circuit breaker 400amp TP setting 250-400amp (XS-400CJ) on prepared board as required.	Per No.	1	39401	39,401
b	ELECT SH-XV(273)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1686	5,058
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
e	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	3	916	2,748
f	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	5	9261	46,305
ii)		DISTRIBUTION BOARD DB-FS LIBRARY				
		INCOMMING				
a	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9261	9,261
b	ELECT SH-XV(269)	Providing and fixing of current transformer of ration 60/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
d	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	41	916	37,556
iii)		DISTRIBUTION BOARD DB-BS LIBRARY				
		INCOMMING				
a	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9261	9,261
b	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
d	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	20	916	18,320
iv)		DISTRIBUTION BOARD DB-DIGITAL LIBRARY				
		INCOMMING				
a	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9261	9,261
b	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
d	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	5	916	4,580
v)		DISTRIBUTION BOARD DB-AC DIGITAL LIBRARY AND BS				
		INCOMMING				
a	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9261	9,261
b	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
d	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	6	916	5,496
vi)		DISTRIBUTION BOARD DB-AC FS				
		INCOMMING				
a	ELECT SH-X(207)	Providing and fixing circuit breaker 15,20,30,40,50, 75 & 100 amps TP(XS-100NS) on prepared board as required.	Per No.	1	9261	9,261
b	ELECT SH-XV(270)	Providing and fixing of current transformer of ration 100/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1191	3,573
c	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
d	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	6	916	5,496
e	ELECT SH-X(206)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XES-100CB(CS)) on prepared board as required.	Per No.	3	5521	16,563
2		WIRING IN CONCEALED CONDUITS				
i)		Distribution board to Switch				
		(General Description) Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, Universal cables or equivalent and conduit should be of Dadex, Turkplast, Easyfit or equivalent as per instructions by engineer incharge				
a	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	560	294.00	164,640
ii)		Switch to light point				
		(General Description) Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	ELECT SH-II(124)	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required.	Per/Point	155	1,130.00	175,150
		Point to point wiring				
b	ELECT SH-I(22)	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	2220	220.00	488,400
iii)		Switch to Switch				
		(General Description) Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	1050	294.00	308,700
iv)		Distribution board to General Purpose (5A/13A) socket				
		(General Description) Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc(conduit partly shared)				
a	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	875	294.00	257,250

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
v)		Socket to Socket				
		(General Description) Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit,Conduit accessories, etc complete. (conduit partly shared)				
a	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	448	294.00	131,712
vi)		Distribution board to 20Amps socket				
		(General Description) Wiring of circuit from distribution board to 20A, 230Volts, DP switch with 3 or 5 nos. single core 6 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc (conduit partly shared for A/Cs)				
a	ELECT SH-I(26)	Providing and laying (main or Sub Main Pvc insulated with 3-7.44 copper conductor in 1" dia PVC conduit recessed in the wall or column as required.	Rmtr	315	468.00	147,420
b	ELECT SH-I(40)	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.	Rmtr	175	613.00	107,275
Total of SOR Items						2,044,222

CONSTRUCTION OF LIBRARY FOR THE SHAIKH AYAZ UNIVERSITY SHIKARPUR

Bill of Quantities

ELECTRICAL WORKS

Non-Scheduled Items

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		DISTRIBUTION BOARDS				
		(General Description) Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 440V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp enginee				
		(General Description) All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent as per instructions by engineer incharge				
2)		Main Distribution Board				
		INCOMING				
		03 No Digital Ammeter scaled 0-400 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 320 Ampere,three phase,Earth and Netural for distrubitions with appropriate size DB BOX				
		02 Nos Phase Rotation/failure, (adjustable under/over voltage threshold),50/60Hz, 0.1~10 Sec Delay, 380~500V				
	NSI	02 No Thermostatically controlled 230 Volts robust exhaust fans 6"/8" dia. to be installed on front of MDB for hot air exhaust including cost of thermostat ON-OFF switches wire mesh and all necessary accessories / wiring, complete in all respects.	Job	1		
3)		DISTRIBUTION BOARD DB-FS LIBRARY				
		INCOMING				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	02 Nos bars for DB Box including two bars of earthing and neutral and all necessary accessories for operation(including flexible cables, ties etc)	Job	1		
4)		DISTRIBUTION BOARD DB-BS ROOMS LIBRARY				
		INCOMING				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	02 Nos bars for DB Box including two bars of earthing and neutral and all necessary accessories for operation(including flexible cables, ties etc)	Job	1		
5)		DISTRIBUTION BOARD DB-DIGITAL LIBRARY				
		INCOMING				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	02 Nos bars for DB Box including two bars of earthing and neutral and all necessary accessories for operation(including flexible cables, ties etc)	Job	1		
6)		DISTRIBUTION BOARD DB-AC DIGITAL LIBRARY AND BS INCOMING				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	05 Nos.copper bus bars 40Ampere,three phase,Earth and Neutral for distributions with appropriate size DB BOX	Job	1		
7)		DISTRIBUTION BOARD DB-AC FS LIBRARY INCOMING				
		03 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. R-Y-B indication lamps.				
	NSI	05 Nos.copper bus bars 100 Ampere,three phase,Earth and Neutral for distributions with appropriate size DB BOX	Job	1		
		Each Bus bar is 300*12*2 mm.				
2		LIGHT FIXTURES				
		(General Description) Supply, installation, testing and commissioning of following light fittings, ceiling, recessed,wall mounted as per specified fixture. Complete with internal wiring, Grounding terminal , driver complete in all respects. Lights should be of Phillips, ledvance or equivalent				
i)	NSI	2*2 Panel Light	No	19		
ii)	NSI	20 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	232		
iii)	NSI	15 Watt (White) LED Light Fixture surface/recessed mounted, IP-22 rated	No.	56		
iv)	NSI	10 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	28		
v)	NSI	Emergency Exit Light	No.	6		
3		MISCELLANEOUS FITTINGS				
		(General Description) Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as per instructions by the Engineer. make GFC, Pak Fan, Royal Fan or approved equivalent.				
i)	NSI	12 " outer dia exhaust fan with plastic body,fan blades and louvers	No.	22		
ii)	NSI	Providing and Fixing of brass ceiling fan 56" (good quality)	No.	31		
4		WIRING ACCESSORIES				
		(General Description) Supply at site, installation, testing and commissioning of the following wiring accessories, complete in all respects. Made of TJ, Legrand or approved equivalent.				
i)	NSI	10 Amps, 250Volts one way, One gang light control switches including appropriate size concealed Plastic back box.	No.	3		
ii)	NSI	10 Amps, 250Volts one way, Two gang light control switches including appropriate size concealed Plastic back box.	No.	23		
iii)	NSI	10 Amps, 250Volts one way, Three gang light control switches including appropriate size concealed Plastic back box.	No.	4		
iv)	NSI	10 Amps, 250Volts one way, Four gang light control switches including appropriate size concealed Plastic back box.	No.	26		

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
v)	NSI	10 Amps, 250Volts one way, Six gang light control switches including appropriate size concealed Plastic back box.	No.	4		
vi)	NSI	15 Amps, 250Volts, universal 5 in 1 switched socket unit including appropriate size Plastic back box.	No.	224		
vii)	NSI	20 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	28		
viii)	NSI	45 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	1		
xi)	NSI	Fan Dimmer 250 watt with switch including appropriate size Plastic back box. with all associated accessories.	No.	31		
x)	NSI	Appropriate size of plastic body fan box and ceiling fan rod 24" in length	Nos	31		
xi)	NSI	MS BAR for hanging Ceiling fan	Nos	31		
5		LT CABLES				
		(General Description) Supply at site, installation, testing and commissioning of PVC insulated armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in pre-laid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the Engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed. Cable should be of Newage, Fast cable, Universal cables or equivalent and conduit should be of Dadex, Turkplast, Easyfit or equivalent as per instructions by engineer incharge				
i)	NSI	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheathed with 4 core copper conductor 600/1000 volts size 6mm ²	Rmtr	30		
ii)	NSI	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheathed with 4 core copper conductor 600/1000 volts size 25mm ²	Rmtr	80		
iii)	NSI	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheathed with 4 core copper conductor 600/1000 volts size 35mm ²	Rmtr	50		
iv)	NSI	Providing and laying (main or Sub Main) Pvc insulated, Pvc sheathed with 4 core copper conductor 600/1000 volts size 185mm ²	Rmtr	20		
6		GROUNDING SYSTEM				
i)		GROUNDING cable				
a	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in pre-laid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 19/1.32 mm (19/0.052")	rmtr	30		
b	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in pre-laid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 6 mm sq (7/0.044")	rmtr	30		
c	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in pre-laid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 16 mm sq (7/0.064")	rmtr	100		
d	NSI	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in pre-laid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 120 mm sq (37/0.083")	rmtr	30		
ii)		Plate type earthing				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
	NSI	Providing & fixing of Plate type Earthing compressed with excavated hole 6"up 63 feet, GI pipe 2"(50mm)with Tees , Sockets , Endcap of 60 (Rft) Copper Plate of 1/2"x 2"x 48", 2x 70mmsq S/Core copper bare conductor 125 (Rft) Earth Connection Point of 1200 x 50 x 50mm (L x W x T) Inspection Pit of 300 x 300 x 450 mm (L x W x D) completed with all respect	No.	1		
iii)		Grounding Connection Point				
	NSI	Supply of Grounding connecting points consisting of copper plate 300mm long x50mm wide x 6mm thick to be installed, complete with fixing arrangement, brass nuts bolts, washers, lugs, 12.5mm dia. holes to facilitate connections of Incoming copper strips / copper conductors.	Nos.	1		
iv)		Testing and commissioning				
	NSI	Testing and commissioning of the earthing system in the presence of site engineer with electronic devices such as megger etc, making so report with after approximating 3 time testing and the grounding ohm must be less than or upto 3 ohms	Nos.	1		
7		CIVIL WORKS				
i)		Trench (for LT Cable)				
	NSI	Labour for excavation and refilling of trench 12" wide, 24" deep 9" sand compaction below and above in preinstalled PVC pipes, ramming watering all necessary material, labour etc, complete in all respect. Actual length of the trench shall be as per site condition and paid accordingly however approximate length of trench is given.	R.Mtr	100		
ii)		Manhole For LT Cable Pulling (If Required)				
	NSI	Construction of manholes to facilitate pulling of cables in trench or conduit as shown on drawing, manholes shall be of the size 24" x 24" x 30" deep with 9" thick wall with cement mortar, internal plaster 1:4, 100mm thick RCC cover for manhole, including cost of all accessories / materials, complete in all respects. (Tentative number of manholes have been provided, however payment shall be made as per actual and as per quantity requirement)	Nos.	1		
8		CCTV System				
i		Camera Cable				
	NSI	Supply, installation, Testing and commissioning of CAT 6a UTP CABLE IN PVC PIPE Ø 1"; MEASUREMENT IN METERS complete in all respects.including cost of conduit and its accessories installing arrangement, making juries in wall and repairment of wall. Made of D-Link or equivalent approved by engineer incharge	R.Mtr	200		
9		Air Conditioning				
		(General Description) Providing, shifting, fixing, testing, commissioning, adjusting and balancing of standard (Cool only) DC inverter technology air conditioning units, including indoor evaporating and out door condensing unit, the indoor units wall mounted of capacities as specified below, complete with factory charged refrigerant, piping insulation including condensate copper piping connection, between indoor/outdoor units conduiting and any additional charge of refrigerant accessories, and Drain piping upto nearest drain water line included in these rates making the job complete in all respect. AC should be of Haier,dawlance, gree or equivalent, copper piping should be of muller, trox and insulation of Durkflex or equivalent, Drain pipe should be 3/4" dia pvc pipeof master, turkplast or equivalent as approved by engineer incharge				
		(General Description) 1/4 and 1/2 copper piping shouls be used till 1.5 ton AC and 5/8 and 3/8 piping should be used for 2 ton AC and 3/8 and 1/2 for 4 ton AC between indoor and outdoor unit.				
		(General Description) The AC Unit should maintain approx 11 BTU per cubic feet plus addition of 3000BTU in the total amount for persons and devices				
ii)		Copper pipe and control cable				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
a	NSI	Supply ,installation testing and commissioning of Copper piping 1/2 & 1/4 insulation and control wire including making jharies and repairing of surface with all neccessary item job must be complete in all respect	RFT	200		
b	NSI	Supply ,installation testing and commissioning of Copper piping 5/8 & 3/8 with insulation and control wire including making jharies and repairing of surface with all neccessary item job must be complete in all respect	RFT	200		
10		<u>Fire Alarm System</u>				
		(General Description) Supply, installation, testing and commissioning of following items as per drawings, specifications, & instructions of the Engineer, complete in all respect, all item should be of Gent by honeywell, ETON uk or approved equivalent as per instructions by the Engineer as required.				
i)		<u>Manual Call Point</u>				
	NSI	Supply, install testing and commsiong of manual call point RESET type with allied components with full functionality as per specification of manufacturer / drawing with proper staff and tools and plants etc.Input Source Zone signal Address Coding dip switch Operating Voltage 26V DC Alarm Current 6mA Quiescent Current 850µA Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	3		
ii)		<u>Smoke Detector</u>				
	NSI	Supply, install testing and commsiong of Addressable Optical Smoke Detectors incorporating a with in the housing of the detector. Sensing of the detector shall be adjustable via software between 0-90 seconds.Address Coding Binary Alarm Current DC26V 6mA Standby Current DC26V 850µA Sensitivity Setting Comply to EN54 Ambient Temperature 0°C ~ +50°C Material Fire-proof plastic	Each	32		
iii)		<u>Sounder</u>				
	NSI	Supply, install testing and commsiong of Intelligent analogue addressable Loop powered sounder with flasher and red body and wall mounting base.Input Source Zone signal Address Coding Binary dip switch Operating Voltage 26.5V DC Standby Current Under 850µA Alarm Current Under 8mA Sound Output 90 ±4dB at 1 meter Sounder Output 2.3~3.4KHz Ingress Protection IP65 Ambient Temperature -20°C ~ +50°C Ambient Humidity 10% ~ 95% Material Fire-proof plastic	Each	3		
iv)		<u>FACP</u>				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
	NSI	Supply, install, testing and commisiong of Addressable FACP. Each loop can connect up to 250 addressable devices. Maximum networking are 32 loops and total addressable points are 8000. Large LCD screen (40 x 15 lines) allows more events to be displayed on the same screen. Power 220V AC 50/60Hz *Others also available Battery Capacity 24V DC 4Ah Charging Voltage, Current 26V DC 100~400mA *With auto adjustment function Zone Voltage, Current 26.5V DC 340mA System Capacity 250 devices/1 loop *Expandable for site requirement Exterior Resistance Round-trip under 40Ω Transmitting Method Digital series transmitting Accumulation Time 0~40 seconds Main Sound 85dB @1M Material 1.6mm steel plate	Each	1		
v)		Cable				
	NSI	Supply, install testing and commisiong of 2 x 2.5 mmsq shielded drain wire, 30 minutes fire resistance,red, LPCB approved, BS 7629-1/2008, BS 5839-1 standard in 25 mm dia pvc conduit complete in all respects including cost of conduit and its accesories installing arrangment, making jurries in wall and repairment of wall .(Newage, Pakistan Cable, Fast or approved equivalent). conduit should be of Dadex, Turkplast, Easyfit or equivalent as per instructions by engineer incharge.	Rmtr	180		
vi)		Programming, Testing and Commissioning				
	NSI	Programming, Testing and Commissioning of Complete system by authorized certified company complete in all respects as per instructions of the Engineer.	Job	1		
vii)		Fire Extinguishers				
	NSI	Supply & installation of 1 x 6kg DCP CO2 Fire Extinguishers installed as per instructions of Cleint, complete with wall hanging and mounting arrangement complete in all respects. Complete in all respect as per instructions by site engineer	Nos.	2		
Total of Non-SOR Items						

Name of Work: Construction of Road Network, Sewerage System and Library + Language Lab For The Project Titled “ Provision of Missing Facilities For The Shaikh Ayaz University Shikarpur”.

Terms & conditions

- I. Approved quality or equivalent Cement will be used with the approval of Engineer In-charge With ASTM C - 150 standard For Cement Quality.
- II. Only approved quality Sand will be used with the approval of Engineer In-charge. Refer ASTM C-33 Standard For Sand Quality.
- III. Only approved quality Crush stone will be used with the approval of Engineer In-charge. Refer ASTM C-33 Standard For Crush stone Quality.
- IV. Only approved quality Burnt Bricks will be used with the approval of Engineer In-charge. Refer ASTM C62 Standard For Sand Quality.
- V. Only approved quality Steel will be used with the approval of Engineer In-charge. Refer ASTM A-615 Standard For Steel Quality.
- VI. No cartage of any material arranged by the contractor himself /themselves will be paid in any shape.
- VII. Only clean water from the city supply, tube well installed at the site or from other sources approved by the Engineer In-charge shall be used in mixing concrete, Curing, Cleaning plant and tools. The water shall be tested according to B.S. 314. Contractors shall have to make their own arrangement of palatable water for use in work at his / their own cost.
- VIII. Concrete shall be mixed with mechanically operated Concrete Mixer with due concentration to aggregate and water ratio.
- IX. If any wherever nomenclature or any item is elaborated or not clear or any typographical error occurs in the schedule for the tender it should be read strictly as per composite schedule of rates issued by standing rates committee Govt. of Sindh.
- X. All material shall confirm the standard specifications.
- XI. No premium shall be allowed on non-scheduled items / offered rates.
- XII. All the debris and surplus stuff shall be removed from the site / disposed-off by the contractor for which no extra cost of cartage etc. shall be paid.
- XIII. All RCC / PCC cost in Situ shall be mechanically vibrated by the contractor for which no extra cost will be paid.
- XIV. All materials / mixes used in structure shall be tested from recognized laboratory and test report shall be submitted without any delay for which no extra cost etc. shall be paid.
- XV. Electricity used shall be the responsibility of contractor for which no extra cost etc. shall be paid. Camp office / material stock/Go down constructed at site shall be the responsibility of contractor for which no extra cost etc. shall be paid.
- XVI. All workers within the execution area should wear protection helmets and full boots and ensure all safety & security measures for lives of labors / inhabitants shall be the responsibility of contractor for which no extra cost etc. shall be paid.
- XVII. Deployment of full-time engineer at site shall be the responsibility of contractor for which no extra cost etc. shall be paid.
- XVIII. Inspection request shall be submitted before 24 hrs. of execution of any new trade/activity.
- XIX. Pour slip to be submitted for approval of any CC and RCC work well before execution of pouring.
- XX. The contractor shall have to visit the site before filling the bidding documents.

Contractor's Signature

Contractor's Name

Stamp