Recommended Construction Material Sources for District Bagh

Sr.No D		<u></u>	2	ω	4	U	1			
District					Bagh					
Sand sources	Local sources have marginal use (<2000psi strength)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
urces	out of district	Dulai river sand deposit	(marginal use)	Lawrencepur/	Qibla bandi sand deposit	Barsala river	(marginal use)			
Coarse	Local									
Coarse Aggregate Source	out of district	Bakot Nathia Gali road Sari locality	Kohala)	V househill abad	limestone	Khurshidabad	Dolonte			
Stone for masonry	ь	Malal Bagla sandstone	Danah sandstone	Chaman Kot sandstone	Bees Bagle sandstone	Shujaabad sandstone	Patriata sandstone			
masonry	Local	Bhont Chowk sandstone	Dulli sandstone	Lasdana sandstone	Arja-mahl river gravel	Dhal Qazian - Malwani Kas gravel	***************************************			
Clay de	Local		'		Z					
Clay deposits for Brick masonry	out of district				Peshawar					
Stone soling of roads	Loca	Malal Bagla sandstone	Danah sandstone	Chaman Kot sandstone	Bees Bagle sandstone	Shujaabad sandstone	Patriata sandstone			
ig of roads	cal	Bhont Chowk sandstone	Dull	Lasdana sandstone	Arja-mahl river gravel	Dhal Qazian - Malwani Kas gravel				
for Asp	Local									
Coarse Aggregate for Asphalt/premix used in roads	out of district	Bakot Nathia Gali road Sari locality	(10km from Kohala)	Khirchidahad	limestone	Khurshidabad Dolorite				

2. Ordinary Portland Cement (OPC) available in local market consist of 0.5 to 0.8% alkalies. with approved sandstone quarries like Eran sandstone. It can be used with the consultation of Material Engineer or Geologist for mega projects.

1. Sandstone of Murree Formation is widely distributed in Bagh, Dherkot and its adjoining area its chracterstics may be correlated

Note:

3. To avoid the Alkali Silica Reaction OPC can be replaced with Pozolon, slag or low alkali cement which should meet the 10000psi strength (BS-12, ASTM C150).

4. (i). Steel testing on each consignment is required to meet the ASTM 615A where for grade 40 steel required yield strength is 40,000psi

and for grade 60 required yield strength is 60,000psi.

(ii) Chemical tests of the steel should meet the ASTM 706A.

5. Other local quarries material should be evaluated as per ranges provided in Table 4.1

Material of fine & coarse aggregate not fulfill the evaluation criteria mentioned in Table 4.1 should be treated as rejected

7. For more detail visit our website www.pndajk.gov.pk

Geologist My Smile 1927 12011 Rate Analysis Section

Chief Rate Analysis Section

STUDY OF CONSTRUCTION MATERIAL SOURCES IN AJK Table 4.1

Criteria Used for Evaluating the Material Sources

Bitumen Adhesion (Not less than)	Mortar Bar Expansion % (max.) at 14 days (ASTM 1260)	Fineness Modulus	Sand Grading	Flakiness (max.)	10% Fine Value kN (min.) Soaked	10% Fine Value kN (min.) Dry	Crushing Value (max.)	Impact Value (max.)	Other Deleterious Substances (% by wt.)	Clay Lumps and Friable Particles (% by wt.)	Shale (% by wt.)	Materials Passing (No.200 sieve) (% by wt.)	Los Angeles Abrasion Value (max. %)	Sodium Sulfate Soundness (max. %)	Water Absorption (not more than. %)	Specific Gravity (not less than)	PARAMETERS	PHYSICAL ENGINEERING								
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.1		interest of the second							2	7	3	50	12	-	2.5	ASTM C-33 SPECIFICATION LIMITS			COARSE AGGREGATES						
					80	130	23	23					25				All Unbound	Heavy	63-59							
					65	130	23	23					25				Wearing Course	Heavy Traffic Roads†	# 75							
					50	100	30	30	The state of the s		*********************************		35				Bituminous Base/Sub-base	Roads†	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
					65	115	27	27					30				All Unbound	Mo	*Ten							
					65	100	30	27					30	3	Wearing Course	Medium Traffic Roads†	dium Tra Roads†	dium Tra Roads†	dium Tra Roads†	dium Tra Roads†	dium Tra	dium Tra Roads†	dium Tra Roads†	dium Tra	*Tentative Limits	RO/
		A CONTRACTOR OF THE PARTY OF TH			50	100	30	30					35				Bituminous Base/Sub-base	affic	imits	ROAD AGGREGATE						
					50	100	30	30					35				All Unbound	Light Traffic		REGATE						
					65	115	27	27					30				Wearing Course			į						
					50	100	30	30		***************************************			35				Bituminous Base/Sub-base	Roads†								
95						150										The second secon	All type of roads	AASH"	то	w						
75				45			25	25					30	12			Bituminous Mixes	TRL		80						
				35		110							35				Unbound Pavement									
	0.1	ASTM C-33	ASTM C-33			1		and the last of th		3		3					Fine Aggregate for Concrete and Mortar	LIMITS	MTOA							
			1200					-									Masonry Mortar		The de design	FINE						
	Ly spine -		BS-112														Floor Screed	Morta	新華 电多	FINE AGGREGATES						
			1199														External Rendering	Mortar and Plaster	BS	GATES						
			1198														Gypsum Plastering	ster								



Minimum Required Parameters for Brick Selection

S.No.	Class Of Brick	Weight Of Brick (lbs) (Bone Dry)	Size Of Brick (inch X inch X inch)	Water Absorption Ratio	Strength Of Brick (psi)	
1	1st Class	7	9 X 4-1/2 X 3	1/6 th of its dry Weight	1200 to 1500	
2	2 nd Class	7	9 X 4-1/2 X 3	1/4 th of its dry Weight	900 to 1200	
3	3 rd Class	6.75	9 X 4-1/2 X 3	1/3 rd of its dry Weight	500 to 900	
4	4 th Class	7.2	9 X 4-1/2 X 3	1/2.5 of its dry Weight	Less than 500	

Chief Rate Analysis 22/7/2011

Planning And Dev. Deptt

Govt. Of AJK M.abad