

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢٠٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالحاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

Quality Control

INTRODUCTION:

The objective of work control quality & materials to be used is the supremacy quality on any constructional project implementation by correcting the necessary efficiency materials to be used either local or imported ones. This gives the Engineer the capability to prepare sufficient specifications to accept the materials which could be a resolution facing during the work.

Quality works control is divided into:

- Concrete & construction works
- soil earthy works
- Steel Import materials works
- installation works

Concrete & construction works:

Concrete works is considered as it's the essential & structural works for any construction work related with cement installation, each concrete construction correcting the mixture proportion into it according to the importance of the construction, its geographical location, for example Yemen is divided into two main areas: -

- A. Coastal humid area (mixture proportion (cement resistant to salinity & sulfur)
- B. Dry internal area (normal Portland to be used)

Concrete & construction work is divided in three main sections:

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢-٤٥٣٠ - فاكس : ٠٥٢-٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالهاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

	Cray – sand – cement		
a. Normal concrete works (mixture ratio	6	3	1)
b. Ferroconcrete works (mixture ratio	4	2	1)
c. Cementation & construction (mixture ratio)		3	1)

Water mixture proportion will be identified according to the slump test

Concrete mixture design will be water ratio to cement approximately 17 liters for each sack & according to the mixture quantity, specially the sand and in any constructional works in cement should be sprayed with water twice per day for a period not less than 15 days, where it will remain full of water to give strength & solidity identified.

These small typical proportions it differs according to the construction importance & to give the required strength for concrete mixture, because the approved specifications of concrete works in Yemen is British & USA specifications. Cementation works should be used string each 30 cm. width & height with good welding, softening by using white silica 1 kg./sack cement, spraying with water twice a day for 15 days.

To execute & implement the constructional concrete works the following materials should be supplied: -

1. Cement
2. Sand (nis)
3. Cray (small stones)
4. Water
5. Blocks
6. Stones
7. Steel for concrete cementation
8. Concrete forceful & molds
9. Layer insulator & extension bars

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢٠٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالحاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

Each item has its own duty & sort and should be a good quality & acceptable according to the specifications of British code approved in Yemen..

- a. The cement: - The cement to be used should be from Portland & according to the geographical location, it must be soft and not hard & petrified & not be its validity more than six months from manufactured date, it must be kept in closed & dry place far away from the water, otherwise the cement will lose its solidity, specifications & made in should be clear, written on the sack, good quality with British or USA specifications .
- b. The sand: - The sand should be soft from the valleys without silts and other specially items, planktons, according to British code, the sand of Yemen is convenient to be used, its preferable to use valley's sand because its far away from animals & population settlements.
- c. The Cray: - Should be cracker sharpened edges coming from the valley, hard and without pours not sucking the water, without dust, silts and other materials, according to British code.
- d. The water: - The water should be valid for use & considered valid for drinking, without silts, plankton & other materials, no color & smell.
- e. The blocks: - It should be automatic pressured, strong, tenacity, not subjected to break when it used for construction or when its placed in the location , spraying with water twice for 15 days no stop.

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢-٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالهاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

The stones: - It should be solid, refined faces, without porosity or water suction, not

containing root bars, its thickness not less than 20cm., its preferable changeable rocks, its

absolutely forbidden to use the sedimentary & calcareous stones.

f. Layer insulator & extension bars

Two layers perpendicular from alfil and three layers from damer height 20cm.

near the walls and overlap not less than 10 cm. with iron net dimension 5X5 cm.

and normal concrete from 7 – 10 cm. with extension bars each 3m., filling with

mixed & mixed with sand, the extension bars in the wall filled with feline, covered with a piece of aluminum concave width 10 cm.

g. Cementation steel: - It should be cementation steel with different diameters round not subjected to the echo and should be label specification & should be placed in the location, flexi be enough to be used in cutting & bending according to the British code

h. Concrete forceful & molds: - if the concrete forceful & mold is thorough woods & wooden square, squares & woods should be clean and new ones from mixture residue

and inconsumable, broken edges decadent, not full with water, missing strength & flexibility, wooden forceful should be without big gab or aperture and absolutely forbidden filling the gabs with sacks or different thickness woods.

The mold steel prepared should be without echo with all accessories, strong & consistent.



Date : _____

التاريخ : _____

2. Soil works: -

Soil works its composed from:

- a. Excavation works
- b. Filling up with earth & pressing

A. Excavation work should be used the special equipments for it & according to the construction's type, specially the soil and taking out the water if available, performance & strength improvement according to the geometrical construction's needs. Excavation is divided into three kinds: -

- = Digging of soil sand
- Digging of soil clay
- Digging of rocks

Each kind of soil ha its own specialty to be excavated

- Digging of soil sand: - It should be taken much awareness & attention during the excavation because its subjected to be collapsed from the sides, therefore digging must be expanded widely according to the basis & foundations construction approximately double to avoid the worker to be subjected to risk, for this reason soil improvement performance it's a must.

- Digging of soil clay: - It should be taken much awareness & attention, because if this kind of soil to be exposed to water it will spread out missing strength, specially the agricultural soil will be coherent , so its suggested the digging to be with machines and not let workers do it.

- Digging of rocks: - It should be used the Bucklin, explosion is forbidden the building is constructional, explosion is allowed for mountain roads, in condition that the road is far away from settlements & buildings

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢-٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالهاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

B. Filling up with earth & pressing

All works of Filling up with earth & pressing should be mixed clay soil with stones of different sizes, spraying with water and good leveling with machine to be coherent, it should not be areas incoherent or enjoined, the spotted & enjoined areas should be taken out the soil & to repeat the filling up with earth and water spraying, leveling with machine, these specifications are adopted for filling up with earth inside the construction as well as roads construction.

For roads there are two layers:

1. Filling up with earth sub-grade as first layer after excavation not less than 37 cm & according to the geometrical design, it must be with clay soil, even the road attributed to 12.50 cm flattening with grader, spraying with water, compacting with compactor machine and special for this kind of work.
 2. Filling up with earth sub grade as a layer before asphaltting and considered as the basic layer for asphalt, these should be Cray mixed with small stones, dimension from 7 cm thickness to 12.50 cm. spraying with water & compactor machine properly.
- All Filling up with earth works is subjected on the British or USA specifications basis, Yemen supplies all these materials sufficiently, high quality, good performance if its used on geometrical way.

3. Steel installation works: -

These works are special for hungers & warehouses & composed from:

- 1- Steel columns & bridges and fixed joints (imported according to the design and should be clear construction, would treated & protected against the echo especially in the coastal areas, importing special quality for these atmosphere, proper paint and varnish is necessary.
- 2- Roof from zinc against the echo & erosion & is necessary to be considered during installation, binding, fixing not less than 20 cm.
- 3- Constructional works as defined in the specifications above

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢٠٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالهاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

4- Dynamical works during gru installation, design should be respected, gru should be fixed properly, all dynamic equipments must be from Europe, Japan & USA.

4. Importing work materials: - All these type of materials must be approved by the Engineer in

charge & they are: -

- a. Electrical materials
- b. Foundry & sanitation materials
- c. Wooden works
- d. Aluminum works
- e. Ceramic & painting works
- f. Insulator's layer

A. Electrical works

Preferable those electrical materials to be manufactured in Europe except the fans made in Pakistan, to be imported according to construction's needs, defined in the Table quantity and cost

B. Foundry & sanitation materials

Pipes must be UPVC pressure 80 bars for water & 40 bars for sanitation, made in Germany or USA and must be written clearly on each pipe, pressure quality, using squares of 1.5 h and 2 h, putting and fixing resistant woods on the height & width of the door each 20cm, all needed items, keys, locks , doorknobs must be made in Europe or Japan.

AL-Sulimani Bros. Co. Ltd.
For Trading & General Contracting

Republic of Yemen

Head Office - Shabwa - Ataq - Tel:05-204530 - Fax:05-204531
Hadramout branch \ mukalla - tel:05 314117 - Fax : 05 314118
Balhaf branch \ tel. : 05 211902



Web site : www.assulimani.com
E-mail : info@assulimani.com

شركة السليمانى أخوان
للتجارة والمقاولات العامة المحدودة

الجمهورية اليمنية

المركزى الرئيسى / شبوة - عتق - ت ٠٥٢٠٤٥٣٠ - فاكس : ٠٥٢٠٤٥٣١
فرع حضرموت / المكلا - تلفون : ٠٥٣١٤١١٧ - فاكس : ٠٥٣١٤١١٨
فرع بالحاف / تلفاكس ٠٥٢١١٩٠٢

Date : _____

التاريخ : _____

C. Aluminum works

Thickness 20 micron, glass silk type 6 mm thickness with locks and doorknobs, with good three fixing, preferable to be made in Greece

D. Paints

All paints & paste should be basically resistant for humidity & should be used sandpaper for the walls & roofs, until to be soft & two times paste + three times painting.

E. Ceramic & mar mar

Pavement mar mar pressure automatically with marble not less than 1.20 cm thickness immersed with cement, where the mar mar thickness not to be less than 2.5 cm. hadrami type is preferable.

Ceramic for the walls and pavements must be made in Italy or Spain, to be used water soakage for 24 hours

Marble for pavements & stairs locally made to be like the Italian manufacture.

All mar mar works must be in cement pots according to the specifications, water spraying not less than one week, twice a day using also the white cement.

Best regards,

Fareed ALSULIMANI
General Manager
ALSULIMANI Bros Co. Ltd.
Mobile; 777302186 / 711202186
Email: info@assulimani.com
Website: www.assulimani.com