
After attending HP. PWD. Division Solan and collecting the requisite information of this work, the inspection was conducted alongwith the Assistant Engineer of Solan sub division and concerned Junior Engineer. A/A & E/S of this work was accorded amounting to Rs. 49.95 lacs on dated.- 12.11.2008 by Director Social Justiceas (Empowerment) H. P and the work has been awarded to the contractor amounting to Rs. 48,50,812/- vide Executive Engineer letter No.- 7747-55 dt. 15.09.2009 with time allowed for its completion as one year. Approved Arch. Drawings Structural Drawings and S.O.Q of this work were available at site with the concerned Junior Engineer. Quality Control Register was also available at site, but up to date entries of test results of materials, were made in this register. Cube tests of concrete of column and footing were got tested, results are with in the permissible specification. Tests are required to be conducted at the required frequency column-wise and beam-wise. Assistant Engineer was also advised to get the test results of steel from the supplying agency. Site order Register was also available at site. 27 Nos Columns of Ground Floor have been completed and 6 Nos columns remain yet to complete.

From the Visual inspection it appears that proper compaction with vibrator; proper water cement ratio as also curing has been done for the RCC work. Two vibrators, concrete mixer, sufficient steel shuttering were also available at site.
To manage the proper quality and specification control, no Graduate/ Diploma holder engineer was found at the site and reported that has not been engaged, as also no recovery on this account has been effected, from the running bill of this work. Samples of coarse and fine aggregates were collected from the site, have been tested in the Central Material Testing Laboratory Shimla and found within the permissible specifications. Test results are also attached.

**Hence following actions are required to be taken by the Executive Engineer.**

1) To get all the requisite laboratory tests of all materials and concrete done, as per required frequency and get them entered in the Quality Control Register.

2) The Executive Engineer may be advised to inspect the ongoing works & make use of site order register.

**Following action is also required to be taken by the Executive Engineer/ Assistant Engineer (D) HP, PWD, Circle Solan.**

1) The test results sent to division/sub division do not specify the permissible specifications, in the absence of which, the field staff is not in a position to accept or reject the materials, thus Executive Engineer/ Assistant Engineer (D) to be advised to add the permissible specifications also in the test results of all the materials.

(Er. B. S. Kaushal)  
Superintending Engineer (Q.C&D)  
HP, PWD, U.S.Club Shimla-1

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP, PWD, Shimla-1 for kind information and necessary action please.

(Er. B. S. Kaushal)  
Superintending Engineer (Q.C&D)  
HP, PWD, U.S.Club Shimla-1
INSPECTION NOTE

Inspection Note recorded by Dr. B. S. Kaushal Superintending Engineer (Q.C&D), U. S. Club Shimla-1 for work C/O Office Building for Distt. Attorney Solan under HP PWD Division Solan for inspection conducted on 29.04.2010.

After attending HP. PWD. Division Solan and collecting the requisite information of this work, the inspection was conducted along with the Assistant Engineer of Solan sub division and concerned Junior Engineer. A/V & E/S of this work was accorded amounting to Rs. 71.90 lacs on dated 27.10.2008 by Principal Secretary (Prosecution) H. P and the work has been awarded to the contractor amounting to Rs. 72,91,501/- vide Executive Engineer letter No.- 3059-67 dt. 17.10.2009 with time allowed for completion as 18 months. Approved Arch. Drawings Structural Drawings and S.O.Q of this work were available at site with the concerned Junior Engineer. Quality Control Register issued by Executive Engineer was also available at site, but up to date entries of test results of materials, were not made in this register for which Assistant Engineer was asked to do the need full and he also assured to do the needful in future also. For concrete work done up till now only 2 cube tests were conducted, Assistant Engineer was also directed to follow the required frequency of testing all the materials and concrete. Tests are required to be conducted, column-wise and beam-wise Assistant Engineer was also advised to get the test results of steel from the supplying agency. Site order Register was also available at site but without any order issued by the Executive Engineer. Plinth beams of building have been laid, as also columns of ground floor and further form work for beams were in progress.
From the visual inspection it appears that the concrete of right hand side RCC column of first flight 1-1 was not compacted properly with vibrator, proper water cement ratio was not used as also curing, since some of the corners of this column were breaking out with the pressure of human fingers, which needs proper rectification and attention of the Executive Engineer.

The plate load test was also got conducted at site and was found 10.5 T/MZ. To manage the proper quality and specification control, no Graduate/ Diploma holder engineer was found at the site and reported that has not been engaged, as also no recovery on this account has been effected, from the running bill of this work. Samples of coarse and fine aggregates were collected from the site, have been tested in the Central Material Testing Laboratory Shimla and found with in the permissible specifications. Test results are also attached.

**Hence following actions are required to be taken by the Executive Engineer.**

1) To get all the requisite laboratory tests of all materials and concrete done, as per required frequency and get them entered in the Quality Control Register.

2) Details of steel in beam b, b' of flight 1-1 may be checked as also RCC columns of this flight which requires rectification as per specifications, proper water cement ratio and compaction of RCC work as per specification be followed.
Following action is also required to be taken by the Executive Engineer/Assistant Engineer (D) HP, PWD, Circle Solan.

1) The test results sent to division/sub division do not specify the permissible specifications, in the absence of which, the field staff is not in a position to accept or reject the materials, thus Executive Engineer/Assistant Engineer (D) to be advised to add the permissible specifications also in the test results of all the materials.

(Er. B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP, PWD, U.S. Club Shimla-1

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP, PWD, Shimla-1 for kind information and necessary action please.

(Signature)
Superintending Engineer (Q.C&D)
HP, PWD, U.S. Club Shimla-1
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D), U. S. Club Shimla-1 for work renewal coat to the road from Nav Bhar Chowk to Petrol Pump via Horticulture department office, of Shimla Division No-1 for inspection conducted on 10.06.2010.

The inspection of this road was conducted alongwith Executive Engineer (Q.C&D) Shimla and Research Officer Material testing laboratory Shimla. This work of premix carpeting has not been executed properly by laying Premix evenly in proper level on the already black top surface of the road, which has resulted uneven compaction of the newly laid premix carpeting as Undulations were also observed. One sample of premix grit was collected from the stacked material at RD 153/170 of Shimla Kufri road where the premix was prepared for the above work. This grit was tested in material testing laboratory Shimla, the result of which shows that the percentage of material passing 22.4 mm sieve and retained on 11.2 mm sieve is 2.3 %, against the required limit of 66%.Percentage of material passing 13.2 mm sieve and retained on 5.6 mm sieve is 84.2% against the required limit of 34% and percentage of material passing 5.6 mm sieve is 15.2% against required limit of nil, thus this premix grit used for the premix carpeting is very much on the finer side and failed in respect of gradation analysis. The flakiness index of this premix grit has been observed as 32.2% against the required limit of 30% maximum. Thus this premix grit has also failed in respect of flakiness index property.
The impact value of this premix grit has been found to be 17.7% against the maximum prescribed impact value of 30% thus it is with in the prescribed limit. The water absorption of this premix grit has been found 1% against the maximum prescribed water absorption limit of 1%. One sample of premix carpet laid on the road was also collected for testing of binder content percentage in central material testing laboratory Shimla, the binder content percentage has been observed as 4.5% with seal coat against the maximum binder content percentage of 3.3% to 3.7%.

One sample of 20 mm and down grit for the construction of road side drain work, stacked at site was also collected for testing its properties. This sample was tested in the laboratory and its gradation analysis, Impact value, Water absorption and flakiness index were found with in the prescribed limits. The test results of the above sample are also attached.

(Er. B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for kind information and necessary action please.

(Er. B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1
INSPECTION NOTE

Inspection Note recorded by Fr. B. S. Kaushal Superintending Engineer (Q.C&D),
U. S. Club Shimla-1 for the work of periodical renewal coat of Oachghat Narag road
km 0/0 to 3/0 Raigarh Division HP. PWD, Raigarh for inspection conducted on
31.05.2010.

The inspection was conducted alongwith Assistant Engineer
Sh. S. L. Bansal and Junior Engineer Sh. Ramesh Chand. This work has been
awarded to the contractor amounting to Rs. 19,97,257/- vide Executive Engineer
Raigarh division letter No.- PW-RGH/Estt.-Tender/2010-11-1532-39 dated-
10.05.2010, the work has been started on 12.05.2010 at the time of inspection
laying of renewal coat was in progress at km 2/600 to 2/915.

S. O. O. of this work was available at site with Junior Engineer
but the HP. PWD Quality Control Hand book was not available with Assistant
Engineer and Junior Engineer. Quality Control Register was available at site but up
to date and requisite entries of test result were not made in the register for which
Assistant Engineer was asked to the needful and he also assured to do the needful.

The laying of renewal coat was being checked by the Assistant
Engineer, Junior Engineer and two number work inspectors. The premix was being
prepared by mini mixal machine being carried by tractor trolley and requisite
compaction by one number road roller. One number thermometer was also
available at site the temperature of premix material was checked at site and found
150°C. Compacted thickness of premix carpeting was also checked at site and
found 22 mm thick against the required thickness of 20 mm.
The Executive Engineer Rajgarh division may be advised to arrange HP. PWD. Quality Control Hand Books to the concerned Assistant Engineer and Junior Engineer, so that they become well conversant with the quality control requirements.

(Er. B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for kind information and necessary action please.

Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1
IN PPLICATION NOTE

Inspection Note recorded by En. B. S. Kaushal Superintending Engineer (Q.C&D), U.S. Club, Shimla 1 for the work construction of link road to connect Panchayat head quarter Kharkhan road under PHASE VII (P.VII) km 0/0 to 1/000 of Karsog division for inspection conducting on 23.06.2010.

The inspection of this work was conducted along with Executive Engineer Karsog and concerned Junior Engineer. The D. P. R. of this work has been approved amounting to Rs. 50.29 Lac with the following provisions:

(i) Formation cutting km 0/0 to 1/000.
(ii) C.D. work 5 Nos.
(iii) Kharanja Geling km 0/0 to 1/000 & one R/wall.

The work has been awarded amounting to Rs. 42.14 Lac, on dated 17.06.2008 with the completion period of 12 months the work was started on 01.07.2008 time extension for completion of this work granted up to June 2010.

No NOM has visited this road whereas SOM visited twice, quality control register was not found at site. Presently construction of R/wall at RD 0/0 to 0/030 was in progress which was almost complete. It was observed that no weep holes were provided in the constructed R/wall as per required specifications. No boulder filling behind the R/wall was found. Countering was being done without the use of vibrator although concrete mixer was working. Top width of R-wall was found to be 75 cm which appears on higher side.

One sample of sand was collected from the site for testing in the Central Material Testing Laboratory at Shimla, the test results indicate that silt content in the sand is 5.1% against the prescribed maximum limit of 4% which is on higher side, test results of the sand is also attached herewith.

Above observations indicate that the work is not being executed as per required specification.

[Signature]
En. B. S. Kaushal
Superintending Engineer (Q.C&D)
HP. PWD, U.S. Club, Shimla 1

Copy forwarded to the Engineer-in-Chief (Q.C&D), HP. PWD, Shimla 1 for kind information and necessary action please.

[Signature]
Superintending Engineer (Q.C&D)
HP. PWD, U.S. Club, Shimla 1
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D), U. S. Club Shimla-1 for the work C/O balance work of Balan garh Kuni pul road km 3/0 to 4/0 under Arki division for the inspection conducted on 22.07.2010.

The inspection of this road was conducted alongwith Sh. K. R. Sain Executive Engineer Arki division HP. PWD. Arki and Junior Engineer Sh. Surinder Sharma. The A/A & E/S of this road was accorded by Nabard vide No.- NBHP/SPD-RC-25 (RIDF-XIV)/98 PSC/2008-09 dated.- 08.07.2008 amounting to Rs. 135.90 lac with the provision of F/C O/O to 4/0, cross drainage, coiling (90 to 40 mm) C/O Perapets, road side drains & Mattling Tarring, Executive Engineer Arki division has awarded this work to the contractor vide letter No.- PW-AD-CB/Tender/2008-09-9859-07 dated.- 06.10.2009 amounting to Rs. 1,40,24,323/- at the rate of 98% above HPSR, with time period of its completion of 12 months, work has been measured and paid amounting to Rs. 17,81,645/-.

Removal of formation deficiency in km 0/500 to 4/00 has been done which is not as per required specifications, at km 3/600 the grade of the road was checked and found as 1:16, no approved L-section of this road was available at site. Collection and laying of G-1 is in progress but on the date of inspection no work was in progress, all G-1 collected at site is over sized and soft, no screening material was found at site. G-1 laid in patches was also laid without screening, without proper super elevation, camber and proper rolling as also no templates for laying of G-1 was available at site.

No Graduate/ Diploma holder Engineer has been engaged and was available at site. No Quality Control Register has been maintained and was available at site no material has been got tested from any laboratory.
Directed the Executive Engineer to get prepare the L-section, cross section of existing road then improve these sections as per approved L-section and cross section, then go for collection of C-1 and its screening from approved quarry, after getting these tested from laboratory for all laboratory tests as per required frequency, laying of G-1 be done with proper camber and super elevation with the use of proper tamplates and proper rooling with standard road roller as per required specifications.

All above observations indicate that the above work has not been executed as per the required specifications.

(B.S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for kind information and necessary action please.

(B.S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. U.S.Club Shimla-1
Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP, PWD, U. S. Club Shimla-1 for the work C/O Government Degree Collage at Jukhala Tehsil Sadar Distt. Bilaspur under Bilaspur division No-2 for the inspection conducted on 05.07.2010.

The inspection of this building was conducted along with Sh. Devi Singh Kaundal Junior Engineer. The A/A & E/S of this work was accorded vide Add. Secy. HJE letter No. - EDN- (1) 2/2007-lose dated. - 05.04.2007 amounting to Rs. 587.73 Lac. The work has been awarded to the contractor by Executive Engineer Bilaspur division No-2 Bilaspur letter No.- PW NBT/CB/Tender-State/GA/2009 -12660-67 dated.- 10.11.2009 amounting to Rs. 3,31,25,284/- which is 94.14% above HPSR-1999, the time limit of its complication as one year with the condition that no time extension under any circumstances will be given.

Site of the building: - The site of this building is surrounded by one Kirad Khad on one side and one local Nalah on other side, it appears that whole building falls in the HFL of this Khad and Nalah and the plinth level of block A of the building falls in the HFL. It is not known that the founding level of the footings have been designed by giving consideration of HFL.

Block A: - It is a three storied building comprises of 4 no class rooms, administrative branch, 2 Nos toilets, main entrance and stair hall on ground floor. 4 class rooms, Principal office, 2 Nos toilets and stair case in the first floor. Examination hall, staff room,

4 Class rooms with 2 toilets in the 2nd floor. Roofing: Steel truss with pre-painted sheet roofing completed in block A, which has been occupied by collage.

Block B: - It comprises of Botany & Chemistry lab, Sports room, Stores, NSS office, NCC office, 2 no lecture theatre with one stair hall on ground floor.

Zoology lab, Store, Museum, Attendant room, 2 Nos common rooms, music room, 2 nos lecture theatre on 1st floor.

Physics lab, 2 Nos Lecture theatres, 2 Nos, Geo graphy room, reference room, Library with librarian room, Store 2 Nos on 2nd floor.

On the day of inspection, no work was going on, how ever laying of slab in 1st floor for lecture theatre in block B was in progress. Door frames have been made of angel iron 40X 40 X6 mm welded with MS flat 40x6 mm checked at site. In the administrative room, RCC shelf provided below fee counter is having a width of 60cm, this width will obstruct the activity of fee collecting official sitting on chair.
Expansion Joint has been provided after a length of 40.40 mt. where filler is required to be provided, 2nd expansion joint has been provided after a gap of 33.40 mt, checked the last stair case where riser of 14.5 cm and tread of 30cm have been provided. Junior Engineer was directed to rak out all joints of masonry before its plastering. Rain water drainage and final disposal in to the rain harvesting tank should be taken properly and also from open court yards.

Site order register was available at site duly entered by S E, EE,AE. Quality Control hand book was also available with the JE. Quality Control Register was also available at site. For course aggregate 40 mm and 20 mm, gradation test, water absorption test, impact value test, flakiness index tests were got done and all are with in the prescribed limit. For sand, FM test, silt content test were got done which are with in the prescribed limit. CC cube test for concrete M-20: for 7 days and 28 days were got done which were with in the prescribed limit. For bricks, compressive strength and water absorption test were got done which were with in the prescribed limit. All lab tests are found to be conducted properly and satisfactorily.

No diploma holder/ Graduate Engineer, has been deployed by the contractor and no recovery for the same has been effected by the Executive Engineer.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for information and necessary action please.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work providing concrete pavement on Shimla Kangra road NH-88 km 50/075 to 50/240 at Chamakhri bridge on 06.07.2010 under NH division, HP. PWD. Solan

The work was inspected along with Sh. Sanjay Gupta Assistant Engineer Shalaghat and Junior Engineer Sh. Raman Dhiman. The work has been approved under the State head from deposit of OFC. The work has been awarded to the contractor by Executive Engineer NH division Solan letter No.- NHD/CB-Tender/2008-09-13071-81 dated. 21.01.2010 amounting to Rs. 69,75,451/- the time limit of its complication as six months, action under clause 2 of contract agreement has been initiated.

No approved drawing from any competent authority is available at site, however drawing issued by Executive Engineer NH division Solan is being followed, as per this drawing 1st layer of Kharunja soling 20 cm thick 2nd layer with PCC 1:3:6, 15 cm thick and 3rd layer of concrete Grade M-40, 30 cm thick with nominal enforcement and dowel bars on cross joints 32 mm dia with 40 mm MS conduit pipes sleeves @ 30 cm center to center and tie bars of 16 mm dia @ 1 mt. centre to centre in longitudinal joints is being provided sap ration membrane of 125 mc thick between 2nd and top layer has also been provided as per IRC specification of roads and bridges clause 602.5.

On the day of inspection being a rainy day no work was going on. Up to date, in a length 125 mt. (in half carriage way) soling and lean concrete has been laid and in a length of 65 mt, top layer of M-40 concrete has been laid. Two no concrete mixer, Two no vibrators, One no surface vibrator is available at site. Quality Control Hand Book has not been supplied to Assistant Engineer/ Junior Engineer but pocket book for highway engineers of MOST of IRC publication is available with Assistant Engineer. Site order register is available at site but no entry by any officer has been made in to it for which Assistant Engineer has ensured to do the needful. Quality Control Register is available at site.

1. For Kharanja soling ordinary stone have been tested for water absorption and impact value test which are with in the permissible limit.
2. Corse aggregate for 40 mm, gradation test water absorption test impact value test and flakiness test have been tested which are with in the prescribed limit. 20 mm gradation, water absorption, Impact value, Flakiness index tests have been done which are with in the prescribed limit.
3. Fine aggregate FM Silt content test have been done which are with in the prescribed limit.

4. For concrete grade M-40 all above tests of cores aggregate and fine aggregate have been done which are with in the prescribed limit.

For M-40 grade of concrete, trial cube test for seven days cube strength got tested which is with in the prescribed limit and results were awaited for 28 days strength.

During execution 7 days cube strength was got done which was with in the prescribed limit and for 28 days strength results were awaited.

Steel being used has been got tested from national institute of technical teacher training and research Chandigarh for steel of 8 mm, 10 mm & 12 mm, no test of steel of 16 mm or 32 mm was got done for which Assistant Engineer was directed to do and also follow all the test as per required frequency.

Super elevation and camber has been maintained also checked the dowel wars with sleeves and its spacing, MS conduit pipe 40 mm and the thickness of M-40 grade concrete. Over all work is satisfactory.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for information and necessary action please.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O 40mtrs span bridge over Jandori Khad at km 9/367.5 of Bilaspur division No-2, HP. PWD. Bilaspur for inspection conducted on 09.07.2010.

The inspection of this bridge was conducted along with Junior Engineer Sh. Achhar Singh. The C/O bridge is being executed by the firm M/S National Construction Company Panchkula.

Location of the abutments: It was informed that the location of both abutments of this bridge was finalised by Sh. C. L. Gupta Executive Engineer Bilaspur Division No-2 and She. B. S. Dehal Assistant Engineer during the month of October 2009. The abutment of Dhalet side appears to be more towards Dhalet side thus water flow does not appear to be through the centre of both abutments. The approach of bridge towards Jandori side in a length of 36 mtrs out of which 30 mtr approach has been completed with CC 1:5:10 and height of Retaining wall varying from 6 mtr to 7 mtrs, appears to be constructed in the flow of water of Jandori Khad since the excavated material from the foundation appears river born material, which was stacked at site, this approach road may be damaged during high floods.

Both the abutments of the bridge have been completed up to the bottom of abutment cap, steel of abutment caps on both abutment has been laid in position as per drawing number PW-CE- Jandori Bridge/2005-119-2 issued by Chief Engineer (CZ) Mandi, founding level of both abutments is RL 271.00 and deck level RL is 283.00 mtrs. Abutments have been constructed with concrete grade of M-30, with skin reinforcement of 10 mm and 16 mm both ways as per approved drawings. M-30 concrete design mix was got approved from material testing laboratory of 10th Circle HP. PWD. Bilaspur letter No.- PW/SE-10th /BLP/AED/MTL/TR-2009-10-767-70 dated.- 10.02.2010, as also for concrete grade of M-35 which is to be used for super structure. Concrete Cubes were got tested at field lab at site which were tested for 7days and 28 days strength and all tests qualify the required specifications.

Course aggregate: was got tested for gradation, Impact value, water absorption and specific gravity, all test qualified the required specifications which were got done from MTL Bilaspur Circle and MTL Zonal Office Mandi.

Fine aggregate: Laboratory test of FM and silt content were got done from departmental laboratory, all test qualified the required specification. Steel being used by the firm was also got tested from Manada Test House Zirakpur and all tests qualified specifications.
POT BEARINGS have been approved vide Chief Engineer (CZ) Mandi drawing No.- PW/CE-N/B/Standred/2004/148-6, work test report of pot bearings was got done from Youmna Nagar.

Overall work of the bridge is satisfactory except the location of abutments and approach of the bridge towards Jandori side.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for information and necessary action please.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
The inspection of this road was conducted along with Junior Engineer Sh. Achhar Singh. The work has been awarded to the firm by Executive Engineer Bilaspur division No-2 vide letter No.- 2409-10 dated.- 06.06.2009 amounting to Rs. 1,27,08,421/- with time limit of its completion as one year, directed the Junior Engineer to get the time extension application from the firm. Following is the scope of work.

ROFD km 0/0 to 2/295, FC 2/295 to 11/515, CD km 0/0 to 11/515 with 41 No RCC Hume pipe culvert, 4 No slab culvert (2 No of 3 mtrs span & 2 No of 5 mtrs span).

Up-to-date ROFD and FC in km 0/0 to 6/0 & 9/0 to 11/515 has been completed.

From km 0/0 to 2/0 road was inspected where 11 No RCC Hume pipes culverts have been completed, the work is satisfactory. RCC slab culvert of 5 mtrs span at RD 0/120 has been completed and the work is satisfactory. But Wheel guard on booth side has not been provided which may be provided as per approved drawing. At RD 1/515 slab of 3 mtrs span RCC culvert has been laid but shuttering has not yet been removed on the day of inspection no particular work was going on.

Quality Control Hand Book is available at site as well as SOQ. Quality Control Register is also available at site where for course aggregate, gradation test, impact value water absorption test was entered which were got done from MTL of Bilaspur Circle. Test result of fine aggregate have also been entered in QC Register which were got done from MTL Bilaspur Circle as well as from field laboratory.

Overall work is satisfactory.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for information and necessary action please.

(Er, B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er, B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O road from Lalsa to Shandal Chiksa Majholi km 0/0 to 9/500 under (RIDF-XIII)of Rampur Division for inspection conducted on 17.07.2010

The inspection of this road was conducted along with Sh. H. S. Negi Executive Engineer, Sh. P. L. Sharma (A. E), Sh. Brij Lal Chauhan

(J. E.). DPR of this road stands submitted to Engineer-in-Chief by Superintending Engineer 11th Circle Rampur letter No.- 9311-13 dated.- 03.08.2007 amounting to Rs. 358.45 lac. With provision of FC km 0/0 to 9/ 500, CD from km 0/0 to 9/500 and P/L Kharanja soling 150 mm thick in 1.18 km, but no approved DPR was available. The work has been awarded to the contractor by Executive Engineer Rampur vide letter No.- RMP/AB/TA/Award letter/2008-09-7829-38 dated.- 20.-09.2008 amounting to Ra. 3,63,80,427/- which is 43.08% above HPSR-1999 with time of its completion as 24 months. Condition of stacking 15% of useful stone at site of work has been imposed failing which recovery of 15% useful stone was to be made, as per 1st running bill recovery of 100% stone has been affected as 15% useful stones were not stacked at site. Quality Control Register was available with the concerned JE where in test results of course aggregate, for gradation test, flakiness index, impact value, water absorption and density test were entered which were got tested from MTL Rampur Circle also for fine aggregate, for FM and silt content test were entered which were also got tested from MTL Rampur Circle. For natural building stones tests for water absorption and impact value were also got done but compressive strength test was not got done, all the above tests were authenticated by AE Rampur. Site order register was also available at site but without any order by any officer. Quality Control Hand Book was also available with AE & JE.

Total length of this road is 9.5 km, out of which F/C has been completed in km 0/0 to 1/200 and in rest of the portion work is held up because of non sanction of FCA, FCA papers were reported lying in R.O Chandigarh, Executive Engineer was directed to pursue the FCA case at his personal level and also look in to the time extension of the contract agreement. Presently no work was going on on this road, R/wall in RR masonry is complete in km 0/0 to 0/105 with a gape in between 0/080 to 0/095 where C/O R/wall is yet to be done.

(Er, B. S. Kaushal)
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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP, PWD., U. S. Club Shimla-1 for the work Multi Storied Building near FHTC building at Solan Hospital of Solan Division for inspection conducted on 23.07.2010.

The inspection of this building was conducted along with Sh. Arvind Kumar Assistant Engineer and Sh. L. P. Mahajan Junior Engineer. A/A & E/S of the work has been accorded by under secretary (SJ&E) Govt of HP vide No.- SJE (B) C (10) 45/2008-loose-15.01/.2009 amounting to Rs. 4,37,58,170/- the work has been awarded to the contractor vide letter No.- 602-09 dated.-19.04.2010 amounting to Rs. 1,82,69,522/- which is 77.62 % above the amount put to tender with the time limit of its completion as 18 months.

The Quality Control Hand Book was available with AE & JE, directed them to read the same and use its out come for Quality Control purposes.

The work has been awarded with the name C/O Zonal Hospital building at Solan where as in the Architected Drawings it has been named as multy storied building, Executive Engineer may check this discrepancy in the name of work, as structural Drawings have also been approved with the name Zonal Hospital building at Solan by Chief Engineer (SZ). No bearing capacity of the soil has been got tested but the bearing capacity of the adjoining building i.e. FHTC has been followed.

Presently columns footings of 13 No columns have been laid, out of total 30 number columns. Plinth level of existing adjoining FHTC building has been taken as the plinth level of this new under construction building. On the day of inspection no work of building, except work of excavation was going on. Two nos vibratos were available at site, One No. concrete mixer was also available. No measuring boxes for course and fine aggregate was available at site for which AE was directed to do the needful immediately. No Graduate /Diploma holder Engineer has been engaged by the contractor for this also AE was directed to do the need full. Steel and Cement is being supplied by the department, Steel is being procured from Small Scale Industries Parwanoo, no test results of steel were available for which AE was asked to get from the suppliers. It was observed that steel of mark of SAIL TMT, AMBA SHAKTI TMT, SHIV SHAKTI STEEL is being used i.e. mixed marked steel is being used that too without any test results. Concrete grade of M-20 is being used for which only one lab test of 3 cubes for 28 days strength was available at site with the strength of 200 kg / sqcm, 213.33 kg /sqcm and 208.89 kg/sqcm, for which AE was asked to get cube tests column wise beam wise as per required frequency.

For 20 mm & 10 mm aggregate, gradation test impact value, flakiness index, water absorption test of only one sample was got tested from MTL Solan Circle, where in no prescribed
specifications for the test have given by Assist Engineer (D) in the report. For sand only FM test has got done for one sample only and no test of silt content has been got done for which AE was directed to get these test done as per required frequency. All these test reports have been entered in Quality Control Register issued by Executive Engineer Solan. Structural drawings of all columns and basement slab is available other structural drawing were awaited for which AE was directed to pursue the matter with the concerned authorities.

Sample of course and fine aggregate was collected from the site and as per test report course aggregate do no qualify the gradation test as sample passing through 20 mm sieve is 84.6% against the prescribed limit of 95 to 100 %, for issuing necessary directions to Executive Engineer Solan, Superintending Engineer Solan was requested vide letter No.- 1982 dated.- 06.08.2010.

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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O Judiciary Courts Complex Building at Solan of Solan Division for inspection conducted on 23.07.2010.

Visited this building along with Sh. Arvind Kumar Assistant Engineer and Sh. M. K. Bhardwaj Junior Engineer. This building is complete in all respect and has been handed over to the judicial department and all courts/offices are functioning in this building. Above ground it is a three storied building with double basement. It was observed that water was seeping in to the front external wall in the 1st floor of the building near window; AE was directed to thoroughly check this seepage and get it rectified from the concerned contractor if the defect liability period has not expired.

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The inspection of this building was conducted along with Sh. J. C. Kanungo Assistant Engineer Bhoranj. A/A & E/S has been accorded Secretary (higher education) during 04.01.2007 amounting to Rs. 59.06 Lac, the work has been awarded to the contractor by Executive Engineer Barsar letter no.- 17894-902 dated.- 03.01.2009 amounting to Rs. 54,39,165/- with time limit of its compilation as one year, which has since expired, no time extension was available with the Assistant Engineer.

SOQ was available at site, Quality Control Hand Book available with Assistant Engineer. Site order register was available at site but without any site order by concerned Executive Engineer although it was stated that E. E has visited the site approximately seven times but without issuing any site order.

Quality Control Register was available at site wherein compressive strength of seven days of CC Cubes of columns, concrete grade M-20 six numbers has been entered, compressive strength of 28 days of C.C Cubes of beams, concrete grade M-20 three numbers was entered. Assistant Engineer was directed to get the compressive strength of M-20 concrete done from MTL Hamirpur Circle each column wise, each beams wise as per required frequency. Design mix of concrete Grade M-20 has been got designed on NIT Hamirpur on dated 26.03.2009 but no measuring boxes for measuring coarse aggregate, fine aggregate and cement was available at site for which Assistant Engineer was directed to do the needful immediately.

For 40 mm, 20 mm, 12/10 mm aggregate: gradation test was got done from MTL Circle Hamirpur Zone, F.I was not got done, water absorption, impact value specific gravity tests were got done. For sand and crush sand :FM test was got done but silt content test was not got done, Assistant Engineer was directed to get all above test done as per required frequency no test of brick was got done.

On the day of inspection no work was going on as slab on 1st floor was reported to be laid on 23.07.2010. Joints of the brick masonry were not raked out for which Assistant Engineer was directed to rak out the joints before plastering. From visual inspection it appears that in the RCC work proper water cement ratio and compaction has not been followed. Honeycombing was observed in most of the beams, slab of ground floor was seeping. Executive
Engineer Barsar may be directed to attend the observation of RCC work and inspect this construction work regularly so that these observations are not repeated in future.

Cement and steel is being issued by the department, no laboratory test of steel has been got done as no test results of steel from supplying firm was available at site for which Assistant Engineer was directed to do the need full. Sample of bricks was collected from the site for testing in the CMTL Shimla and as per the test report [attached] the water absorption and crushing strength of the sample is within the prescribed limit.

**DA:- Test Report**

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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O balance work of Kaffota Koti road km 22/0 to 29/345 under RIDF-XIV of Shillai Division for inspection conducted on 30.07.2010.

The inspection of this road was conducted along with Sh. A. K. Dhiman Executive Engineer, Sh. R. K. Sharma A. E. Kamraoo, Dalip Singh J. E. Jakhana. A/A & E/S of the work has been accorded by the Secretary (PW) to the govt of HP vide letter dated-06.03.2009 wherein approval for this road has been accorded amounting to Rs. 288.24 Lac. The work has been awarded by the Executive Engineer Shillai vide latter No.- 6021-30 dated.-25.09.2009 amounting to Rs. 2,18,30,672/- with time limit of its completion as one year. 4th running bill has been measured and passed amounting to Rs. 76,62,085/- although contract agreement has not been signed by the Executive Engineer.

SOQ was available at site, Quality Control Hand Book was available with Assistant Engineer/Junior Engineer. Following is status of work:

ROFD: km 22/0 to 25/500 completed

Cross drainage works:- Out of 20 no RCC, HPC, 13 No have been completed, further 4 No HPC work is in progress. Out of 4 No RCC slab culverts: one no RCC slab culvert of 6 mtrs span is in progress.

R/walls: - Out of 17 No R/Walls, 3 no have been completed and one no is in progress.

B/Wall: - Out of one no B/wall, One B/Wall has been completed.

Road side drain and parapets: - --Nil—

Soling: - Completed up to km 27/320.

Bearing I: 63 mm to 40 mm:- 5.7 km completed.

Bearing II: 50 mm to 25 mm:- 3.5 km completed.

Premix carpeting: - 2.5 km completed.

Quality Control Register issued by Executive Engineer Shillai is available at site. RCC Hume pipes used, has got test certificate from farm fresh food PVT LTD dated.- 07.01.2010. Crushing strength of Face stone: got tested from CMTL Shimla, sand used in cross drainage: got tested from CMTL Shimla for FM & silt content.
Crushed stone 63 mm to 40 mm:- Gradation test, Impact value test, Flakiness test & water absorptions test were got done from CMTL Shimla as per required frequency.

Crushed stone 50 mm to 25 mm:- Gradation test, Impact value test, Flakiness test & water absorptions test were got done from CMTL Shimla as per required frequency.

Premix carpet: - Bitumen supplied by the department, for grit used: Gradation test, Impact value test were got done from CMTL at Shimla.

Bitumen content test: were got done at site as per required frequency as also temperature. Thermometer was also available at site.

Because of rains, no work was in progress on the day of inspection. Inspected the site of proposed 6 mtrs span RCC slab culvert at 24/720 where excavation for foundation was completed, it was observed that whole excavated portion was field up with muck, coming from the Nalaha so Executive Engineer was directed to locate the abutments of culverts in such a position that all the incoming muck from Nalaha is passed under the culvert, even by increasing the vent height of the culvert, after taking necessary approval from the competent authority. The work of premix carpeting and RCC Hume pipe culverts executed, was observed as satisfactory.

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**INSPECTION NOTE**

_Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O Degree College at Shillai (Bhawana) in Distt. Sirmour of Shillai division HP. PWD Shillai for inspection conducted on 31.07.2010._

The inspection of this building was conducted along with Sh. V. K. Aggarwal, Assistant Engineer and Sh. Gulab Singh Junior Engineer. A/A & E/S has been accorded by Director of Higher Education H. P. vide letter No.- EDN-A-Ja (8) -3/2007 dated.- 16.03.2007 amounting to Rs. 750.47 Lac, under HUDCO loan assistance. The work has been awarded to the firm by Executive Engineer Shillai letter no.- PW-SD- CB-Tender/2007-4996-5005 dated.- 12.09.2007 amounting to Rs. 5,63,60,574 /- with time limit of its compilation as two years, which has since expired, no time extension was available with the Executive Engineer/ Assistant Engineer.

_Bearing capacity of soil:_ Geo- Technical investigation has been got done from Dr. Ghuman & Gupta Geo. tech. consultants Sector -17-A Chandigarh, as per their report in the month of November 2007, average value may be adopted in footing design (qa) Net= 11.7 t /m² and (qa) Gross= 13.7 t /m² . The Structural drawings issued by CE (North) for C/O Bikram Batra Degree College Palampur, where safe bearing capacity of 13.4 t /m² has been adopted, these structural drawings of B. B. Degree College Palampur have been followed for the C/O this Degree College at Shillai, but the average value of bearing capacity of soil at Shillai has been observed as (qa) Net= 11.7 t /m², this aspect needs the urgent attention of Superintending Engineer/ Executive Engineer.

Quality Control Register was available at site which was issued by A. E., directed to get it issued from Executive Engineer.

_For sand:_ FM Test has been got done. _For 40 mm aggregate:_ gradation test, flakiness index test, impact value and water absorption test were got done. For concrete M-20:_ cubes strength of seven days and 28 days were got done. For Course aggregate 40 mm, 20 mm & 10 mm:_ gradation test flakiness index test, impact value test, water absorption test were got done. _For bricks:_ Compressive strength and water absorption tests were got done. Assistant Engineer was directed to get all test done from the MTL 12th Circle Nahan, as per required frequency and cube strength of 7 days and 28 days each, column wise and beam wise. Steel and Cement is being supplied by the department, steel is being procured by the department from Small Scale Industries, no test results of steel were available for which AE was directed to get from the supplier. It was also observed that steel of mark Vizac TMT, Jindal TMT is being used i.e. mixed marked steel is being used that too without any test results, this aspect also needs the attention of Superintending Engineer/ Executive Engineer.
On the day of inspection no major work was going on as it was a rainy day. In block A;- ground floor, 1st floor and 2nd floor has been completed, C/O Truss with ceiling slab was in progress. Structural steel for roof is being procured by the firm, no test report of the structural steel was available at site directed the AE to get test reports from supplier/manufacturer. For B block;- steel has been laid for the 2nd floor slab. For C block;- the work of the ground floor completed and slab laid. 1st expansion joint has been provided at 33.40 mtrs length with thickness of 45 mm. 3 Nos concrete mixers and 4 Nos vibrators were available at site. The work executed has been observed as satisfactory.

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Superintending Engineer (Q.C&D)
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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O type-IV six no quarters for Doctors residences under Regional Hospital Hamirpur of HP. PWD. Division Hamirpur for inspection conducted on 09.10.2010.

The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Deputy Secretary Health H. P. vide letter No.- B (G) 7-6180 part dated.- 06.12.1999 amounting to Rs. 1,81,33,800/- for C/O 20 Nos type –IV quarters and 2 Nos type –V quarters. The work has been awarded to the contractor amounting to Rs. 69, 52,437/- by Executive Engineer Hamirpur with Date of start as 05.10.2009 and Date of its completion as 04.10.2010. This approval has been accorded during the year 1999 and work has been awarded during the year 2009, the stipulated date of its completion is 04.10.2010 and still maximum work of building remains yet to be completed, these aspects need attention of Superintending Engineer/ Executive Engineer.

No award letter of this work was available with Junior Engineer, no SOQ was available with Junior Engineer, no Quality Control Hand Book was available with Junior Engineer. Site order register issued by the Executive Engineer was available at site which was totally blank. Executive Engineer/ Assistant Engineer be advised to make best use of site order register. Steel bars were lying in open, fully dumped in soil, no graduate/ diploma holder site Engineer was available at site.

Location of this residential building falls in the Nallah which also needs proper attention of Superintending Engineer /Executive Engineer. Arch. Drawings issued by Chief Arch., US Club Shimla vide Job No.- 3183 was available at site which is being followed. No approval from TCP and ULB was available at site. Structural drawing No PW-CE (N) BLD/2005 -43/12 i.e. Standard Design type –IV quarters issued by Chief Engineer Dharamshala was available at site and is being followed for C/o this building, where it has been mentioned that it is designed for safe bearing capacity of 15 T/M2 but no bearing capacity of soil at site has been got done, so bearing capacity of the soil at site can not be ascertained, this aspect also needs attention of Superintending Engineer /Executive Engineer.

Only cube test register issued by Executive Engineer was available at site but no Quality Control Register was available. Only two no cube tests of CC were got done that too for 28 days strength and no 7 days cube strength was got done. No laboratory test of coarse aggregate, fine aggregate and CC blocks were got done. Junior Engineer was directed to get done, laboratory test of all course aggregate ,fine aggregate and CC blocks as per required
frequency and cube test of 7 days and 28 days strength, columns wise, beams wise as per required frequency.

Design mix of concrete M-20 was got done from A E (D) 8th Circle Hamirpur vide letter No.- 18688-89 dated.- 25.03.2010, wherein recommended mix design of 1:1.46 : 3.11 has been given but regretted to note that this design mix has not been followed for the execution of RCC works at site since no measuring boxes of this design mix of cement, sand and aggregate was available at site which needs immediate attention of Superintending Engineer/Executive Engineer.

On the date of inspection no work was in progress. Basement slab has been laid where water was seeping into the surrounding soil of basement floor. In half of the 1st floor, slab has been laid and in the 2nd half steel shuttering has been laid for which steel in beams has been placed in position.

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Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP, PWD., U. S. Club Shimla-1 for the work C/O type-III six no quarters under Regional Hospital Hamirpur of HP. PWD. Division Hamirpur for inspection conducted on 09.10.2010.

The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Adden. Secretary Health H. P. vide letter No.- HFW (B) 1-17/2005 dated.- 09.12.2008 amounting to Rs. 1,14,13,000/- for C/O 06 Nos type –II quarters and 06 Nos type –III quarters. The work has been awarded to the contractor amounting to Rs. 57,35,643 /- with Date of start as 05.10.2009 and Date of completion as, 04.10.2010 as the stipulated date of its completion is 04.10.2010 and still maximum work of building remains yet to be completed, this aspects needs attention of Superintending Engineer/ Executive Engineer.

No award letter of this work was available with Junior Engineer, no SOQ was available with Junior Engineer, no Quality Control Hand Book was available with Junior Engineer. Site order register issued by the Executive Engineer was available at site which was totally blank. Executive Engineer/ Assistant Engineer be advised to make best use of site order register.

Architect drawings were available at site. No approval from TCP and ULB was available at site. Structural drawing issued by Superintending Engineer 8th Circle HP. PWD. Hamirpaur vide No SE- 8th/BLD/2005 – 540-1 dated 01.09.2005, was available at site and is being followed for C/O this building, where it has been mentioned that it is designed for safe bearing capacity of 15 T/M2 but no bearing capacity of soil at site has been got done, so bearing capacity of the soil at site can not be ascertained, this aspect also needs attention of Superintending Engineer /Executive Engineer.

Only cube test register issued by Executive Engineer was available at site but no Quality Control Register was available. Only one no cube test of CC was got done that too for 28 days strength and no 7 days cube strength was got done. No laboratory test of coarse aggregate, fine aggregate were got done. Junior Engineer was directed to get done, laboratory test of all coarse aggregate, fine aggregate as per required frequency and cube test of 7 days and 28 days strength, columns wise, beams wise as per required frequency.

Design mix of concrete M-20 was got done from A E (D) 8th Circle Hamirpur vide letter No.- 6234-35 dated.- 21.06. 2010, wherein recommended mix design of 1: 1.44 : 3.32 has been given but regretted to note that this design mix has not been followed for the
execution of RCC works at site since no measuring boxes of this design mix of cement, sand and aggregate was available at site which needs immediate attention of Superintending Engineer/Executive Engineer.

On the date of inspection no work was in progress. In half of the ground floor, slab has been laid and in the 2nd half shuttering was being laid.

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**INSPECTION NOTE**

**Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O Government Degree Collage at Jukhala Tehsil Sadar Distt. Bilaspur under Bilaspur division No-2 for the inspection conducted on 05.07.2010.**

The inspection of this building was conducted along with Sh. Devi Singh Kaundal Junior Engineer. The A/A & E/S of this work was accorded vide Add. Secy. HJE letter No. - EDN- (1) 2/2007-lose dated. - 05.04.2007 amounting to Rs. 587.73 Lac. The work has been awarded to the contractor by Executive Engineer Bilaspur division No-2 Bilaspur letter No.- PW NBT/CB/Tender-State/GA/2009 -12660-67 dated.- 10.11.2009 amounting to Rs. 3,31,25,284/- which is 94.14% above HPSR-1999, the time limit of its complication as one year with the condition that no time extension under any circumstances will be given.

**Site of the building:**- The site of this building is surrounded by one Kirad Khad on one side and one local Nalaha on other side, it appears that whole building falls in the HFL of this Khad and Nalah and the plinth level of block A of the building falls in the HFL. It is not known that the founding level of the footings have been designed by giving consideration of HFL.

**Block A:** - It is a three storied building comprises of 4 no class rooms, administrative branch, 2 Nos toilets, main entrance and stair hall on ground floor. 4 class rooms, Principal office, 2 Nos toilets and stair case in the first floor. Examination hall, staff room,

4 Class rooms with 2 toilets in the 2nd floor. Roofing: Steel truss with pre-painted sheet roofing completed in block A, which has been occupied by collage.

**Block B:**- It comprises of Botany & Chemistry lab, Sports room, Stores, NSS office, NCC office, 2 no lecture theatre with one stair hall on ground floor.

Zoology lab, Store, Museum, Attendant room, 2 Nos common rooms, music room, 2 nos lecture theatre on 1st floor.

Physics lab, 2 Nos Lecture theatres, 2 Nos, Geo graphy room, reference room, Library with librarian room, Store 2 Nos on 2nd floor.

On the day of inspection, no work was going on, how ever laying of slab in 1st floor for lecture theatre in block B was in progress. Door frames have been made of angel iron 40X 40 X6 mm welded with MS flat 40x6 mm checked at site. In the administrative room, RCC shelf
provided below fee counter is having a width of 60cm, this width will obstruct the activity of fee collecting official sitting on chair.

Expansion Joint has been provided after a length of 40.40 mt. where filler is required to be provided, 2\textsuperscript{nd} expansion joint has been provided after a gap of 33.40 mt, checked the last stair case where riser of 14.5 cm and tread of 30cm have been provided. Junior Engineer was directed to rak out all joints of masonry before its plastering. Rain water drainage and final disposal in to the rain harvesting tank should be taken properly and also from open court yards.

Site order register was available at site duly entered by S E, EE, AE. Quality Control hand book was also available with the JE. Quality Control Register was also available at site. For course aggregate 40 mm and 20 mm, gradation test, water absorption test, impact value test, flakiness index tests were got done and all are with in the prescribed limit. For sand, FM test, silt content test were got done which are with in the prescribed limit. CC cube test for concrete M-20: for 7 days and 28 days were got done which were with in the prescribed limit. For bricks, compressive strength and water absorption test were got done which were with in the prescribed limit. All lab tests are found to be conducted properly and satisfactorily.

No diploma holder/ Graduate Engineer, has been deployed by the contractor and no recovery for the same has been effected by the Executive Engineer.

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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work providing concrete pavement on Shimla Kangra road NH-88 km 50/075 to 50/240 at Chamakhri bridge on 06.07.2010 under NH division, HP. PWD. Solan

The work was inspected along with Sh. Sanjay Gupta Assistant Engineer Shalaghat and Junior Engineer Sh. Raman Dhiman. The work has been approved under the State head from deposit of OFC. The work has been awarded to the contractor by Executive Engineer NH division Solan letter No.- NHD/CB-Tender/2008-09-13071-81 dated. 21.01.2010 amounting to Rs. 69,75,451/- the time limit of its complication as six months, action under clause 2 of contract agreement has been initiated.

No approved drawing from any competent authority is available at site, however drawing issued by Executive Engineer NH division Solan is being followed, as per this drawing 1st layer of Kharanja soling 20 cm thick 2nd layer with PCC 1:3:6, 15 cm thick and 3rd layer of concrete Grade M-40, 30 cm thick with nominal enforcement and dowel bars on cross joints 32 mm dia with 40 mm MS conduit pipes sleeves @ 30 cm center to center and tie bars of 16 mm dia @ 1 mt. centre to centre in longitudinal joints is being provided sap ration membrane of 125 mc thick between 2nd and top layer has also been provided as per IRC specification of roads and bridges clause 602.5.

On the day of inspection being a rainy day no work was going on. Up to date, in a length 125 mt. (in half carriage way) soling and lean concrete has been laid and in a length of 65 mt, top layer of M-40 concrete has been laid. Two no concrete mixer, Two no vibrators, One no surface vibrator is available at site. Quality Control Hand Book has not been supplied to Assistant Engineer/ Junior Engineer but pocket book for highway engineers of MOST of IRC publication is available with Assistant Engineer. Site order register is available at site but no entry by any officer has been made in to it for which Assistant Engineer has ensured to do the needful. Quality Control Register is available at site.

1. For Kharanja soling ordinary stone have been tested for water absorption and impact value test which are with in the permissible limit.

2. Corse aggregate for 40 mm, gradation test water absorption test impact value test and flakiness test have been tested which are with in the prescribed limit. 20 mm gradation, water absorption, Impact value, Flakiness index tests have been done which are with in the prescribed limit.
3. Fine aggregate FM Silt content test have been done which are within the prescribed limit.

4. For concrete grade M-40 all above tests of cores aggregate and fine aggregate have been done which are within the prescribed limit.

For M-40 grade of concrete, trial cube test for seven days cube strength got tested which is within the prescribed limit and results were awaited for 28 days strength.

During execution 7 days cube strength was got done which was within the prescribed limit and for 28 days strength results were awaited.

Steel being used has been got tested from national institute of technical teacher training and research Chandigarh for steel of 8 mm, 10 mm & 12 mm, no test of steel of 16 mm or 32 mm was got done for which Assistant Engineer was directed to do and also follow all the test as per required frequency.

Super elevation and camber has been maintained also checked the dowel wars with sleeves and its spacing, MS conduit pipe 40 mm and the thickness of M-40 grade concrete. Over all work is satisfactory.

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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O 40mtrs span bridge over Jandori Khad at km 9/367.5 of Bilaspur division No-2, HP. PWD. Bilaspur for inspection conducted on 09.07.2010.

The inspection of this bridge was conducted along with Junior Engineer Sh. Achhar Singh. The C/O bridge is being executed by the firm M/S National Construction Company Panchkula.

**Location of the abutments:** It was informed that the location of both abutments of this bridge was finalised by Sh. C. L. Gupta Executive Engineer Bilaspur Division No-2 and Sh. B. S. Dehal Assistant Engineer during the month of October 2009. The abutment of Dhalet side appears to be more towards Dhalet side thus water flow does not appear to be through the centre of both abutments. The approach of bridge towards Jandori side in a length of 36 mtrs out of which 30 mtr approach has been completed with CC 1:5:10 and height of Retaining wall varying from 6 mtr to 7 mtrs, appears to be constructed in the flow of water of Jandori Khad since the excavated material from the foundation appears river born material, which was stacked at site, this approach road may be damaged during high floods.

Both the abutments of the bridge have been completed up to the bottom of abutment cap, steel of abutment caps on both abutment has been laid in position as per drawing number PW-CE- Jandori Bridge/2005-119-2 issued by Chief Engineer (CZ) Mandi, founding level of both abutments is RL 271.00 and deck level RL is 283.00 mtrs. Abutments have been constructed with concrete grade of M-30, with skin reinforcement of 10 mm and 16 mm both ways as per approved drawings. M-30 concrete design mix was got approved from material testing laboratory of 10th Circle HP. PWD. Bilaspur letter No.- PW/SE-10th /BLP/AED/MTL/TR-2009-10-767-70 dated.- 10.02.2010, as also for concrete grade of M-35 which is to be used for super structure. Concrete Cubes were got tested at field lab at site which were tested for 7days and 28 days strength and all tests qualify the required specifications.

**Course aggregate:** was got tested for gradation, Impact value, water absorption and specific gravity, all test qualified the required specifications which were got done from MTL Bilaspur Circle and MTL Zonal Office Mandi.

**Fine aggregate:** - Laboratory test of FM and silt content were got done from departmental laboratory, all test qualified the required specification. Steel being used by the firm was also got tested from Manada Test House Zirakpur and all tests qualified specifications.
POT BEARINGS have been approved vide Chief Engineer (CZ) Mandi drawing No.- PW/CE-N/B/Standred/2004/148-6, work test report of pot bearings was got done from Younna Nagar.

Overall work of the bridge is satisfactory except the location of abutments and approach of the bridge towards Jandori side.

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Superintending Engineer (Q.C&D)
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Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O Dhalet Jandori road km 0/0 to 11/515 of Bilaspur, division No-2, HP. PWD. Bilaspur for inspection conducted on 09.07.2010

The inspection of this road was conducted along with Junior Engineer Sh. Achhar Singh, The work has been awarded to the firm by Executive Engineer Bilaspur division No-2 vide letter No.- 2409-10 dated.- 06.06.2009 amounting to Rs. 1,27,08,421/- with time limit of its completion as one year, directed the Junior Engineer to get the time extension application from the firm. Following is the scope of work.

ROFD km 0/0 to 2/295, FC 2/295 to 11/515, CD km 0/0 to 11/515 with 41 No RCC Hume pipe culvert, 4 No slab culvert (2 No of 3 mtrs span & 2 No of 5 mtrs span).

Up-to-date ROFD and FC in km 0/0 to 6/0 & 9/0 to 11/515 has been completed.

From km 0/0 to 2/0 road was inspected where 11 No RCC Hume pipes culverts have been completed, the work is satisfactory. RCC slab culvert of 5 mtrs span at RD 0/120 has been completed and the work is satisfactory. But Wheel guard on booth side has not been provided which may be provided as per approved drawing. At RD 1/515 slab of 3 mtrs span RCC culvert has been laid but shuttering has not yet been removed on the day of inspection no particular work was going on.

Quality Control Hand Book is available at site as well as SOQ. Quality Control Register is also available at site where for course aggregate, gradation test, impact value water absorption test was entered which were got done from MTL of Bilaspur Circle. Test result of fine aggregate have also been entered in QC Register which were got done from MTL Bilaspur Circle as well as from field laboratory.

Overall work is satisfactory.

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INSPECTION NOTE

Inspection Note recorded by Er, B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O road from Lalsa to Shandal Chiksa Majholi km 0/0 to 9/500 under (RIDF-XIII) of Rampur Division for inspection conducted on 17.07.2010

The inspection of this road was conducted along with Sh. H. S. Negi Executive Engineer, Sh. P. L. Sharma (A. E), Sh. Brij Lal Chauhan (J. E.).

(DPR of this road stands submitted to Engineer-in-Chief by Superintending Engineer 11th Circle Rampur letter No.- 9311-13 dated.- 03.08.2007 amounting to Rs. 358.45 lac. With provision of FC km 0/0 to 9/ 500, CD from km 0/0 to 9/500 and P/L Kharanja soling 150 mm thick in 1.18 km, but no approved DPR was available. The work has been awarded to the contractor by Executive Engineer Rampur vide letter No.- RMP/AB/TA/Award letter/2008-09-7829-38 dated.- 20.-09.2008 amounting to Ra. 3,63,80,427/- which is 43.08% above HPSR-1999 with time of its completion as 24 months. Condition of stacking 15% of useful stone at site of work has been imposed failing which recovery of 15% useful stone was to be made, as per 1st running bill recovery of 100% stone has been affected as 15% useful stones were not stacked at site. Quality Control Register was available with the concerned JE where in test results of course aggregate, for gradation test, flakiness index, impact value, water absorption and density test were entered which were got tested from MTL Rampur Circle also for fine aggregate, for FM and silt content test were entered which were also got tested from MTL Rampur Circle. For natural building stones tests for water absorption and impact value were also got done but compressive strength test was not got done, all the above tests were authenticated by AE Rampur. Site order register was also available at site but without any order by any officer. Quality Control Hand Book was also available with AE & JE.

Total length of this road is 9.5 km, out of which F/C has been completed in km 0/0 to 1/200 and in rest of the portion work is held up because of non sanction of FCA, FCA papers were reported lying in R.O Chandigarh, Executive Engineer was directed to pursue the FCA case at his personal level and also look in to the time extension of the contract agreement. Presently no work was going on on this road, R/wall in RR masonry is complete in km 0/0 to 0/105 with a gape in between 0/080 to 0/095 where C/O R/wall is yet to be done.

(Er, B. S. Kaushal)

Superintending Engineer (Q.C&D)

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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP, PWD., U. S. Club Shimla-1 for the work Multi Storied Building near FHTC building at Solan Hospital of Solan Division for inspection conducted on 23.07.2010.

The inspection of this building was conducted along with Sh. Arvind Kumar Assistant Engineer and Sh. L. P. Mahajan Junior Engineer. A/A & E/S of the work has been accorded by under secretary (SJ&E)Govt of HP vide No.- SJE (B) C (10) 45/2008-loose-15.01/.2009 amounting to Rs. 4,37,58,170/- the work has been awarded to the contractor vide letter No.- 602-09 dated.-19.04.2010 amounting to Rs. 1,82,69,522/- which is 77.62 % above the amount put to tender with the time limit of its completion as 18 months.

The Quality Control Hand Book was available with AE & JE, directed them to read the same and use its out come for Quality Control purposes.

The work has been awarded with the name C/O Zonal Hospital building at Solan where as in the Architected Drawings it has been named as multy storied building, Executive Engineer may check this discrepancy in the name of work, as structural Drawings have also been approved with the name Zonal Hospital building at Solan by Chief Engineer (SZ). No bearing capacity of the soil has been got tested but the bearing capacity of the adjoining building i.e. FHTC has been followed.

Presently columns footings of 13 No columns have been laid, out of total 30 number columns. Plinth level of existing adjoining FHTC building has been taken as the plinth level of this new under construction building. On the day of inspection no work of building, except work of excavation was going on. Two nos vibratos were available at site, One No. concrete mixer was also available. No measuring boxes for course and fine aggregate was available at site for which AE was directed to do the needful immediately. No Graduate /Diploma holder Engineer has been engaged by the contractor for this also AE was directed to do the need full. Steel and Cement is being supplied by the department, Steel is being procured from Small Scale Industries Parwanoo, no test results of steel were available for which AE was asked to get from the suppliers. It was observed that steel of mark of SAIL TMT, AMBA SHAKTI TMT, SHIV SHAKTI STEEL is being used i.e. mixed marked steel is being used that too without any test results. Concrete grade of M-20 is being used for which only one lab test of 3 cubes for 28 days strength was available at site with the strength of 200 kg / sqcm, 213.33 kg /sqcm and 208.89 kg/sqcm, for which AE was asked to get cube tests column wise beam wise as per required frequency.

For 20 mm & 10 mm aggregate, gradation test impact value, flakiness index, water absorption test of only one sample was got tested from MTL Solan Circle, where in no prescribed
specifications for the test have been given by Assist Engineer (D) in the report. For sand only FM test has got done for one sample only and no test of silt content has been got done for which AE was directed to get these test done as per required frequency. All these test reports have been entered in Quality Control Register issued by Executive Engineer Solan. Structural drawings of all columns and basement slab is available other structural drawing were awaited for which AE was directed to pursue the matter with the concerned authorities.

Sample of course and fine aggregate was collected from the site and as per test report course aggregate do no qualify the gradation test as sample passing through 20 mm sieve is 84.6% against the prescribed limit of 95 to 100 %, for issuing necessary directions to Executive Engineer Solan, Superintending Engineer Solan was requested vide letter No.- 1982 dated- 06.08.2010.

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Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O Judiciary Courts Complex Building at Solan of Solan Division for inspection conducted on 23.07.2010.

Visited this building along with Sh. Arvind Kumar Assistant Engineer and Sh. M. K. Bhardwaj Junior Engineer. This building is complete in all respect and has been handed over to the judicial department and all courts/offices are functioning in this building. Above ground it is a three storied building with double basement. It was observed that water was seeping in to the front external wall in the 1st floor of the building near window; AE was directed to thoroughly check this seepage and get it rectified from the concerned contractor if the defect liability period has not expired.

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Superintending Engineer (Q.C&D)
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INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP, 
PWD., U. S. Club Shimla-1 for the work C/O Science lab in GSSS building at Didwi Tikkar 
of Barsar division HP, PWD Barsar for inspection conducted on 24.07.2010.

The inspection of this building was conducted along with Sh. J. C. 

Kanungo Assistant Engineer Bhoranj. A/A & E/S has been accorded Secretary (higher 
education) during 04.01.2007 amounting to Rs. 59.06 Lac, the work has been awarded to the 
contractor by Executive Engineer Barsar letter no.- 17894-902 dated.- 03.01.2009 amounting to 
Rs. 54,39,165/- with time limit of its compilation as one year, which has since expired, no time 
extension was available with the Assistant Engineer.

SOQ was available at site, Quality Control Hand Book available 
with Assistant Engineer. Site order register was available at site but without any site order by 
concerned Executive Engineer although it was stated that E. E has visited the site approximately 
seven times but without issuing any site order.

Quality Control Register was available at site wherein compressive 
strength of seven days of CC Cubes of columns, concrete grade M-20 six numbers has been 
entered, compressive strength of 28 days of C.C Cubes of beams, concrete grade M-20 three 
numbers was entered. Assistant Engineer was directed to get the compressive strength of M-20 
concrete done from MTL Hamirpur Circle each column wise, each beams wise as per required 
frequency. Design mix of concrete Grade M-20 has been got designed on NIT Hamirpur on 
dated 26.03.2009 but no measuring boxes for measuring coarse aggregate, fine aggregate and 
cement was available at site for which Assistant Engineer was directed to do the needful 
immediately.

For 40 mm, 20 mm, 12/10 mm aggregate: gradation test was got 
done from MTL Circle Hamirpur Zone, F.I was not got done, water absorption, impact value 
specific gravity tests were got done. For sand and crush sand :FM test was got done but silt 
content test was not got done, Assistant Engineer was directed to get all above test done as per 
required frequency no test of brick was got done.

On the day of inspection no work was going on as slab on 1st floor 
was reported to be laid on 23.07.2010. Joints of the brick masonry were not raked out for which 
Assistant Engineer was directed to raked out the joints before plastering. From visual inspection it 
appears that in the RCC work proper water cement ratio and compaction has not been followed. 
Honeycombing was observed in most of the beams, slab of ground floor was seeping. Executive
Engineer Barsar may be directed to attend the observation of RCC work and inspect this construction work regularly so that these observations are not repeated in future.

Cement and steel is being issued by the department, no laboratory test of steel has been got done as no test results of steel from supplying firm was available at site for which Assistant Engineer was directed to do the need full. Sample of bricks was collected from the site for testing in the CMTL Shimla and as per the test report [attached] the water absorption and crushing strength of the sample is within the prescribed limit.

DA:- Test Report

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Superintending Engineer (Q.C&G)
HP. PWD. Shimla-171001
THE INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP.
PWD., U. S. Club Shimla-1 for the work C/O balance work of Kaffota Koti road km 22/0 to
29/345 under RIDF-XIV of Shillai Division for inspection conducted on 30.07.2010.

The inspection of this road was conducted along with Sh. A. K. Dhiman Executive Engineer,
Sh. R. K. Sharma A. E. Kamraoo, Dalip Singh J. E. Jakhana. A/A & E/S of the work has been accorded by the Secretary (PW) to the govt of HP vide letter dated.
06.03.2009 wherein approval for this road has been accorded amounting to Rs. 288.24 Lac. The
work has been awarded by the Executive Engineer Shillai vide latter No.- 6021-30 dated.
25.09.2009 amounting to Rs. 2,18,30,672/- with time limit of its completion as one year. 4th
running bill has been measured and passed amounting to Rs. 76,62,085/- although contract
agreement has not been signed by the Executive Engineer.

SOQ was available at site, Quality Control Hand Book was available with Assistant Engineer/Junior Engineer. Following is status of work:

ROFD: km 22/0 to 25/500 completed

Cross drainage works:- Out of 20 no RCC, HPC, 13 No have been completed, further 4 No
HPC work is in progress. Out of 4 No RCC slab culverts: one no RCC slab culvert of 6 mtrs
span is in progress.

R/walls: - Out of 17 No R/Walls, 3 no have been completed and one no is in progress.

B/Wall: - Out of one no B/wall, One B/Wall has been completed.

Road side drain and parapets: - ---Nil—

Soling: - Completed up to km 27/320.

Bearing I: 63 mm to 40 mm:- 5.7 km completed.

Bearing II: 50 mm to 25 mm:- 3.5 km completed.

Premix carpeting: - 2.5 km completed.

Quality Control Register issued by Executive Engineer Shillai is available at site. RCC Hume pipes used, has got test certificate from farm fresh food PVT LTD dated.- 07.01.2010. Crushing strength of Face stone: got tested from CMTL Shimla, sand used in cross drainage: got tested from CMTL Shimla for FM & silt content.
**Crushed stone 63 mm to 40 mm:** Gradation test, Impact value test, Flakiness test & water absorptions test were got done from CMTL Shimla as per required frequency.

**Crushed stone 50 mm to 25 mm:** Gradation test, Impact value test, Flakiness test & water absorptions test were got done from CMTL Shimla as per required frequency.

**Premix carpet:** Bitumen supplied by the department, for grit used: Gradation test, Impact value test were got done from CMTL at Shimla.

Bitumen content test: were got done at site as per required frequency as also temperature. Thermometer was also available at site.

Because of rains, no work was in progress on the day of inspection. Inspected the site of proposed 6 mtrs span RCC slab culvert at 24/720 where excavation for foundation was completed, it was observed that whole excavated portion was field up with muck, coming from the Nalaha so Executive Engineer was directed to locate the abutments of culverts in such a position that all the incoming muck from Nalaha is passed under the culvert, even by increasing the vent height of the culvert, after taking necessary approval from the competent authority. The work of premix carpeting and RCC Hume pipe culverts executed, was observed as satisfactory.

(Er, B. S. Kaushal)

Superintending Engineer (Q.C&D)

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Superintending Engineer (Q.C&D)

HP. PWD. Shimla-171001
The inspection of this building was conducted along with Sh. V. K. Aggarwal, Assistant Engineer and Sh. Gulab Singh Junior Engineer. A/A & E/S has been accorded by Director of Higher Education H. P. vide letter No.- EDN-A-Ja (8) -3/2007 dated.-16.03.2007 amounting to Rs. 750.47 Lac, under HUDCO loan assistance. The work has been awarded to the firm by Executive Engineer Shillai letter no.- PW-SD- CB-Tender/2007-4996-5005 dated.- 12.09.2007 amounting to Rs. 5,63,60,574/- with time limit of its compilation as two years, which has since expired, no time extension was available with the Executive Engineer/ Assistant Engineer.

**Bearing capacity of soil:** Geo- Technical investigation has been got done from Dr. Ghuman & Gupta Geo. tech. consultants Sector -17-A Chandigarh, as per their report in the month of November 2007, average value may be adopted in footing design (qa) Net= 11.7 t/m² and (qa) Gross= 13.7 t/m². The Structural drawings issued by CE (North) for C/O Bikram Batra Degree College Palampur, where safe bearing capacity of 13.4 t/m² has been adopted, these structural drawings of B. B. Degree College Palampur have been followed for the C/O this Degree College at Shillai, but the average value of bearing capacity of soil at Shillai has been observed as (qa) Net= 11.7 t/m², this aspect needs the urgent attention of Superintending Engineer/ Executive Engineer.

Quality Control Register was available at site which was issued by A. E., directed to get it issued from Executive Engineer.

**For sand:-** FM Test has been got done. **For 40 mm aggregate:-** gradation test, flakiness index test, impact value and water absorption test were got done. For concrete M-20:- cubes strength of seven days and 28 days were got done. For Course aggregate 40 mm, 20 mm & 10 mm:- **gradation test** flakiness index test, impact value test, water absorption test were got done. **For bricks:-** Compressive strength and water absorption tests were got done. Assistant Engineer was directed to get all test done from the MTL 12th Circle Nahan, as per required frequency and cube strength of 7 days and 28 days each, column wise and beam wise. Steel and Cement is being supplied by the department, steel is being procured by the department from Small Scale Industries, no test results of steel were available for which AE was directed to get from the supplier. It was also observed that steel of mark Vizac TMT, Jindal TMT is being used i.e. mixed
marked steel is being used that too without any test results, this aspect also needs the attention of Superintending Engineer/ Executive Engineer.

On the day of inspection no major work was going on as it was a rainy day. In block A;- ground floor, 1st floor and 2nd floor has been completed, C/O Truss with ceiling slab was in progress. Structural steel for roof is being procured by the firm, no test report of the structural steel was available at site directed the AE to get test reports from supplier/manufacturer. For B block;- steel has been laid for the 2nd floor slab. For C block;- the work of the ground floor completed and slab laid.1st expansion joint has been provided at 33.40 mtrs length with thickness of 45 mm. 3 Nos concrete mixers and 4 Nos vibrators were available at site. The work executed has been observed as satisfactory.

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Superintending Engineer (Q.C&D)

HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O type-IV six no quarters for Doctors residences under Regional Hospital Hamirpur of HP. PWD. Division Hamirpur for inspection conducted on 09.10.2010.

The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Deputy Secretary Health H. P. vide letter No.- B (G) 7-6180 part dated.- 06.12.1999 amounting to Rs. 1,81,33,800/- for C/O 20 Nos type –IV quarters and 2 Nos type –V quarters. The work has been awarded to the contractor amounting to Rs. 69, 52,437/- by Executive Engineer Hamirpur with Date of start as 05.10.2009 and Date of its completion as 04.10.2010. This approval has been accorded during the year 1999 and work has been awarded during the year 2009, the stipulated date of its completion is 04.10.2010 and still maximum work of building remains yet to be completed, these aspects need attention of Superintending Engineer/ Executive Engineer.

No award letter of this work was available with Junior Engineer, no SOQ was available with Junior Engineer, no Quality Control Hand Book was available with Junior Engineer. Site order register issued by the Executive Engineer was available at site which was totally blank. Executive Engineer/ Assistant Engineer be advised to make best use of site order register. Steel bars were lying in open, fully dumped in soil, no graduate/ diploma holder site Engineer was available at site.

Location of this residential building falls in the Nallah which also needs proper attention of Superintending Engineer /Executive Engineer. Arch. Drawings issued by Chief Arch., US Club Shimla vide Job No.- 3183 was available at site which is being followed. No approval from TCP and ULB was available at site. Structural drawing No PW-CE (N) BLD/2005 -43/12 i.e. Standard Design type –IV quarters issued by Chief Engineer Dharamshala was available at site and is being followed for C/o this building, where it has been mentioned that it is designed for safe bearing capacity of 15 T/M2 but no bearing capacity of soil at site has been got done, so bearing capacity of the soil at site can not be ascertained, this aspect also needs attention of Superintending Engineer /Executive Engineer.

Only cube test register issued by Executive Engineer was available at site but no Quality Control Register was available. Only two no cube tests of CC were got done that too for 28 days strength and no 7 days cube strength was got done. No laboratory test of coarse aggregate, fine aggregate and CC blocks were got done. Junior Engineer was directed to get done, laboratory test of all course aggregate ,fine aggregate and CC blocks as per required
frequency and cube test of 7 days and 28 days strength, columns wise, beams wise as per required frequency.

Design mix of concrete M-20 was got done from A E (D) 8th Circle Hamirpur vide letter No.- 18688-89 dated.- 25.03.2010, wherein recommended mix design of 1: 1.46 : 3.11 has been given but regretted to note that this design mix has not been followed for the execution of RCC works at site since no measuring boxes of this design mix of cement, sand and aggregate was available at site which needs immediate attention of Superintending Engineer /Executive Engineer.

On the date of inspection no work was in progress. Basement slab has been laid where water was seeping into the surrounding soil of basement floor. In half of the 1st floor, slab has been laid and in the 2nd half steel shuttering has been laid for which steel in beams has been placed in position.

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Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Adden. Secretary Health H. P. vide letter No.- HFW (B) 1-17/2005 dated.- 09.12.2008 amounting to Rs. 1,14,13,000/- for C/O 06 Nos type –II quarters and 06 Nos type –III quarters. The work has been awarded to the contractor amounting to Rs. 57,35,643 /- with Date of start as 05.10.2009 and Date of completion as, 04.10.2010 as the stipulated date of its completion is 04.10.2010 and still maximum work of building remains yet to be completed, this aspects needs attention of Superintending Engineer/ Executive Engineer.

Architect drawings were available at site. No approval from TCP and ULB was available at site. Structural drawing issued by Superintending Engineer 8th Circle HP. PWD. Hamirpur vide No SE- 8th/BLD/2005 – 540-1 dated 01.09.2005, was available at site and is being followed for C/O this building, where it has been mentioned that it is designed for safe bearing capacity of 15 T/M2 but no bearing capacity of soil at site has been got done, so bearing capacity of the soil at site can not be ascertained, this aspect also needs attention of Superintending Engineer /Executive Engineer.

Only cube test register issued by Executive Engineer was available at site but no Quality Control Register was available. Only one no cube test of CC was got done that too for 28 days strength and no 7 days cube strength was got done. No laboratory test of coarse aggregate, fine aggregate were got done. Junior Engineer was directed to get done, laboratory test of all coarse aggregate, fine aggregate as per required frequency and cube test of 7 days and 28 days strength, columns wise, beams wise as per required frequency.

Design mix of concrete M-20 was got done from A E (D) 8th Circle Hamirpur vide letter No.- 6234-35 dated.- 21.06. 2010, wherein recommended mix design of 1:1.44 : 3.32 has been given but regretted to note that this design mix has not been followed for the
execution of RCC works at site since no measuring boxes of this design mix of cement, sand and aggregate was available at site which needs immediate attention of Superintending Engineer/Executive Engineer.

On the date of inspection no work was in progress. In half of the ground floor, slab has been laid and in the 2nd half shuttering was being laid.

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Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O type-II six no quarters under Regional Hospital Hamirpur of HP. PWD. Division Hamirpur for inspection conducted on 09.10.2010.

The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Adden. Secretary Health H. P. vide letter No. HFW (B) 1-17/2005 dated. 09.12.2008 amounting to Rs. 1,14,13,000/- for C/O 06 Nos type –II quarters and 06 Nos type –III quarters. The work has been awarded to the contractor amounting to Rs. 38,83,085 /- with Date of start as 03.10.2009 and Date of completion as, 02.10.2010 as the stipulated date of its completion is 02.10.2010 and still maximum work of building remains yet to be completed, this aspects needs attention of Superintending Engineer/ Executive Engineer.

No award letter of this work was available with Junior Engineer, no SOQ was available with Junior Engineer, no Quality Control Hand Book was available with Junior Engineer. Site order register issued by the Executive Engineer was available at site which was totally blank. Executive Engineer/ Assistant Engineer be advised to make best use of site order register.

Architect drawings were available at site. No approval from TCP and ULB was available at site. Structural drawing issued by Chief Engineer (NZ) Dharamshala HP. PWD. Dharamshala vide No 664,665 & 666 was available at site and is being followed for C/O this building,

Only cube test register issued by Executive Engineer was available at site but no Quality Control Register was available. Only one no cube test of CC was got done that too for 28 days strength and no 7 days cube strength was got done. No laboratory test of coarse aggregate, fine aggregate were got done. Junior Engineer was directed to get done, laboratory test of all coarse aggregate, fine aggregate as per required frequency and cube test of 7 days and 28 days strength, columns wise, beams wise as per required frequency.

Design mix of concrete M-20 was got done from A E (D) 8th Circle Hamirpur which is still awaited, directed the Junior Engineer to get prepare the measuring boxes of the design mix of cement, sand and aggregate as per given design mix and use it for RCC works.
On the date of inspection, no work was in progress. In half of the ground floor, slab has been laid and in the 2nd half shuttering was being laid.

(Er. B. S. Kaushal)
Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001

Copy forwarded to the Engineer-in-Chief (Q.C&D) HP. PWD. Shimla-1 for information and necessary action please.

Superintending Engineer (Q.C&D)
HP. PWD. Shimla-171001
INSPECTION NOTE

Inspection Note recorded by Er. B. S. Kaushal Superintending Engineer (Q.C&D) HP. PWD., U. S. Club Shimla-1 for the work C/O type-II six no quarters under Regional Hospital Hamirpur of HP. PWD. Division Hamirpur for inspection conducted on 09.10.2010.

The inspection of this building was conducted along with Sh. M. C. Rana Junior Engineer. A/A & E/S has been accorded by Adden. Secretary Health H. P. vide letter No.- HFW (B) 1-17/2005 dated.- 09.12.2008 amounting to Rs. 1,14,13,000/- for C/O 06 Nos type –II quarters and 06 Nos type –III quarters. The work has been awarded to the contractor amounting to Rs. 38,83,085/- with Date of start as 03.10.2009 and Date of completion as, 02.10. 2010 as the stipulated date of its completion is 02.10.2010 and still maximum work of building remains yet to be completed, this aspects needs attention of Superintending Engineer/ Executive Engineer.

No award letter of this work was available with Junior Engineer, no SOQ was available with Junior Engineer, no Quality Control Hand Book was available with Junior Engineer. Site order register issued by the Executive Engineer was available at site which was totally blank. Executive Engineer/ Assistant Engineer be advised to make best use of site order register.

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