

LegCo Panel on Housing
LegCo Panel on Planning, Lands and Works

Joint meeting on 6 December 1999
Submissions from the Owners Incorporation of Beverly Garden
Questions Addressed to Territory Development Department

1. Please provide information on the dates of reclamation and piling for Beverly Garden.

The reclamation contract for the area on which Beverly Garden is now situated commenced in 1992 and was completed in 1995. As reclamation was done progressively, some areas were completed earlier than the others.

Piling information is provided separately by the Buildings Department in their submission.

2. What reclamation materials were included in the Beverly Garden area? Had preloading procedure been carried out?

Firstly, we placed a layer of geotextile fabric to cover up the marine deposit on the seabed. Then a one metre thick layer of sand was placed on top, prior to filling. Stockpiled general filling materials were mainly used in the reclamation in this area. A small percentage of public filling materials had also been incorporated in the reclamation. Vertical drains at 1.6m centres were placed in the marine deposits before completion of reclamation to help speed up the settlement. Preloading had been applied to areas on which public roads were planned to be constructed.

3. Is there any danger in Beverly Garden where buildings were constructed shortly after reclamation? Did your department provide reclamation and settlement information and assessment to developers / contractors? Did you issue operational guidelines to developers / contractors and ensure that they would follow?

The developers and contractors could approach the Territory Development Department (TDD) for information on the reclamation if they found it necessary. So far we have no record of such requests.

Information on Beverly Garden is provided separately by the Buildings Department in their submission.

4. What is the present situation of the unusual settlement? Does your department monitor the ground water level conditions?

We are closely monitoring the settlement in Tseung Kwan O Town Centre. The unusual settlement is mainly affecting area to the south of Tong Tak Street. We are monitoring ground water level in piezometers that are available and we shall install more piezometers in the next few months. The rate of settlement is already showing a sign of slowing down and the water level has been fairly stable in the past two months. We expect that the settlement will stabilise by March 2000.

5. What is the role of TDD in this incident of unusual settlement?

TDD as the department responsible for the reclamation and the construction of roads and drains for Tseung Kwan O New Town is now monitoring the unusual settlement and coordinating the efforts of other departments in dealing with the issue.

6. In the meeting with the owners, your department promised to install instrument for monitoring ground sinking / settlement inside and outside Beverly Garden. When will that be carried out? We requested your department to report monthly to the Owners Incorporation of Beverly Garden of the settlement data, and have them assessed and analysed by independent professionals. Besides, we requested the government to carry out comprehensive CCTV investigations for underground pipes in Beverly Garden.

We have settlement markers installed at Tong Tak Street to the south of Beverly Garden. We shall also carry out independent measurements on the existing markers on the buildings installed by the developer. TDD has already promised to provide the relevant information to the Owners Incorporation on a regular basis.

Information on underground pipes is provided separately by the Buildings Department in their submission.

7. What are the government's remedial methods for this incident of unusual settlement.

We shall closely monitor the situation and would coordinate necessary action as the situation develops. TDD is undertaking further investigations to evaluate the cause of the settlement. Those investigations will require about four months to complete. In the mean time the settlement is already showing a sign of slowing down.

8. Finally, please clarify in writing whether your department knew that there was unusual settlement in Tseung Kwan O in August 1998.

We did not know that there was unusual settlement in Tseung Kwan O in August 1998. TDD was first verbally told by the Consultant in January 1999 that the rate of ground settlement at the site for the proposed road D4 which is situated at the south of Beverly Garden and Tong Ming Court in Tseung Kwan O Town Centre had not slowed down as anticipated. TDD immediately instructed the consultants to pay close attention on the ground settlement rate and to submit the ground settlement monitoring record. As revealed from the ground settlement monitoring record submitted by the consultants in April 1999, there were unusual ground settlement. TDD, in mid 1999, commissioned his consultant to conduct a desk-top study aiming to find out the causes of the settlement, recommend further investigation work and estimate when the settlement would cease. TDD also asked the consultant to provide the ground settlement monitoring records in other areas, particularly those at the north of the proposed road D4. TDD received the first monitoring record for these areas in August 1999, which showed that slight settlement had also occurred at the monitoring stations near Tong Ming Court and Beverly Garden.

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1. Commencement dates for the foundation works of Beverly Garden are as follows :

Main Building	Bored Pile Construction Works	
	Commencement Date	Completion Date
Blocks 6 to 9	22.1.1996	9.4.1996
Blocks 2 to 5	22.1.1996	6.5.1996
Blocks 1 & 10	23.4.1996	18.5.1996

2. Under section 26(3) of the Building (Construction) Regulations, in designing piles, professionals should take into consideration the effects of the downward force from possible consolidation or settlement of ground soil on piles to be installed in reclaimed land. There is no connection between structural safety of buildings constructed in reclaimed area and how long the building was constructed after the land was reclaimed; as long as full consideration has been given to the effects of the downward force mentioned above in designing the foundations of buildings, no structural danger will be caused to the buildings as a result of settlement.

As regards the foundations design of the Beverly Garden, BD has verified the design of the registered structural engineer and confirmed that the above-mentioned downward force had been taken into account in the above design. As to whether our department has

issued practice notes to professionals and registered contractors regarding the above, since the meaning of section 26(3) of the Building (Construction) Regulation is clear and concise, there is no need to issue a separate practice note for the purpose.

3. According to the monitoring results provided by the Territory Development Department, maximum settlement in Tong Tak Street near the entrance to Beverly Garden is 130mm since April 1999 to mid-October 1999.
4. From the approved drainage plan and other documents submitted for Beverly Garden, Buildings Department noted that the possible impacts arising from the settlement has been taken into account in the design of the drains, and two flexible joints were installed at the critical junctions of the pipes so that the pipes can take up a certain amount of relative movement. Moreover, according to the two site inspections conducted on 8 October and 19 November respectively, there were no signs of damage to the drains. To give further assurance to the residents, BD will offer assistance as much as possible, and has taken the initiative to contact the developer in order to provide more detailed information and data to ensure that the drains will function properly. With regard to the proposed setting up of certain monitoring points for settlement inside Beverly Garden, BD is actively making arrangement with the Registered Structural Engineer (RSE). The Owners' Committee will be informed of the details of the arrangement as soon as possible.
5. The results of the site inspections carried out by the staff of BD on 8 October and 19 November, 1999 have revealed that there are no signs of damage caused by settlement to the buildings in Beverly Garden and all the buildings are structurally safe.

Concerning the issue of building repairs and maintenance responsibilities that could arise in future, we cannot determine what remedies are required and who should bear the responsibility until the

causes of unusual settlement and the damage caused to the buildings have been ascertained. BD will be responsible for monitoring any further development on this issue and will liaise with the relevant parties so as to assist in solving the problem.

6. In accordance with the Buildings Ordinance, the Authorized Person, Registered Structural Engineer and the Registered General Building Contractor have to supervise building construction works, and certify that such works are carried out in accordance with the Buildings Ordinance and the approved plans and that they are structurally safe. BD carries out audit site inspections on major items both during and after completion of the building works. For Beverly Garden, such inspections included four coring test inspections for bored pile works and seven inspections for schmidt hammer tests for concrete strength. And on completion of building works, three further pre occupation permit inspections were made. The major items of these inspections included staircase, means of escape, means of access for fire fighting and rescue; lighting and ventilation; drainage works, refuse storage chamber and chute works, etc. As we had been requested during our meeting with the Owners' Committee to provide full and complete details of such inspection records for Beverly Garden, we have attached to this document at appendices 1 to 5 details of such records.
7. Buildings Department had promised to submit a detailed report on the foundation of Beverly Garden to the Owners' Committee within one month. This report was completed and submitted to the Owners' Committee on 26th November 1999. Regarding the internal condition of individual units, 9 units as referred by the Owners' Committee were inspected by this department on 19th November 1999. From the inspection, superficial hair cracks on the finishes were revealed but there was no structural danger. There are various causes for such cracks. Shrinkage, method of construction, structural movement under normal condition, relative movement between structural and non-structural members, etc. are all possible causes for such cracks. Buildings Department will offer every

possible assistance in ascertaining the causes for the cracks in order to work out a satisfactory solution for all parties.

8. The unusual settlement in Tseun Kwan O area was first noted by this department on 9th September 1999. Since then, we have kept close surveillance on both the buildings being affected and those under construction so as to ensure the structural safety.

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