District of North Vancouver
Community Monitoring & Advisory Committee
Seymour-Capilano Water Utility Projects

Meeting Notes – April 13, 2016

Agenda
1. Boffo Properties – Traffic Management
2. Cleveland Dam Drum Gate Repairs
3. Capilano Water Main Project
4. Noise Bylaw Variance Requests
   a) E2 Shaft (East Abutment)
   b) Cleveland Dam Drum Gate
   c) Capilano Water Main Project Extension
5. “Lessons learned” CWMP
6. Other Business
   a) Next meeting date

Attendance (Bolded names indicate attendance)

Community Advisory Committee Members:
- Lorraine Jamieson Capilano / Grouse Woods Residents Association
- Peter Thompson Edgemont Community Association
- Corrie Kost Edgemont Community Association
- Norm Daniels Lynnmour South Inter-River Community Association
- Lee Gavel Lynn Valley Community Association
- Alf Cockle Blueridge Community Association

District of North Vancouver Representatives:
- Councillor Doug MacKay-Dunn DNV Council
- Councillor Robin Hicks DNV Council
- Carol Walker Manager – By-law Enforcement
- Steve Ono Manager – Engineering Services
- Tegan Smith Project Manager - External Projects

Metro Vancouver Representatives:
- Tim Jervis General Manager - Water Services Department
- Murray Gant Senior Engineer - Major Projects, Water Services Department
- Goran Oljaca Director - Engineering & Construction, Water Services Department
- Hein Steunenberg Division Manager - Engineering & Construction, Water Services Department
- Marilyn Towill Division Manager – Transmission Operations, Operations and Maintenance Department
- Lisa Moffat Program Manager – Public Involvement, Water Services Department
Alicia Williams  Consultation & Community Relations Coordinator - Public Involvement, Water Services Department

Steve Billington  Community Liaison Officer - Public Involvement, Water Services Department

Guests:

Scott Ellis  Grouse Mountain

Stacy Chala  Capilano Suspension Bridge

Bill Lloyd-Jones  Delbrook Community Association

Grig Cameron  Area resident

Josh Anderson  Boffo Properties

Albert Chu  Grosvenor Developments

Facilitator:

Raymond Penner  the Strategic Action Group

1. Boffo Properties – Traffic Management

- the Boffo development will be a 24 unit townhouse project over a shared parkade structure; the project site is at the corner of Ridgewood and Edgemont Boulevard as shown below

- the project site plan is shown below
we started with the District on this project in 2014; we just had our second and third reading in February and we are looking to bylaw adoption and demolition permit issuance by the district hopefully in June; when that takes place, we will be submitting our building permit application shortly after

one of the issues that came up during the consultations was concern of additional impacts from water main project related traffic diversions; our construction impact management plan has been focussed on how we can avoid impacting the streets or impacting the neighbourhood and basically trying to keep all of our site activities on site with minimal road closures; our construction impact management plan features include:

- all staging activity onsite, with no anticipated road closures
- all trade parking will be accommodated onsite; at no time will trades occupy Edgemont Village parking or street parking
- other than during excavation, there will be less than 2 large trucks per day

we will have a fairly large staging area between the existing sidewalk and the property line and will be able to fit most of our delivery and other staging and receiving activities within that staging area during construction
- the excavation phase will be the most truck intensive time of the project; trucks coming to the site will arrive coming up Capilano and then along Ridgewood, stopping at the site; we are working with the District on the route leaving the site – at this time, the options leaving the site are either coming down Edgemont to Queens or down Ridgewood, turning south on Ayr Avenue and then east on Queens; this will be the District’s decision.

- as the project moves along the parking on site will shift as shown by the orange boxes in the following diagrams; the demolition phase is anticipated to take approximately 20 business days; our anticipated demolition time will depend on when we get a permit and adoption of the bylaw and our permits.
the excavation phase will be approximately 25 days; we will build a ramp down the west part of the site corresponding to where the actual parkade entrance will be; during this time, we can keep our trucks within the staging area.

east foundation - after we have done our shoring and start to pour the foundation, our trade vehicles will be parked within the pit on the west side.
- west foundation - as we go to the west part of the site the parking will move over to the east side

- construction - during the rest of the construction, trade vehicles will continue to park in the parkade area
we are engaged in ongoing dialogue with the District to ensure our plans are integrated with any intersection closures or other traffic related issues from the water main project and the other major construction projects in the area

Discussion

That's ambitious planning and you may be breaking new ground to have the parking all contained on site.

What will your peak labour force be on site?

[Boffo Properties] I don't have that number but we our largest on-site work force will be during construction and we have estimated this to be about 14 trade vehicles at any one time, some with more than one person.

You said no road closures but I consider sidewalks to be important to keep open.

[Boffo Properties] Other then re-doing any of the civil work such as re-doing paving, and we will be talking to the District about when that will happen, there will be consistent pedestrian access around the site no matter what.

Proper notification is important so people can plan their walking route.

Where will you be parking the construction trailers?

[Boffo Properties] It will be somewhere within the staging area and it will be easily moveable along that section.

You could think about putting an elevated structure over the sidewalk.

[Boffo Properties] We could but we think it's easier and less impactful keeping it at grade.

As far as the crossover valve chamber construction, there doesn't seem to be any significant impact between the projects at all.

[MV] The trucks coming out of our crossover valve chamber excavation will come out of a ramp in the excavation and then travelling on Edgemont Boulevard going east. We
haven't worked out exactly what route will be followed after that point. It appears that the Boffo excavation may be done by the end of August which is prior to when our excavation work will start.

[Boffo Properties] Our timing really depends on when we can get the go-ahead from the District. The delay in the crossover valve chamber work does mean that our project’s truck traffic will fit in a little better as long as we are able to start and have our excavation work start in July.

[MV] The District is working with us and the other construction projects to ensure that these are as coordinated as possible.

2. Cleveland Dam Drum Gate Repairs

- Cleveland Dam is a concrete gravity structure that has been in service since 1955, impounding the Capilano Reservoir, one of the major sources of drinking water for Metro Vancouver

- a drum gate, located at the top of the dam spillway, controls the discharge of excess Capilano Lake inflow; the gate is a 21 metre long by 7 metre high hollow steel structure; this is triangular in shape with a hinge in one corner; the drum gate floats on a pool of water that is contained at the top of the spillway which allows us to control the height of the drum gate by varying the amount of water in this structure

- this is the primary means of controlling the reservoir level and we have three modes of control with this
  - a flow control mode which allows us to determine the flow and the drum gate then operates to maintain that flow
  - a level mode so the drum gate operates to hold a lake level
• an elevation mode which allows us to determine the level of the drum gate and then hold it constant

➢ the drum gate is operated remotely from our control room; we have instrumentation at the dam that allows us to communicate with this equipment so we are always aware of where the drum gate is and can make operational changes as needed

➢ the drum gate was coated in the 1990’s; in 2013, the condition of the coating on the drum gate was inspected by Acuren Group Ltd.; this inspection identified that the coating has been scored or scraped off in some areas and it was recommended that MV resurface the exterior faces of drum gate and two dam buttress wear plates

➢ on or around May 15th this year, the drum gate will be positioned at its highest level to correspond to the start of the summer season; our plan is to use Capilano Lake water through the summer to allow the lake to lower in preparation for the repairs for this project; work on the drum gate is scheduled to commence in August and will be complete in October 2016

➢ while the repairs are taking place, if there are rain events that require us to lower the lake level, we are able to do so by using our other two methods so that we can maintain the lake at a level that allows these repairs to be completed prior to when more extreme weather can be expected

➢ the work consists of removal of existing coating by abrasive blasting and application of a new coating; the steps required to complete this project include:

• Step 1: install handrails and brackets
• Step 2: raise gate
• Step 3: install supports
• Step 4: lower gate onto supports, resurface
• Step 5: remove supports
• Step 6: lower gate, complete resurfacing

➢ as part of this process, the drum gate will be enclosed in an ambient controlled system; the purpose of this enclosure is to:

• contain spent blasting abrasive
• control the environmental condition within the enclosure
• shroud noise associated with the work.

➢ water supply will not be affected by this work however this work is weather dependant and must be completed within a short period of time between late summer and early fall 2016, when the lake is at its lowest level and probability of rainfall is low

➢ to ensure the work is completed within the available time window and in case weather conditions turn unfavorable, the work activities may need to be accelerated whereby work outside of normal working hours may become necessary; for this reason, MV is applying for a Noise Bylaw Variance
Discussion

Is there anything you can do on the drum gates so that you don't have to go back in a couple of years and redo this again?

[MV] There are better products available now than there were when this was done the last time in 1994 and it's true that the better job that we do now, the longer it is before we knew have to redo this.

[MV] The way this operates it's inevitable that maintenance will be required as there is surface to surface contact. Otherwise the water would just go by the drum gate and therefore it wouldn't function in the way it's intended.

The need for the project was in 2013 and in 2016 we have an application for a Noise Bylaw Variance. I'm wondering why there wasn't an attempt to run this project at the same time as other noise generating projects that were taking place in that area.

[MV] We are doing continuous work on the dam to ensure that it is safe and when and if something needs to be addressed, we then need to plan and put it into our budget.

What is the lifespan of the drum?

[MV] It's like any piece of equipment that needs maintenance over it's like span and if we do the proper maintenance at appropriate intervals it will last longer. It's my understanding that the drum gate itself is in decent shape and we expect that it could last another 40 to 50 years.

What is the product that will be being used on the drum gate repair?

[MV] It's in an epoxy.

Will the public have access to this area and be able to walk across the dam.

[MV] They won't have access to the work site but they will be able to walk across the dam.

Will you be venting the area under the shroud because of the epoxy and will that be a problem with odours?

[MV] We will be venting the area but we do not anticipate that this should be a problem essentially since it is the same process that was used inside Capilano Main Number 9 when they were repairing the pipe weld joints inside the main.

3. Capilano Water Main Project

MV made a presentation to DNV council at DNV staff request on April 4; it was well received with the particular comment repeated that the traffic was being well managed

a. Construction Schedule Overview

  work to Spring 2016 includes the following:
  • one tie in for the municipal main remains to be done at Prospect Avenue
  • the change-overs for the water services will all be finished in mid-April. They require coordinating with the homeowners at each house
so that air in the lines is bled out in a controlled way and doesn’t get trapped in the higher points of the plumbing in each house.

- DNV service connections are currently underway; based on three service repairs per day, the remaining 24 connections will be complete by April 16; a second crew has been added to speed up this work.

- Capilano will have full sidewalks Edgemont to Prospect and on both sides including a new sidewalk connection on the west side of the S bend; DNV has requested additional sidewalk panels requiring five additional days; this work is scheduled for completion May 14.

- Boulevard restoration and is currently underway in various locations; where sidewalks are being restored or put in, the boulevard restoration follows sidewalk restoration by one week; completion is scheduled for May 2; boulevards will be restored using the same or similar planting and materials as before construction started.

- Line valve chamber roof will be completed, the rest of the construction is complete and the roof work will have no traffic impacts; to start on May 2 (duration of work remains unchanged); MV Operations requires access to the chamber for commissioning work which is currently underway.

- The contractor site office inside the park will be decommissioned and restored to parkland this spring.

➢ the locations of this work can be seen in the following diagram
➢ the schedule for the remaining work is shown in the following chart

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➢ paving involves a full repair of Capilano Road and is being planned in coordination with DNV staff and will take place July-August; the
subcontractor is BA Blacktop which is the company building the Montroyal Bridge replacement and they are very familiar with DNV regulations and paving requirements here

- we’ve met with the subcontractor and they are very aware of the need to keep traffic moving on Capilano Road; their paving plan is reflective of that

- final lift of paving and line painting will occur between 8pm and 7am over 5 nights during a 14 business-day period and there will be a Noise Bylaw Variance application for that

- paving will be done in four sections – these sections and the detours are shown in the following chart

- traffic management is as follows:
  - full bus movement north and south with northbound general traffic permitted; southbound general traffic will be directed to Highland detour
  - full local traffic north and south with local detours when paving in a given area
• during final lift paving, bus pickup will be impacted in the area being paved; drop offs will be by request outside active paving area

• the detour route along Ridgewood, Highland and Montroyal will be retained from now through the summer

Discussion

Was the pressure testing successful?
[MV] Yes, it was successfully completed.

Why does the work on the Montroyal Bridge have such influence on what's happening on Capilano Road?

[DNV] There will be a full road closure required in order to get the temporary bridge in but we will be attempting to have this as short a time as possible and also use single lane alternating traffic when we can. Also we are aware that there are limited alternate routes in the area.

Will there be any overlap of the bridge project with the paving work that's going to be taking place on Capilano?

[DNV] No. After we get the temporary bridge in, we will have one lane traffic in either direction on Montroyal.

During the period of time on Capilano when paving is taking place there will be two way bus traffic. Will that also allow the Grouse Mountain shuttle to use that route?

[MV] At this point we have been talking to the paving contractor and the arrangements for the busses have been based on the fact that there would be implications to Coast Mountain bus operations if they were not allowed to continue their schedule on Capilano. It would be challenging to add the shuttle buses to the mix particularly if they're not on the same kind of schedule as the buses that Coast Mountain runs. It's important to remember that the final paving will only be taking place at night time and that's a period of five days.

[MV] What is the schedule of the Grouse Mountain busses?
There would be three buses an hour travelling on Capilano if that's allowed.

[MV] During the period prior to the final lift, Capilano will be open for northbound traffic so hopefully that shouldn't cause Grouse Mountain any issues during the daytime.

[Facilitator] At the last CMAC meeting we had quite a discussion about the repair of potholes on Capilano Road. How has this been working?

[MV] Right now the contractor is in the area and the main concern that we understood was during May and June period when the contractor is not there to ensure that the road was kept in good repair. Currently we have daily inspections of the road with an inspector from Metro Vancouver and one inspector from the District and the contractor is fixing any problems. We are aware that conditions can deteriorate over the weekends and have been ensuring that any problems identified are addressed by the end of the work day on Fridays.

The road is rough but it the repairs are better.

There are a lot of people who still will not use Capilano Road.
There's still has a tremendous amount of re-visititation of construction and disruption on each block. It still seems like it is never ending and we would prefer that all of the work in one area is done at the same time.

How long will the one-way northbound traffic on Capilano be and what is the period of time?

[MV] We believe that will be most of July and August.

When do we determine what the process will be for ending diversion traffic and making any adjustments to the signalization?

[DNV] There has been some general discussion at a Council meeting and we are still considering what the best approach will be. There are some very different feelings for some of the traffic signals where some people want to keep it and other people want it changed. Once the Highland detour is not being relied on as much, we will have a more accurate idea of what the background numbers are and then we will be able to make determinations as to what the appropriate changes should be to any of the traffic controls that have been implemented during this project.

[MV] Our traffic consultant and the District’s traffic staff will come up with a detailed plan of how this will be implemented. This decommissioning will take place only once the final paving is done.

The flashing lights at the crosswalks on Montroyal are great.

[DNV] We are trying these as pilots in partnership with ICBC. They are a little ahead of what the guidelines say are needed but we have had very positive responses from the community.

b. Edgemont Valve Chamber

- the Edgemont Valve Chamber (crossover valve chamber) connects three large regional water mains which you can see in this 3/D view

- CMAC has been made aware that the valve chamber construction was rescheduled to ensure no service interruptions during peak water demand season which will also help accommodate other development projects in the area
- Construction is scheduled for November 2016 to Spring 2017 with final construction leaving the road rebuilt and just a few surface features visible.
- There will be two-way traffic on Capilano during the construction period; pedestrian and bicycle traffic will be accommodated.
- There will be no through traffic from Edgemont Blvd to Capilano Road during the six-month period.
- We are still working on details but the site will have pedestrian access past it along Capilano and Edgemont and all work will be limited to public land.
- Construction of the Edgemont Valve Chamber will be carried out in 4 stages which are shown in the following series of diagrams:
  - Site set-up, excavation and shoring
  - Chamber construction
  - Chamber tie-ins
  - Electrical works

- **Stage 1 - site set-up, excavation, and shoring**

- **Stage 2: excavation**
  - During this stage, there will be no through traffic on Edgemont for even the contractor due to the size of the excavated hole; all truck traffic will be on Edgemont to Ridgewood.
  - Two-way traffic on Capilano will be maintained.
  - The old valve chamber will be demolished during this phase.
Stage 2: chamber construction

- construction of the physical chamber will take approximately 3 months to complete
- following the excavation and shoring of the chamber, activities will include rebar work and concrete pours to form the structure, installation of the piping, valves and conduits and finally pouring the roof and securing the facility

Stage 3: System Tie-ins

- the system tie-in for the valve chamber is planned for spring 2017
- this activity will require single lane alternating traffic on Capilano for about 10 days while crews excavate at the southeast corner of Capilano Road and Edgemont Blvd.
Stage 4 – electrical completion

- electrical work within the new chamber; this work has very minimal public impact as the majority of it takes place within the chamber itself

Discussion

[MV] At this point it seems to us that the logical route for trucks leaving the Edgemont excavation will be Edgemont to Ridgeway and then out onto Capilano. Does CMAC have any other suggestions?

This needs to be coordinated with the other projects in the area.

[MV] It seems that that should depend on what the other truck traffic will be on other projects during that time but we will continue to talk with the District to ensure we coordinate what the best route is with the least impact on the community.

c. Public Involvement Activities

- Metro Vancouver is continuing to work hard to keep the community abreast of project impacts, progress and milestones through newsletters, door hangers, emails, face-to-face and the project web page
- Metro Vancouver will hold another Community Meeting on April 27; that meeting will address paving and the work in the fall/winter on the Edgemont valve chamber, among other issues
- we have had extensive community outreach during this project
4. Noise By-Law Variance Requests

a. E2 Shaft (East Abutment)

- Metro Vancouver is requesting a variance to the DNV’s noise bylaw to allow for:
  - extended work hours from 8 p.m. to 7 a.m., seven days a week
  - use of generators, pumps and drilling equipment 24-7, when required
  - in order to keep noise levels to a minimum, the following has been taken into consideration:
    - maintaining successful mitigation approach from Phase 1
    - shrouding equipment (generators and pumps)
    - retaining sound barrier walls
    - monitoring equipment

- no complaints ever received about previous work

b. Cleveland Dam Drum Gate

- Metro Vancouver is requesting a variance to the DNV’s noise bylaw to allow for:
  - noise emitting work/equipment outside of normal working hours Monday to Saturday, if required
  - use of generators and dehumidifiers to run 24-7
  - use of equipment that exceeds the noise bylaw limits during normal working hours, when required

- mitigation measures will include:
  - shrouding equipment (generators and dehumidifiers) to keep noise levels to a minimum
lighting planned at access points only, shrouding lights to reduce light pollution

- monitoring equipment

c. Capilano Water Main Project Extension

- Metro Vancouver is requesting a variance to the DNV’s noise bylaw to allow for:
  - extended work hours on Saturdays from 7 a.m. to 8 p.m.
  - use of generators for power and pumps to run 24-7
  - extended work hours beyond 8 p.m. for concrete placement and emergency situations
  - possible use of equipment that exceeds noise bylaw limits
  - final lift of paving and line painting 8 p.m. to 7 a.m.

- in order to keep noise levels to a minimum, the following mitigation measures will be employed:
  - shrouding equipment (generators and pumps)
  - monitoring equipment to ensure compliance

Discussion

Note – after discussion of each of these Noise Bylaw Variance requests, CMAC unanimously indicated support for these requests. Metro Vancouver indicated a need to do some final, minor editorial changes and to circulate the amended draft letters to CMAC for a final review by the end of the week. Following that, a commitment was made for CMAC to submit a letter indicating support to DNV.

5. “Lessons learned” CWMP

Note – there was an intent to have a discussion about “lessons learned” with respect to community impacts during the Capilano Water Main Project. Suggestions were made that from a Metro Vancouver perspective, this discussion would be more beneficial at a later date, following a similar discussion between MV and DNV. Also, CMAC suggested that perhaps a representative from Pedre (on-site manager) could add to the value of this discussion. Metro Vancouver committed to extending this invitation but there was no promise that Pedre would decide to participate. The timing of this item is TBD.

NEXT MEETING

The next CMAC meeting will be Wednesday, June 15, 2016 (5:00-6:30 pm) at the DNV District Hall Committee Room. The shortened time frame should accommodate the agenda that we have and will allow us to use this room which is more convenient for CMAC while also allowing for another group with a previous booking of the room after this time to continue with their plans.