**8.23.19 Planning Div. Comments on MMC *Sound Measurement Plan* (rev 8/16/2019)**

1. *About this Plan:* The bolded and underlined comment regarding exceeding the expectations of the FAA is not relevant, as MMC is committed (per the MMC IDP page 96) ’…to conduct a noise study as part of the site plan process…and work to mitigate any potential noise impacts”. Please cite the IDP requirement in this section.
2. *The Basics of Noise and Sound*: As stated previously, consider moving this to an Appendix as it is not particularly meaningful in the context of the purpose of the *Plan*. Please provide footnotes or references for any quotes.
3. *Background of MMC Helipads:* 
   1. In the first section, add something to the effect of: *“the existing helipad was approved in 2005 as part of the original Contract Zone based on sound studies and assessment of potential impacts”*.
   2. Please add “*subject to the condition requiring this SMP*” at the end of the sentence “*In 2018, the city of Portland approved MMC”S…*.”
   3. If possible, indicate how often use of the secondary helipad is likely to occur.
   4. P. 6 - How will MMC ensure other operators of helicopter flights also avoid negative impacts to neighbors?
   5. The plan states that *“any effort to limit the number of flights…time of day…will negatively impact patient care..”* It is understood that some variables (e.g. time of emergent landings) can’t be modified, but as stated previously, is there any way to make an effort to schedule non-emergency transfers for certain times, for instance?
   6. *Standards for Aircraft Sound – Local Standards:* Please remove discussion of the B3 zone as MMC is in the MMC IOZ and is bound by the MMC IDP and Regulatory Framework. Please cite the MMC IOZ/IDP instead.
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5. *Measuring Sound Generated by MMC’s Helipad:*
   1. When data is provided, it would be helpful to have a table with three headings corresponding to the test flight locations (existing helipad, new main helipad, new secondary helipad) with the DNL at each of the measuring locations for each test flight location.
   2. Regarding *a. Sound Measurement Locations,* we think it would be helpful to add: “*These are the same as used in 2003-2005 and were chosen at that time to assess a helipad anywhere on the MMC campus. They are helpful in understanding the likely change in sound impacts associated with relocation of the pad, but less helpful in predicting the shielding effect of buildings as this effect is relatively localized. These studies indicated that there would be a cone of potential sound increases very near the helipad under the approved flightpaths*”.
6. *Complaints and Monitoring:* Reframe this section as ‘mitigation’ or ‘management of impacts’ with two components:
   1. *Mitigation for a defined "cone" of known impact* (TBD) where the data shows there is an impact and anyone in that area should be eligible for mitigation by right if requested as outlined in the previous version of the SMP
   2. *Mitigation for anyone outside the cone,* to be based on the complaint process similar to that described using the FAA criteria re delta of 1.5 DNL. The complaints should not be limited to a particular flight path - the condition of approval was placed on this project because it was thought (and verified by our consultant) that there could be pockets of properties outside the core area that are impacted because of local conditions (i.e. loss of local shielding or frequent deviations from approved flight paths).  The complaints would indicate whether there is a pattern of wider impacts, and the plan should lay out thresholds and options for potential mitigation in these cases. For example, the criteria for mitigation for any complainant would be to calculate/interpolate the baseline DNL (sound that they experienced from the previous helipad location) and then measure the actual DNL of the operations using the new helipad location.  If over 65 and delta of 1.5 they would get mitigation (which should be defined in this section). The review of the complaints would seek to identify what element is in common and what could be changed to address the issue.
   3. Re the references on page 12 to involving the FAA in determining the necessity of mitigation, this is not appropriate. We are using an FAA standard as it is the most applicable national standard available, but only to provide a sensible basis for mitigation. The condition requests a set of criteria in order to provide a clear and consistent framework for mitigation within the plan.
7. *Conclusion:*
   1. The *Plan* does not include any discussion of relating to future operational changes (e.g. increases in flight numbers and/or change in flight paths). A process for reviewing potential impacts of such future changes in helipad operations should be covered here.
   2. Similarly, the plan should discuss the role of the Neighborhood Advisory Committee.
   3. Also please clarify how neighbors are going to be informed of the (final approved) SMP and potential mitigation if they feel that they are experiencing a significant increase in sound impacts.