ITEM	QUESTION	ANSWER
1	What is the approximate costs for each type of monitoring?	Because these pay items are new there are no historical costs available.
2	How are Lump Sum Projects treated since quantity totals are not used?	The process outlined is the same for lump sum projects. The summary table placed in the plans would still only list structures that are outside the prescribed limits and would not show the lump sum total of 1. For a project that only uses pay item 108-1, and all structures are within prescribed limits, the box would essentially be blank.
3	For vibration monitoring, what is the farthest distance to list a structure?	This would depend on how "sensitive" the business operation is, soil type, and the age and construction type of the building. A recording studio or eye surgery is very sensitive. When in doubt identify the structure and then discuss with Department staff to determine if it will be monitored.
4	How far beyond the prescribed distances should we look for sensitive sites?	Sensitive business operations are only associated with vibratory monitoring and there are no prescribed limits for this type of monitoring. See answer to FAQ #3 for additional guidance.
5	Please clarify the position that static rolling is not to be used as a mitigation measure for vibration monitoring? What about clay pipes? What about karst areas?	Refer to the Standard Specification for operations that require vibratory compaction equipment. For pavement operations, identify structures in the plans that are conducting sensitive business operations and the need for vibratory monitoring (108-2) even if a project note is placed in the plans requiring static mode. Vibratory asphalt compaction is often the contractor's preferred method because they can reach required density with less passes which speeds up construction. The decision to use static mode as a mitigation measure for the sole purpose of avoiding impacts to business operations (nuisance claims) should be made during the construction phase.
6	If the geotech is asked to help identify structures to be monitored how does the time get transferred to him from roadway for billing?	The range of hours shown for 4.19 are the anticipated hours required to fulfill the requirements of the new design bulletin for Monitor Existing Structures. If the responsibility for identifying structures is assigned to the structural or geotechnical engineer a portion of these hours are to be placed in either 9.15 or 35.19. A note should be included in the staff hour estimations forms that clearly indicate what activity each discipline is responsible for; and the total hours for all disciplines should not exceed the range of 4 to 80 hours.
7	Is a gas station considered a sensitive business operation?	A sensitive business operation is an activity that would be interrupted or greatly affected by vibration, this is what is known as nuisance claims. Gas station operations would not be affected by vibration caused by vibratory rollers.
8	Structures within the prescribed limits are to be called out or are those by default the contractors responsibility?	The EOR is responsible for identifying structures that may require monitoring that are located inside the prescribed limits for settlement monitoring and including the pay item 108-1 in the contract documents. The structures located inside the prescribed limits are not listed in the table; the constructor is to identify the structures he will monitor based on his means and methods.
9	Are license agreements required for monitoring of existing structures?	TCE or license agreements are not necessary. The authority for accessing properties to conduct the monitoring is granted by Florida Statutes 337.274. This is the same statute that allow us to gather survey and geotechnical information necessary for road projects.
10	Can you provide clarification for the term "nuisance" vibration? Does this imply vibration that affects business operations as opposed to structural damage?	Nuisance claims (or complaints) occur when activities being performed in a structure are interrupted or impacted by vibration. When there is concern for potential structural damage, the structure should also be included under pay item 108-1 (inspection and settlement monitoring).
11	What is the background? Why was this intuitive introduced?	

ITEM	QUESTION	ANSWER
12	When the contractor performs vibration monitoring. What does the measurements mean?	From specification 108: "Upon either detecting vibration levels reaching 0.5 inches per second or damage to the structure, immediately stop the source of vibrations, backfill any open excavations, notify the Engineer and provide a corrective action plan for acceptance by the Engineer". This is a measurement of peak particle velocity, not displacement. The recorded levels of vibration can also be used to defend against unsubstantiated claims.
13	Please succinctly summarize when a structure is the contractor's responsibility to identify and when it is the owner's/consultant's responsibility.	See response to FAQ #8.
14	How is the consultant supposed to know what operations are being conducted in adjacent structures if it is not obvious? Is an interview the business owner expected?	As stated in the Chapter 34, structures identified for potential monitoring are based on field observations. Most often the business sign will clearly indicate the activities being conducted in the structure. If it is not clear and it is suspected that there may be sensitive business operations being conducted, then making an inquiry may be prudent.
15	For many resurfacing projects, the consultant is not responsible for geotechnical services.	For most RRR projects only vibratory monitoring may be required due to pavement compaction operations. It is expected that the EOR can identify sensitive business operations adjacent to the roadway without the assistance of a structural engineer or geotech.
16	When might the construction of sound walls (auger cast piles) create the need for monitoring?	Covered by Article 108-2.1.2 prescribed limits item #2.
17	Are large or sensitive utilities ever included as a structure to monitor?	The need to monitor utilities will be determined as part of the utility coordination. Identifying utilities to be monitored is not part of the requirements of the Design Bulletin.
18	What if any services may be expected from consultant during construction as post design services	There should be no post design services associated with Specification 108.
19	For a project that anticipates dewatering in close proximity to the R/W line and there are existing residential structures with previous settlement complaints between 75 and 100 feet of the R/W line, should groundwater monitoring for settlement be included?	The determination for groundwater monitoring should involve the assistance of a geotechnical engineer. The effects of dewatering on a structure is highly variable depending on the soils and the contractor's means and methods.
20	Would 250' be excessive for vibration monitoring a historic home?	250 feet may not be excessive for vibration monitoring associated with pile driving operations depending on soil type, and the age and construction type of the building.
21	With groundwater monitoring being rare, what would you monitor groundwater for?	There are rare occasions where lowering the groundwater may cause a shift in a structure foundation.
22	How would the consultant know if there is a history of complaints for vibration or settlement?	The district will instruct the consultant if there is a known history.
23	In reference to the Summary Table, do we list all structures that the Spec indicates that the Contractor should 'Automatically" be monitoring. (the prescribed limits)	See response to FAQ #8. Do not list or identify structures that are inside the Specification 108 prescribed limits in the Contract Plans.
24	For resurfacing, if vibratory compaction is not allowed, does 108 2 need to be listed in the table?	See response to FAQ #5.
25	What level of staff does the FDOT expect to make these judgments?	The designer is to use due diligence in identifying structures that should be monitored and populate the summary box accordingly. The Department will make the final determination on which structures are to monitored.