***Coding Standard QA audit conducted based on document titled “SQL Coding Standards Dec09-2020” downloaded from in Github.***

**Code reviewed: Phase2-Stored Procedure(s)-Dec13-2020.sql**

**Naming Test 1: Review all column and table names in database and confirm compliance with naming convention**

Checked OK.

**Naming Test 2: Review all reference column names in database and confirm compliance with naming convention**

N/A

**Naming Test 3: Review all join tables and view names in database and confirm compliance with naming convention**

N/A

**Naming Test 4: Review all stored procedures in database and confirm compliance with naming convention**

Check, ok

**Naming Test 5: Review all indexes in database and confirm compliance with naming convention**

No index found in code

**Coding Test 1: Review all comments in database and confirm compliance with comment format**

All comments in compliance

**Coding Test 2: Check that all SQL keywords in database code are typed in uppercase**

No issues found

**Coding Test 3: Check that all statements in database code are closed with a “;” (semicolon)**

Line 76 missing a “;” - **Corrected**

**Coding Test 3.1: Check that each attribute name is placed on a separate line when there are multiple attributes listed in the statement**

Checked, ok.

**Coding Test 4: Check that all “SELECT” queries in database code specify column and table names and do not use the “\*” syntax**

Checked, ok.

**Coding Test 5: Check that all temporary result sets in database code are in the common table expression format using “cte”**

Not in compliance – cte not named or following syntax laid out in code

**In this case “cte” was used to write a complex code for Stored Procedures with parameters. “Cte” syntax may vary from code complexity. The coding standards 3.4 is just an example of how can be used to simply calculate/count/remove duplicates in a specific table.**

**Coding Test 6: Check that all UPDATE and DELETE queries in database code include a WHERE condition**

Checked, ok.

**Coding Test 7: Check that each separate query starts on a new line.**

Checked, ok.

**Coding Test 8: Surround the equals “=” operator with spaces**

Not in compliance - **Corrected**

**Coding Test 9: Check that all JOIN queries in database code include the column name and abbreviated table name**

Checked, ok.

**Coding Test 10: Check use of parentheses with complicated expressions to improve code readability**

Checked, ok.

**Coding Test 11: Check that all INSERT queries in database code include column name**

N/A

**Coding Test 12: Check that all ORDER BY queries are followed by ASC or DESC**

Lines 44 and 68 not in compliance

**ORDER BY was used as part of complex code for Stored Procedures with parameters to make sure that column1 followed by column2 by order and this case it doesn’t sort records in ascending or descending order.**

**Coding Test 13: Security- Use BEGIN TRAN, COMMIT/ROLLBACK with all UPDATE, DELETE, DROP, TRUNCATE queries.**

Queries in line 10 and line 73 not in compliance. Not sure this rule covers ctes.

**BEGIN …. END** **part of complex code for Stored Procedures with parameters** **and doesn’t relate to Referential Integrity rule**

**Coding Test 14: Confirm that datatype character lengths and other attributes are defined for optimal storage**

NVARCHAR(MAX) in line 25. Does table and column name need to be NVARCHAR(100) ?

**Since @sql has a complex code and might exceed 100 characters left it as NVARCHAR(MAX)**