1. PURPOSE

This document establishes the Quality Control Inspection process for Sam Houston State University (SHSU) to provide the necessary supervision, control and tests of all items of work, including that of suppliers and subcontractors, that will ensure the compliance of all work with the contract documents with respect to the contractor-furnished equipment, materials, workmanship, construction, finish, functional performance, and identification of said work.

2. POLICY

The Facilities Planning and Construction Department (FPC) of SHSU through the utilization of a Quality Control System, strives to obtain a uniform, high quality, level of workmanship throughout all phases of procurement, fabrication, construction and installation of equipment and facilities. To assure this end, the following principles will be observed:

Assure the highest quality by maintaining supervised controls and written instructions governing quality control procedures and practices, while establishing clearly defined responsibilities and authority for compliance.

Conform to all contractual requirements, specifications, applicable Building Codes and the Texas State University System Quality Control Plan. Compile accurate records of test certifications and other required documentation.

Notify the Project Superintendent, Project Manager, and the appropriate individuals with FPC management utilizing e-builder, of quality deficiencies for immediate corrective action. Assure that corrective action is implemented properly.

3. ORGANIZATION

The quality control organization is comprised of the Owner’s Site Designated Representative, Construction Administration Manager for the Designer of Record, Project Engineer for the Contractor, the Construction Manager / Project Coordinator for SHSU, the Project Manager for SHSU, the Project Inspector for SHSU, Special Inspectors engaged by SHSU, Construction Material/Engineering Testing Personnel and other individuals and/or companies required to support the quality system.

Owner’s Site Designated Representative (Director Facilities Planning and Construction)

The Owner’s Site Designated Representative (ODSR) shall be identified by notification from TSUS (“Owner”) to the Contractor pursuant to section 9.5 of the Contract. The ODSR will have full authority over the inspection process and will identify the inspectors to the Contractor in writing.
Construction Administration Manager (Design Team / Architect)

The Construction Administration Manager (CAM) shall provide quality control measures during the construction to ensure project requirements are being maintained. These activities will generally include review of submittal and samples, mockups and field observations of in place work. Additionally, the CAM will be responsible for distribution of any (CMET) reports to the appropriate design team sub consultants for review and comment.

Project Engineer (Construction Team / Contractor)

The Project Engineer (PE) shall formulate and implement the procedures necessary to comply with the contract requirements and the requirements set forth in the plans and specifications. PE will consult with project supervisory personnel to assure compliance with the quality control requirements. The PE will coordinate the quality control efforts of subcontractors and suppliers to correspond with the overall Quality Control Plan. He will review and coordinate submittals for contractor furnished materials and equipment, tests, and follow-ups of subcontractor’s work as required, ensuring compliance with contract plans and specifications. The CE will be responsible for maintaining and uploading a deficiency log onto e-builder on a weekly basis. For all inspections the PE will be responsible for coordination with the CM and PI and will assure the appropriate parties from the contractor, subcontractor/vendor are available to accompany the PI, if requested. Unless agreed to by the SHSU PM the PE will be on site during normal working hours.

Construction Manager / Project Coordinator (SHSU FP&C)

The Construction Manager (CM) will be the primary point of contact for the contractor when scheduling inspection services, including initial inspection and re-inspection. The CM will be responsible for weekly review of the work in place and will prepare a field report which will identify any deficiencies noted. Any such deficiencies will be incorporated in a deficiency log which will be maintained by the PE.

Project Manager (SHSU FP&C / 3rd Party PM)

The Project Manager will monitor and assure the overall quality of the project is in conformance with the contract requirements and the requirements set forth in the plans and specifications. Any significant deviation will be elevated to the project management team for review and resolution.

Project Inspector (Licensed or Certified SHSU / Design Professional)

The Project Inspector (PI) will be responsible for perform all licensed trade inspections during the various phases of work. The PI will observe the in place work and determine if is in conformance with the building codes as noted with the construction plans and specifications, general quality of workmanship, materials and equipment are in conformance with the plans and specifications, required markings and coatings are in place, appropriate clearances have been provided for servicing of equipment and systems function as designed. The PI will report directly to the CM and provide written documentation each pass/fail with any deficiencies notes. Such written documentation shall be signed and dated. All inspection reports will be provided to the CM and the contractor.

Project Observer (SHSU / 3rd Party PM)

The Project Observer (PO) will be responsible to provide observation when requested for trade inspections during the various phases of work. The PO will observe the in place work and provide observation of level of quality of installation. If quality of workmanship, materials and equipment are in conformance with the
expected level of quality, then written documentation shall be noted and signed. In the event, the 
observation does not meet level of quality, the work in question shall be photo documented with contract 
document references for review and final direction from the CAM and/or licensed professional. The PO will 
report directly to the CM. All inspection reports will be provided to the CM and the contractor.

**Special Inspector (3rd Party)**

Special Inspectors (SI) will typically be 3rd-party vendors who will perform specific test procedures as 
requested by SHSU. Their test procedures will adhere to industry stand testing methods as set forth in the 
contract and plans and specifications. Should any testing be requested that was not identified with the 
contract and plans and specifications the contractor, design professional of record and PM will meet and 
agree on the appropriate testing procedures.

**Construction Material/Engineering Testing (3rd Party)**

The Construction Material/Engineering Testing firm will be identified by SHSU during the preconstruction 
kickoff meeting. The PE will be responsible for coordination of the services of the CMET and will notify the 
CM every time a test or inspection is requested from CMET. The results of the CMET testing or inspection 
will be reported in the field to the contractor superintendent or his designee and will be follow by a written 
report which will be uploaded to e-builder by the CM after review. The CMET will participate in the concrete 
pre-installation meeting and procedures for testing of the concrete materials will be reviewed and agreed to 
by all parties as it relates to where samples will be taken and how the samples will be held until final pickup 
by the CMET.

**Building Envelope Consultant (3rd Party IDIQ)**

A Building Envelope Consultant may be utilized on this project. The following explains the duties of the 
Consultant, contractor and the subcontractors as are related to this service.

The Building Envelope Consultant will perform plan reviews to determine if the documents are appropriate 
for the project, and provide sufficient information for construction. The Consultant will also report on the 
acceptability of the specified, as well as submitted materials.

During the construction stage, the Consultant will perform site inspections to assist the Project Team in 
determining the acceptability of the installations.

The PM will be responsible for initiating and administering this process. Typical timing of the 
procedures is as listed below.

- Plan review will occur at 100% DD, 50% CD & 100% CD deliverables.

**Submittals**

An electronic copy of the submittals shall be circulated via electronic format to allow for review and 
approval by the appropriate parties. Once approved, submittals with comments and edits shall be uploaded 
to e-builder. Any samples to be submitted via e-builder by photograph or copy for record purposes. All 
large scale samples shall be maintained at the contractor’s job trailer for review by the appropriate parties.
Controls of Onsite Construction

The CM, PI, SI and CMET will perform required control phases and tests of in-place work, including that of subcontractors to ensure conformance to applicable specifications and drawings with respect to the materials, workmanship, construction, finish, functional performance, and identification.

Three Phases of Control

Preparatory - Performed prior to beginning each definable feature of work as defined in Section 8 of this QC Plan. The contractor will notify the CM and other appropriate parties seventy-two (72) hours in advance of the meeting. The Contractor shall ensure that all submittals have been submitted and approved.

1. Review contract requirements. Resolve differences of interpretations of the contract requirements if any.
2. Verify all materials and/or equipment that are to be incorporated in the feature of work are on hand and have been tested, submitted, stored, and approved as required.
3. Discussion of procedures for controlling quality of work including repetitive deficiencies.
4. Document construction tolerances and workmanship standards for each feature of work.
5. Confirm provisions for control testing have been arranged.
6. Examine work area to confirm all preliminary work have been accomplished.
7. Review any hazardous conditions which may exist relative to the proposed work and review related safety plan.

Initial Inspection - Performed at the beginning of each definable feature of work when a representative amount of work is in place. The initial inspection will be conducted by the appropriate inspecting party as defined above.

1. Contractor shall notify SHSU CM at least 24 hours (8:00 AM to 8:00AM) in advance of the required inspection. Provide populated Inspection Form.
2. CM issues outlook invite to appropriate Supervisor / Design professional / 3rd Party inspector for required inspection at least 24 hours in advance.
3. Check preliminary work.
4. Review of control testing, if appropriate.
5. Verify level of workmanship.
6. Check for use of defective or damaged materials.
7. Check for omissions and resolve any further differences of interpretation.
8. General check of dimensional requirements.

9. Check safety compliance.

10. If work is found not to be in compliance, it will be documented as a deficiency and re-inspected during a follow up inspection if it was not corrected at the time of the initial inspection.

**Follow-Up Inspection** - Perform weekly checks to assure continued compliance with workmanship established at the initial phase.

**Offsite Inspection**

Facilities of offsite fabricators and suppliers will be surveyed as required to assure that all requirements of the contract drawings and specifications are met and maintained and to assure delivery of quality products. The results of each survey will be recorded and will uploaded to e-builder. The fabricator or supplier will be notified of any deficiencies and will be required to submit a report of corrective actions taken. The contractor will inform the SHSU of offsite surveys.

**Documentation**

The PE will maintain current records of all control activities and tests. These will include factual evidence that the required control phases and tests have been performed, including the number and results; nature of defects, causes for rejection, etc.; proposed remedial action' corrective actions taken. Contractor's records will cover both conforming and defective. An Inspection/Observation Log will be maintained on site and all inspections and the results thereof shall be properly documented on the Log. Individual FPC Inspection forms, once completed will be placed in a binder on site for reference by the construction team and will be uploaded to e-builder for archival purposes.

**Drawing and Document Control**

Contract drawings by the designers of record and change modifications issued for construction will also be uploaded to e-builder and the PE will be responsible for maintaining a complete set of documents on site. The Owner may engage a vendor to perform construction progress documentation (photographic or video) to capture the as-built conditions throughout the construction progress and the Contractor will provide access to the vendor for these purposes.

**Workmanship Inspection**

Items which will be embedded in the concrete placements or areas which will be covered up by a following operation will be inspected by the appropriate party(ies) who shall verify that all items installed are in accordance with the contract drawings and specifications prior to the placement of concrete or covering. Any corrective action required will be recorded. These may be inspections by appropriately licensed professionals or observations by individuals who have direct experience in the fabrication, installation on completion of the particular scope of work. Inspections shall only be performed by appropriately licensed professionals for that particular trade. Any failures due to lack of code compliance or conformance with the contract documents will be appropriately referenced with sufficient specific details so as to be easily identified by the field personnel. Monthly a quality control observation will be performed by the appropriate parties to assure the placement of work is in conformance with the contract documents. The
CM will be responsible for coordination and scheduling of these monthly activities and will assure they are properly documented.

**Final Inspect and Test**

Prior to final inspection or start of tests, all systems being inspected or tested shall be completed and accepted by the appropriate inspecting party(ies). After this acceptance, the final inspection and test may proceed in accordance with the following steps:

- Note the particular inspection or test requirements and criteria for successful completion of the required inspection or test.

Upon satisfactory verification of this requirement the test may proceed. Each reading will be verified and documented by the testing party(ies). No functional test will be accepted without properly authorized and approved test procedures.

The general requirement of final acceptance will include, but not be limited to, the following:

1. General appearance
2. Workmanship
3. Cleanliness of areas and equipment
4. Identification of equipment
5. Painting
6. Removal of unused material and temporary facilities

**4. TESTING METHODS**

All testing will be in accordance with the applicable section of the specifications. PI will be present during all mechanical and electrical testing. All testing will be performed per applicable code and or specification.

**5. RECORDING FORMS**

The following list itemizes some of the forms which the contractor PE intend to use. This list is not all inclusive and may be revised and updated as conditions require. The contractor's records will be uploaded to e-builder.

1. Inspection/Observation Log – Used for tracking onsite inspections and observations.
2. Daily Report - To be used to report the day's quality control activities of the Contractor and all subcontractors, submitted to SHSU weekly daily.
3. Trip Report - Used to report activities covering offsite trips. Trip Reports will be submitted with the contractor's Daily Report if applicable.
4. Copies of all inspections and test reports including data and calculation sheets will be submitted
with the Daily Reports.


6. QUALITY CONTROL PROCEDURES

Observation of Subcontractors' Operations

Observation of the subcontractors' operations is the responsibility of the contractor. Deficiencies that are identified will be recorded and transmitted to the related subcontractor. The contractor's superintendent have will act directly with the subcontractor representatives on routine quality control activities. If the deficiency is related to a concrete placement or will be covered by the following operation, a resolution will be made prior to the item being covered. Deficiencies will be followed up on a daily basis by contractor.

Inspection Acceptance Procedures

Construction work shall be in accordance with the drawings and specifications and verified by the appropriate inspecting party(ies). Rework or changes which change existing architectural or engineering drawings or specifications must be authorized by the designer or record and SHSU. Work found not in compliance with the drawings and specifications will be so noted as a deficiencies and will be recorded and tracked in the deficiency log and communicated to the subcontractor and project superintendent.

Inspection Discrepancy Procedures

Intended as an inspection system whereby all discrepancies in quality, workmanship, materials, equipment, supplies, and/or unauthorized deviations from architectural and engineering requirements on specifications shall be called to the attention of the superintendent.

Deficiencies will be recorded on the Daily Report. Each deficiency will be assigned a number by the PE. A concise statement locating the deficiency, description of the deficiency, and if possible a photo will be attached to the Daily Report.

- When material, equipment, supplies, or workmanship does not conform to the contract drawings or specifications, the rejecting inspecting party(ies) will initiate a deficiency report and immediately furnish copies to the contractor's Project Manager, Superintendent and Subcontractor’s representative.

- Upon reviewing the deficiency report, the Project Manager or his representative and inspecting party(ies) will examine the deficiency items. A method will then be determined for the repair or replacement of the deficient items that is in compliance with the contract documents. Any repair or replacement determined that is considered a deviation from the contract documents will be submitted to the designer of record and SHSU for approval prior to installation. This will be done by a submittal, RFI or bulletin.

- Upon completion of rework on items specified for rework, the inspecting party(ies) will be notified and he/she will re-inspect the item(s) to the original requirements, plus the rework information on
the discrepancy report. If it is found acceptable, the discrepancy report will be so noted. From this point on, the item(s) will be handled in the normal manner. If, however, the item(s) is still not acceptable to the inspecting party(ies) due to poor workmanship, etc., arising from the rework, this item will be rejected and will be resubmitted for inspection after further rework.

The deficiency report log will be reviewed weekly by CM, PM and contractor supervision to track and monitor the deficient items.

**Mockups**

Full scale mock-ups of the certain redundant room types may be constructed to allow SHSU staff and the design professionals to view and inspect actual completed rooms for compliance with dimensions, space and equipment configurations, and finishes. These rooms will be constructed in place. There will be an appropriate inspection period that will begin with a design review meeting where SHSU staff can consult with the design professionals. These areas will be defined during the preconstruction phase so as to be incorporated in the subcontracts and schedules.

**Exterior Wall Mockup** - an Exterior Wall Mockup will be constructed prior to and separate from the permanent installation. The location for the mockup will ensure that it is constructed in a manner and location that will allow it to remain in place until the permanent building exterior (skin) is inspected and signed off by SHSU and the designer of record and associated third party inspectors.

Each Subcontractor will construct their portion of the mock-up.

Interim inspections of the Definable Features of Work inspections will be conducted by the appropriate parties.

When construction of the mockup is completed, the CM will schedule an acceptance inspection with the SHSU, the designer of record, Building Envelope Consultant, and each subcontractor responsible for the scope of work.

The rough in elevations, locations, and proximity to other components used in these mock-ups will be the same as is detailed on the contract documents unless noted otherwise.

Components and detail of the installation will include the following at a minimum:

- Framing; including proper gage, spacing & fastening.
- Detailing at door and window openings, including flashings, air barriers and vapor retarders. Thermal and acoustic treatment; including sealants and insulation.
- Sheathing where applicable including sealing of board joints, screw heads, etc.
- Air barrier including horizontal and vertical laps, sealing of joints and penetrations and interface fenestrations.
- Vapor retarder including horizontal and vertical laps, sealing of joints and penetrations and interface fenestrations.

- Ties, anchors, clips, etc., including method of sealing at fastener or penetration locations.

- Electrical, mechanical and plumbing penetrations including sealants.

- Exterior finish materials

If necessary deficiencies noted during the acceptance inspection will be issued for immediate action/correction to ongoing work scope. These deficiencies will also be tracked in the deficiency log until signed off. Corrections will be required within five (5) working days of receiving the inspection report and confirm in writing to CM that the corrections are completed, upon which CM will schedule a follow-up inspection for final approval.

**Concrete & Flooring Coordination**

The Superintendent is primarily responsible for initiating and executing this procedure with assistance from the subcontractors involved in the placement of the finish materials. The intent of this procedure is to mitigate the risk associated with the installation of moisture sensitive floor coverings by establishing appropriate design and installation requirements for the flooring products as well as the associated substrates. These procedures are detailed in the project specifications and the product manufacturers installation requirements.

**7. COMMUNICATIONS Inspection and Testing**

SHSU’s Information technology department “IT@SAM” is responsible for inspection and functional testing observation of all systems which are supported by the data network, including but not limited to, data systems, telephone (VOIP), surveillance, access control, building automation systems, utility monitoring systems, audio visual systems, digital messaging systems, etc. Other SHSU Plant Operations departments may assist IT@SAM with these inspections and observations due to interconnectivity with the related building systems. Plant Operations may not sign off on these inspections with IT@SAM approval. Specific information and requirements will be included in the project specifications. Further, as may be required due to the complexity of the installed systems IT@SAM may develop and issue in conjunction with the system designer a functional testing protocol which will outline the organization, schedule, allocation of resources, and documentation requirements of that process. Forms and checklists associated with the functional testing process will be made available by SHSU and distributed the affected parties.

*For clarity – startup and functional testing along with filling out associated checklists are considered to be part of the normal project scope.*

*Additionally, demonstration of fully operational systems to SHSU and the design professionals is also considered to be a standard procedure for any project and as such a part of the normal project scope.*

The contractor/subcontractor will be responsible for ensuring that appropriate milestone activities associated with the functional testing process are incorporated in the Project Schedule. The contractor/subcontractor is
The contractor will be responsible for verifying the Subcontractors are executing the required elements of the installation and functional testing process agreed upon by the contract or those that are considered to be standard for any installation process.

The contractor will be responsible for the acquisition of forms, checklists, and test procedures from the IT@SAM, as well as the distribution of these forms for use by the Subcontractor(s). Use of the equipment manufacturer’s startup and operation checklist unless mandated for start-up and warranty purposes by the manufacturer, must be approved by the IT@SAM prior to proceeding in this manner. For record keeping purposes, checklists and forms will be distributed by transmittal. In addition, CM will track the transmitted forms and checklists to ensure proper distribution and filing. A record of these forms or their permanent location at the facility will be included in the Project Closeout Manual and in the Operations and Maintenance Manual for each system and piece of equipment covered in this process.

The Subcontractor is responsible for execution of work in accordance with the Contract Documents, including the project schedule, and for recording the verification of this compliance on the forms and/or checklists provided through this process. Additional responsibilities will include any corrective work found to be necessary during this process. Corrective work will be done immediately and demonstrated to the Superintendent, CM and IT@SAM upon completion.

Project Risk Assessment

As part of each Capital Project SHSU FPC and IT@SAM will conduct a risk assessment of the project immediately following the completion of Schematic Design to determine the complexity of the IT/AV and related systems which will be installed as a part of the project. Each project will be assigned a complexity level based on the assessment which will be low (limited technology systems), medium (relatively complex technology systems) or high (extremely complex technology systems or integration of systems not previously utilized by SHSU). Based upon the complexity level IT@SAM will provide FPC with the necessary forms and checklist which will be distributed in accordance with this Plan.

Additionally, any project which has a medium to high complexity level will be brought to the attention of the ODSR and the Vice President of Information Technology, so they may be fully informed of risks associated with the project and their potential impact on the project schedule, cost and functionality. Should issues arise in the field with the installation, functional testing, or warranty the inspectors and the CM are directed to immediately notify the PM and IT@SAM’s Director of Client Services, so they may engage the appropriate parties to resolve the issue(s). Should it appear the issue(s) appear they may impact schedule, cost or functionality they will immediately convene a meeting with the Vice President of Information Technology,
Vice President of Finance and Operations and the liaison for the facility user group to determine the next steps to resolve the issue(s).

8. COMMISSIONING

Commissioning (Cx)

SHSU may elect to implement 3rd-party Commissioning for this project, depending on the complexity of the systems being installed. While this process does not constitute a component of this QC Plan, it is appropriate to include the procedures for handling this process. Specific information and requirements will be included in the project specifications. Further, as may be required by the contract documents, the Commissioning Agent will issue a Commissioning Plan which will outline the organization, schedule, allocation of resources, and documentation requirements of that process. Forms and checklists associated with the Cx process will be made available by SHSU and distributed the affected parties.

For clarity - startup and functional testing along with filling out associated checklists are considered to be a part of the normal project scope. Additionally, demonstration of fully operational systems SHSU and the design professionals is also considered to be a standard procedure for any project and as such a part of the normal project scope.

In the event a Cx is engaged the contractor will be responsible for ensuring that appropriate milestone activities associated with the commissioning process are incorporated in the Project Schedule. The Commissioning Agent is responsible for preparation of associated logs and compiling the final documentation for transmittal to SHSU.

The CM, will schedule and initiate site visits by the designated Cx Representative(s). The initial visit will be to initiate the process. Subsequent meetings will be scheduled at the appropriate stage of the project based on the project schedule and the Cx Plan. Appropriate subcontractors shall be in attendance. Site visits by the Cx Agent will also occur for verification of work in place as well as operational systems reviews. These visits will occur only after the receipt of the appropriate checklists and forms from the Subcontractor as applicable.

• The contractor will be responsible for verifying that the Subcontractors are executing the required elements of the commissioning process agreed upon by contract or those that are considered to be standard for any installation process.

• The contractor will be responsible for the acquisition of forms, checklists, and test procedures from the Cx Agent, as well as the distribution of these forms for use by the Subcontractors. Use of the equipment manufacturer’s startup and operation checklist unless mandated for start-up and warranty purposes by the manufacturer, must be approved by the Cx Agent prior to proceeding in this manner. For record keeping purposes, checklists and forms will be distributed by transmittal. In addition, CM will track the transmitted forms and checklists to ensure proper distribution and filing. A record of these forms or their permanent location at the facility will be included in the Project Closeout Manual and in the Operations and Maintenance Manual for each system and piece of equipment covered in this process.
• The Subcontractor is responsible for execution of work in accordance with the Contract Documents, including the project schedule, and for recording the verification of this compliance on the forms and/or checklists provided through this process. Additional responsibilities will include any corrective work found to be necessary during this process. Corrective work will be done immediately and demonstrated to the Superintendent upon completion.

9. DEFINABLE FEATURES OF WORK (DFOW)

The Definable Features of Work are listed in the following pages and generally follow the specification sections but additional DFOW may be added to further define areas and systems.

10. INSPECTIONS/OBSERVATIONS – Assigned Personnel

Electrical Inspectors:
Robert Smith (Supervisor) - Master
Gary Smith – Master
James Harding – Journeyman
J.P. Beaulieau – Journeyman
Ronnie Nicks (Res Life) – Electrician Apprentice License #78809.

Plumbing Inspectors: Mike Yargo (Supervisor) Certified
Chris Mitchell – Master
Robert Ritchie – Journeyman

HVAC Inspectors:
Charles Johnston (Supervisor) – Universal Certified
Joe Skains – Refrigerant Type 3 - Universal Certified
Bill Pine – Refrigerant Type 1 - Universal Certified
Anson Ward – Refrigerant Type 1 - Universal Certified
Blaine Nokes – Refrigerant Type 1 - Universal Certified
Bill Plitt (Res Life) – Registered AC & Refrigeration Technician #61625
Travis Stroud (Res Life) – Registered AC & Refrigeration Technician 9556, NATE
Billy Skains (Res Life) – TEEX Certified #449-91-4674, NATE, Registered AC & Refrigeration Technician

BAS / Controls Inspectors:
Ron Clifton – Certified Controls

Access Control / Door Hardware Inspectors:
Neal Whitney – (Supervisor)

Food Service Inspectors:
Roger Padon – Master Plumber / Electrical Journeyman / HVAC Universal Certified

Fire Alarm Inspectors:
Doug Odom (fore) – NFPA / EST3 – (Moving to EHS&RM Aug 1) Licensed Alarm Technician
Joel Payne (Res Life fore) – EST3 – Fire Alarm Technician License FAL-7974
Communication Observation:
   Jason Fuerman
   Garrett Jeter
   Melissa Asbury
   Or Designee

General Building Observation:
   ODSR, CAM, CM/PC, PM, CMET
   Glenn Green
   Doyle Cryer
   Ted Norris (Infrastructure Projects only)

Residence Life Maintenance:
   Royce Meadow
   Richard Chisum
   Johnathon Polk
   Ronnie Nicks
   John Christ
   Jeff Vienneau
11. CHECK CALL LIST

AT&T

CenterPoint

City of Huntsville

Entergy

IT@SAM

SuddenLink