



Washington State Department of
Enterprise Services
REAL ESTATE SERVICES

LEASED SPACE REQUIREMENTS

This document contains general information and performance standards for State leased facilities administered by the Department of Enterprise Services, Real Estate Services. Revisions to this document will be approved and issued by RES in the form of version sequences, the first being Edition 1.0.



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GENERAL INFORMATION

1.0 INTRODUCTION

1.1 PURPOSE

The Leased Space Requirements (LSR) is a document providing general information and performance requirements for leased space procured by the State of Washington, Department of Enterprise Services (DES), Real Estate Services (RES), as authorized by Chapter 43.82.010 of the Revised Code of Washington, "State Agency Housing." In combination with RES provided drawings, specifications, and any RES-approved addenda attached as Exhibits to the Lease.

This document and supporting forms may be accessed electronically at the following website:

https://des.wa.gov/about/forms-publications/forms#Real_Estate

1.2 ORGANIZATION

The LSR is organized as follows:

General Information: This section includes definitions of terms that apply within this document and procedural standards for completing new space and alterations of existing space.

Specifications: This section utilizes the Construction Specifications Institute's (CSI) 32-division format for describing the minimum standards and performance requirements for all procedures, materials, and systems utilized in the leased space.

Bid Cost Breakdown - provided on the web page referenced above.

2.0 DEFINITIONS

2.1 ADDENDUM

NEW SPACE ADDENDUM: a RES-approved document describing the minimum requirements for leased space, including both qualitative and quantitative features. This document is an integral part of the Advertisement for Space. Related project costs shall be itemized on the Bid Cost Breakdown in the "Cost to Lessor" column.

AGENCY ADDENDUM (New Leased Space projects): a RES-approved document describing items or conditions for new space that vary from the requirements delineated in the NEW SPACE ADDENDUM. This document is an integral part of the Advertisement for Space. Related project costs shall be itemized on the Bid Cost Breakdown in the "Cost to Lessor" column.

2.2 ADDITIONAL TENANT IMPROVEMENTS

Project requirements that exceed the minimum requirements delineated in the NEW SPACE ADDENDUM to the Leased Space Requirements. , Lessor shall itemize these costs on the Bid Cost Breakdown Form (BCB) in the "Cost to Agency" column.

2.3 ALTERATIONS

The modification of existing tenant improvements or construction of new tenant improvements in existing leased space, which includes leased space after new construction is complete. Tenant improvements include all of the constructed structures, additions, and

fixtures and equipment provided in the leased space, regardless of who paid for the item, unless otherwise provided in the Lease.

2.4 APPROVAL

The itemized costs will be reviewed by the Project Team and authorized by the RES Design Professional.

2.5 AUTHORITY HAVING JURISDICTION (AHJ)

The local code enforcement/permitting agency and its representative officials.

2.6 AUTHORITY TO PAY (ATP)

A document prepared by the RES Design Professional and approved by the RES Design and Construction Program Manager authorizing the tenant Agency to make payment on the construction costs.

2.7 BID COST BREAKDOWN FORM (BCB)

The Bid Cost Breakdown form is submitted by the Lessor to the RES Design Professional after evaluating the RES/Agency approved drawings. The form is designed to identify costs borne by the Lessor, and costs borne by the State Agency for additional tenant improvements. The BCB form is available online at https://des.wa.gov/about/forms-publications/forms#Real_Estate.

2.8 CHANGE ORDERS

RES-approved modifications (additions or subtractions/deletions) to the project's scope of work after signing of the Construction Bid Cost Breakdown Form and execution of the Lease.

2.9 CONSTRUCTION DOCUMENTS

Drawings and specifications prepared and signed by a licensed Architect and/or Engineer retained by the Lessor. Construction documents include the contract for construction between the Lessor and its General Contractor.

2.10 DESIGN PROFESSIONAL

The RES Design Professional is the Architect, Facility Planner, or Construction Project Coordinator responsible for creation of the drawings, specifications, and addenda as required to document the scope of work for tenant improvements. (See PLANS and ADDENDUM). Additional responsibilities and authority of the RES Design Professional are found throughout the LSR.

2.11 EXISTING CONDITIONS

Where existing conditions are indicated on RES-approved plans, they represent work to remain unchanged in the project.

2.12 LEASE

The term "Lease" means the original Lease including all amendments, exhibits, attachments, and addenda that are part of the Lease or any amendment.

2.13 NEW LEASED SPACE

The term "new leased space" means space that is leased for the first time by a state agency, acting through DES (hereafter, a "state agency lease"). Both existing space and newly constructed space may be new leased space. New leased space does not include back-to-

back state agency leases or state agency leases separated by less than one year from the end date of the prior state agency lease and the commencement date of a new state agency lease.

2.14 NOTICE TO PROCEED

For new leased space, the executed lease will serve as notice to proceed with the required tenant improvements. For alterations to existing space not associated with a new lease or renewal, the RES Design Professional will issue a Notice to Proceed letter accompanied by a signed Bid Cost Breakdown form.

2.15 PLANS and/or DRAWINGS

Where “plans” and/or “drawings” are referenced herein, they refer to RES-approved plans and drawings. The RES-approved drawings will include RES and Tenant Agency approval signatures, and become a lease exhibit. RES plans are not intended to be used for permitting or construction, but to establish the complete scope of work for tenant improvements.

2.16 PROJECT TEAM

The State’s Project Team consists of the RES Lease Agent, the RES Design Professional, the Agency Facility Planner and a local representative of the Tenant Agency. The team’s responsibility is to facilitate, approve, and administer the project, from lease negotiations to final acceptance of the built facility and execution of the Lease. The approval of any directives for any phase of the project originates with this group. The Project Team works directly with the Lessor or Lessor’s designee to implement all phases of the project. Only the RES Design Professional may authorize Change Orders, approve the work, and release the Authority to Pay to the Tenant Agency for Tenant Improvement (TI) construction costs and Change Orders.

2.17 PUNCH LIST

An itemized listing of incomplete work and/or deficiencies, which the Lessor is obligated to resolve based on the project’s scope of work, as observed and documented by the RES Design Professional. Authority to Pay will only be issued after all punch list work is completed and approved by the RES Design Professional.

2.18 REVIEW

Examination by the RES Design Professional to determine if a product or material submittal or project construction is consistent with the Lease Space Requirements and project plans. Review by the RES Design Professional does not supplant the need for review of shop drawings and submittals by a licensed engineer or design professional for conformance of products, materials or systems with the construction documents.

2.19 SUBSTANTIAL COMPLETION

As determined by the RES Design Professional, substantial completion is achieved subsequent to the punch list inspection and receipt of the Certificate of Occupancy or the final signed-off building permit.

3 GENERAL REQUIREMENTS

3.1 CODE COMPLIANCE

All spaces leased to the State of Washington shall meet or exceed the requirements of all applicable State and Local governing codes in place as of the date of issuance of the relevant

building permit by the AHJ in compliance with Washington Administrative Code (WAC) Title 51. These requirements include, but are not necessarily limited to, the most current edition of the State Building Code, containing the Washington State Regulations for Accessibility, all Accessibility regulations per Washington State Amendments to the International Building Code (IBC), and the Washington State Energy Code (WSEC). All improvements required to meet these codes and regulations are the financial responsibility of the Lessor.

3.2 LIFE CYCLE COST ANALYSIS

RCW 39.35 and 39.35B require a Life Cycle Cost Analysis as part of renovation or construction of publicly-owned or leased buildings having 25,000 square feet or more of usable space. The Life Cycle Cost Analysis shall be completed by the Lessor and submitted to RES prior to completion of the preliminary drawing phase, and shall be used to help select building systems that will both conserve energy and reduce operating costs. Refer to the Department of Enterprise Services Division of Engineering & Architectural Services' publication: [Energy Life Cycle Cost Analysis, Guidelines for Public Agencies](https://www.des.wa.gov/services/facilities-leasing/energy-program/energy-life-cycle-cost-analysis) for information and format (website: <https://www.des.wa.gov/services/facilities-leasing/energy-program/energy-life-cycle-cost-analysis>).

3.3 ACCESSIBILITY

New construction of buildings, which provide leased facilities to the State of Washington, shall meet the accessibility requirements under the applicable State building codes and the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Alterations to existing facilities shall meet the requirements under the applicable version of the International Existing Building Code (IEBC), the requirements of the local jurisdiction, and any governing State Statute.

1. On all as-built drawings or proposal drawing submittals, the Lessor shall clearly delineate the location of existing and proposed accessible parking, public transportation stop(s), and the accessible routes of travel from each to the main entrance of the proposed leased space. On multi-building sites, accessible routes of travel between buildings shall also be shown. (Reference A2.3)
2. All accessible pedestrian curb cuts shall be located and constructed perpendicular to each street served, eliminating diagonal curb cuts (those that direct people towards the center of street intersections).
3. All accessible entries shall be as close as practicable to the adjacent finished grade and accessible parking.
4. On single-owner multi-building sites, there shall be accessible routes of travel to and between all buildings.
5. Accessible stations at reception and service counters shall be integrated within the main service counter.
6. Public interior corridors leading to tenant-leased spaces shall be a minimum of 72" wide. Primary circulation hallways within tenant-leased spaces shall be a minimum of 60" wide.
7. Declaration of non-conformance with any of the Accessibility requirements listed above shall be brought to the attention of the RES Design Professional and Leasing Agent.

3.4 AS-BUILT DRAWING SUBMITTALS

Lessor shall provide to the RES Design Professional accurate drawings of existing or proposed buildings and site prior to the commencement of the programming and planning. These drawings shall delineate the most current building information and physical configuration (including mechanical and electrical), and be submitted electronically in both pdf and a format compatible with AutoCAD.

Any revisions required during the course of the project based on the submission of inaccurate or incomplete information to the State shall be resolved through the review and approval process and at the direction of the RES Design Professional, and accomplished at the sole cost of the Lessor.

3.5 PREPARATION OF PLANS AND SPECIFICATIONS

New Space: lease exhibit plans, along with Leased Space Requirements and any Addenda, will be prepared, approved, and issued by RES for each State-leased facility requiring buildout for new space. Changes to these documents are not permitted without written approval from the RES Design Professional.

Unless otherwise provided in the Lease, the Lessor, at his sole cost and expense, is responsible for all construction documents required by the Authority Having Jurisdiction, which may include plans and specifications prepared by a licensed Architect and/or Engineer (see LSR A1.9 Construction Documents). Obtaining the building permit is the sole responsibility of the Lessor, including all permitting costs.

Mid-term Alterations: For Tenant requested alterations during the term of the Lease, RES shall prepare scoping documents including floor plans and other drawings; these will be submitted with the Leased Space Requirements and any Addenda, with a Request for Costs to the Lessor. Upon approval of costs, the RES Design Professional will issue a Notice to Proceed with the work.

The Lessor, at the cost of the Tenant Agency, Board, or Commission, is responsible for all construction documents required by the Authority Having Jurisdiction, which may include plans and specifications prepared by a licensed Architect and/or Engineer. It is the Lessor's sole responsibility to obtain all permits for tenant improvements; the Tenant is responsible for the cost of permitting for mid-term alterations.

3.6 DECLARATION OF NON-CONFORMANCE WITH LEASED SPACE REQUIREMENTS

For existing facilities that do not meet 100% of a project's governing Leased Space Requirements at the time of lease inception or renewal, in order to qualify for consideration as a potential State-leased facility in response to a RES Advertisement for Space or market search, the Lessor shall provide RES with an itemized summary of all such building deficiencies. As part of this summary, estimate the monetary impact to bring each deficiency into compliance. RES will then determine if the deficiency is of a magnitude that will prevent a State tenant from occupying the proposed facility. Non-negotiable compliance items include life-safety, indoor air quality, and accessibility.

Any issue or item that has not been specifically identified as being Non-Compliant as stated above will be assumed to be in compliance with Leased Space Requirements. Subsequent discovery of previously undisclosed non-compliant issues and their resulting impact on the project will be addressed and resolved at the sole cost and expense of the Lessor.

3.7 SUSTAINABILITY

This document specifies current sustainable products, practices and elements; however, further efforts toward sustainability are encouraged.

Projects requiring compliance with specific LEED™ (US Green Building Council’s Leadership in Energy and Environmental Design) sustainability criteria will be identified in the project Request for Proposal advertisement and will include a project-specific RES Addendum that will define requirements for complying with LEED™.

3.8 SUBMISSION OF COSTS

The Lessor shall submit a signed itemized construction bid, detailing costs for the Work to accomplish the RES-approved plans and specifications. Those costs shall be submitted on the Bid Cost Breakdown form, or other format approved by the RES Design Professional. RES will approve or reject all additional Tenant Improvement costs. Additionally, RES reserves the right to request alternate bids. If agreement between the Lessor and the State cannot be reached, the State reserves the right to reject the proposal.

Submission of bids by the Lessor, and their subsequent acceptance and approval by RES, constitute an obligation by the Lessor to provide all materials and perform all work required to complete the buildout of the proposed leased facility according to the RES-approved drawings and specifications in their entirety, whether or not specific items have been called out on the Bid Cost Breakdown. The Lessor’s submitted bid will be accepted and approved as all-inclusive for all issues delineated or referenced on the RES-approved documents. Items not included by the Lessor on the BCB are not subject to subsequent payment from the State.

Any cost submittal, change, interpretation of requirements, or revision to the work must be authorized by the RES Design Professional.

All cost submittals shall be itemized by the Lessor as listed below:

- Itemized summary of the work (labor and materials only) with associated costs
- Total of Cost of the Work (“Project Cost Subtotal”)
- Total Project Mark-Up*
- State sales tax
- Lessor’s total (“Total Project Cost”)

** Total Project Mark-up shall include General Contractor’s overhead and profit, Lessor’s management fee, B&O, Builders Risk, Prevailing Wage documentation, General Conditions, etc., and shall not exceed 15%.*

4 BUILDING MEASUREMENTS

4.1 BOMA REQUIREMENTS

Unless otherwise provided in the Lease, the most current version at the effective date of the lease of the “Office Buildings: Standard Methods of Measurement” (ANSI/BOMA Z65.1 or its replacement, if one is designated) shall be the criteria for determining the leased square footage for all office and warehouse space leased to the State of Washington.

For all projects, the Lessor shall provide itemized square footage calculations of "USABLE AREA" (USF or usable square feet), and "RENTABLE AREA" (RSF or rentable square feet). RSF is used for financial calculations as part of the selection process and in the lease contract executed with the successful proposer, regardless of whether the state occupies 100% of the

building, unless specified otherwise in the Request for Proposal advertisement. USF is used for space programming and built space metrics.

4.2 LOAD FACTOR

The load factor is a multiplier obtained by dividing the rentable area by the usable area; it quantifies the efficiency of a particular space. A load factor may also be used to adjust a USF measurement to an RSF measurement.

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00 00 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

00 20 00 INSTRUCTIONS FOR PROCUREMENT

1.1 PREVAILING WAGES

Lessor and Lessor's Contractor shall pay Prevailing Wages or applicable Federal Wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries (L&I). Lessor agrees to comply with the provisions of RCW 39.12 as required under RCW 39.04.260 unless specifically exempted by the Department of Labor and Industries. Submit all compliance paperwork directly to L&I, who makes all determinations regarding the applicability of Prevailing Wage. When prevailing wage is applicable, the Lessor shall provide to the RES Design Professional at the conclusion of the project certification of full compliance with L&I's prevailing wage regulations in order to receive the final project payment. For additional information, visit L&I's website at

<http://www.lni.wa.gov/TradesLicensing/PrevailingWage/default.asp>

END OF Division 00 00 00

01 00 00 GENERAL REQUIREMENTS

01 10 00 SUMMARY

1.1 GENERAL

The following are the State's minimum quality standards for construction materials, assemblies and equipment. The Department of Enterprise Services, Real Estate Services (RES) will release to the Lessor final approved plans and performance specifications (LSR) reflecting each project's requirements. All items required to provide a complete, operational and fully functional facility meeting all approved codes shall be included as part of this project unless stated otherwise. These specifications are generic and apply to a broad range of projects. Some items may not be required on all projects (such as plumbing fixtures when the project involves only minor interior alterations). Provide all materials and accessories for complete, proper installation and operation of products described in the contract documents, even if not specified in this document. Final determination of applicable requirements is the sole responsibility of the RES Design Professional.

1.2 PROJECT DOCUMENTS

These specifications, including any addenda, along with RES-approved drawings, summarize the project requirements. Changes to these documents may only be made in writing by the RES Design Professional. Omissions and discrepancies between construction drawings, specifications, site conditions, and code requirements shall be brought to the attention of RES. The RES Design Professional will clarify the intent of the drawings and program requirements and assist in resolving conflicting issues. The RES-approved drawings will include RES and Tenant Agency approval signatures and BOMA area calculations in the lower right hand corner of the sheet.

01 20 00 PRICE AND PAYMENT PROCEDURE

01 23 00, 01 25 00 ALTERNATES AND SUBSTITUTION PROCEDURES

1.1 ALTERNATES/SUBSTITUTIONS AND MATERIALS

The State will consider formal requests from the Lessor for substitution of products, systems or materials in place of those specified. Construction methods or materials other than those mentioned herein may be acceptable if, with the RES Design Professional's written approval, they provide equal or better quality, appearance, safety and function.

Lessor will provide a written statement to RES that they have investigated the proposed product and method and determined that it is equal or superior to that specified. Submit to RES Design Professional a copy of the manufacturer's literature indicating product description, performance and test data, reference standards and samples (if requested). Provide a complete, detailed description of proposed alternate construction methods. Provide a minimum of 10 working days for all substitutions to be reviewed for approval by the RES Design Professional. Approval of the proposed substitution must be in writing from the RES Design Professional (see Section 01 33 00 for submittal requirements).

Lessor shall coordinate installation of accepted substitution into work, making such changes as may be required for work to be complete in all respects. Lessor is responsible for coordinating all work resulting from substitutions and is not relieved of any responsibilities for the project under the contract. Lessor is responsible for any cost increase associated with substitutions.

01 26 00 CONTRACT MODIFICATION PROCEDURES

1.1 CHANGE ORDERS

CHANGES AND REVISIONS

Any change or revision to the work that would result in additional cost to the State must be proposed in writing to RES. The RES Design Professional must authorize in writing any proposed change or revision to the work. Tenant agencies have no authority to direct the Lessor or Lessor's Contractor to make changes to the Work; nor may they make payments for unauthorized work.

CHANGE ORDERS

Tenant Agencies may at any time request additions, deletions, revisions, or other changes in the Work. If any proposed change or revision to the work would result in additional cost to the State, it must be submitted in writing to RES and shall be incorporated into Change Order.

All Change Order cost submittals must conform to the format required under item 3.8 Submission of Costs. If the proposal is accepted, the RES Design Professional will issue written Notice to Proceed.

01 29 00 PAYMENT PROCEDURES

Upon satisfactory completion of the project, as delineated in Section 01 77 00, the RES Design Professional will issue to the Tenant Agency an Authority to Pay for all RES-approved non-amortized costs.

1.1 AUTHORIZATION OF PROJECT PAYMENTS

The Lessor shall submit to the RES Design Professional (not the Tenant Agency) invoices reflecting all project costs incurred by the State. The RES Design Professional will then issue an Authority to Pay (ATP) to the Tenant Agency for their direct payment to the Lessor. The release of any ATP is at the discretion of the RES Design Professional.

Up to 80% of all RES-approved additional tenant improvement costs or change order costs may be payable to the Lessor subsequent to the RES Design Professional's determination of Substantial Completion. The balance of all RES-approved costs is payable to the Lessor upon the RES Design Professional's determination that the Lessor has satisfactorily resolved all punch list items.

01 30 00 ADMINISTRATIVE REQUIREMENTS

01 31 00 PROJECT MANAGERMENTS AND COORDINATION

1.1 General Communications

All instructions to the Lessor will be given by the RES Design Professional. RES Design Professional's verbal instructions must be confirmed in writing. Minor clarification may be confirmed in meeting minutes or site visit reports. Promptly inform the RES Design Professional of deviations from the established schedule, dimensional irregularities, code concerns, etc. Contractor/superintendent shall be readily available by mobile device during normal business hours. Provide telephone number(s) to the RES Design Professional.

01 33 00 SUBMITTAL PROCEDURES

1.1 PRODUCT SUBMITTALS

Submit, as pertains to the tenant occupied space finishes, complete product specifications, literature, and all material, color and finish samples to RES Design Professional for approval and/or selection. Allow 10 working days for submittals to be reviewed by RES Design Professional. Provide a minimum of 2 submittal packages for review unless electronic submittals are acceptable to the RES Design Professional. Submit together all colors and materials that occur in the same room or rooms. Provide shop drawings where appropriate. Coordinate with Tenant pre-approved color board, if applicable.

Mechanical equipment submittals shall include, but not be limited to, HVAC equipment, fans, air conditioning units, duct lining, controls zoning layout and the controls. The submittals shall indicate the equipment operating point, sound data and pressure drop information.

1.2 SAFETY DATA SHEETS (SDS)

Provide Safety Data Sheets for the following building materials if utilized in preparation of the leased space: insulation, PVA sealer, gypsum wallboard, paint, ceiling tile, carpet, base, carpet/base adhesive, floor patching compounds and sealers, and millwork, and as requested by the RES Design Professional. Maintain copies of SDS at facility location.

01 40 00 QUALITY REQUIREMENTS

01 41 00 REGULATORY REQUIREMENTS

01 41 13 CODES

If access, fire, life-safety, health hazards, or structural deficiencies are detected either before or after occupancy, they shall be corrected by the Lessor at his sole cost and expense. Lessor is responsible for all new construction meeting applicable code requirements.

01 41 26 PERMIT REQUIREMENTS

Lessor shall procure permits, pay all associated fees, and meet all city and/or county requirements as required for completion of the project. Provide copies of the final signed-off building permit and/or the final Certificate of Occupancy to the RES Design Professional at closeout.

01 43 00 QUALITY ASSURANCE

All project work shall be completed in accordance with sound engineering practices, good trade workmanship, and utilizing new or quality used materials, clean and free from blemishes.

01 50 00 TEMPORARY FACILITIES AND CONTROLS

01 51 00, 01 52 00 TEMPORARY UTILITIES AND CONSTRUCTION FACILITIES

1.1 TEMPORARY FACILITIES AND UTILITIES

Lessor shall provide and pay for all temporary construction facilities and utilities.

01 57 00 TEMPORARY CONTROLS

01 57 19 TEMPORARY ENVIROMENTAL CONTROLS

Maintain acceptable indoor air quality in occupied portions of State-leased buildings undergoing renovation projects, by observing the following:

- A. Schedule work with tenant agency as not to interfere with its mission and or workflow. When possible schedule work which results in excessive smells, noise, or dust in tenant agencies off hours.
- B. The size of the area in which renovation is to occur and the scope of the project may necessitate the temporary relocation of the tenants during the construction period. This will be mutually agreed upon and arranged by RES staff and the Tenant Agency.
- C. To prevent construction dust and fumes from infiltrating the building's mechanical system and thereby affecting indoor air quality, the area where renovation is to be performed shall be separated and sectioned off from the remaining space by temporary partitions or plastic sheeting.

If the mechanical system is operational during construction, a MERV 8 filter(s) shall be used. Immediately prior to occupancy, the filter shall be changed to a clean MERV 13. If the building

mechanical system cannot accommodate a MERV 13 filter, alert the RES Design Professional and default to a clean MERV 8.

D. The mechanical system serving the entire space where renovation occurs may need to be turned off during renovation; if so, outside air shall be introduced to this space by means of auxiliary fans. Maintain a slight negative pressure in the construction area. Heating units shall be utilized as required.

E. All finish materials, including preparatory products, shall be non-VOC (volatile organic compound) type products. (See Section 01 33 00, 1.2)

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

01 74 00 CLEANING AND WASTE MANAGEMENT

01 74 23 FINAL CLEANING

Prior to the RES Design Professional's final punch list inspection, perform the following cleaning services throughout the leased facility and in areas directly serving the facility. All finishes are to be cleaned according to manufacturer's recommendations.

Maintain the facility in a properly cleaned condition until commencement of rent or tenants begin their move-in process, whichever occurs first, except for items specifically noted in the RES Design Professional's punch list letter.

A. Clean and sweep all parking areas, driveways, and sidewalks. Remove all construction debris and equipment.

B. Wash all interior and exterior glazing; clean window and relite frames of all debris.

C. Repair, patch, touch up, and/or replace marred surfaces, restoring to a like-new condition. Provide touch-up painting of all walls, corners, columns, soffits, and other paintable surfaces, achieving a blemish-free condition.

D. Vacuum, prepare and clean all finished floor materials and surfaces per manufacturer's recommendations.

E. Remove grease, dust, dirt, stains, labels, fingerprints, etc. from exposed surfaces.

F. Clean all HVAC supply and return air diffusers and grilles, ducts, blowers, coils, fixtures, equipment and piping. Replace disposable air filters and clean permanent filters.

G. Flush water systems (see Section 22 40 00, 1.1).

01 77 00 CLOSEOUT PROCEDURES

1.1 CERTIFICATIONS, WARRANTIES AND SUBMITTALS

Subsequent to the RES Design Professional's determination of Substantial Completion and their approval of initial occupancy by the Tenant Agency, and prior to final inspection or acceptance of the facility by RES, provide the following to the RES Design Professional:

- 1) Permanent Certificate of Occupancy or final signed-off building permit
- 2) As-built drawings (see Section 01 78 00, 1.2)
- 3) Operations & Maintenance manuals (see Section 01 78 00 1.1)
- 4) Domestic water potability certification (see Section 22 44 00, 1.1)
- 5) Safety Data Sheets (SDS) (see Section 01 33 00, 1.2)

Submit written certifications to the RES Design Professional on the respective subcontractor's or consultant's letterhead, signed by the licensed designer/engineer for this project, addressing and specifically stating compliance with the following issues:

A. The HVAC (mechanical) system serving this leased facility has been installed and is operating in accordance with the RES-approved plans and specifications, is clean (all filters have been changed just prior to tenant occupancy), properly balanced, fully operational, and will perform satisfactorily to meet the State's requirements, including the Washington State Energy Code and International Mechanical Code.

B. The electrical system (receptacles, equipment connections, etc.) has been installed and is operating in accordance with the RES-approved plans and specifications, and all circuitry and receptacles are configured and functioning as intended by their design.

01 78 00 CLOSEOUT SUBMITTALS

1.1 OPERATING INSTRUCTIONS / MAINTENANCE MANUALS

Provide Operations & Maintenance manuals for all facility systems, equipment, hardware, finish materials for which the tenants have the responsibility to clean (example: carpet, resilient flooring) or the ability to control, revise, or alter settings or the like at their discretion (example: cypher locks, electronic access systems, thermostats, special HVAC units, special lighting controls). All information contained in these manuals shall be neat, clean, readable, and orderly.

Specific information to be contained in these manuals include:

- A. Names and phone numbers of repair/maintenance contacts.
- B. Simplified operating instructions, and complete emergency instructions in case of system failure or natural disaster.
- C. All warranties/guarantees.
- D. Manufacturer's recommendations for continued care, including method and frequency of cleaning and maintenance.
- E. Reduced-scale zone map for the completed HVAC system and its controls.
- F. HVAC system balance report that indicates conformance with the designed system.

Provide walk-thru training (conducted by the appropriate personnel of the respective disciplines) for the designated Tenant Agency facility manager covering the HVAC controls and all other major building systems/ equipment/ hardware.

1.2 PROJECT RECORD / AS-BUILT DRAWINGS

As the job progresses, the Lessor shall keep at the project site an accurately marked-up set of Contract Documents showing all changes and deviations from the original RES-approved drawings. Upon completion of project, the Lessor shall transfer all changes and deviations indicated on their project sets to a permanent as-built drawing set. All such information shall be neatly and clearly drawn and described with technical accuracy. Lessor shall provide CAD as-built drawings to the RES Design Professional, and one “red-lined” markup of the State-approved plans in electronic format.

END OF DIVISION 01 00 00

02 00 00 EXISTING CONDITIONS

02 20 00 ASSESSMENT

1.1 SITE CONDITIONS

The Lessor is responsible for investigation and determination of all existing site conditions and requirements.

Provide right-of-way construction and site drainage as required by authorities having jurisdiction. All new utilities required for this project shall be underground and meet all local regulations. Existing above-ground utilities may be retained unless local code requires modification.

END OF DIVISION 02 00 00

06 00 00 WOOD, PLASTIC AND COMPOSITES

06 10 00 ROUGH CARPENTRY

1.1 DESCRIPTION OF THE WORK

Provide carpentry work, all materials and items required for complete installation of products including anchors, fasteners and other necessary accessories. Anchor materials solidly in manner directed and in accordance with highest industry standards. Provide blocking as required for products specified elsewhere. (See also Section 09 20 00)

06 20 00 FINISH CARPENTRY

1.1 MATERIALS AND FINISHES

Provide all materials and items required for complete installation of products, including hardware, anchors, fasteners, and other necessary accessories. Finish wood with stain and minimum 2 coats semi-

gloss finish. Provide solid hardwood, hardwood veneer, plastic laminate-surfaced plywood or medium-density fiberboard, or other non-VOC material.

1.2 EQUIPMENT BOARDS

Provide (2) nominal 4'x8'x 3/4" fire-retardant treated plywood on walls of voice/data distribution rooms or as otherwise noted on the RES approved plan. Mount bottom no lower than 24" above floor, top no higher than 84" above floor. Alternate design may be indicated on RES approved drawing or specified by RES Design Professional. Mount on wallboard, masonry, or concrete. Existing equipment boards may be reused if treated with flame retardant coating.

1.3 PARTITION CLOSURE TRIM: TERMINATIONS AT EXTERIOR WINDOWS

Provide sound resistant wood or metal closing trim at walls meeting window mullions or window glazing. Match depth and type of windowsill material and finish wall ends. Styrofoam closures are not acceptable. Submit proposed method to RES Design Professional for review.

1.4 CHAIR RAIL

Chair rail shall be clear hardwood, 5/4 x 6 with eased edges and clear finish. Confirm mounting height with RES design professional. Mount chair rail using scarf joints, blind nailing, and mitered corners, with no exposed end grain. Alternate chair rail materials or products may be used with approval of RES design professional.

06 40 00 ARCHITECTURAL WOODWORK

06 41 00 ARCHITECTURAL MILLWORK

1.1 GENERAL

Furnish and install millwork at the locations shown on the RES approved drawings and as specified, complete with hardware. Provide shop drawings for service/reception counters and/or other specialty millwork to RES Design Professional for review and approval. Provide adequate blocking, bracing and attachment. Shelves shall support minimum 25 pounds per lineal foot without sagging. Provide (1) shelf for every 14", adjustable in 1" increments with wall-mounted aluminum standards and brackets.

1.2 RESTROOM VANITY COUNTERS

Provide wall-mounted countertop with drop in sink. Finish per cabinet specifications.

1.3 COFFEE BAR AND LUNCHROOM CABINETS

See plan for sink location and special features. Design shall be accessible per local building codes. Provide 4" x 4" toe space and base to match room base. Provide plastic laminate-faced countertop with 4" high (min) plastic laminate back and side splashes. Provide plastic laminate-faced plywood, medium-density fiberboard, or other non-VOC material, for cabinet faces with matching edges for all exposed-to-view surfaces; white melamine finish may be provided for interior surfaces and surfaces not exposed to view. Provide accessible stainless steel "D" pulls, or RES approved alternate, and adjustable self-closing hinges.

06 41 16 Plastic-Laminate-Clad Architectural Cabinets

1.1 DESCRIPTION OF THE WORK

Provide 1/16" thick, high-pressure plastic laminate where shown on the drawings or as specified. Provide quality materials such as Wilsonart, Formica, Nevamar, or as approved by the RES Design Professional. Locations may include countertops, edges, splashes, window sills, cabinet faces, wainscot where indicated on drawings, toilet partitions and/or doors. See Sections 09 00 00, 1.2 and 10 21 00 for related requirements.

END OF DIVISION 06 00 00

07 00 00 THERMAL AND MOISTURE PROTECTION

07 20 00 THERMAL PROTECTION

07 21 00 THERMAL INSULATION

Provide thermal insulation for roof, walls, floor, and so forth, as required by the Washington State Energy Code. Attach all insulation to permanent structure. Material laid on ceiling tile to achieve thermal insulation value is not acceptable.

07 30 00 , 07 40 00, 07 50 00 ROOFING

1.1 NEW CONSTRUCTION AND REPLACEMENT ROOFING

Provide complete assembly meeting all manufacturer's requirements for minimum 20-year guarantee. Use compatible materials. All low-sloped roofs shall have a reflective coating (or use a light-colored roofing material which shall be kept clean and in good repair to maintain its effectiveness. Design roof with positive slope; control run-off with adequately sized rainwater leaders and storm water system. Protect all openings against water infiltration with curbs, minimum of 6" high. Control runoff away from sidewalks and entries.

1.2 EXISTING ROOFING

Provide roof assemblies in good repair, free of leaks and prolonged standing water (longer than 48 hours). Control runoff away from sidewalks and entries.

07 90 00 JOINT PROTECTION

07 91 00 PREFORMED JOINT SEALS; 07 92 00 JOINT SEALANTS

1.1 All interior sealants, adhesives and compound products used shall be non-toxic, low-odor and solvent-free, and shall be antimicrobial with no hazardous vapors and containing no carcinogenic materials. All exterior sealants shall be as recommended by the manufacturer for substrate compatibility. Provide all necessary items required for complete sealant installation.

END OF DIVISION 07 00 00

08 00 00 OPENINGS

08 10 00 DOORS AND FRAMES

1.1 GENERAL

Provide commercial-grade products. Replace all warped doors. Replace any existing door that cannot be restored to like-new condition. All replacement doors to match existing.

08 11 00 METAL DOORS AND FRAMES

1.1 SIZE AND CONSTRUCTION (EXTERIOR)

Unless otherwise specified doors shall be 3'-0" minimum width, 7'-0" high or match existing, 1- $\frac{3}{4}$ " thick flush, 18 gauge minimum, galvanized and insulated. Frames shall be galvanized, welded, insulated, weather stripped, 16 gauge minimum, and reinforced for hardware.

1.2 SIZE AND CONSTRUCTION (INTERIOR)

Unless otherwise specified doors shall be 3'-0" minimum width, 7'-0" high or match existing, 1- $\frac{3}{4}$ " thick, 18 gauge minimum. Frames shall be hollow metal, welded or knockdown frames, 16 gauge minimum, reinforced for hardware.

1.3 INSTALLATION

Coordinate all door installation, magnetic hold-opens and electric locking requirements with the door frame supplier and the building security and access systems vendors.

08 14 00 WOOD DOORS

1.1 SIZE AND CONSTRUCTION

Unless otherwise specified doors shall be 3'-0" minimum width, 7'-0" high or match existing. All wood doors shall be hardwood veneer (North American Trees), 1- $\frac{3}{4}$ " thick solid-core. Exterior doors shall be sealed against water penetration.

1.2 FRAMES

Interior frames shall be softwood, hardwood, aluminum, or hollow metal (see Section 08 11 00), as specified in RES approved drawings. If not directly addressed in the RES approved drawings, the Lessor may select the type of frame.

1.3 INSTALLATION

Coordinate all door installation, magnetic hold-opens and electric locking requirements with the door frame supplier and the building security and access systems vendors.

08 30 00 SPECIALTY DOORS AND FRAMES

1.1 DESCRIPTION OF THE WORK

Provide structural enhancements as required or as recommended by door manufacturer to allow proper operation and to prevent sag. Sound attenuation integrity shall extend above ceiling as required to maintain the minimum STC rating from room to room, floor to ceiling, and wall to wall.

1.2 DOOR TYPES AND CONSTRUCTION

1.3 ACOUSTIC OPERABLE PANEL WALLS

Provide STC 44 minimum. Modernfold "Acousti-Seal," "Spacesaver," or Panelfold "Series 4800," or approved equal. Provide integral access door when required by code or as shown on the approved drawing. Coordinate location with RES Design Professional.

ACOUSTIC ACCORDION PARTITIONS

Provide STC 39 minimum; Modernfold "Audio-Wall," or approved equal.

08 40 00 ENTRANCES, STOREFRONTS, AND CURTAIN WALLS

08 43 13 ALUMINUM FRAMED STOREFRONTS

1.1 DESCRIPTION OF THE WORK

Provide thermally-broken commercial-quality aluminum storefronts and all appropriate accessories constituting a complete assembly. Construction shall be compatible with power operators. Where applicable, modify existing storefront doors and frames as required to accommodate specific requirements for Tenant security and access systems. See Section 08 80 00 for glazing requirements.

1.2 SIZE, COMPONENTS AND CONSTRUCTION

DOORS

Unless otherwise specified doors shall be a minimum of 3'-0" wide and 7'-0" high, or match existing, head and jamb stiles designed to receive insulated tempered glass and accommodate power operators as required.

WINDOWS

Window frames shall match door frames, heads mounted at the same level as adjacent door head heights, unless specifically noted otherwise.

1.3 MANUFACTURERS

Kawneer Company, Inc., or approved equal.

Horton Series 2000 linear drive sliding door, or approved equal.

08 50 00 WINDOWS

1.1 WALL RELITES

Frames shall match door frames, heads mounted at the same level as adjacent door head heights, unless specifically noted otherwise; non-standard sizes will be shown on the drawings. Provide fire-rated assemblies and/or safety glazing where required by code.

1.2 DOOR RELITES

Frames shall complement door frames, unless specifically noted otherwise; non-standard sizes will be shown on the drawings. Provide fire-rated assemblies and/or safety glazing where required by code.

08 70 00 HARDWARE

1.1 GENERAL REQUIREMENTS

Provide a Certified Professional Locksmith (CPL) or Architectural Hardware Consultant (AHC) to work with the RES Design Professional to oversee the coordination of all hardware applications. Provide manufacturer's heavy-duty commercial-grade hardware per schedule. Each kind of hardware (locksets, closers, hinges, etc.) shall be obtained solely from one manufacturer.

1.2 KEYING

Key all locks for specified function, operation and security. Provide construction keying to master system. Hardware supplier shall provide construction keys to contractor. Coordinate master keying system with Tenant Agency and CPL or AHC to comply with Tenant Agency requirement. Hardware supplier shall provide 4 sets of permanent keys to the Tenant Agency.

1.3 BASIC HARDWARE

STANDARD DOOR HARDWARE SET (RE: SECTION B3.14)

(2) 1-1/2" BALL BEARING HINGES FOR INTERIOR OFFICE DOORS LESS THAN 7'-0"

(1) LEVER HANDLE PASSAGE SET (CYLINDER)

(1) WALL STOP

(3) SILENCERS (OR SMOKE SEAL/WEATHERSTRIP AS SPECIFIED)

1.4 HARDWARE SPECIAL REQUIREMENTS

LOCKSETS AND LATCHES

All locks and passages shall be equipped with lever hardware, except at mechanical, electrical, telephone, and janitor's rooms, where knurled knobs are acceptable. Provide interchangeable core, heavy-duty commercial, cylindrical type. Corbin-Russwin, Schlage Series ND, or equal.

HINGES

Provide ball-bearing hinges throughout. McKinney or equal. For exterior applications, all hinges to be non-ferrous hinges and pins utilizing non-removable pins where applicable.

CLOSERS

All closers shall be adjustable. Door opening force shall be adjusted per IBC. Spring hinge used as closer is not acceptable. Provide cold-weather fluid in exterior door closers where temperatures regularly drop below freezing. If exterior door does not remain closed in windy weather when closer is adjusted to code pressure, then the Lessor shall provide automatic door openers or an enclosed entry vestibule. Provide closers where called for in the door schedule, or where required by code. LCN or approved equal.

SILENCERS

Provide silencers on each door except where smoke seal or weather stripping is installed.

STOPS

Overhead stop to be concealed, Glynn Johnson 320/330 series or equal. Wall stop to be Glynn Johnson WB50 or equal. Floor stops unacceptable unless approved in writing by RES Design Professional. Provide solid blocking for all wall stops. Closer used as stop is not acceptable.

KICKPLATES

Provide door width appropriate 12" high kickplates, stainless steel, or 1/8" impact-resistant plastic, unless noted otherwise. Provide kickplates on push side of doors unless noted otherwise on the plans. Provide kickplates on all restroom, janitor, stair, entrance and exit/pathway doors, and where called for in the door schedule.

WEATHERSTRIPPING/THRESHOLDS

Weatherstrip all exterior doors with continuous vinyl at head and jambs, and door bottom weatherstripping to achieve highest protection against weather infiltration. Provide beveled, 1/2" maximum rise threshold meeting accessibility requirements at all public entrances and accessible routes.

08 71 00 ACCESS CONTROL HARDWARE

CYPHER LOCKS

Cypher locks shall be 9-number minimum, mechanical or electronic push-button code access system. Lock shall have changeable code capacity and be capable of remaining continuously unlocked (at Tenant discretion) during business hours. Simplex or equal.

AUTOMATIC OPERATORS

When noted in the door schedule, provide an automatic operator that is actuated by a push-button or plate, and manually operable for other pedestrian traffic. Alternately, infrared sensors may be provided if appropriate for special design applications and approved by the RES Design

Professional. Provide a complete system for full operation, including field-adjustable variable time delay, opening and closing speed, control switching for security access system and locking, all appropriate connections, and complying with all accessibility requirements.

CARD KEY, DIGITAL KEYPAD, AND PROXIMITY READER SYSTEMS

When noted in the door schedule, provide a fully functional system providing access security control, complete with all components including, but not limited to, panels, door strikes, locks, buttons, readers, contacts, connections, switching, control mechanisms, and operating cards (if applicable). Verify the desired operational parameters with the RES Design Professional and Tenant Agency, and interface all construction disciplines as appropriate. Reference Part B3.11 if included as an addendum.

FINISH

Provide hardware with matching finishes. Match new hardware finish to remaining existing hardware. For new construction, unless noted otherwise, provide BHMA 612(US10) or 630 (US32D), or as approved by the RES Design Professional.

08 80 00 GLAZING

1.1 DESCRIPTION OF WORK AND PRODUCT QUALITY

All new exterior glazing shall meet current Washington State Energy Code requirements.

Interior glazing shall be as shown on the approved plans or in accordance with applicable codes. All window sills shall be finished with plastic laminate or other approved water-resistant material.

1.2 EXTERIOR WINDOWS & SKYLIGHTS

Provide insulated glazing manufactured and installed in appropriate frames such that the assembly resists air and moisture leaks and interior condensation. For new construction, provide thermally broken commercial frames.

END OF DIVISION 08 00 00

09 00 00 FINISHES

FINISH SCHEDULE (unless noted otherwise on plans or in Addendum)

1.1 FLOORS AND BASE

OFFICES (AND SPACES NOT LISTED BELOW)

Carpet tile and base.

RESTROOMS, SHOWER ROOMS

Slip-resistant, unglazed porcelain or ceramic tile. Sheet vinyl optional for leases not exceeding 5,000 square feet. All flooring material shall have matching cove base extending upward onto the adjacent wall at least 5".

SHOWER STALLS

Slip-resistant, unglazed porcelain ceramic tile, unless a prefabricated fiberglass pan or stall has been approved. Configuration must meet ADA requirements.

BREAK ROOMS, LUNCH ROOMS AND COFFEE BARS

Vinyl composition tile, LVT or sheet vinyl. For coffee bars, install full length of counter, including adjacent space for refrigerators, and minimum 24" out from face of base cabinet, unless shown otherwise on drawings. Provide base below cabinets to coordinate with adjacent finishes.

MECHANICAL, ELECTRICAL, VOICE/DATA DISTRIBUTION, COPY, AND JANITOR ROOMS

Vinyl composition tile and base, unless noted otherwise in the RES approved drawings.

VESTIBULES AND ENTRIES

Woven polypropylene, with base, or as shown on the plans.

1.2 WALLS

OFFICES (AND SPACES NOT OTHERWISE INDICATED)

Gypsum wallboard; match adjacent wall texture (existing construction); provide light orange peel texture in new construction; satin or eggshell sheen paint. Provide Level III (minimum) finish.

DRINKING FOUNTAINS

Plastic laminate on adjacent walls to 48" high above finished floor, with continuous metal or matching plastic edges. Extend 18" minimum on each side of fountain. Configuration must meet ADA.

RESTROOMS, SHOWER ROOMS

Ceramic tile wainscot to the height of toilet partitions or 72" above finish floor (AFF) minimum on all walls; gypsum wallboard with semi-gloss enamel above. For leased spaces under 5,000 square feet, FRP wainscot (all walls) and sheet vinyl floors with integral base may be substituted in lieu of ceramic tile.

SHOWER STALLS

Full-height ceramic tile, unless prefabricated fiberglass enclosure has been approved.

JANITOR ROOMS AND MOP SINKS

Gypsum wallboard, with plastic laminate wainscot, Kydex Panels, Marlite FRP or equivalent to 48" high minimum above finished floor at mop sink. Extend 18" minimum on each side of sink.

1.3 CEILINGS

OFFICE AREAS AND CONFERENCE ROOMS

Acoustical tile suspended ceiling system. Office ceiling height 9'-0" minimum in all areas unless otherwise indicated. Provide 10'-0" minimum ceiling height for large open areas where the minimum room width exceeds 30'.

RESTROOMS

Provide gypsum wallboard with semi-gloss paint. Ceiling height shall be 7'-6" minimum, 8'-0" preferred.

SHOWER ROOMS

Provide gypsum wallboard with epoxy coating.

MECHANICAL, VOICE/DATA DISTRIBUTION, AND ELECTRICAL ROOM

Ceiling tile gridded ceilings are required in these room types. In lieu of ceiling tile, rooms may have floor to structure above partitions (open ceiling).

JANITOR ROOMS

Hard ceilings are required in these room types. In lieu of hard ceilings, rooms may have floor to structure above partitions (open ceiling).

09 20 00 PLASTER AND GYPSUM BOARD

09 21 00 PLASTER AND GYPSUM BOARD ASSEMBLIES

1.1 GYPSUM WALLBOARD

Provide 5/8" thick, type "X" for all dry areas, unless otherwise indicated. Install water-resistant 5/8" thick, type "X" for all toilet rooms, and similar wet areas (see Section 09 28 13 for ceramic tile applications). Screw-attach wallboard into metal studs or kiln dried wood studs. Maintain fire-resistant rating of wall/ceiling assemblies at openings. Provide galvanized metal, or plastic cornerbead and edge trim. Tape and mud joints (two coats minimum). For existing facilities, match existing adjacent wall texture.

09 22 00 SUPPORTS FOR PLASTER AND GYPSUM BOARD

For non-loadbearing walls and hard ceilings, provide wood or light gauge steel framing. For light gauge steel framing, comply with drywall manufacturer's recommendations.

Provide studs spaced at 16" on-center minimum for light gauge steel framing or 24" maximum for wood studs. Install supplementary framing, blocking and bracing at terminations in the work and for support of fixtures, equipment services, heavy trim, door stops, grab bars, toilet accessories, furnishings, adjustable shelves, chair rails, and similar construction, sized to carry weight or loading to meet all requirements for items supported.

Provide finished trim or smooth appearance where top of wall meets underside of suspended ceiling. Minimize the gap and provide "J" or "L" metal trim between top of wall and ceiling. Provide bracing to the above-ceiling support structure over doors and elsewhere as required by the building code. Frame around ducts penetrating walls to provide support for gypsum wallboard.

09 28 00 BACKING BOARDS AND UDERLAYMENTS

09 28 13 CEMENTITIOUS BACKING BOARDS

Provide Tile Council of North America (TCNA)-approved tile backer-board behind all ceramic tile applications in all wet areas: USG Durock™ or equal. Install with corrosion resistant fasteners. (See also Section 10 28 19). Install per TCNA installation recommendations.

09 30 00 TILING

09 30 13 CERAMIC TILING

1.1 DESCRIPTION OF WORK

Provide glazed ceramic tile wainscots and slip-resistant porcelain ceramic tile floors. Provide bullnosed edges or extruded aluminum transition accessories at all terminations and/or transitions to other materials, and preformed inside/outside pieces at wall corners and base. Completely seal all ceramic tile applications after installation. Provide grouting, cleaning and sealing in accordance with the tile and grout manufacturer's recommendations.

09 50 00 CEILINGS

09 51 00 ACOUSTICAL CEILINGS

1.1 DESCRIPTION OF WORK

Provide all items required for complete installation of ceiling system, including wall moldings, anchors, accessories, fasteners, etc., required by conditions of installation and/or applicable codes.

NON-FIRE-RATED TILE

Ceiling Attenuation Class (CAC, formerly STC) minimum range 35 - 39, NRC minimum range .65 - .75. Tile with lower CAC and NRC values than those specified is not acceptable. Provide in all areas except as otherwise indicated on the drawings or specifications, or as required by code. Armstrong Fine Fissured, USG Glacier, Omni or equal. Provide humidity-resistant tiles in "wet" and exterior areas.

FIRE-RATED TILE

CAC minimum range 35 - 39, NRC minimum range .60 - .70. Tile with lower CAC and NRC values is not acceptable. Install tile in accordance with tile manufacturer's requirements, all in the same direction. Provide in all areas as required. Armstrong Fine Fissured USG Glacier, Fissured, Omni or equal.

09 53 00 ACOUSTICAL CEILING SUSPENSION ASSEMBLIES

Provide rust-resistant exposed grid system for lay-in acoustical tile, fire-rated where required. Installation typical in all areas except as noted. Grid shall match acoustic tile background, white color or as specified. In no case shall the grid be attached to the mechanical ductwork. Provide seismic bracing and support as required by the building code. Provide humidity-resistant grid system for "wet" areas and laboratories.

For repair/restoration of existing grids that are discolored or rusted, provide GridMAX by Acoustic Ceiling Products, or approved equal, throughout the entire affected space.

09 60 00 FLOORING

09 65 00 RESILIENT FLOORING

1.1 DESCRIPTION OF WORK

Provide resilient flooring as shown and specified. Provide materials and items as required for complete installation of products, including fasteners, anchors, and other necessary accessories. Prepare substrate(s) per manufacturer's directions.

1.2 FINISH CONDITION

All resilient flooring areas shall be cleaned and finished according to manufacturer's recommendations just prior to Tenant occupancy.

09 65 13 RESILIENT BASE

All topset cove base shall be from continuous rolls, rubber/vinyl mix, uniform color full thickness, Johnsonite or Roppe 700 series, or approved equal. All joints to be tight-butt and sealed. 5/8" standard toe base. Provide job-formed corners from continuous rolls.

Provide vinyl or metal transition strips at floor material transitions. Finished transitions greater than 1/4" high shall be beveled or ramped per accessibility requirements.

09 65 16 VINYL SHEET FLOORING

Commercial-grade, .085" thick, .050" wear surface, Mannington Magna, Armstrong Corlon or equal. All sheet vinyl seams shall be welded in compliance with manufacturer's recommendations.

09 65 19 RESILIENT TILE FLOORING

Luxury Solid Vinyl Tile (LVT or LVP), conforming to ASTM F 1700, Class III, Types A (smooth) or B (embossed surface). Glue-down applied, 0.10" (2.5mm) thick, with 20 mil (0.5mm) wear layer. Armstrong - Natural Creations, Mannington - Nature's Paths, Mohawk - Global Entry, or equal. 15 year minimum warranty.

09 65 19.19 VINYL COMPOSITION TILE FLOORING

Minimum 12" x 12" x 1/8" thick, Mannington, Armstrong, Azrock, Tarket, or approved equal.

For slip-resistant flooring use Armstrong Stepmaster or Mannington Assurance Tile (18" x 18") or equal where slip-resistance is noted on drawings.

09 68 00 CARPETING

1.1 DESCRIPTION OF WORK

Provide preparation, substrates, and any materials required (adhesives, floor sealers, fillers, leveling compounds, seaming tapes etc.) for complete installation of carpet. Installation and products shall be per manufacturer's recommendation.

1.2 PRODUCT QUALITY

All carpet shall be from the same dye lot. Products utilizing olefin or polyester nylons are unacceptable. All carpet products shall consist of recycled content and be 100% recyclable (reference A5.6 if included in attached addendum), and shall bear the CRI Green Label Plus approval as well as a CRI Green Label Plus Indoor Air Quality Control Category & Registration Number.

09 68 13 TILE CARPETING

1.1 PRODUCTS

CARPET TILE

TYPE: Level or textured loop

TILE SIZES: per Manufacturer

YARN TYPE: 100% type 6 Nylon or type 6.6 Nylon (see MR Rating)

MODIFICATION RATIO (mr): 2 or lower

DYE METHOD: Minimum 70% Solution-dyed / Maximum 30% Yarn-dyed

FIBER AND BACKING WEAR WARRANTY: 15 years

PILE WEIGHT: 17 oz. minimum

PILE DENSITY: Minimum \pm 6,000-7,000 Moderate to Heavy Traffic (Pile thickness: ASTM D6859 or ASTM D7241 test method)

GAUGE: 1/10 minimum

STITCHES: 6.33 per inch

TUFT DENSITY: 63.3 tufts per square inch minimum

PRIMARY BACK: Polypropylene

SECONDARY BACK: Vinyl, with reinforced fiberglass scrim & integral moisture barrier

SECONDARY BACK WARRANTY: "Non-prorated Lifetime Warranty" - delamination, expanding, shrinking, cupping, and doming.

DIMENSIONAL STABILITY: Pass (AACHEN test)

NYLON TREATMENTS: Test result of 6 or less (AATCC TM175)

RESISTANCE TO DELAMINATION: Minimum 4lb/inch force, no delamination (ASTM D3936)

TUFT BIND: Must resist a minimum of 10 lb force (ASTM D1335)

MOISTURE IMPACT TEST: 10,000 cycles. All product shall pass the British Spill Test and Moisture Impact Test: 5,000 impacts at 1-psi. No penetration on backing. Products will include a permanent moisture barrier; insuring moisture cannot penetrate into the backing and subfloor.

METHENAMINE PILL TEST: Pass (ASTM D-2859)

FLAMMABILITY: Exceeds ASTM E-648 and passes DOC FF#1-70

FLOORING RADIANT PANEL TEST: Class I (Direct Glue) (ASTM E-648)

N.B.S. SMOKE CHAMBER TEST: <450 or less (ASTM E-662)

ELECTROSTATIC PROPENSITY TEST: <3.0 KV (AATCC 134)

TEXTURE APPEARANCE RETENTION RATING (TARR): Minimum 3.5 or greater 3rd party, independent tested (ATMS D5417 or ASTM D5252)

VOC EMISSIONS (per ASTM D5116): CRI green label plus certification number

1.2 ADHESIVES AND FLOOR PRIMERS

Provide non-VOC adhesives and floor primers as recommended by carpet manufacturer and as certified non-VOC by the CRI Indoor Air Quality Adhesive Testing Program.

1.3 PREPARATION

Areas to receive carpet shall be clean, dry and dust-free. Concrete subfloor moisture and heat requirements for subfloor / installation areas shall be in accordance with manufacturer's written instructions. Fill all depressions, cracks and irregularities with non-VOC Portland-based cement compound with latex binders (Ardex, Mapei, or equal), unless specifically prohibited by manufacturer, and grind all ridges and high spots smooth, to achieve a level subfloor throughout. Proceeding with carpet installation constitutes installer's acceptance of the responsibility for correction of unacceptable work due to floor conditions.

1.4 INSTALLATION

Strictly adhere to carpet manufacturer's written floor preparation and installation instructions, as well as CRI Commercial Installation Standard 104 as pertains to project scope. Manufacturer's instructions shall take precedence over CRI 104. Bind edges at floor access panels. Installation of carpet tiles should utilize the "Lift" method for work in occupied spaces.

1.5 FINISH CONDITION

During construction, protect the carpet according to manufacturer's recommendations. Just prior to Tenant occupancy, remove all debris from floors, clean carpet to appropriately eradicate all spots, dirt or adhesive, and make repairs to appropriately eliminate tears, frays, pulled tufts and stains.

1.6 WARRANTY

Provide full product and installation-labor warranty at a minimum for the term of the Lease. Warrant against failure, including loss of adhesion, improper site preparation, and poor workmanship.

09 80 00 ACOUSTIC TREATMENT

09 81 00 ACOUSTIC INSULATION

Provide full-coverage sound attenuation batts in all walls specified to receive them. Walls must be sealed for tight fit at base, ceiling and/or structure. Seal may be sill insulation, acoustic caulk, or other approved method. Provide continuous batt insulation 2' on each side of the wall above the ceiling. The assembly rating of such systems shall achieve and maintain a value of STC 45 minimum, or as noted on drawings. Submit proposed sound wall design and technical data to the RES Design Professional for review.

09 90 00 PAINTING AND COATING

09 91 00 PAINTING

1.1 DESCRIPTION OF WORK

"Paint", as herein defined, means all coating systems materials. Work includes preparation and finishing of all interior and exterior surfaces that are a part of this project. Work shall include adjacent existing surfaces that are disturbed as a result of this work. Work excluded shall be that which is normally excluded such as operating parts and code-required labels.

1.2 MATERIALS

Provide solvent-free, non-VOC paint products.

1.3 PAINTING SCHEDULE

GYPSUM WALLBOARD

Typical: 1 coat primer/sealer, 2 coats eggshell or satin paint.

Toilet rooms: 1 coat primer/sealer, 2 coats semi-gloss paint.

Shower rooms: 1 coat primer/sealer, 2 coats semi-gloss epoxy paint.

CLEAR FINISHES

Finish hardwood veneer doors and wood frames with 1 coat of stain, 2 coats of semi-gloss finish on all surfaces or manufacturers pre-finished doors.

PAINTED METAL

Paint primed hollow metal doors, frames and other prefinished ferrous metals with 2 coats of semi-gloss enamel.

UNPAINTED FERROUS METAL

Prime with one coat rust-inhibiting primer and finish with 2 coats of semi-gloss enamel.

END OF DIVISION 09 00 00

10 00 00 SPECIALTIES

10 10 00 INFORMATION SPECIALTIES

10 14 00 SIGNAGE

1.1 SITE / BUILDING / TENANT IDENTIFICATION SIGNS

If the State agency occupies a multi-tenanted building, and the building's site sign accommodates individual tenant identification, provide agency identification on the site sign (unless waived by tenant). If the State occupies 100% of a building, provide state tenant identification on the site sign (unless waived by tenant).

If the building does not have a site sign, then provide state tenant identification on a building-mounted sign either on the exterior wall or on the windows nearest the main entry, with the design consistent with other tenant signs.

1.2 ENTRANCE DOOR SIGN

Provide a tenant identification sign located either on the glazing nearest the main entry door, on the wall nearest the main entry, or as otherwise approved by the state tenant. Provide contrasting color, white, or black vinyl, Helvetica, medium style letters, unless approved otherwise by the state tenant.

1.3 BUILDING DIRECTORIES

If the building is occupied by multiple tenants or by more than one state tenant, the Lessor shall provide a building directory located prominently in the building's main entry lobby or where most appropriate for high public visibility.

1.4 ACCESSIBILITY SIGNAGE

Provide visible and tactile international symbol of access signs, including Braille, as required by code. One sign that includes both "Men" and "Women" may be provided at unisex rooms.

1.5 ROOM SIGNS

Provide 1/8"-thick plastic sign at each room requiring identification. At all assembly occupancies (conference, training, interview and hearing rooms, etc.), as part of the room identification sign, provide a slide frame designating either "vacant" or "occupied" at the Tenant's discretion. Provide similar slide frame at all private offices to accommodate tenant-provided insert. Mount frames using double-backed foam tape. Coordinate signage location and appropriate room identification system with the Tenant Agency and the RES Design Professional prior to fabrication. Verify with the Tenant Agency the exact wording to be used on all signs.

10 20 00 INTERIOR SPECIALTIES

10 21 00 COMPARTMENTS AND CUBICLES

10 21 13 TOILET COMPARTMENTS

1.1 TOILET PARTITIONS AND URINAL SCREENS

Provide ceiling-mounted toilet partitions and wall-mounted urinal screens in all restrooms in the configuration shown on the approved drawing. Comply with all accessibility requirements for accessible stalls. Partitions and screens shall be phenolic resin, plastic laminate or painted steel, with steel core pilasters, stainless steel fittings, and door returns to preset positions. All brackets to have solid blocking for anchorage. Manufacturers: Bobrick, AAMCO, METPAR or equal.

In multi-stall configurations, provide a continuous stiffener bar or brace mounted at approximately 6'-6" AFF on the back side of each of the toilet partition ceiling-mounted support pilasters (on the stall side) and extending the full length of the stalls.

10 26 00 WALL AND DOOR PROTECTION

10 26 13 CORNER GUARDS

Provide screw-mounted clear plastic corner guards, minimum of 1" legs, mounted from the top of the rubber base to approximately 48" AFF.

10 28 00 TOILET, BATH AND LAUNDRY ACCESSORIES

1.1 DESCRIPTION OF WORK

Provide vandal-resistant, commercial-grade toilet room accessories, Bobrick or approved equal. Basic Requirements include: all toilet fixtures (see Section 22 22 40 00), privacy partitions and screens (see Section 10 21 13), drop in sinks, toilet paper dispensers, toilet seat cover dispensers, sanitary napkin disposal units, utility shelf, soap dispensers, towel dispensers (or hand dryers), grab bars, waste receptacles, mirrors, and 1 coat hook in each stall. Coordinate project requirements with vendor-supplied accessories.

1.2 TOILET PAPER DISPENSERS

Provide 1 for each stall, 2-roll type.

1.3 TOILET SEAT COVER DISPENSERS

Provide 1 for each toilet stall. Wall-mount above or adjacent to toilet.

1.4 SANITARY NAPKIN DISPOSALS

Provide 1 for each Women's restroom stall.

1.5 UTILITY SHELF

Provide 1 for each restroom stall, minimum 8" wide spring-operated pull-down shelf.

1.6 SOAP DISPENSERS

Provide 1 for each lavatory, 1 for each shower, and 1 for each coffee bar and lunchroom counter.

1.7 PAPER TOWEL DISPENSERS

Provide 1 for each 2 lavatories, and 1 for each coffee bar and lunchroom counter.

Electric hand dryers are an acceptable substitute in restrooms.

1.8 WASTE RECEPTACLES

Provide minimum of 1 receptacle for each restroom.

1.9 MIRRORS

Provide 1 for each lavatory, or a full-width mirror to accommodate all lavatories. Plate glass with stainless steel trim, 24" x 36" minimum individual size, with stainless steel shelf.

1.10 GRAB BARS

Provide stainless steel, 1½" diameter vertical and horizontal bars for each accessible toilet stall and each shower enclosures per applicable code requirements.

1.11 BABY CHANGING STATION

Provide 1 in each public restroom, located where shown on the drawings. Koala Bear Kare Baby Changing Station, as manufactured by JBJ Industries, Inc., or approved equal.

10 28 19 TUB AND SHOWER ENCLOSURES

1.1 GENERAL

Where indicated on the drawings, provide either an ADA acceptable fiberglass shower stall or a ceramic tile-lined shower enclosure, complete with all fixtures including fold-down seat and grab bars. Provide stainless steel shower curtain rod and 2 clothes hooks for each shower. See also Sections 09 30 13 & 22 44 00.

10 70 00 EXTERIOR SPECIALTIES

10 75 00 FLAGPOLES

10 75 16 GROUND –SET FLAGPOLES

1.1 DESCRIPTION OF WORK

Provide 30' aluminum flagpole, complete with fittings and lockable halyard control, Concord Industries, Inc. or equal. Illuminate flagpole with photocell switch-controlled light fixture. Locate flagpole and light fixture as shown on the drawings, or as approved on-site by RES Design Professional and the Tenant Agency. Provide all appropriate support and foundation as recommended by the flagpole manufacturer.

END OF DIVISION 10 00 00

11 00 00 EQUIPMENT

1.1 GENERAL

Lessor shall provide the complete installation and maintenance of all code-required and project-specific equipment and systems, including central monitoring service, whether noted on the approved drawings or not, and ensure their proper operation.

11 80 00 FACILITY MAINTENANCE AND OPERATION EQUIPMENT

11 82 00 FACILITY SOLID WASTE HANDLING EQUIPMENT

1.1 GENERAL

Provide a refuse receptacle, location and size as recommended by local governing utility. Provide a level, concrete-paved surface with unrestricted access for garbage trucks, and locate on-site to be efficiently and safely accessible to the building tenants. Provide a 6'-0" high screened enclosure or similar visual barrier surrounding the refuse receptacle pad.

END OF DIVISION 11 00 00

12 00 00 FURNISHINGS

12 20 00 WINDOW TREATMENTS

1.1 SUMMARY OF WORK

All new window coverings shall be horizontal aluminum mini-blinds as a basic requirement, unless building standard or existing window treatments are accepted by the RES Design Professional, or other treatments are specified by the state tenant.

1.2 WINDOW BLINDS

Provide horizontal, adjustable, 1" aluminum miniblinds with manufacturer's factory finish; include integrated head rail, concealed mounting brackets and tilt wand. Alternatively, provide perforated and/or solid roller shades as indicated on the drawings. Manufacturer shall be Levolor or approved equal. Mount to provide coverage the full width and height of the affected window, and securely anchor the assembly at the window head. Perforated blinds shall be 13% open.

END OF DIVISION 12 00 00

22 00 00 PLUMBING

22 10 00 PLUMBING PIPING

1.1 SUMMARY OF WORK

All valves and piping shall be recessed, except clean-outs and flush valves. Provide access panels for individual valves as required for service and maintenance. Clean-outs shall be flush with adjacent wall or floor surfaces. Installation shall include stop valves on water supply lines to permit repair without shutting off main building supply lines. Building and tenant water supply shut-off valve shall be easily accessible and well-marked.

22 30 00 PLUMBING EQUIPMENT

1.1 INSTANT HOT WATER DISPENSER

Provide an ADA compliant instant hot water dispenser.

1.2 WATER HEATER

Provide an energy efficient water heater (or an “on-demand” unit), quick-recovery type, with an energy factor of at least 0.95. Provide the most efficient service location, sized in accordance with area and use of the building. Provide a circulation pump with 7-day programmable electronic timer with battery back-up, or additional water heaters where hot water delivery to fixtures exceeds 10 seconds. Provide 120° temperature water. Provide anti-scalding fixtures where required. Water heater shall be sized to accommodate all hot water connections within tenant spaces. Shell building water heater may be utilized for tenant spaces if capacity meets the above requirements.

1.3 PIPE INSULATION

Piping shall be thermally insulated in accordance with the State Building Code.

22 40 00 PLUMBING FIXTURES

1.1 SUMMARY OF WORK & PRODUCT QUALITY

Provide top-quality commercial-grade plumbing fixtures, including all associated trim and accessories, American Standard, Kohler, or equal. Provide low-flow water closets, urinals (or waterless urinals), and lavatories using commercial-grade carriers and flush valves. Provide floor-mounted water closets in all accessible stalls. Tank-type water closets may be acceptable at leased spaces less than 3000 square feet, or as approved in writing for the project by the RES Design Professional. Flush valves for toilets and urinals in new construction shall be infrared-activated valves. Lavatories shall also have infrared-activated or pushbutton (with automatic shutoff) faucets, and shall be provided with tempered water.

Flush water systems just prior to tenant occupancy and provide a letter of certification that the domestic water lines are clean, disinfected, and that the drinking water is potable and free of objectionable odor and taste.

Lessor shall provide and maintain hot and cold bottled drinking water dispensers on every floor if testing and treatment of on-site water does not meet potable drinking water standards.

1.2 FLOOR DRAINS

Provide self-priming floor drains with traps, 1 minimum in each restroom. Install flush with finished floor. Slope the floor within a 2' radius of the drain to effect positive drainage into the drain. Provide adjustable brass cover grille.

1.3 COFFEE BAR SINKS

Provide 1 self-rimming accessible stainless steel sink, minimum 15" wide, with accessible swivel gooseneck faucet and controls, as well as an ADA complaint instant hot water dispenser at each coffee bar (see Section 22 30 00).

1.4 LUNCHROOM SINKS

Provide 1 self-rimming accessible stainless steel sink, minimum 30" wide, with accessible swivel gooseneck faucet and controls, and an ADA compliant instant hot water dispenser at each lunchroom counter (see Section 22 30 00).

1.5 BATHROOM SINKS

Single wall mounted lavatory sink shall be American Standard, Koehler, Todo, or approved equal. Counter mounted, self-rimming sinks are also acceptable provided they use the above or equal manufacturers.

1.6 MOP SINKS

Provide 24" x 36" one-piece molded construction, floor-type mop sink. Locate where shown on the drawings.

1.7 SHOWERS

Provide showers where shown on drawings. Provide an adequate supply of tempered water (see Section 22 30 00, 1.2), and a floor drain at the drying area. Showers shall be equipped with low-flow heads.

1.8 DRINKING FOUNTAINS

Provide accessible, high-low, wall-mounted, refrigerated bottle fillers in addition to drinking fountains as required by the Building and Plumbing Code.

END OF DIVISION 22 00 00

23 00 00 HEATING VENTILATION AND AIR CONDITIONING (HVAC)

1.1 SYSTEM DESIGN, SUPERVISION AND CERTIFICATION

HVAC systems for all new office space, and remodels affecting over 3,000 square feet of State-leased space, shall have design work accomplished under the supervision of a licensed mechanical engineer.

The Lessor's engineer shall be responsible for system design, construction observation, and certification of the completed system. All projects shall meet or exceed State requirements including but not limited to the WSEC, and International Mechanical Code (IMC). The State reserves the right to hire an independent mechanical consultant to review the design and installation of the HVAC system. Modifications or changes resulting from that review required to achieve compliance with Leased Space Requirements shall be accomplished at no additional cost to the State.

For projects 5,000 SF or greater, provide a general narrative of the proposed mechanical system immediately following receipt of a letter of intent to lease. Include the following information:

(1) Air Flow Delivery Concept: Constant Volume, Variable Air Volume (VAV), Variable Volume & Temperature (VVT), etc.

a. For VAV systems, series fan-powered, pressure-independent terminal units shall be used. Deviations must be approved in writing. Indicate if they will use Permanent Split Capacitor (PSC) or Electronically Commutated (ECM) motors. Indicate if/which terminal units will receive re-heat, and what the re-heat source will be (electric, hot water, etc.) Indicate if plenum or ducted return is proposed.

b. For VVT systems, where practical and where structure and ceiling space allow, avoid combining different exposures (north, south, east, and west) on the same unit, and avoid combining interior spaces with exterior exposures on the same unit. Avoid using VVT air handlers above 20.0 tons. All units 5.0 tons and greater must have motorized bypass. All packaged VVT air handlers with economizers must include power exhaust.

(2) Zoning. Provide a proposed zoning map or description. If zoning is accomplished with terminal units, indicate which zone terminal units will be grouped with which central unit. This can be a highlighted floor plan with notes indicating which zone is served by which central unit.

(3) Equipment Type. Indicate the HVAC equipment type (high performance, packaged, split system, air source, water source, gas-fired heat, DX cool, chiller, boiler, refrigerant types, supplemental heat source, etc.) Electric heat shall not be used, except as supplemental heat.

(4) Provide DOAS (Dedicated Outdoor Air Systems) where required by Washington State Energy Code.

(5) Equipment Features. Describe equipment features such as: tonnage, number of stages of control or modulating control – indicate for both heating and cooling, variable frequency drives, economizers, heat recovery, vibration isolation devices/techniques.

(6) Equipment Location. Indicate the proposed location of all key HVAC equipment (roof, indoor, pad-mounted, etc.).

(7) Filtration. Indicate the proposed level of filtration on each central unit, and all fan-powered terminal units.

(8) Controls. Indicate if the controls are to be networked or standalone. If they are networked, state if the controls interface is to be graphical or text-based, and if there will be remote communication. Indicate if exhaust fans, pumps or other building systems will be controlled

(indoor lighting, parking lights, etc.) Projects that require an Energy Management System / Direct Digital Control (EMS/DDC) system shall have a computer-based front end with graphical interface.

Upon agreement of the initial system concept, the design shall be completed and submitted to the State for coordination of thermostat locations.

1.2 SYSTEM INSTALLATION

Install mechanical equipment and dampers to facilitate service, maintenance, and repair or replacement of equipment components. Ductwork must be sealed per Washington State Energy; duct leakage must not exceed IMC and WSEC prescribed levels.

During construction, store all mechanical equipment, ductwork, piping and insulation in a dry location on elevated dunnage. Remove dust from the inside of metal duct sections as they are erected. Cover all duct openings at the end of each workday to prevent dust migration into ducts. If a duct liner does get wet, dry duct liner within 48 hours using a forced air heater. If moist liners are detected, all affected ducts will be required to be replaced at no additional cost to the State.

1.3 CALCULATIONS AND LOADS

The heating and air conditioning load calculations shall be based on the directives of this section.

VENTILATION

Ventilation shall comply with the International Mechanical Code, and all other applicable codes.

LOAD CALCULATIONS

HVAC systems shall be sized in accordance with the Washington State Energy Code, the following values, and the ventilation rates per International Mechanical Code. Methods shall be as described in ASHRAE Fundamentals. Load calculations for each zone or piece of HVAC equipment shall be submitted to the RES Design Professional with drawings indicating the zoning layout for review and approval. Documents shall provide sufficient detail to accurately describe the intended system and shall include, but not be limited to, glazing areas, glazing orientation, zoning map, number of people, miscellaneous equipment loads, and lighting values. When adding a load to existing systems, calculations will show the existing equipment adequate to supply this load without compromising conditions in other areas.

Landlord shall provide HVAC heating and cooling capacity at minimum to maintain office conditions at 72°F ± 2°F. System shall allow for:

- 2.8 watts/square foot (w/sf) for tenant space lighting and receptacle loads (0.8 w/sf lighting and 2.0 w/sf receptacle loads), or in compliance with the WSEC whichever is more restrictive.
- Ventilation loads based on occupancy, design conditions, and Code required ventilation rates
- Building envelope loads at ASHRAE design conditions with +99% heating and 1% cooling conditions.
- Occupant loads at one occupant per 120 square feet.

1.4 SYSTEM CONFIGURATION

The HVAC supply air system shall be fully ducted. System shall provide outside air ducted directly to the air handling units at all times during occupancy. All plenum return systems must utilize plenum-rated materials as required by codes. Ductwork shall be constructed of galvanized steel installed per Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) Standards. The need for fiberglass duct linings shall be minimized by design of ductwork for low velocities. Where used, fiberglass duct liner shall have a coated surface on the airstream side which prevents fiber release. Cut edges of liner materials shall be sealed in accordance with manufacturer's recommendations. Acceptable manufacturers are Owens-Corning, Schuller, Knauf, Certain-Teed, or approved equal. Flexible duct shall be factory-insulated type with vapor barrier jacket, one-inch fiber glass insulation, zinc-coated steel-spring helix reinforcement, bonded to polyester or mylar liner. The use of flexible ductwork shall be limited to runs of 8 feet. All materials shall comply with UL 181 listed with flame-spread rating not over 25, smoke-developed rating not over 50.

The use of transfer grilles is permitted to return air from rooms under 170 square feet in area, provided they consist of a pair of grilles connected with ductwork with a minimum of two bends, designed and installed to prevent sound transfer from room to room. Multiple transfers in series are not permitted.

The ratio of supply and exhaust air shall be such that the building shall be under slight positive pressure at all times. When economizers are used, controls shall be provided so that outside air is used for the first stage of cooling, supplying a maximum of 100% outside air when outdoor temperatures are sufficiently low to provide the necessary cooling.

Provide separate perimeter zones at a minimum of one zone for each exterior exposure per floor, with an additional zone for the interior. Perimeter zones shall be within 10 to 14 feet of an exterior wall or glazing. In addition, provide an individual zone for all corner offices larger than 200 SF (i.e. rooms having multiple exterior exposures). HVAC serving interior zones may not also serve exterior zones unless approved by the RES Design Professional. Provide each zone with separate temperature controls and temperature sensors. Provide separate zones for special purpose assembly rooms such as conference rooms and training rooms. The system designer shall verify cooling loads with the Project Team prior to completing design, then submit drawings showing zone and thermostat locations to RES for review and approval prior to commencement of construction.

Provide separate ventilation and cooling equipment with 24-hour air conditioning and separate controls for all voice/data distribution rooms and computer (LAN) rooms. System shall be sized to maintain a temperature range of 65° - 75° F.

Designs, including hydronic systems, shall include balance drawings and schedules, which clearly depict air volumes and flow rates for both air and water required at each register, inlet, exhaust, or tap point. Should the designs involve modifications or additions to existing systems, the designs will include such balance drawings for the entire system, not just the portion included in the rework.

1.5 SYSTEM PERFORMANCE

The following pertains to operation of HVAC systems, and should not be used as design criteria. Design conditions are covered in preceding sections on loads and design. HVAC systems shall be considered to be performing in an acceptable manner if they maintain a normal daily operating temperature of 72° F ±

2° F throughout the year, with a maximum allowable variation of $\pm 4^\circ$ F at the extreme outdoor design conditions defined by ASHRAE.

1.6 CONTROLS

Adequate controls shall be provided within the leased space to ensure satisfactory temperature control under the varying load conditions in each zone. The controls shall not be located above office equipment such as photocopiers, printers, kitchen appliances, etc. The automatic controls shall efficiently control the air temperature in all parts of the leased space and in each zone. The controls shall be completely automatic, 24-hour, 7-day programmable with override switch for easy off-hours operation. Provide commercial electronic, programmable, lock-out thermostats, or monitored Energy Management System within the leased space.

On VAV systems, Variable Frequency Drive controlled supply fans shall be used. Provide logic and programming to reset the duct static set-point such that the maximum VAV terminal unit damper is open between 85-90%.

1.7 FILTRATION

Air filters shall be rated at 25-30% average atmospheric dust spot efficiency with an average resistance rating of 90-95% when tested in accordance with current accepted industry (ASHRAE) Standards. Return air in a plenum system shall be filtered at the terminal box before entering system.

1.8 NOISE

Allowable system noise levels shall be as per Room Criteria (RC) curves in ASHRAE Systems Chapter 43. As maximums, private offices and conference rooms shall be RC 35, with open offices RC 40, and circulation, public areas, and computer rooms RC 45. Plenum return systems must restrict noise transfer to adjacent occupied areas. See Section 07 20 00, 1.2 and 09 81 00.

1.9 BUILDING EXHAUST SYSTEM

Restrooms, showers, mechanical, electrical, janitor rooms, and enclosed copy/workrooms shall receive supply or "transfer" air only and be exhausted directly* to the exterior of the building to prevent air from being recirculated to other rooms. Provide separate exhaust system for venting hazardous gasses from laboratories and similar spaces. Exhaust fans shall be installed on roof or in mechanical equipment rooms, or shall be readily accessible in-line fans (maximum sound level classification of 9.0 Sones at 0.125 inches static pressure). System/fans shall be controlled by automatic 7-day timer or local timer switch, depending on application. All exhaust shall be ducted to outside of building away from air intakes. Exhaust systems shall be interlocked with the building HVAC system controls, and operate during the same time that the building is occupied, including manual override unless RES-approved otherwise.

Intermittent or source-specific exhaust systems which do not operate continuously during the occupied mode shall be interlocked with the building HVAC system controls to provide necessary makeup air required during operation. See Division 27 00 00 for voice/data distribution and computer (LAN) rooms.

*A common exhaust system may be used to exhaust from several of these rooms provided each room is operated on the same time schedule.

23 30 00 HVAC AIR DISTRIBUTION

1.1 AIR DISTRIBUTION

The quantity of supply diffusers and return air grilles shall be sufficient to provide even-air distribution throughout the zone. They shall be located in response to the final space plan/work station layout to minimize air blowing directly on individual work stations; but in all cases each supply diffuser shall have a serving area not exceeding 250 square feet and each return air grille shall have a serving area not exceeding 1,000 square feet. Diffusers shall be appropriately sized to provide controlled multi-directional/modular core air distribution with vanes, and shall have a balancing damper minimum of 4' upstream of the grille. Diffusers shall have sound ratings at design airflows of below NC 27. Each diffuser shall have a dedicated and accessible duct-mounted volume damper. Perforated grilles on supply diffusers are not acceptable. Floor registers/diffusers are not allowed, unless part of a raised access floor system serving computer (LAN) rooms.

1.2 AIR INTAKE

Locate air intake away from exhaust outlets and from sources of odors or degraded air quality such as designated smoker areas, chimneys, plumbing vents, and the like. Locate all outside air intakes on the roof or in protected areas to prevent tampering.

END OF DIVISION 23 00 00

26 00 00 ELECTRICAL

1.1 GENERAL

Provide complete electrical power distribution system as required for mechanical and electrical equipment, standard power, isolated power, lighting system, and other equipment as indicated on the drawings and/or specified herein (see Parts A and B, or attached addendum.)

1.2 PRODUCTS AND APPLICATIONS

All products must be of the quality herein specified. All products shall be new and free from defects. All products shall be UL or Extract Transform Load (ETL) certified for the purpose for which they are used. Wires shall be attached to receptacles, switches, and fixtures by a positive clamping method that can be tightened and secured by a screw. "Stab Lock" attachment method is not acceptable.

No electrical conduit shall be more than 40% filled in cross sectional area.

26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

1.1 SUMMARY OF THE WORK

Separate the mechanical power and equipment circuits from receptacle circuits, and locate in separate panels when more than one panel is used. All panel boards shall have key-controlled locking covers. Identify all circuits within panel boards by circuit directory and mark each receptacle with its appropriate circuit number with a visible, indelible typed label.

1.2 DEFINITIONS

The following definitions shall be utilized for the explanation of electrical symbols delineated on the drawings. The examples of use are typical, but can vary for different tenant agencies. Equipment should be powered as recommended by the manufacturer.

DEDICATED RECEPTACLE

The sole receptacle served by a dedicated powered circuit connected to a common ground. Only one simplex, duplex or fourplex receptacle allowed per circuit (usually 20-amp). Identify each receptacle with a red dot. Typically used for equipment and appliances: refrigerators, microwaves, vending machines, photocopiers, laser printers (verify), etc.

STANDARD RECEPTACLE

A 120v, 60Hz, single-phase, 20-amp power receptacle served from a standard branch circuit connected to a common ground. Up to six duplex receptacles may be served from a single 20-amp circuit. Typically used for task lights, desktop appliances, and general convenience.

26 05 13 MEDIUM-VOLTAGE OPEN CONDUCTORS

CONDUCTORS

Feeder and branch circuit conductors shall utilize copper conductors with THHN/THWN insulation. Minimum conductor size for power circuits shall be #12 AWG. Conductors in circuits less than 100 amps shall be sized based on 60°C NEC ampacity ratings. Branch circuit ratings shall be increased per electrical code to limit voltage drop to a maximum of 3%. Minimum branch circuit ampacity rating shall be 20 amps.

26 05 26 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

GROUNDING

Each feeder and branch circuit raceway shall include a copper ground conductor sized per the National Electrical Code.

26 05 33 RACEWAY AND BOXES FOR ELECTRICAL SYSTEM

RACEWAYS

Branch circuit and feeder raceways for interior areas shall utilize EMT (electric metallic tubing) raceways. Provide galvanized rigid steel conduits (GRS) in areas where exposed conduits are subject to damage or in outdoor locations. Metal Clad (MC) Cables shall be allowable where installed within concealed construction. Conduit raceways shall be installed in concealed construction unless in electrical/mechanical rooms or in open to structure spaces.

PANEL BOARDS

Panel boards shall be dead front style and utilize copper or aluminum buses. Panel board covers shall be keyed and utilize door-in-door construction with continuous hinges. Overcurrent devices

shall be fully rated for the available fault current. Panel boards shall include arc flash labels with incident energy levels and available fault current per NFPA 70E.

CIRCUITING GUIDELINES

1. Assume a maximum of four computers each with up to (3) LCD monitors shall be connected to a single 20A circuit.
2. One 20A circuit shall supply a maximum of three private offices.
3. One dedicated 20A circuit shall supply conference rooms smaller than 140sf. Two dedicated 20A circuits shall supply conference rooms sized 140 to 300sf. Additional circuits shall be provided for audio-visual (AV) or similar equipment.
4. Dedicated circuits shall be provided for copiers, kitchen appliances and other specified equipment.
5. Provide cleaning/maintenance duplex receptacles throughout all areas spaced at a maximum of 40 feet. Connect six receptacles per circuit.

CONTROLLED RECEPTACLES

50% of receptacles shall be controlled within private offices, open offices, conference rooms, copy rooms, break rooms and classrooms in accordance with Washington State Energy Code. The controlled receptacles shall be controlled along with the automatic lighting in each space or zone. Provide fourplex receptacles with half of the receptacle controlled at these spaces. Include factory controlled receptacle marking per code.

POWERED SYSTEMS FURNITURE

Provide ceiling, wall or floor branch circuit feed to powered systems furniture. It is anticipated four circuit, eight wire systems will be used. Adjust guidelines for other furniture configurations. Provide one (4)-circuit supply connection to the power whip provided by furniture manufacturer. Provide four circuits for a maximum of twelve workstations. One of the receptacle circuits shall be controlled per the Washington State Energy Code, the other three shall be non-controlled. This guideline is based on two duplex receptacles per workstation; (1) controlled (labelled) (1) non-controlled. Provide one controlled circuit to connect to up to (12) workstations. Provide one non-controlled circuit for up to four workstations. Coordinate with furniture manufacturer.

FLOOR DEVICES

Provide floor box at slab on grade locations and poke thru devices at concrete decks. Provide minimum of one floor box or poke thru device at conference room tables. Provide furniture feed floor boxes or poke thru device where furniture systems are not connected from wall or ceiling (power pole). Provide floor devices at other areas as required by drawings. Floor devices shall have power and data outlets. Provide large capacity devices where needed for audio visual connectivity; equal to Wiremold EFB8 floor outlet or 8AT poke thru devices.

26 08 00 COMMISSIONING FOR ELECTRICAL SYSTEMS

COMMISSIONING REQUIREMENTS

For lighting controls which include daylight or occupant sensing controls, automatic shut-off controls, occupancy sensors, or automatic time switches; the lighting controls shall be tested to ensure that control devices, components, equipment and systems are calibrated, adjusted, and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to ensure they operate in accordance with approved plans and specifications. The Lessor shall provide a complete report of test procedures and results to the RES Design Professional.

26 09 00 INSTRUMENTATION AND CONTROL FOR ELECTRICAL SYSTEMS

SWITCHING

1.1 SUMMARY OF THE WORK

Switch each space enclosed by walls or ceiling-height partitions with lighting controls within that space. The controls shall be readily accessible at the point of entry/exit to personnel using the space. Provide bi-level lamp switching, alternate fixture switching or manual dimming control in accordance with WSEC.

Exceptions: The following lighting controls may be centralized in remote locations:

1. Lighting controls for spaces which must be used as a whole (such as open office areas).
2. Automatic controls, when provided in addition to manual controls, need not be accessible to the users.
3. Controls requiring trained operators.
4. Controls for safety hazards and security.

1.2 AREA CONTROLS

A master control may be installed provided the individual switches retain their capability to function independently. Circuit breakers used as switches are not acceptable.

Exceptions:

1. Warehouse areas.
2. Areas less than 5% of the building footprint for footprints over 100,000 sq. ft.

1.3 DAYLIGHT ZONE CONTROL

All day lighted areas shall be controlled per the WSEC.

1.4 AUTOMATIC SHUT-OFF CONTROLS, EXTERIOR

Exterior lighting shall be controlled in compliance with the WSEC.

1.5 AUTOMATIC SHUT-OFF CONTROLS, INTERIOR

Leased spaces shall be designed and controlled in accordance with the WSEC.

Exceptions:

1. Areas that must be continuously illuminated or illuminated in a manner requiring manual operation of the lighting.

1.6 OCCUPANCY SENSORS AND PLUG LOADS

Interior lighting and power loads for standard receptacles shall be controlled in compliance with the WSEC. Where occupancy sensors are installed, they shall be installed in unobstructed locations. Where an outlet is assigned to a plug load reduction circuit, it shall be identified with a dedicated color device or label.

1.7 AUTOMATIC TIMED SWITCHES

Automatic timed switch controls shall have a minimum 7-day clock and be capable of being set for 7 different day types per week and incorporate an automatic "shut-off" feature, which turns off all loads for at least 24 hours and then resumes normally scheduled operations. Automatic time switches shall also have program back-up capabilities which prevent the loss of program and time settings for at least 10 hours if power is interrupted.

Automatic timed switches shall incorporate a manual over-ride switching device which is readily accessible and located so that a person using the device can see the lights or areas controlled by the switch. The manual over-ride switch shall allow the lighting to remain on for no more than 2 hours and control an area not exceeding 5,000 sq. ft.

26 27 00 LOW-VOLTAGE DISTRIBUTION EQUIPMENT

1.1 FLOOR BOX SERVICE FITTINGS

Provide recessed boxes and durable flush-floor metal covers for service fittings at open office locations. Walker, Hubbell, or RES-approved equal. The covers shall accommodate carpet application for the finished appearance.

1.2 SERVICE POLES (Power Duct Posts)

When service poles are shown on RES drawings, provide 6'-0" minimum flex electrical connection in ceiling space to allow repositioning for accommodating workstation furniture. Install above-ceiling J-box in locations concurrent with the service poles shown on RES drawings. Exact service pole locations and pole installation shall be determined by furniture placement at the time of move-in by the state tenant. Poles will be provided by the Agency's vendor. Connect the systems furniture wiring (provided by the Agency's vendor) to the "hot boxes" after the system furniture has been installed. Receptacles, jumpers and power bars, in the furniture, shall be installed by the Lessor's licensed electrician.

26 50 00 LIGHTING

26 51 00 INTERIOR LIGHTING

26 51 13 INTERIOR LIGHTING FIXTURES, LAMPS, AND BALLASTS

1.1 SUMMARY OF THE WORK

Provide electric lighting serving all spaces shown or referenced on the RES-approved drawings to achieve the lighting levels specified in Section 26 50 00, utilizing the fixtures specified in Section 26 51 13, and incorporating switch controls as specified in Section 26 09 00.

1.2 INSTALLATION

Fixtures shall be connected with 6'-0" minimum of flex conduit to allow repositioning to provide required illumination. Locate fixtures as required for individual desk locations.

1.3 FIXTURES, BALLASTS AND LAMPS

Provide, high-efficiency, energy-saving Light-Emitting Diode (LED) fixtures (preferred) and/or retrofit LED lamps, or fluorescent fixtures with rapid or programmed-start ballasts, except where noted otherwise below.

BALLASTS

Fluorescent ballasts shall be class P thermally-protected, low energy, high-frequency, electronic ballasts meeting ANSI requirements and the following ratings:

1. Minimum Power Factor (PF): 95% at nominal line voltage
2. Maximum Total Harmonic Distortion (THD): 10%
3. Sound Rating: A.

LAMPS

1. For general office spaces: LED or T5 (HE) lamps, with 3500^o K. (+) temperature rating and a minimum color rendering index (CRI) of 80.
2. For exit lights: LED light source with battery back-up. Exit signs must meet Energy Star requirements.

1.4 FIXTURE REQUIREMENTS FOR SPECIFIC AREAS

For general office space: provide direct/indirect lighting fixtures, either pendant or recessed. Design and layout to be coordinated with the State's Project Team.

For restrooms, utility rooms, lunchrooms, storage rooms, LAN rooms, and the like: provide standard LED or fluorescent fixtures.

For conference rooms, training rooms, waiting rooms, hallways, and other intensive-use or high profile rooms: provide a combination of fixtures utilizing at least two of the following in each application: pendant or recessed direct/indirect, can lights, wall sconces, and wall washers.

In warehouse and high-bay applications: provide high-bay LED lamp and light fixtures with 3500° K.(+) temperature rating and a minimum color rendering index (CRI) of 80.

All fluorescent fixtures shall be approved by the lamp manufacturer up to a specific ambient operating temperature of 113° F. at 240V (with the ballast inside fixture) or 122° F. at 240V (with the ballast outside fixture).

1.5 LIGHTING LEVELS

WAITING, STORAGE, RESTROOMS AND HALL AREAS

Provide a minimum of 15 average maintained foot-candles illumination in waiting, storage areas and restrooms. Hallways shall have a minimum of 15 average maintained foot-candles illumination.

OFFICES, OPEN OFFICE AREAS, ASSEMBLY AREAS

Provide a minimum of 30 average maintained foot-candles illumination at all work surface desk-level locations. Coordinate light fixture locations with workstation layout in open office areas.

WAREHOUSES

Provide a minimum of 25 average maintained foot-candles illumination measured at 36" AFF at all warehouse locations. Coordinate light fixture locations with warehouse layout.

PARKING AREAS AND PEDESTRIAN PATHWAYS

Provide 2 minimum maintained horizontal and 1 maintained vertical footcandles in parking areas and 1 minimum maintained horizontal and vertical footcandles illumination in all walking areas for pedestrian security, with complete illumination of exterior areas leading from facility/structure to parking areas.

26 52 00 EMERGENCY LIGHTING

Provide minimum emergency illumination levels of 1 footcandle along all egress pathways in accordance with building codes. Provide exit signage along all egress pathways and at exit doors. Connect emergency fixtures and exit signs to emergency circuits, or equip with emergency battery pack units. Control all emergency fixtures via adjacent fixtures as required by WSEC. When emergency circuits are utilized, connect the egress fixture from emergency and normal circuit through a UL924 device.

END OF DIVISION 26 00 00

27 00 00 COMMUNICATIONS

27 20 00, 27 20 00, 27 40 00 VOICE, DATA, AND AUDIO-VISUAL COMMUNICATIONS

1.1 GENERAL

Contractor shall coordinate with, and provide site access to, the State's Information Technology (IT) representative and with the telephone/data vendors and/or contractors. Coordinate the placement of all rough-in requirements and all State-supplied equipment that is required for a proper functioning telephone system.

1.2 INSTALLATION/FITTINGS

Provide rough-in system as required for complete standard installation of equipment, cable, and accessories. Provide J-box, mud ring, and 1" conduit with bushings to ceiling access where required for wall outlets.

Provide conduit sleeves with bushings at all wall/ceiling cable penetrations. Provide conduit sleeves extending above all hard ceiling or inaccessible ceiling locations. Conduit sleeve size shall provide for 40% maximum cable fill capacity.

NOTE: J-box and conduit are required only in locations where cabling will be routed in walls or partitions. Provide standard flush-floor box service fittings for open office locations except at existing slab-on-grade. For concrete floor assemblies in multi-story facilities, monument-type floor boxes may be substituted for flush floor boxes, if approved by the RES Design Professional.

1.3 VOICE/DATA DISTRIBUTION ROOMS ("LAN" ROOM)

Do not locate the building electrical panels in, adjacent to, or on a common wall with any voice/data distribution room. Provide 2 - 120V 20-amp dedicated circuits with fourplex receptacles for telephone equipment, location as identified on plan. In addition, provide 4 - 4" diameter conduit sleeves through floors from distribution room and through floors and ceiling into the voice/data distribution rooms. (See Section 06 20 00, 1.2 for wall-mounted equipment board requirements).

Voice/data distribution rooms shall be located in spaces completely free from piping systems that do not serve the space including water systems, hydronic systems, waste systems, rain leaders, and sprinkler systems. Relocate existing building piping systems outside of voice/data distribution room locations as necessary. Do not locate piping systems serving the room directly above electronic/computer equipment.

1.4 CABLE MANAGEMENT SYSTEMS

Where specified, cable management system shall consist of trays or J-Hooks, and shall be aligned along the spine of the building, turning at 90 degrees to connect any cable rings or hangers used to secure cables from trays or J-Hooks to point of use. Coordinate the location with the Tenant Agency.

For cable not installed in conduit, and within a plenum air-space environment, such cable shall be plenum-rated CPM ("Communications Multipurpose Cable – Plenum") or OFNP ("Optical Fiber Non-Conductive – Plenum"). All cabling shall be labeled as plenum-rated or non-plenum-rated.

END OF DIVISION 27 00 00

28 00 00 ELECTRONIC SAFETY AND SECURITY

28 30 00 ELECTRONIC DETECTION AND ALARM

28 31 00 FIRE DETECTION AND ALARM

1.1 SUMMARY OF THE WORK

Where required by code or the state tenant, provide a centrally-controlled and annunciated, non-coded, fire alarm system including audible and visual alert devices, manual pull stations, automatic heat/smoke detectors, and automatic communication to a central monitoring provider. Provide a fire alarm system designed, installed, and tested in accordance with the NFPA 72 National Fire Alarm Code and federal, state, and local codes. Provide and maintain central monitoring provider service including continuing communications systems.

END OF DIVISION 28 00 00

32 00 00 EXTERIOR IMPROVEMENTS

32 10 00 BASES, BALLASTS AND PAVING

1.1 SUMMARY

Asphalt paving and sub-base shall be of sufficient thickness to support vehicular and truck traffic without permanent deformations and deterioration. Provide complete weed kill under new asphalt paving as required by the site conditions and as required in landscaping areas.

Place catch basins and slope asphalt paving to prevent standing water and keep draining water away from pedestrian crosswalks. Provide minimum 2% - 3% cross slope to stormwater catch basins. Curb radius to be minimum of 12' at parking intersections, unless otherwise required by local ordinances. Comply with all applicable accessibility requirements.

32 13 00 RIGID PAVING

New sidewalks shall be screed, floated, and steel-troweled with a light broom finish, or to match adjacent work. Concrete shall be a minimum compressive strength of 3,000 psi.

32 17 00 PAVING SPECIALTIES

32 17 13 PARKING BUMPERS

Wheelstops shall be reinforced precast concrete, steel dowel-anchored. Position 3'-0" from curbing. (NOTE: in locations of high annual snowfall, steel dowels may be omitted, except where wheelstops are

required to protect structures or other hazards.) Integral sidewalk/wheelstop curbs are allowed as long as the remaining clear width of sidewalk meets or exceeds the minimum width for access as required by code. In such instances, allow 3'-0" for vehicle bumper overhang.

32 17 23 PAVEMENT MARKINGS

Standard parking stalls shall meet jurisdictional dimension requirements. Provide code-required accessible parking stalls. Striping shall be 4" wide. Paint international symbol on the paving surface of each accessible stall and provide required accessible sign at the head of each stall(s).

32 39 00 MANUFACTURED SITE SPECIALTIES

32 39 13 MANUFACTURED METAL BOLLARDS

Bollards shall be 6"Ø concrete-filled galvanized steel pipe. Embed minimum of 4' into ground and extend 4' above ground level. Paint exposed surface international yellow. Pre-manufactured bollards may be acceptable upon approval by RES Design Professional.

32 80 00 IRRIGATION

32 84 00 PLANTING IRRIGATION

Underground irrigation system shall include integrated time clock control, with moisture sensor, metered separately from main water meter. Provide automatic drainage system to protect system against freezing, including air blowout connections and anti-siphon valve(s). Provide low-volume drip system and/or heads

32 90 00 PLANTING

For new construction and change-of-use facilities, provide landscaping that utilizes native and adaptive species that does not require irrigation outside of drought and establishment periods. If an irrigation system is already installed the system must be separately metered. Show the location of all existing trees on the as-built submittal drawing, and appropriately protect all retained trees and shrubs during construction. Submit plans for review by RES Design Professional.

END OF DIVISION 32 00 00

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END OF LEASED SPACE REQUIREMENTS