Owner's Project Requirements (OPR)/ Campus Standards

WEBER STATE UNIVERSITY
Facilities Management

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Revision History

Date	Owner	Notes
10/08/24	Scott Singleton	Draft sent for review by CPC Team
11/20/24	Scott Singleton	Team added A/V requirements
12/05/24	Scott Singleton	Final changes, removed Door Hardware in Sec 08 and Access Control Systems in Sec 28 to be separate documents
1/30/25	Scott Singleton	Review Sec 21 & 28 adding fire suppression and alarms

Divison 00 — Procurement and Contracting Requirements

Links to information about how Weber State University (WSU) hires and works with suppliers.

WSU - Financial Services - Supplier Information

Revised 3/2025

Divison 01 — General Requirements

Site Selection

- Building orientation needs to have a detailed discussion early in programming and design.
- A waste management plan must be included in the design drawings. (Including recycling and waste container locations)

Structural/Architectural

- Maximum of 30% glass on building envelope. 25% or less is Weber State's sustainability target.
- Orientation of the glass to be primarily on the north and east sides of the building. Minimize west-facing glass.
- Balconies or roof paver areas must be physically restricted from access to the rest of the roof.
- Custodial closets are to be a minimum of 100 sq. ft., with shelving installed on one wall.
- Shelves need to be six feet long by one foot deep.
- Three shelves per closet.
- Plan for equipment storage and ensure there is space allocated.
- No skylights
- WSU does its own campus Bluestakes and requires 48 hour notice
- Be cognizant of likelihood of materials and finishes being discontinued

Owner's Documentation

- Fill in the online file tree provided by WSU.
- Installation manuals will be in the Maintenance folder for each system/equipment.
- *GIS requirements:*
  - » Any new installation has to have GIS points
  - » Any exposed existing infrastructure to have GIS points taken before burial
  - » Need 24 hour notice for WSU GIS to document points
- 35% of building materials by value shall be recycled content, locally-sourced, or third- party green verified materials.
- 75% of construction waste shall be diverted from the landfill.
- Use existing labeling schema when remodeling, do not create new numbering system

Divison 02 — Existing Conditions

This section intentionally left blank.

Divison 03 — Concrete

- 6 bag engineered or Titan mix
- Use epoxy coated rebar for any reinforced concrete flat work
- All 6 bag engineered concrete sidewalks need a Clear Seal & Cure. To include UV resistance and yellowing, resistant to spills such as oil, grease and de-icing salts. That will help the concrete cure slower to strengthen the concrete surface, helps to minimize hairline cracking, spalling or dusting. Please provide a submittal for approval.
  - » No dyes in concrete cure seal
- No colored concrete unless preapproved by WSU
- No stamped concrete unless preapproved by WSU
- Minimum 8" depth reinforced with rebar on fire lanes
- Truncated dome sections to be dark gray in color
- All cold joints need to be doweled on 24" center with epoxy coated dowels
- Top and bottom of stairs should be doweled into adjacent walkway
- Prefer to avoid stair noses grooves.
- All expansion joints need to be caulked
- Include expansion joints where stair meets cheek wall.
- Mechanical Room concrete floor slabs shall be sloped to the floor drains

Divison 04 — Masonry

- WSU standard brick is Interstate Bricks “Ochre Buff”.
- Standard size only, no king size or emperor brick.
- Provide mock-up with multiple grout colors to be approved by WSU.

Divison 05 — Metals

- 316 stainless steel tubing, 1/8" tube wall, that matches attached detail as closely as possible and conforms to current codes.
- Fabricate exposed connections to be weather tight. Provide weep holes where water may accumulate.
- ACM panels on exterior surfaces preferred.

Divison 06 — Woods, Plastics and Composites

- Partitions in restrooms shall be steel with baked enamel, (No stainless-steel).
- Countertops shall be solid surface, not laminate.
- Doors shall have vertical grain and preferred to be clear maple with clear finish.
- Window sills shall be solid surface.
- Chair rails shall be a minimum of 16" wide solid composite.
- Corner guards shall be minimum 3" wide and stainless steel.
- Teaching station rack is 18" deep by 19" high by 20" wide with vented cabinet doors and back ventilation, large enough to house A/V equipment with appropriate ventilation.
- Appropriately sized backing for TV mounts shall be included.

Divison 07 — Thermal and Moisture Protection

- Roofs shall be a white membrane roof with a minimum 30-year warranty and an albedo > 0.65.
- Roof shall be warrantied to at least 100 mph.
- Roof must meet current DFCM standards.
- Roof repairs must be completed by a certified manufacturer representative.
- Discuss strategies to reduce any heat island effect given site conditions.
- Meet DFCM minimum standards for High Performance Building Standard.
- Base design should be mechanically fastened roofs.
- Caulk joints should be a maximum of ½"
- Avoid ballast materials on roofs.
- The roof shall have walk-off pads for anticipated solar layout and equipment. Walk-off mats shall be a white diamond pattern.
- Permanently attached ladder access to all roofs of the building. Hoist point and grab bar. No ship's ladders!
- No skylights.

Divison 08 — Openings

- Solarban 70 clear as the basis of design for glass.
- *Door closers*
  - » ADA Door closers must be electromechanical (cast iron closer, all-weather fluid, meets ANSI grade).
  - » A schedule shall be in the drawings showing door closers matched to door type and weight.
  - » No in-ground door closers.
  - » No concealed door closers.
  - » No automatic self-charging door closers.
  - » Coordinate with electronic access system.
- Doors shall have vertical grain and preferred to be clear maple with clear finish.

See Section 08 71 00 Door Hardware, available through the CPC website.

Divison 09 — Finishes

Ceilings

- 2'x2' ceiling grid. Minimize the use of hard lid ceilings.
- Preferred pattern is Radar (#2310)
- Avoid Tegular
- If wood ceilings are used, they must be removable, similar to T grid.

Paint

- All paints and stains to be semi-gloss water-based zero-VOC.
- Standard is five paint colors (this includes Weber purple and WSU standard white) per building.
- 5 gallon attic stock for each color (fresh, unopened).
- Basis should be Sherwin Williams ProMar 200.
- WSU purple can be found at Sherwin Williams.
- Contractor to provide drawdowns for each color to WSU.
- Use Sherwin Williams (State Contract) color deck for selecting colors.
  - » SW #7012 Creamy
  - » SW # Custom Weber State Purple
  - » SW #6150 Universal Khaki
  - » SW #7016 Mindful Gray
  - » SW#7011 Natural Choice
- Chair guards – see Div 06
- Corner guards – see Div 06

Flooring

- Carpet shall be tile type.
- Low maintenance tile flooring is utilized in restrooms that do not require periodic refinishing
- Minimum 24" x 24" access panels
- Epoxy coated mechanical room floors.
- Low-VOC sealants and caulks.

Divison 10 — Specialties

- WSU to provide interior signage and installed by contractor.
- Rollers shades shall be manual if the control mechanism is accessible.
- Chair rails shall be a minimum of 16" wide solid composite.
- Corner guards shall be minimum 3" wide and stainless steel.

Divison 11 — Equipment

This section intentionally left blank.

Divison 12 — Furnishings

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Divison 14 — Conveying Equipment

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Divison 21 — Fire Suppression

- No saddle (mechanical tees) connections shall not be used.
- Back flow preventer must meet current plumbing code.
- Use flexible sprinkler drop from main line for interior.
- No flexible lines on drain lines.
- Fire Sprinkler design should be designed incorporated in CD set in lieu of deferred submittal.
- Fire sprinkler mains should be able to isolate each floor/level.
  - » Use a tamper proof valve for isolation.

Divison 22 — Plumbing

Water Use Reduction

- 0.5 GPM lavatories. The basis of design Moen 8211 faucet and all lavatories, toilets, urinals, and showerheads must be EPA WaterSense certified.
- Dual flush toilets (1.1 and 1.6 GPF) or 1.28 GPF flush valve.
- Low flow urinals and flush valves (0.25 GPF)
- No sensor or automated operation flush valves.
- Low flow showerheads (1.5 GPM)
- Auto shut off valve for domestic water main tied to a meter.
- Non-filtered bottle filling stations. Elkay EZ H2O.
- Design consideration for water running down the faucet neck to prevent moisture on the floor. The countertops will be flush with the wall.

Metering

- Domestic Water Meter shall be installed on main water feed to a building. No turbines.
- Electric meter shall be installed on or near M.D.P. Generally speaking, a single meter for the entire building shall be sufficient; however, sometimes, it may make sense to sub-meter mechanical and lighting or solar in specific applications. This shall be determined during the sustainability charrette for the project.
- BTU meter shall be installed for chilled/condenser water, including ground source fields.
- All meters shall be connected to the Building WSU current metering system. Specifications and drawings need to indicate who is responsible for this and how it shall be done.
- Controls contractor will be responsible for all the integration of meters.

Plumbing

- The main condenser/chilled water line valves will be of the double-offset stainless steel body heavy duty style.
- The main domestic water line located in the tunnels or valve vaults will be of the double- offset style and be NSF-rated.
- Nupi Niron (Polypropolene) basis for design on all water piping.
  - » No plastic threading
- There shall be a primary and secondary back flow preventer
- Primary and Secondary backflow protection devices shall be of the R.P. type.
- Strainers before BP devices.
- PRV should be after the back flow preventer
- Provide extended necks as appropriate for insulation.

- No Garlock gaskets on Nupi Niron – red rubber is acceptable.
- 18" and above Niron valves require a flange spacer on both sides of the valve.
- Domestic water valves must have NSF rated coating.
- Butterfly valves are required to have bolts not studs.
- All valves are required to use anti-seize on bolts
- No circuit setter valves.
- If a stand-alone circuit setter is required, an AB Automatic Flow Control Balancing Valve should be used. If a circuit setter is required with a control valve a PICV should be used in place of the circuit setter and valve actuator.
- 3" and under Stainless ball and Stainless stem on ball valves (Apollo 70 w C)
- 4" valves and above shall not be a ball valve
- Lug Butterfly valves are preferred to be lug style and not wafer style.
- Butterfly valves starting at 2" and up shall have stainless wafer and stem.
- We accept no less than 30:1 gear ratio on 12" and above butterfly valves.
- Angle stops, ¼ turn – no keyed stops (sinks, toilets, lavatories)
- Bullets are the preferred connection to angle stops – NO FIP
- Each fixture stub out shall be copper or plastic and attached to the wall
- All above-finished space outdoor areas (decks, balconies, walkways, etc.) shall have a panned drain system. Shall also have an overflow system (scuppers).
- No hub drains or pee trap shall be in ceilings or concealed walls and should be readily accessible
- Condensate shall be routed to an approved receptacle, such as a mop sink or service sink
- Eyewash stations shall be located within 10 seconds or 55 feet of hazardous areas.

Divison 23 – Heating, Ventilating and Air Conditioning (HVAC)

Mechanical System

- Hybrid water-cooled V.R.F. – Mitsubishi with a 10-year warranty.
- Condensate lines will be secured with hose clamps. (Zip-ties are not allowed.)
- Standard condensate lines shall be PVC.
- Water supplied to condenser shall be a trunk style design, no balancing valves. (Use Belimo valves for balancing)
- Booster pumps shall be 20% oversized for the total G.P.M. requirement.
- ERV system with no excess ventilation.
- Avoid the use of CO2 sensors.
- ERV will have no electrical duct heater and be sized appropriately to meet the needs via the energy recovery system.
- Every room gets its own individual T-stat and fan coil.
- Hybrid heat-pump water heater for domestic hot water – Rheem basis of design.
- Set points shall be locally adjustable
- Utilize twinned condenser units.
- No return air systems.
- Only exhaust fan is in the ERV – duct all exhaust to ERV.
- AE-200 devices will be included.
- Pressure/Vacuum testing is required on V.R.F. systems. See commissioning specifications.
- All motors over 2 H.P. are to be on V.F.D.s.
- V.F.D.s will be Mitsubishi (A.P.S. has special WSU pricing – we will only pay the price they quote)
- V.F.D.'s will be specified by electrical engineer and provided by the electrical contractor.
- Filter sizes 24" x 24" x 2" on ERVs.
- Extra set of washable filters for all cassette units.
- Utilize ceiling cassette V.R.F. units wherever possible.
- IT rooms shall not be on Mitsubishi main systems and shall be on individual dedicated split system (wall units preferred)
- IT rooms shall have their own exhaust fan with thermostat
- Emergency back-up shall be a transfer fan.
- Ducted V.R.F. units shall have filters in the return grill that fit in the ceiling grid and are accessible from the space side of the return grill.
- V.R.F. refrigerant piping shall be coordinated with the manufacturer, so that piping can/shall be installed as drawn. Pre-determine port locations.
- At least four extra open ports shall be included on branch controllers and two open ports on sub-branch

controllers.

- All extra ports will have end caps (and Shrader valves installed) in place before CX testing.
- Maximize energy recovery of V.R.F. branch controllers by having either south and east exposures or north and west exposures on the same branch.
- All domestic hot water recirculation must be located within 6 feet of the point of use.
- Pipe chases shall be 3 feet wide or greater.
- Non-filtered bottle filling stations. Elkay EZ H2O.
- Extra space in the mechanical room for building growth.
- Epoxy coating of all mechanical room floors.
- Mechanical spaces shall have a drain, and floors will be sloped to the drain.
- Temperature display and control for V.R.F. shall be done from T-stat, not return air sensor.
- Filter changes at substantial completion and post-occupancy (after cleaning and not using attic stock).
- All chemical mixing stations shall be piped.
- Provide dedicated water feed for all custodial chemical stations.
- Freeze-less faucet for all exterior mechanical spaces.
- Main-line (50 micron) self-cleaning strainers will be installed on the VRF condenser water at the primary tie-in point before any compressors, pumps, etc.
- Ensure the strainer(s) is serviceable and accessible.
- Construction strainers (50 micron) will be installed on each HP and replaced with maintenance strainers (20 micron) after an acceptable time frame.
- All system flush will be witnessed by WSU Commissioning Agent.
- Epoxy coated mechanical room floors.
- Mechanical Room concrete floor slabs shall be sloped to the floor drains.

Controls

- Data pulls for equipment.
- Each HP compressor (two drops for twined units; the Belimo valve)
- Each meter
- Condenser water
- Domestic water
- Solar
- Electrical
- Ground source
- BTU
- Central network controllers
- JCI Controller – SNE/SNC

- AE200/EW50
- No controls located in IT rooms.
- Locate as close to compressors as possible.
- JCI will only monitor the VRF system; The VRF system will control independently of BMS.
- Building pumps will control to DP sensor.
- Review pumping design with WSU team.
- Third-party controllers need to be WSU approved.
- All control devices must integrate with WSU's current systems (JCI or Mitsubishi)
- Network controls communication protocol will be BACnet MS/TP wherever possible or BACnet IP as a secondary option (no translators)
- Software needed for maintenance will be provided.
- Provide VRF condenser alarm through BACnet JCI.

Divison 26 – Electrical

Light Pollution

- No – up lighting.
- All parking lot lighting and athletic lighting will be full cut-off LED
- The building roof shall be prepped for solar installation.

Energy – Lighting

- 5000K color interior and exterior.
- All LED lighting.
- Efficacy of 120 or greater on all light fixtures.
- 0.4 watts/sq. ft target.
- Minimize types of light fixtures (we want a small list on the lighting fixture schedule) and architectural fixtures
- Occupancy sensors throughout the building (programmed for vacancy sensing) except offices
- No networked lighting controls
- Dark building – All emergency lights are connected to occupancy sensors through a G.T.D.
- There are no lighting control panels.
- A photocell controls exterior lighting at a building site.
- The photocell will be accessible for maintenance and have an HOA switch.
- *Recommended Illumination Levels:*
  - » 10 – 20 Foot Candles – Corridors, Vestibules, Stairwells, Common Areas, Locker Rooms, Lounges.
  - » 20 – 40 Foot Candles – Classrooms, Offices, Conference Rooms, Computer Labs.
  - » 30 – 50 Foot Candles – Kitchens, Shops, Labs, Art Studios
- No photocells (daylight harvesting) in classrooms or offices. Only in large open public spaces.
- All offices and classrooms will have dimmers.
- Lighting control is the Wattstopper D.L.M. as the basis of design.
- Classrooms shall have lighting control at the entrance and teaching console. Lighting controls shall consist of 2 dimmer switches. Lighting controls are not connected to the A/V system.

Electrical

- Buildings are to be looped into the campus 12470 loop. (No splices)
- Armored Prysmian cable as a basis of design for medium voltage.
- Medium voltage duct banks shall be encased in red dyed concrete including locating tape above.

- Cooper switchgear with V.F.I. as a basis of design, with single-phase protection.
- Fault indicators on all medium-voltage lines.
- Discuss options for battery backup vs. generator and minimizing loads on e-power.
- Battery should be 10-20 year storage option.
- If ATS is used shall be capable of being tested during building operation (without shutting the building down)
- Power factor to be above .95.
- Document (high P.O.T. or VLF) to be provided in CX record.
- Verify all gasket sealings on transformers and medium voltage switches are at factory torque rating.
- Transformers shall be pad mounted (no vaults).
- Electrical panels shall include 20% extra capacity.
- Architect and electrical engineer shall have a discussion on future proofing for EV charging capacity
- Wiring devices shall have pig tailing.
- Wiring connections shall not use quick connects (stabbing type).
- No aluminum conductors.
- Electricians shall provide connection for and properly connect hardwired furniture.

Alternative Transportation

- All new construction should have new electric vehicle charging Station. One dual- port station shall be installed per new building; in addition, capacity for up to 6 stalls (3 dual-port charging stations) shall be installed, will include conduit out to ground box locations.
- Conduit shall be a minimum of 2 inches to charging stations.
- Shall be included in the base bid of construction.
- Bollards and signage for the EV charging station should be considered and designed for the site.
- ADA EV charging shall be included as required.
- Dedicated electrical panel for EV charging stations

Divison 27 – Communications

Classrooms

- Projector screen at front of room, size dependent upon size of room. Smaller rooms may have a large screen TV.
- Ceiling mounts projectors are preferred
- Lay in Tile speakers with quantity dependent on room size
  - » Basis of design is JBL or Extron
- Pendant or surface mount speakers if ceiling isn't tile
- Document camera in each classroom
- Teacher facing camera, wall mounted depending upon room layout
- Drop microphones at front room, minimum 2
- Table top A/V controller (Basis of design Extron, Crestron) on teaching station (not wall mounted)
- Teaching station rack is 18" deep by 19" high by 20" wide with vented cabinet doors and back ventilation.
- *3 network lines to teaching station from data closet:*
  - » from teaching station to above ceiling need 2 A/V conduits with a minimum 1.25" and 1"
  - » from TV back box to above ceiling need 1 A/V conduits with a minimum 1.25"
- Need a double duplex outlet in each teaching station
- A convenience outlet on the side of each teaching station
- Need power for each projector or TV screen

Conference Rooms

- Large screen TV preferred on front of room
- Lay in Tile speakers with quantity dependent on room size
  - » Basis of design is JBL or Extron
- Pendant or surface mount speakers if ceiling isn't tile
- Camera, wall mounted depending upon room layout, facing conference table
- Lay in style microphones preferred
- Table top A/V controller (Basis of design Extron, Crestron) on conference table (ideally not wall mounted)
- A/V cabinet rack size is 18" deep by 19" high by 20" wide with vented cabinet doors and back ventilation.
- *3 network lines to teaching station from data closet:*
  - » from teaching station to above ceiling need 2 A/V conduits with a minimum 1.25" and 1"
  - » from TV back box to above ceiling need 1 A/V conduits with a minimum 1.25"
- Floor box power to coordinate location with furniture layout with 1.25" A/V conduit (ideally centered under

conference room table)

- Need a double duplex outlet in each A/V cabinet
- Need power for each projector or TV screen

Labs

- Projector screen at front of room, size dependent upon size of room. Smaller rooms may have a large screen TV.
- Ceiling mounts projectors are preferred
- Lay in Tile speakers with quantity dependent on room size
  - » Basis of design is JBL or Extron
- Pendant or surface mount speakers if ceiling isn't tile
- Document camera in each classroom
- Teacher facing camera, wall mounted depending upon room layout
- Drop microphones at front room, minimum 2
- Table top A/V controller (Basis of design Extron, Crestron) on teaching station (not wall mounted)
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  - » from TV back box to above ceiling need 1 A/V conduits with a minimum 1.25"
- Need a double duplex outlet in each teaching station
- A convenience outlet on the side of each teaching station
- Need power for each projector or TV screen
- Modifications may be needed for specialized labs, active learning spaces and splitable spaces

Miscellaneous

- Digital signage
  - » Back box, power, 1" A/V conduit, backing
- Collaboration displays (study rooms)
  - » Back box, power, 1" A/V conduit, backing, 1" conduit from display to wall box
- Zoom rooms
  - » Custom designed as needed
- Appropriately sized backing for TV mounts shall be included.
- Electricians shall provide connection for and properly connect hardwired furniture.

Divison 28 – Electronic Safety and Security

- In design a discussion will be had with the WSU Fire Marshall on the location and quantity of annunciator panels.
- Main fire alarm control panel needs to be located behind a single door access inside the building.
- For new construction include voice alarm system.
- Requests for placing alarm system into test mode require 24-hour notice to project manager and fire marshal.
- Standard alarm system is Notifier. All work on system must be done by Notifier certified technicians.
- Each device shall be labeled with panel addresses for the device.

See Part 2.11 – Electronic Access Control Locks in Section 08 71 00 Door Hardware.

Divison 31 — Earthwork

- Geotechnical engineer to evaluate site prior to digging.
- At the Davis and Falcon Hill campuses, refer to superfund site findings for underground hazardous soil conditions.

Divison 32 – Exterior Improvements

Alternative transportation

- All new construction shall include covered bike/scooter racks near the facility.
- EV Charging stations shall be provided – as outlined in Electrical

Stormwater

- Consider using bio-swales and maximize stormwater detention/filtration at a building site.
- Follow standards outlined in WSU's SWMP *(https://weber.edu/facilities/stormwater.html)*
- Consider the use of Low Impact Development (L.I.D.) and maximize stormwater detention/filtration at buildings on sites over an acre. L.I.D.'s must retain one inch of water of footprint of disturbed construction area.
- Connect all stormwater lines to the retention pond.
- Verify if the site will be over or under an acre. If the site is over an acre, obtain an SWPPP from WSU.

Water Efficient Landscaping

- Discuss xeriscaping and the use of native plants.
- Automated Rainmaster system.
- Install Auto flush filter Amiad Filtamat as the basis of design.
- Use Pedestal Rainmaster DXI controller.
- Low flow heads, Hunter MP's preferred.
- D.U. of 70%, or better tested by W.S.U. before the final sign-off by WSU.
- Drip in all non-turf areas with operational indicator flags. Netafim, drip irrigation to be used Netafim preferred with flags.
- No turf in areas with less than 6 feet.
- Rock, mulch 3-6 inches or larger crushed.
- Use approved rock and mulch colors. Gray, or tan rock have been the standard to date.
- All rock used must be well washed to remove any soil and seeds that will contaminate the new landscape.
- Rock mulch must be installed to at least a 6" in depth.
- Use a mixture of rock colors and bark mulch. Restrict the use of bark mulch to more minimal areas of campus.
- Separate rock mulch colors and bark mulch zones with 12" mow curbs.
- When an area is mulched with rock use low flow above ground sprinkler heads, such as MP rotors. The low flow heads need to be installed with good head-to-head coverage and a DU of at least 70%.

- When the area is bark mulch and drip irrigation is used, or if drip irrigation is used for any reason, Netafim drip irrigation is preferred and needs to be installed on top of the weed fabric.
- On steep grades, used terraced planter beds.
- Plan snow removal, where snow will be plowed for the roads, parking lots, and sidewalks. Install salt-tolerant plants in these areas.
- Become familiar with and follow WSU's preferred planting details.
- An electromagnetic or ultrasonic meter is installed after the filter.
- All subgrades must be removed. Sandy-loam top soil to be brought in 4" under turf, 12" under planter beds.
- Irrigation pipe installation must be in line with current irrigation standards.
- Irrigation sleeves to be shown on both irrigation and civil plans. Additional sleeves should be added for future unknown projects.
- Tree protection and existing irrigation must be protected and maintained during the course of the project.
- Install fabric-type weed barriers under all mulched areas. Dewitt product has been the standard to date.
- When installing trees remove all burlap and wire from the root balls.
- Pavement reconstruction should follow DFCM guidelines and specifications. – DIV 32
- *https://dfcm.utah.gov/construction-management/constructionmanagement-statewideprograms-pavinggprogram/#pavingRequirements*
- A high-polymer seal coat should be used when sealing asphalt and new asphalt should be sealed within the first year.
- *Full Depth Patching:*
  - » Parking Lots: 3" thick asphalt, over 8" base course gravel
  - » Drive aisles: 4" thick asphalt, over 8" base course gravel
  - » Roadways: 5" thick asphalt, over 8" base course gravel
  - » Repaint all striping and symbols that are impacted during construction

Divison 33 — Utilities

- Contact WSU GIS group to document any uncovered existing or new utilities prior to covering. Coordinate through WSU Project Manager. Requires minimum 48 hour notice (2 business days) for WSU.
- Contact 811 for public utilities (currently 3 business days) and WSU internal bluestaking (2 business days).
- See Division 15 for piping requirements.
- Any direct bury 12,470V shall be in a red concrete duct bank.
- Any utilities breaching the tunnel or foundation walls needs to be sealed from the outside with Link Seal or equivalent product.
- Tracer wire and marking tape installed for all utilitie.s
- Digging within the Pineview canal easement requires coordination with Project Manager and Bureau of Reclamation.
- Require hydrovac excavation in congested utility areas.
- WSU is the enforcement entity for storm water management and permits.
  - » Vacuuming and/or jetting may be required at the end of a project if significant construction material is found in the stormwater system.
- All fire water pressure tests and chlorination of domestic water are to be performed by general contractor and inspected by a 3rd party with results also to WSU.
- All underground utilities shall be bedded correctly and inspected by either a code official or WSU.