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- project description:

New pre-engineered metal building for indoor batting cages with support office, retail, and party room.

□ submittal dates:

sitework:	spring 2022
building envelope:	summer 2022
occupancy:	fall/winter 2022
estimated duration:	9 months

schedule indications are estimated and shall be the responsibility of the contractor.

- const. schedule

PDP & Rezoning submittal:	approved January 2022
planning approval:	pending approval
permit submittal:	May 2022
permit approval:	pending review

- project synopsis:

governing municipality: Lee's Summit, Missouri
governing code:

- 2018 International Building Code
- 2018 International Plumbing Code
- 2018 International Mechanical Code
- 2018 International Fuel Gas Code
- 2018 International Residential Code
- 2018 International Fire Code
- 2017 National Electrical Code
- ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities
- Lee's Summit Municipal Code

zoning: PI
construction: VB, perm
stories: one + mezzanine

building height: 27'-0" max.

fire suppression: yes

bldg footprint: 19,800 s.f.

occupancy group: A-3 (indoor sports) with B+M (office mercantile accessory)

occupant load: 213
first floor accessory spaces: 44
mezzanine: 73
batting cages: 96

*reference code plan and code review

□ sheet index:

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A0.1	code review, code plan, details

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E3	enlarged power plans
E4	panel schedule and riser diagram
E5	site lighting plan

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P: 816.246.3987

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- structural engineer:

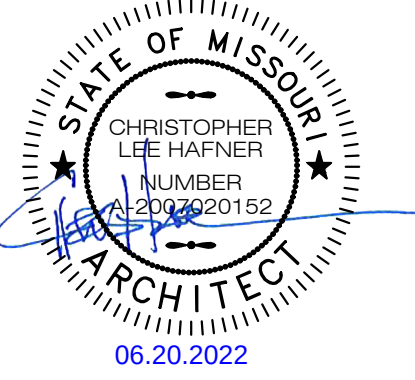
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a new development for

D-BAT - Town Centre Lot 1

AO.O

cover sheet

code review

governing municipality: Lee's Summit, Missouri
governing code:
2018 International Building Code
2018 International Plumbing Code
2018 International Mechanical Code
2018 International Fuel Gas Code
2018 International Residential Code
2018 International Fire Code
2017 National Electrical Code
ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities
Lee's Summit Municipal Code

construction: Δ V9 pemb
stories: one + mezzanine
building height: 27'-0" max.
fire suppression: yes
total bldg. area: 19,421 (first) + 1,344 (second) = 20,765 s.f.
allowable area A-3: 22,500 s.f. per floor with frontage increase = 64,000 s.f. with frontage increase Δ

occupancy group: A (indoor sports) with B, M (office mercantile accessory)

occupant load:	sq. ft.	load factor	occupants
first floor accessory spaces:			
shop	1,112	60	18.5
office	205	150	1.4
storage	49	300	0.2
parent lounge	363	15	24.2
jan. clos.	40	300	0.1

mezzanine:			
party room	550	15	36
viewing mezzanine	540	15	37

batting areas:		
batting cages: (2 per cage, 15 cages total)	30	
batting cage seating: (per seat)	66	
Total:	213	

restroom calcs:									
building occ.: A	water closets			lavatories			drinking fountain		
	factor	male	female	factor	male	factor	female	factor	
required:	1/75	1.4	2.7	1/200	0.5	1/150	0.7	1/500 0.1	
provided:	2+ 3			2		2		1 hi, 1 low	
	urinal								

Minimum Corridor Width = 44"
Max. Dead end = 20'
• Exit access travel distance shall not exceed 300 feet for business occupancies.
• Common path of egress shall not exceed 100 feet.

Egress sizing:
Stairs - 112 occ.x0.3 in. = 34"
clear width per 1009.4 = 44" w/ sprinklers classified as interior exit stairway

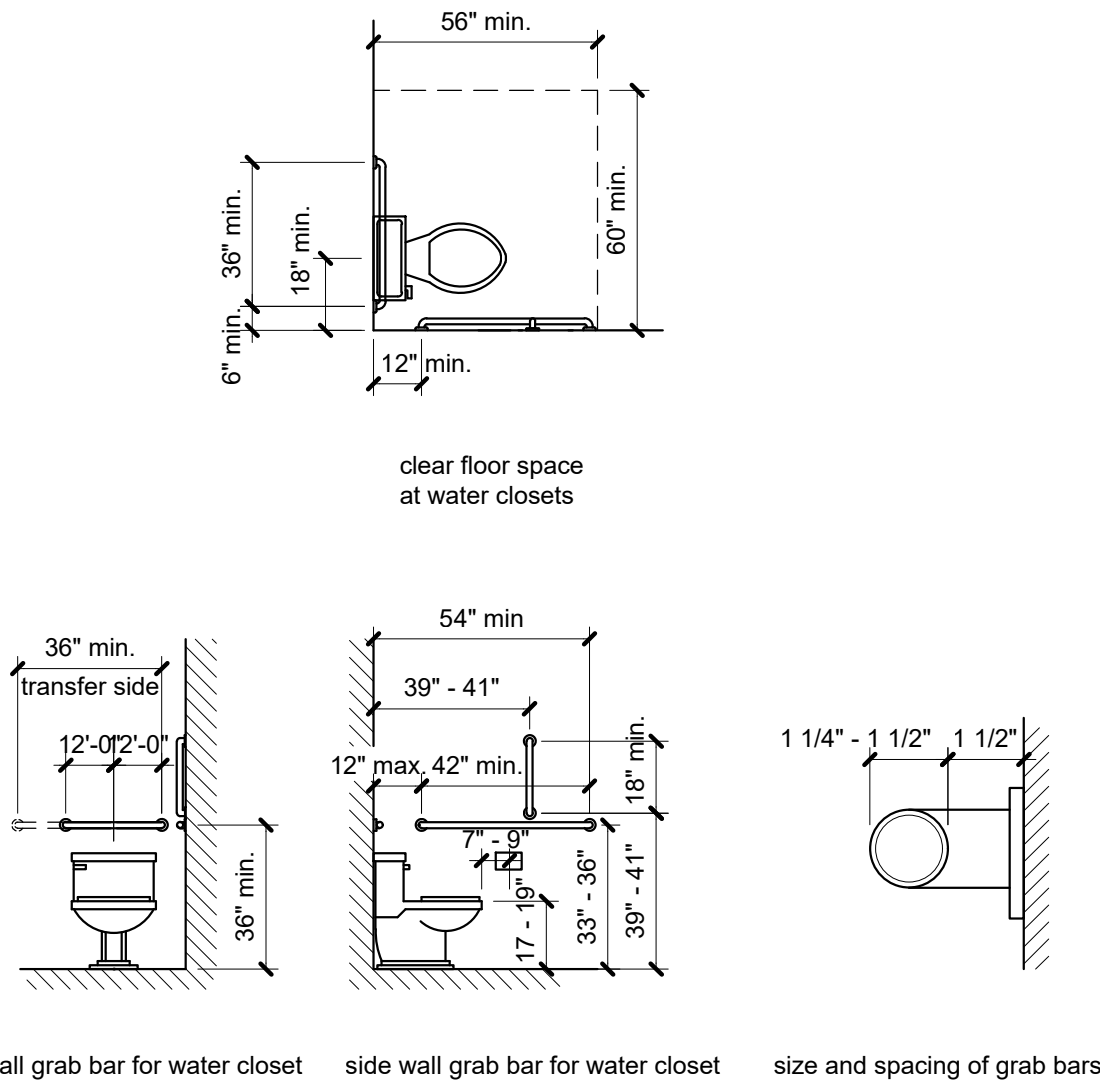
Mezzanine area limitations: 19,421/3 = 6,474sf > 1,344sf mezzanine
(per section 505.2.1)

- A mezzanine having two or more means of egress is not required to be open to the room in which the mezzanine is located if at least of the means of egress provides direct access to an exit from the mezzanine level.
- Mezzanine shall have posted occupant load near a main exit or exit access doorway.
- Occupancy for an assembly spaces with one exit shall not exceed 49 occupants.
- Exit access travel distance shall not exceed 200 feet with both assembly and business occupancies.
- Common path of egress shall not exceed 75 feet.
- In buildings with Group B or M occupancies, exit access stairway openings are not required to be enclosed provided that the building is equipped throughout with an automatic sprinkler system in accordance with 903, the area of the floor opening between stories does not exceed twice the horizontal projected area of the exit access stairway, and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.

Toilet Accessory Schedule

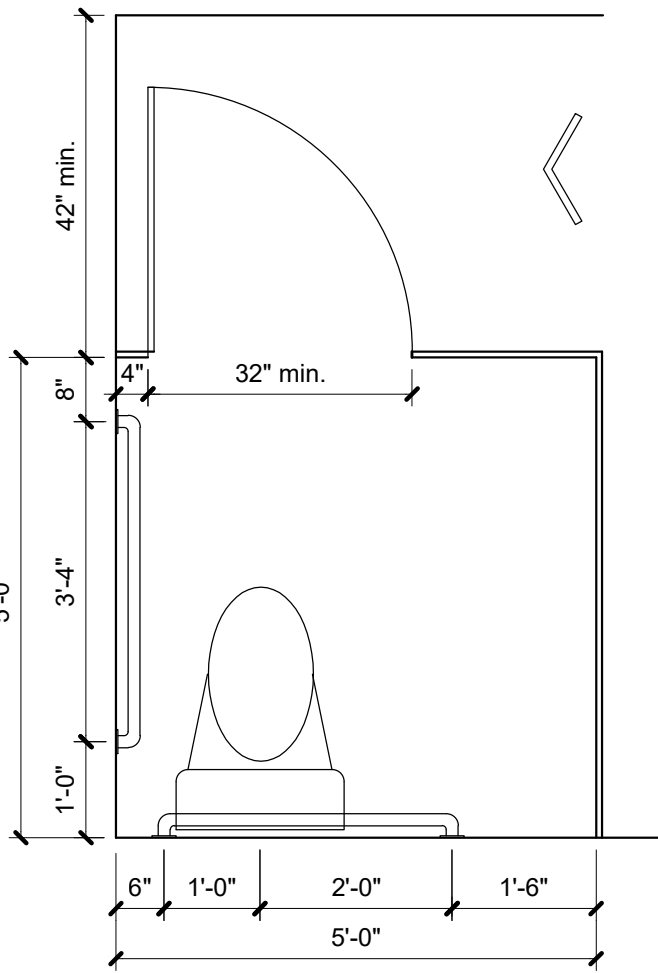
Item	Basis of Design	Color	Description
Baby Changing Station	Koala Kare KB300	White Granite 05	Horizontal surface mounted, polypropylene unit
Clothes Hook w/ bumper	Bobrick B-212	Matte finish	solid cast aluminum clothes hook with hard rubber bumper
18" Grab Bar	Bobrick B-6806.99 x 18	Stainless steel	1 1/2" diameter steel grab bar with peened gripping surface
36" Grab Bar	Bobrick B-6806.99 x 36	Stainless steel	1 1/2" diameter steel grab bar with peened gripping surface
42" Grab Bar	Bobrick B-6806.99 x 42	Stainless steel	1 1/2" diameter steel grab bar with peened gripping surface
Mirror	Bobrick B-2908 2436	N/A	24" x 36" Tempered glass welded-frame mirror
Mop & Broom Holder	Bobrick B-239 x 34	Satin finish stainless steel	
Paper Towel	Bobrick B-2620	Satin finish stainless steel	Surface mounted paper towel dispenser; door has knob-latch and piano-hinge.
Sanitary Napkin Disposal	Bobrick B-270	Satin finish stainless steel	Surface mounted sanitary napkin disposal; secure with stain. steel piano-hinge.
Soap Dispenser			Wall mounted automated touchless soap & sanitizer dispenser
Toilet Compartment (Steel) Urinal Screens	Bradley Global Industrial Steel	Baked Enamel	Floor mounted, overhead braced single steel 1" thick
Toilet Tissue Dispenser	Bobrick B-2740	Satin finish cast aluminum	Surface mounted double roll toilet paper dispenser; no controlled delivery
Trash / Waste Receptacle	Bobrick B-9279	Satin finish stainless steel	Surface mounted, fully welded stainless steel waste receptacle with rigid molded plastic leakproof liner.

Contractor Note: Basis of design listed above, substitutions allowed per tenant/ownership approval.



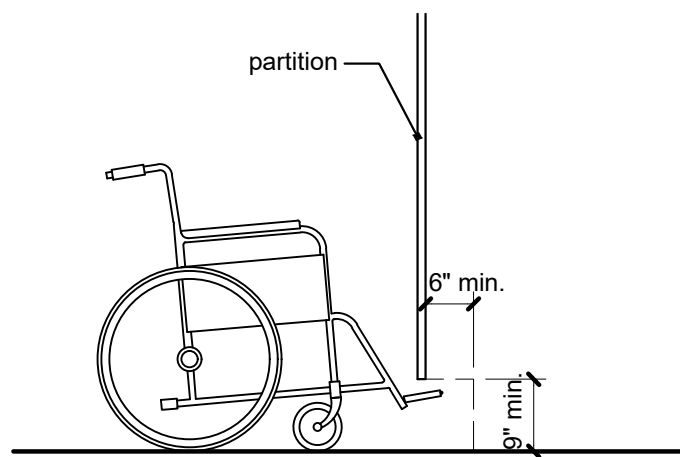
2 ADA grab bars

scale: 1/4" = 1'-0"



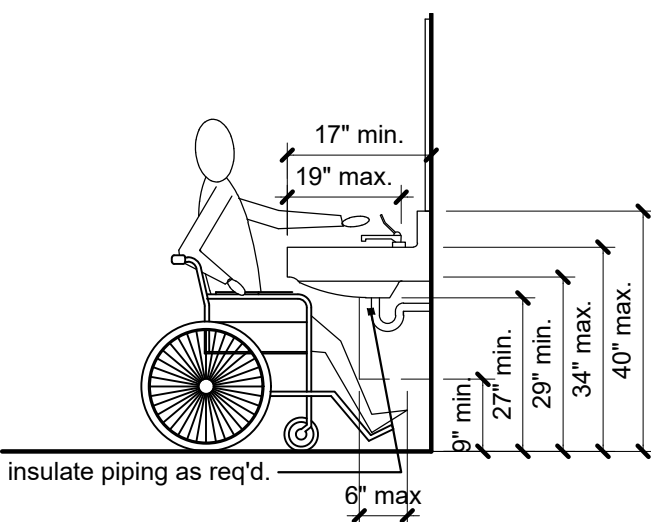
1 ADA r.r. stall, typ.

scale: 1/4" = 1'-0"



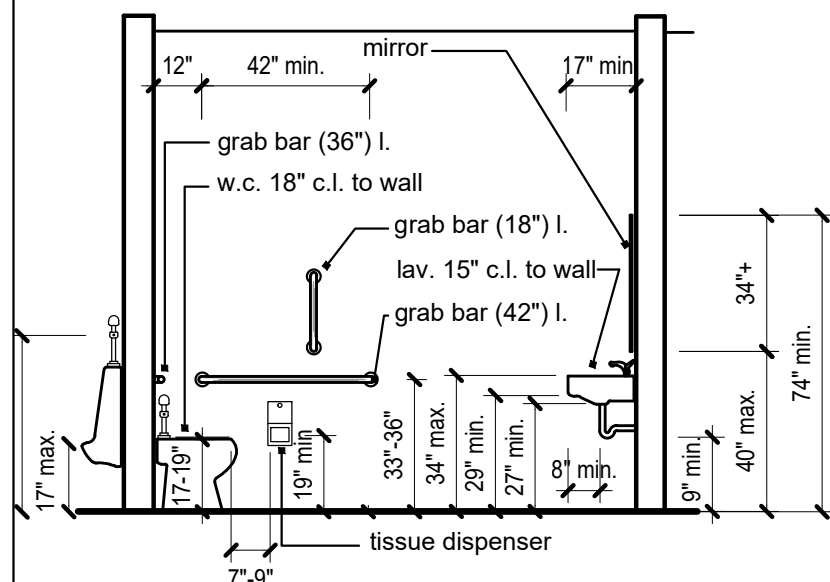
8 partition toe clearance

scale: 1/2" = 1'-0"



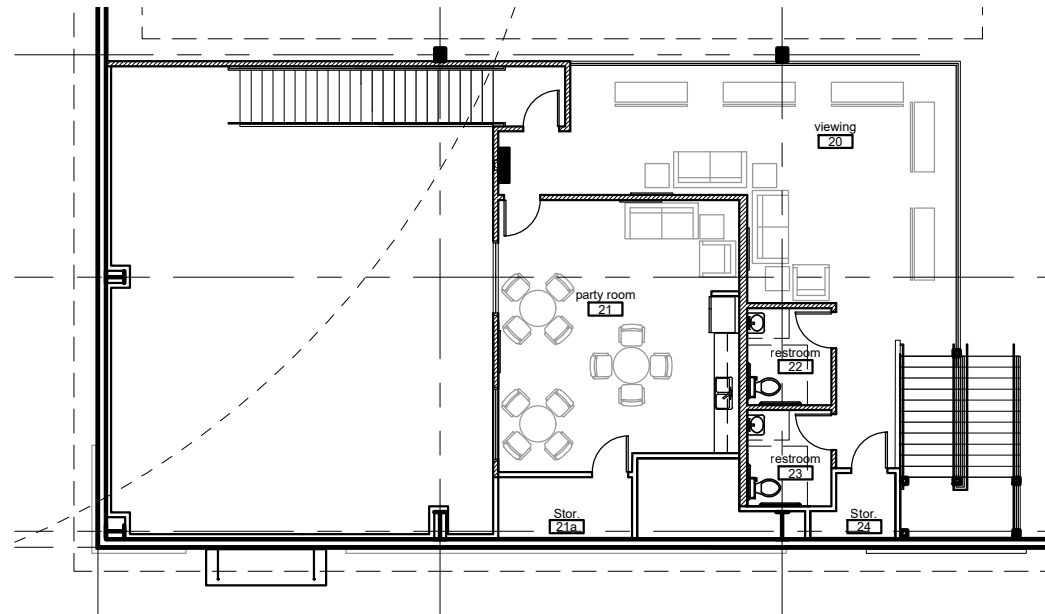
7 sink clearance

scale: 1/2" = 1'-0"



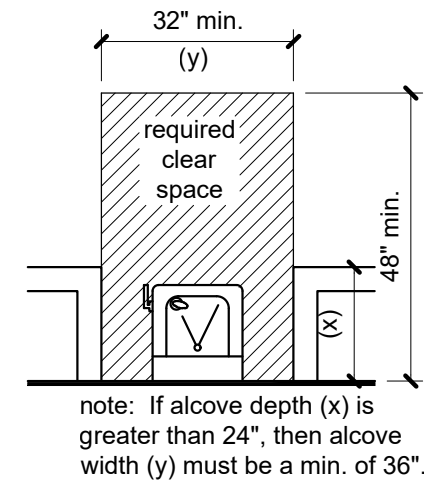
6 ADA r.r. standards

scale: 1/4" = 1'-0"

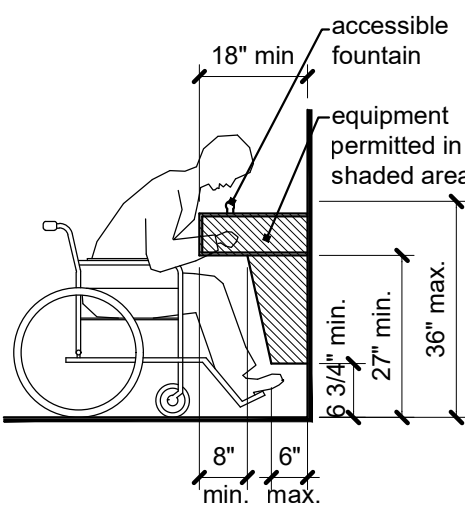


4 Mezzanine Code Plan

scale: 1/8" = 1'-0"



alcove installation



side view

Notes :

Drinking fountains shall be located completely within alcoves or positioned so as not to encroach into pedestrian ways.

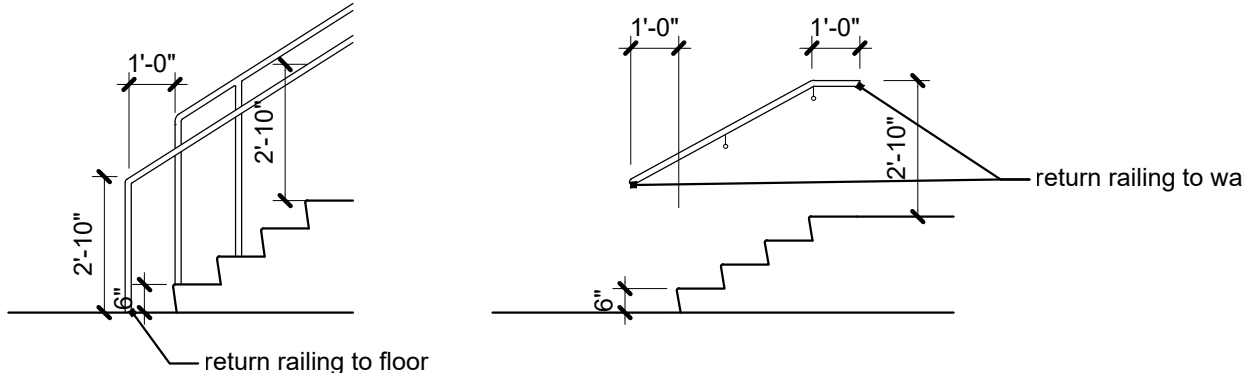
- If located in an alcove, the alcove is not less than 32" wide x 18" deep.
- Minimum depth of the fountain is 18".
- Clear and unobstructed knee space a minimum of 27" high by 8" deep under the fountain (measured from front edge).
- Toe clearance a minimum of 9" high by 17" deep.
- Lever or push bar type control is located 6" maximum from front edge.
- Bubbler outlet is located 6" maximum from front edge and 36" maximum height from the floor. ** (on an accessible drinking fountain with a round or oval bowl, the spout must be positioned so as the flow of water is within 3" of the front edge of the fountain).
- Stream from bubbler is a minimum of 4" high and substantially parallel to front edge.

NOTE :

Where only one drinking fountain area is provided on a floor there shall be a drinking fountain which is accessible to individuals who use wheelchairs and one accessible to those who have difficulty bending or stooping. This can be accommodated by the use of "hi-lo" fountains, or by such other means as would achieve the required accessibility for each group on each floor.

10 drinking fountain notes

scale: 1/2" = 1'-0"

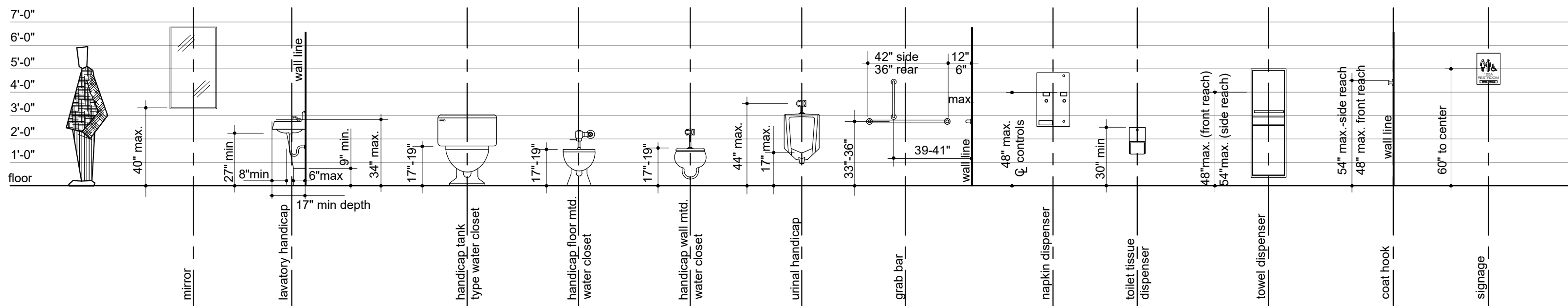


Nosings:

- The radius of curvature at the leading edge of the tread shall be 1/2" max.
- Nosings that project beyond risers shall have the underside of the leading edge curved or beveled.
- Risers shall be permitted to slope under the tread at an angle of 30 degrees max. from vertical.
- The permitted projection of the nosing shall be 1 1/2" max. beyond the tread below.
- Guardrails shall be between 42"-48" in height
- Risers shall be closed - not open
- Reference the IBC 2018 for limitations on grill openings if an open grill landing or tread will be utilized

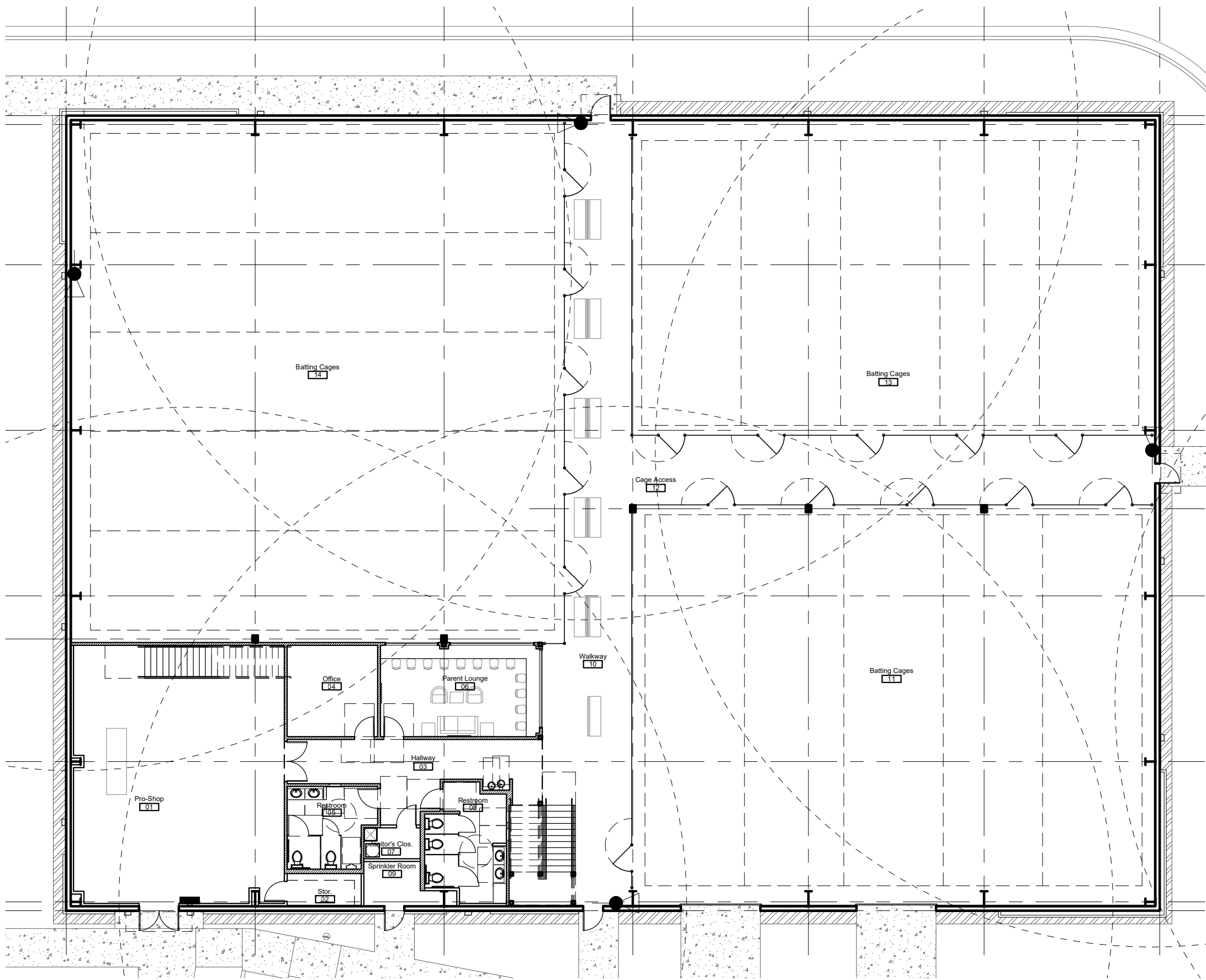
9 stair and railing notes

scale: 1/4" = 1'-0"



12 Fixture Mounting Heights

scale: 1/4" = 1'-0"



11 First Floor Code Plan

scale: 1/8" = 1'-0"

a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

date 05.19.2022
drawn by DAE
checked by DAE
revisions
06.20.2022 1

sheet number

A0.1

drawing type FDP & Permit

project number 20231

Sheet Index

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- C2.3 - Erosion Control Plan - Phase II
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- C3.3 - Storm Calculations
- C3.4 - Private Storm Line 3 Plan & Profile
- C4.1 - Details
- C4.2 - Details
- C4.3 - Details
- C4.4 - Details

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Email: jjwilson801213@gmail.com

Utility Notes

- Boundary information, existing utilities and topographic features shown are based on information supplied by owner, surveyor, and others.
- The existing utility locations shown on these plans are approximate and may not include all utility lines present. The contractor shall be responsible to make One Call and coordinate field location of all existing underground utilities prior to beginning excavation/construction activities.
- The contractor shall be responsible for any damage to any utilities or their structures during excavation/construction activities.
- The contractor shall coordinate and be responsible for connection fees, system development fees, taxes, etc. for all main connections and/or extensions with and from the city and/or respective utility unless otherwise coordinated with the Owner. All utility services for this project shall be coordinated with respective utility company by contractor.
- The contractor shall be responsible for adjusting all at-grade utilities such as manhole covers, valve box covers, etc. to finish grade, whether specifically indicated in these plans or not.
- Utilities shown on the plan with specific elevations and/or structure locations are SUE quality level "B", ie: storm sewer, sanitary sewer, water hydrants & valves, utility poles, etc. All other existing utility information shown is SUE quality level "D", primarily retracement of one-call and city records.

Americans with Disabilities Act (ADA) Notes:

- The running and cross slopes for all sidewalks, accessible paths, ramps, designated parking stalls, etc., shall be in compliance with latest Federal ADA guidelines, in addition to any accessibility standards adopted by the governing municipality. Prior to installation/construction, if any discrepancies are found within the plans, the Engineer shall be notified.
- All ADA parking areas shall have NO slopes greater than 2% in any direction. Sidewalk construction must not exceed a 2% cross-slope and an 8.33% running slope.

Legal description:

Lot 1, Lee's Summit Town Centre, Lot 1 & Lot 2, A Subdivision In Lee's Summit, Jackson County, Missouri. Containing 505,722.67 sq. ft. or 11.61 acres more or less.

a new development for

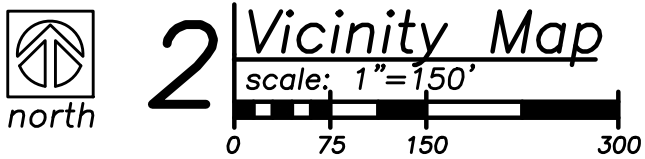
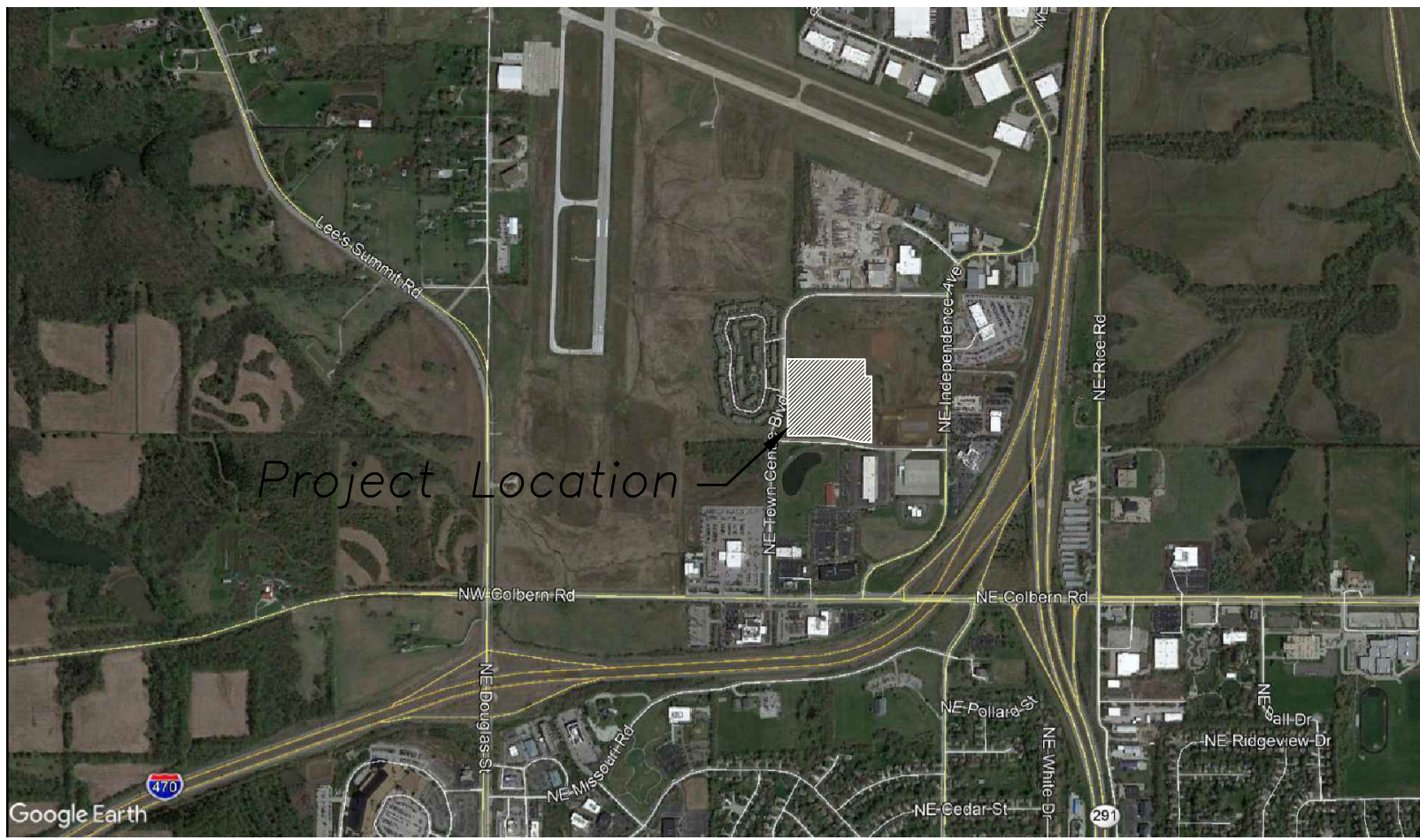
D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

date	02.28.2022
drawn by	JMP
checked by	PAM
revisions	
	05.09.2022 01
	05.19.2022 02

A New Development for D-Bat - Town Centre Lot 1 Section 29, Township 48 North, Range 31 West City of Lee's Summit, Jackson County, Missouri



Utility Contacts

Sanitary - City of Lee's Summit	(816) 969-1900
Water - City of Lee's Summit	(816) 969-1900
Storm Sewer - City of Lee's Summit	(816) 969-1800
Electric - Evergy	(888) 471-5275
Gas - Spire	(816) 756-5252
Telephone - AT&T	(800) 464-7928
Cable - Spectrum	(816) 358-8833

Local Benchmarks:

BM-1: (Sanitary Sewer Manhole, Center of Lid)
Elevation: 1006.88'
N: 1013449.78
E: 2826933.88
BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03



Floodplain Note:

The site lies entirely with "Zone X", areas determined to be outside the 0.2% annual chance floodplain as depicted on the FEMA Flood Insurance Rate Map (FIRM) no. 29095C0430G, Revision Date: January 20, 2017.

Property Legend

—	right of way
---	property lines
----	easements
----	setbacks

Grading Legend

---	existing minor contour
---	existing major contour
---	proposed minor contour
---	proposed major contour

Utility Legend

---	existing
---	proposed

Linetypes

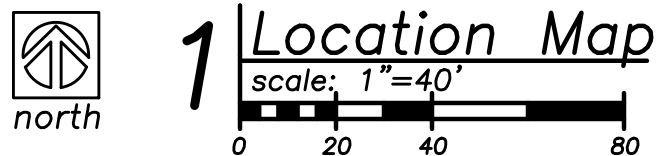
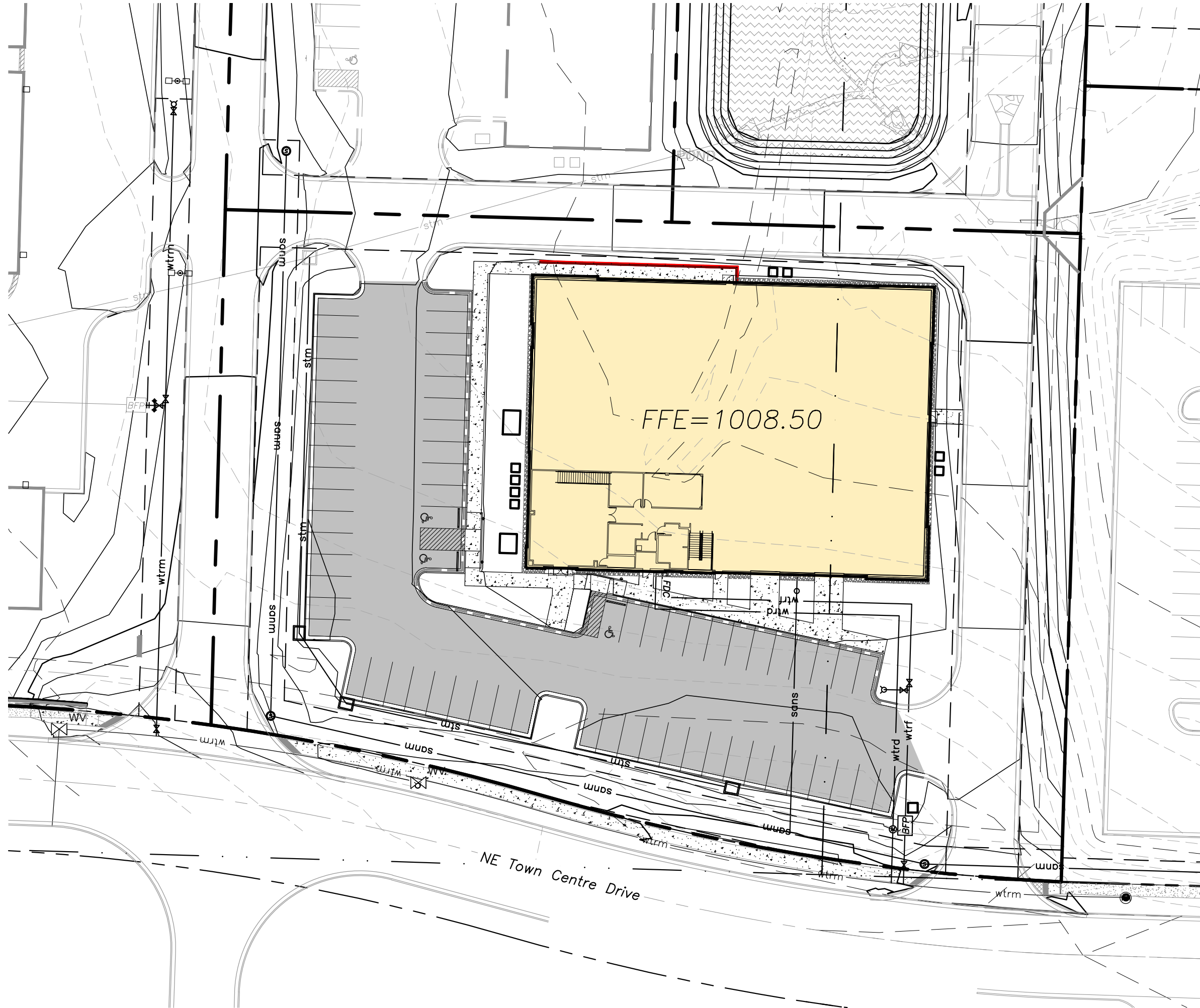
sanm	sanitary main
sans	sanitary service
ssm	storm sewer (existing)
ssns	storm sewer (solid wall, proposed)
stm	storm sewer (solid wall, proposed)
ssm	storm sewer (perforated, proposed)
wtrm	water main
wtrf	water service (fire)
wtrd	water service (domestic)
wtri	water service (irrigation)
gasm	natural gas main
gass	natural gas service schematic
elpu	underground primary electric
elsu	underground secondary electric
elpo	overhead electric
datu	underground cable/phone/data
datasu	underground cable/phone/data service
fc	fence-chainlink
fw	fence-wood
fbw	fence-barbed wire
tr	treeline

Symbols

⊙	sanitary manhole
⊙	service cleanout
⊙	force main release valve
⊙	rectangular structure
⊙	circular structure
⊙	fire hydrant
⊙	water valve
⊙	water meter
⊙	backflow preventer
⊙	natural gas meter
⊙	service transformer (pad mount)
⊙	primary switch gear
⊙	light pole
⊙	cable/phone/data junction box
⊙	street light
⊙	pedestrian street light
⊙	electric pole
⊙	guy wire
⊙	end section

General Notes

- All construction, including the work done in the right of way, shall follow the City of Lee's Summit Design & Construction Manual.
- Erosion Control shall be per the Erosion and Sediment Control Program Manual of the City of Lee's Summit, Missouri.
- All work and materials shall be subject to inspection and approval by the owner or the owner's representative. Any change or deviation from these plans must be authorized by the owner or the owner's representative.
- All traffic control in connection with construction in the right-of-way shall be in conformance with the Manual of Uniform Traffic Control Devices.
- The contractor shall be required to provide a stabilized construction entrance to prevent mud from being deposited onto adjacent roads.
- The contractor shall be responsible for obtaining all required permits, paying all fees, and otherwise complying with all applicable regulations governing the project.
- The contractor shall protect from damage or injury all property including survey monuments, property markers, benchmarks, etc. Items damaged shall be reset by a professional land surveyor licensed in the state of Missouri, at the contractor's expense.
- The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, sidewalks, street light and traffic signal junction boxes, traffic signal loop lead-ins, signal poles, etc. Damaged improvements shall be repaired in conformance with the latest city standards and to the city's satisfaction.
- The contractor shall sod all disturbed areas within the public street right-of-way.
- Paving shall conform to the soils report, and these drawings, any identified discrepancies shall be brought to the attention of the engineer.
- The contractor shall contact the City's Development Services Engineering Inspection to schedule a pre-construction meeting with a field engineering inspector prior to any land disturbance work at (816) 969-1200.
- All concrete for public improvements shall comply with the Standards and Specifications of the Kansas City Metropolitan Materials Board (KCMMB). Structural concrete shall be 5,000 psi and nonstructural concrete shall be 4,000 psi.
- A right-of-way work permit and/or street excavations permit shall be obtained by the contractor to complete all utility work within the public street right-of-way.
- According to the MDNR Record Database and Field Survey, there is no evidence suggesting presence of any active, inactive or capped oil and/or gas wells on the property.



General Notes:

- The Contractor shall be responsible for obtaining all required permits, paying all fees, and otherwise complying with all applicable regulations governing the project.
- All materials, workmanship, and construction shall meet or exceed the city standards. Where there is conflict between these plans and standards, the higher quality standard as determined by the engineer shall apply. All work shall be inspected and approved by contractor.
- All work and materials shall be subject to inspection and approval by the owner or the owner's representative. Any change or deviation from these plans must be authorized in writing by the owner or the owner's representative prior to work being completed.
- All construction shall follow the City of Lee's Summit Design & Construction Manual.
- Lineal foot measurements shown on the plans are horizontal measurements, not slope measurements. All payments shall be made on horizontal measurements.
- No geological information is shown in these plans.
- Prior to commencement of work, the contractor shall notify all utility companies which have facilities in the near vicinity of the construction to be performed.
- All waste material resulting from the project shall be disposed of off-site in an approved landfill. All excavation shall be unclassified. No separate payment will be made for rock excavation. Contractor is responsible for all haul off material.
- The Contractor shall be required to provide a stabilized construction entrance to prevent mud from being deposited onto adjacent roads.
- All mud, dirt, and debris tracked onto the parking lot or any roadway shall be removed immediately by the contractor.
- The Contractor shall be responsible for keeping the public streets in the vicinity of the job site clean and free of rocks, soil and debris. Streets and/or parking areas will be scraped and swept on a daily basis by the general contractor.
- The Contractor shall protect from damage all survey monuments, property markers, benchmarks, etc. Items damaged shall be reset by a professional land surveyor licensed in the state of Missouri, at the contractor's expense.
- Paving shall conform to the minimum design standards as required by the city and these drawings. If a geotechnical report is provided for the project, the greater pavement requirement between the city's minimum design standards and the geotechnical report shall be used.



- The contractor shall contact the City's Development Services Engineering Inspection to schedule a pre-construction meeting with a field engineering inspector prior to any land disturbance work at (816) 969-1200.
- All concrete for public improvements shall comply with the city standards and specifications. If no city standards and specifications are provided, then the contractor shall comply with the standards and specifications of the Kansas City Metropolitan Materials Board (KCMMB) unless otherwise noted. Structural concrete shall be 5,000 psi and nonstructural concrete shall be 4,000 psi.
- The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, sidewalks, street light and traffic signal junction boxes, traffic signal loop lead-ins, signal poles, etc (offsite and onsite). Damaged improvements shall be repaired in conformance with the latest city standards and to the city's satisfaction.
- All work within the road right-of-way shall conform to the technical specifications and design criteria for public improvement projects of the city of Lee's Summit, Missouri A right-of-way work permit and/or street excavations permit shall be obtained by the contractor if required to complete all work within the public right-of-way.
- All traffic control in connection with construction in the right-of-way shall be in conformance with the Manual of Uniform Traffic Control Devices and/or the jurisdictional authority. It is the contractor's responsibility to obtain a traffic control permit if required.
- All waste materials, trash and construction debris shall be collected and stored in dumpsters. No construction waste shall be buried on site. All hazardous waste materials will be disposed of in the manner specified by local, state and federal regulations. Site personnel shall be instructed in these practices, and the construction manager shall be responsible for seeing that these practices are followed.
- Recommendations made by the geotechnical engineer, to be retained by the owner, and contained in the geotechnical report shall govern project conditions unless noted otherwise. Paving shall conform to the the greater pavement requirement between the city's minimum design standards and the recommendations made in the geotechnical report.
- The Contractor shall grade areas to provide positive drainage.
- The contractor shall be responsible for the coordination of work between suppliers and subcontractors involved in the project, including staging of construction details.
- All disturbed areas shall be maintained for dust control. Sprinkling tank trucks shall be available at all times & used on on-site disturbed areas, and other areas where dust becomes a problem as a result of construction activity.
- Nothing indicated on these drawings shall relieve the contractor from complying with appropriate safety regulations.

Utility Notes:

- Boundary information, existing utilities and topographic features shown are based on information supplied by owner, surveyor, and others.
- The existing utility locations shown on these plans are approximate and may not include all utility lines present. The contractor shall be responsible to contract "One Call" and coordinate field location of all existing underground utilities prior to beginning excavation/construction activities.
- The contractor shall be responsible for any damage to any utilities or their structures during excavation/construction activities. Utilities include but are not limited to a service such as electricity, communication, water, public transportation (including traffic signals), storm systems, and items provided by a public utility.
- The contractor shall coordinate and be responsible for connection fees, system development fees, taxes, etc. for all main connections and/or extensions with and from the city and/or respective utility unless otherwise coordinated with the Owner. All utility services for this project shall be coordinated with respective utility company by contractor.
- The contractor shall be responsible for adjusting all at-grade utilities such as manhole covers, valve box covers, etc. to finish grade, whether specifically indicated in these plans or not.
- Utilities shown on the plan with specific elevations and/or structure locations are SUE quality level "B", ie: storm sewer, sanitary sewer, water hydrants & valves, utility poles, etc. All other existing utility information shown is SUE quality level "D", primarily retracement of one-call and city records.
- Refer to mechanical, electrical, and plumbing (MEP) plans for utility service sizes and exact locations. Refer to site electric plans for electric construction details.
- Provide temporary support for existing utility lines that are encountered during construction until backfilling is complete.
- Backfill all utility trenches according to the most recent edition of the jurisdictional standards.
- All utilities shall be brought within 5' of the building to connect to plumbing contractors work unless otherwise specified.
- The Contractor shall adjust all utility fixtures, manholes and inlets to finished grade as required.
- The Contractor shall maintain 18" minimum vertical clearance between storm sewer and sanitary sewer pipes and 18" minimum vertical clearance between sanitary sewer and water main unless otherwise specified.
- Contractor shall prevent entry of mud, dirt, debris, and other material into new and existing storm sewer systems. Should any contamination occur during construction, the contractor shall clean at contractor's expense. Upon completion of all storm sewer improvements, all new and existing pipe and structures shall be cleaned out.
- Electrical, lighting, and data conduit layout shown is for graphical purposes only. See MEP plans for more detail.
- The Contractor shall provide all temporary power, process, and utility service bypasses and connections as required.

Erosion Control Notes:

- The construction of the sediment basin, installation of the silt fencing, the maintenance of the drainage swales, and the construction of the stabilized entrance shall be completed first, prior to any clearing and grading of any portions of the site. The Disturbed portions of the site where construction activities have permanently ceased shall be stabilized with permanent seeding no later than 14 days after the last construction activity, refer to SWPPP. Roadway swales shall be stabilized with Erosion Control Devices. Once construction activity ceases permanently in an area, that area shall be stabilized with permanent seed and mulch. Only after the entire site has been stabilized, the silt fencing shall be removed.
- The general contractor, or designated Erosion Control Contractor, shall be responsible for construction and maintenance of erosion control devices and practices. The contractor shall be responsible for implementation of, and ensuring compliance of, the project Storm Water Pollution Prevention Plan (SWPPP), a copy of which shall be obtained from the Design Engineer. The SWPPP shall be maintained on site per NPDES requirements and shall be available for review at any time, by any authorized Federal, State, or local review official, as well as the Design Engineer. The general contractor, or designated Erosion Control Contractor, shall also be responsible for ensuring compliance with, and paying any fees associated with, the State of Missouri General Permit for Stormwater Runoff associated with construction activities, a copy of which shall be maintained in the aforementioned SWPPP.
- This project shall be constructed in compliance with the land disturbance permit, and conform to the standards and specifications of the city of Lee's Summit, Missouri, prior to any land disturbance changes.
- Erosion and any sedimentation from work on this site shall be contained on the site and not allowed to collect on any offsite areas or in waterways. Waterways include both natural and man-made open ditches, streams, storm drains, lakes and ponds. Refer to erosion control plans for more information.
- The contractor shall be responsible to control downstream erosion and siltation during all phases of construction. Erosion Control work and procedures shall be in place prior to beginning excavation/construction activities. To ensure progressive stabilization of disturbed earth, Erosion control devices shall be staged, installed and maintained throughout land disturbance activities as directed in the drawings, project manual and in accordance with all federal, state and local standards until the site is stabilized.
- The contractor shall implement and maintain Erosion Control Devices as shown in the drawings and project manual before, and at all times during the construction of this project. Any modifications to the devices due to construction or changed conditions shall be complied with as required or as directed by the city of Lee's Summit, Missouri.
- The contractor shall be responsible for installation and maintenance of all Erosion Control Devices. This includes providing berms, silt fence, or other means to prevent erosion from reaching the right of way and offsite boundaries. In the event the prevention measures are not effective, the contractor shall remove any debris and erosion, restoring the right of way to original or better condition.
- Contractor is to provide erosion protection for all storm sewer inlets.
- If any of the Erosion Control Devices on the site are deemed inadequate or ineffective, the city of Lee's Summit, Missouri has the right to require additional Erosion Control measures at the expense of the general contractor.
- If any pump-driven dewatering is needed, it shall be discharged through a filter bag over a well-vegetated area. The pump must discharge at a non-erosive velocity. If necessary, an approved energy dissipater may be used.
- Permanent BMP's for any disturbed land area shall be completed by the general contractor within 5 calendar days after final grading or the final earth change has been completed. When it is not possible to permanently stabilize a disturbed area after land disturbance activity ceases, temporary Erosion control devices shall be implemented immediately. All temporary Erosion Control Devices shall be maintained until permanent BMP devices are implemented. All permanent BMP's will be implemented and established before a certificate of compliance is issued.
- Strip topsoil only from those areas that will be disturbed by excavation, filling, road building, or compaction by equipment. Refer to the geotechnical report for depths of stripping. Put sediment basins, diversions, and other controls into place before stripping.
- When topsoiling, maintain needed erosion control practices such as diversions, grade stabilization structures, berm, dikes, level spreaders, waterways and sediment basins.
- Grades on the areas to be topsoiled which have been previously established shall be maintained.
- Bonding – Immediately prior to dumping and spreading of topsoil, loosen the subgrade by discing or scarifying to a depth of at least 4", to permit bonding of the topsoil and subsoil.
- The general contractor shall inspect the Erosion Control Devices once every 14 days under any circumstances, within 24 hours of rainfall, and daily during a prolonged rain event unless otherwise noted in the SWPPP or by the jurisdictional authority. A log of inspection report shall be maintained and accessible in accordance with National Pollution Discharge Elimination System (NPDES) requirements. Any required maintenance shall be provided within 72 hours.
- Install silt fence, inlet filters, and other Erosion Control Devices as indicated in the drawings, per APWA and authority regulations, and at additional affected areas as necessary. Build-up of sediment shall be removed promptly per authorities regulations. If silt fence decomposes or becomes ineffective prior to the end of expected usable life and the barrier is still required, the silt fence shall be replaced promptly. Sediment shall be removed from sediment traps or basins when design capacity has been reduced to 50%. Contractor shall flare the ends of the silt fence uphill in order to temporarily impound runoff.
- Earthen berms shall be regularly inspected, and inspected after each rainfall event. Repairs to earthen berms shall be made immediately. If the earthen berm shows signs of erosion, and it is determined that material must be added to fix the berm, the material shall be properly placed, compacted and reseeded. The berm shall be reseeded and stabilized, as needed, to maintain its soundness whether or not there has been any rainfall.
- Drainage swales shall be inspected regularly and after every rainfall event. Repairs to drainage swales shall be made immediately. If the flow channel and/or outlets show signs of deficiency, the damaged area(s) shall be restabilized and reseeded, as needed, to prevent further damage. If additional measures are needed to eliminate issues, contractor shall notify the engineer for possible modifications.
- Refer to the jurisdictional authority for temporary gravel construction entrance details. If not specified, refer to APWA standards. The entrance and exit areas of the project shall be cleared of all vegetation, roots, and other objectionable material. The gravel shall be placed to the proper dimensions and graded to a smooth and even slope. Construction entrance drainage shall be provided to carry water to a sediment trap or other suitable outlet.

Stockpiling Notes:

- Select stockpile location to avoid slopes and natural drainageways, avoiding traffic routes. On large sites, re-spreading is easier and more economical where topsoil is stockpiled in small piles located near areas where they will be used.
- Sediment Barriers – Use sediment fences or other barriers where necessary to retain sediment.
- Temporary Seeding – Protect topsoil stockpiles by temporarily seeding as soon as possible, not to exceed 14 days, weather permitting, after the formation of the stockpile.
- Permanent Vegetation – If stockpiles will not be used within 12 months, they must be stabilized with permanent vegetation to control erosion and weed growth.
- All stockpiled soils shall be maintained in such a way as to prevent erosion from leaving the site. Silt fence must be installed around the perimeter of the stockpile.

Seeding Notes:

- Seeding shall be as follows unless otherwise stated in the landscape plans.
- Annual rye grass, wheat, or oats should be used for temporary seeding. Apply rye grass at 120lbs. per acre, wheat or oats at 100lbs. per acre.
- A mixture of 65% kentucky bluegrass and 35% chewing fescue or creeping red fescue should be used for permanent seeding. Apply the mixture at 2lbs. per 1000ft².
- Seedbed preparation-Install necessary mechanical erosion and sedimentation control practices before seeding, and complete grading according to the approved plan. Lime and fertilizer needs should be determined by soil test. Apply the lime and fertilizer evenly and incorporate into the top 4"-6" of soil by discing or other suitable means.
- All seeding shall be performed during favorable weather conditions and only during normal and accepted planting seasons when satisfactory growing conditions exist. The planting operations shall not be performed during times of extreme drought, when ground is frozen or during times of other unfavorable climatic conditions unless otherwise approved by owner's representative. The contractor assumes full and complete responsibility for all such plantings and operations.
- Seed should be labeled in accordance with U.S. Department of Agriculture rules and regulations under the federal seed act and comply with the requirements of the Missouri seed law. Labels contain important information on seed purity, germination, and presence of weeds. Weed seed should not exceed 1.0% by weight of the mixture.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydroseeder. Small grains should be planted no more than 1" deep, and grasses and legumes no more than ½".
- Generally, a permanent stand of vegetation cannot be determined to be fully established until soil cover has been maintained for one full year from planting. Inspect seeded areas for failure and make necessary repairs and re-seedings within the same season, if possible.
- The Contractor shall seed all disturbed areas unless otherwise noted by landscape plans. Immediately after seeding, mulch all seeded areas with unweathered small grain straw, spread uniformly at the rate of 1-2 tons per acre or 100lbs (2-3 bales) per 1000ft². The mulch should be anchored with disc type mulch anchoring tool or other means as approved by the jurisdictional authority. Mulch matting may be used in lieu of loose mulch.
- The Contractor shall sod all disturbed areas within the public street right-of-way. Refer to city and state standards for proper installation.

Demolition Notes:

- At the site, the Contractor shall maintain the required documents for immediate review, included but not limited to: Site Safety Plan, Demolition Permits, Street Closure Permits, Contract Documents, Demolition Plans, Salvage Verification Forms, SWPPP Etc.
- The Contractor shall notify all utility companies for field verification and disconnection of utilities prior to any work. Coordination is required for both temporary and permanent utility services that serve the site including, but not limited to: water lines, power, telephone, cable, storm sewer, sanitary sewer with the city and/or respective utility.
- The Contractor is specifically cautioned that the locations and/or elevation of existing utilities as shown on these plans are based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. Contractor shall contact One Call utility information service for utility locates. The Contractor must call the appropriate utility companies at least 72 hours before any excavation to request exact field location of utilities. The Contractor shall also coordinate and allow access for utility companies to perform any disconnection or relocation activities. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
- Remaining building structures and remaining utility services shall be protected from damage. Damage to any existing features to remain will be replaced at the Contractor's expense.
- Areas disturbed during demolition shall be thoroughly evaluated by the geotechnical engineer responsible for site preparation prior to placement of structural fill. All disturbed soils shall be undercut prior to placement of structural fill, per the geotechnical recommendations. Contractor shall notify the geotechnical engineer at least 72 hours prior to placement of structural fill.
- Excavations created by the removal of any existing utility lines that extend below design grades shall be cut wide enough to allow use of heavy construction equipment to compact the fill. Base of the excavations shall be thoroughly evaluated by the geotechnical engineer prior to placement of fill. If existing utilities are to be left in-place, existing trench backfill shall be evaluated in accordance with the recommendations of evaluation of existing fill.
- The Contractor shall be responsible for obtaining all Federal, State, and local permits, obtaining all inspections, and shall conform to all governing codes and regulations required to perform necessary abatement during demolition, should hazardous materials be encountered.
- Contractor is responsible for legally disposing of all materials and associated cost of interim storage facilities.
- For tree & stump removal, the Contractor shall remove all root systems from the site not designated to be saved. Materials disturbed during removal of stumps shall be undercut and replaced with structural fill. A zone of desiccated soils may exist in the vicinity of the trees. The desiccated soils have a higher swell potential and shall be undercut and replaced with structural fill.
- No construction waste shall be buried on site. All hazardous waste materials will be disposed of in the manner specified by local, state and federal regulations.

Retaining Wall Notes:

- Site retaining wall improvements shall be designed by a licensed professional engineer retained by the contractor. The wall engineer and contractor shall satisfy themselves of the conditions of the surrounding site features and any interactions with the proposed improvements.
- Retaining wall design drawings and specifications shall be provided to the owner and owner's representative for review and approval. All retaining wall designs shall be signed and sealed by a registered Professional Engineer licensed in the state of Missouri. Design services shall be included in retaining wall pricing.
- Refer to Retaining Wall drawings for wall information. Civil plan set shall only be used for general location and spot elevations.
- The Contractor is responsible for coordinating all inspections, certifications, permits, fees and close out of the wall unless otherwise determined. Contractor shall notify wall design engineer for final inspection. Contractor shall include in construction cost for all of the above items related to the installation of the retaining wall.
- Any wall shown is a schematic representation of the proposed walls. The spot elevations denoting retaining walls are provided on the site grading plan.
- If the wall is greater than 30" and is in an accessible area, guard rails are required per code.

project number
0231

Local Benchmarks:

BM-1: (Sanitary Sewer Manhole, Center of Lid)
Elevation: 1006.88'
N: 1013449.78
E: 2826933.88

BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03

Floodplain Note:

The site lies entirely with "Zone X", areas determined to be outside the 0.2% annual chance floodplain as depicted on the FEMA Flood Insurance Rate Map (FIRM) no. 29095C0430G, Revision Date: January 20, 2017.

Utility Legend

existing
proposed

Linetypes

sanm	sanitary main
sans	sanitary service
ssm	storm sewer (existing)
ssm	storm sewer (solid wall, proposed)
ssm	storm sewer (solid wall, proposed)
ssm	storm sewer (perforated, proposed)
wtrm	water main
wtrf	water service (fire)
wtrd	water service (domestic)
wtri	water service (irrigation)
gasm	natural gas main
gass	natural gas service schematic
elpu	underground primary electric
elsu	underground secondary electric
elpo	overhead electric
datu	underground cable/phone/data
datu	underground cable/phone/data service
	fence-chainlink
	fence-wood
	fence-barbed wire
	treeline

Symbols

Ⓢ	sanitary manhole
co	service cleanout
fmv	force main release valve
□	rectangular structure
○	circular structure
⌵	fire hydrant
⊗	water valve
Ⓜ	water meter
BFP	backflow preventer
g	natural gas meter
T	service transformer (pad mount)
S	primary switch gear
⚡	light pole
C	cable/phone/data junction box
⦿	street light
⦿	pedestrian street light
⊕	electric pole
→	guy wire
D	end section

Property Legend

—	right of way
---	property lines
---	easements
---	setbacks

Grading Legend

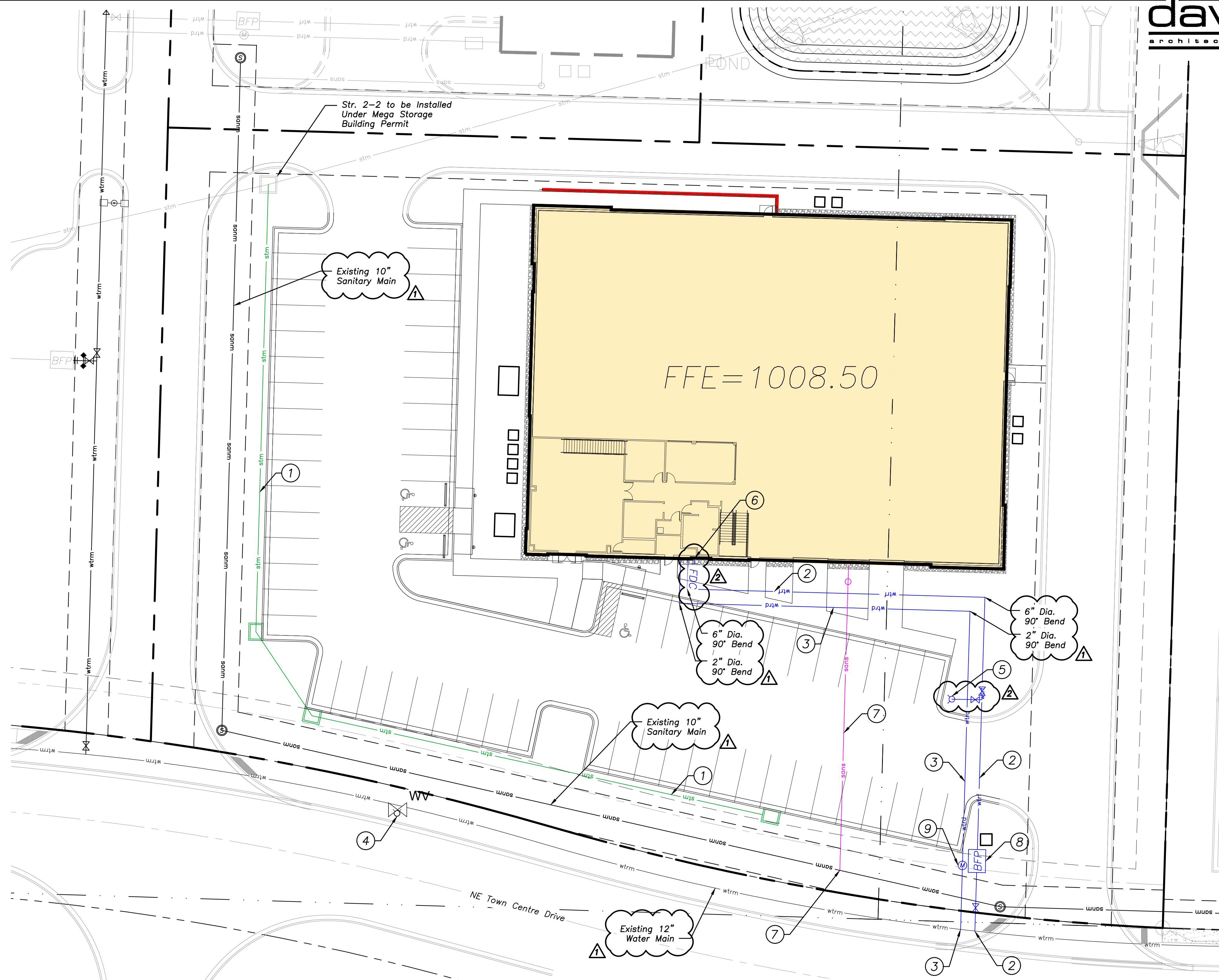
---	existing minor contour
---	existing major contour
---	proposed minor contour
---	proposed major contour

Utility Legend

sanm	existing sanitary main
wtrm	existing water main
ssm	existing storm sewer
gasm	existing gas main
elpu	existing underground electric
elpo	existing overhead electric
datu	existing underground data
sanm	proposed sanitary main
sans	proposed sanitary service
wtrm	proposed water main
wtrf	proposed fire line
wtrd	proposed water service
ssm	proposed storm sewer
gasm	proposed gas main
gass	proposed gas service
elpu	proposed underground primary electric
elsu	proposed underground secondary electric
elpo	proposed overhead electric
datu	proposed underground data

Americans with Disabilities Act (ADA) Notes:

- The running and cross slopes for all sidewalks, accessible paths, ramps, designated parking stalls, etc., shall be in compliance with latest Federal ADA guidelines, in addition to any accessibility standards adopted by the governing municipality. Prior to installation/construction, if any discrepancies are found within the plans, the Engineer shall be notified.
- All ADA parking areas shall have NO slopes greater than 2% in any direction.
- ⚠ Sidewalk construction must not exceed a 2% cross-slope and an 8.33% running slope.

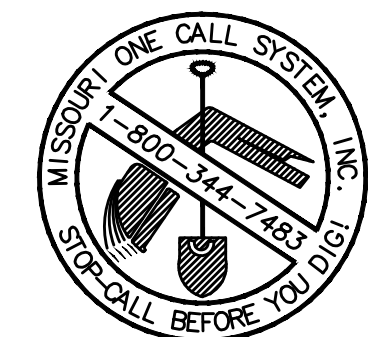


Utility Notes

- Proposed private storm line 3, see sheet C3.4 for details.
- Proposed 6" C900 private fire service line: Contractor to coordinate installation of new 6" fire service connection on existing water main north of NE Town Centre Drive. After testing & chlorination, coordinate with City of Lee's Summit Water Utilities for connection to ex. 12" main with 12"x6" Cut-In TEE with backing block & (1x) 6" gate valve. Install 6" full-flow fire meter, pit & concrete vault for backflow assembly per City of Lee's Summit specifications. Contractor to install 6" double check detector assembly & ±125 L.F. 6" C900 PVC private fire line with backing blocks to building riser room as shown. All joints to be mechanically restrained. Refer to MEP plans for continuation.
- Proposed domestic water service connection: Contractor to coordinate installation of new 1-1/2" domestic water service connection on existing 12" water main north of NE Town Centre Dr. with City of Lee's Summit Water Utilities. Utility to install 1-1/2" Type K soft copper (ASTM B 88) service line from meter pit to property line (approx. 10 L.F.). Install 1-1/2" HDPE CTS domestic water line from meter pit to building riser room as shown (approx. 125 L.F.). Refer to MEP plans for continuation. See Detail WAT-11 on Sheet C4.4 for connection detail.
- Existing public fire hydrant
- Proposed private fire hydrant assembly
- Fire department connection (FDC)
- Proposed sanitary sewer service connection: Contractor to coordinate installation of new 4" sanitary service connection on existing 10" sanitary main north of NE Town Centre Dr. with City of Lee's Summit Water Utilities. Install 10"x4" Cut-In WYE and approx. 118 L.F. 4" PVC SDR-26 sanitary sewer service pipe at 2.0% minimum slope and sampling cleanout.
F/L at Bldg = 1005.00
F/L at service connection = unknown, to be field verified by Contractor.
- Install backflow preventer device in vault with concrete bottom sloped for drainage. Sump shall be filled with clean rocks to promote infiltration for drainage (See detail WAT-12 on sheet C4.4).
- Install 1-1/2" water meter as shown in meter pit with gravel bottom for drainage (see detail on sheet C4.4).

1 Utility Plan
scale: 1"=20'

0 10 20 40



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

date 02.28.2022
drawn by JMP
checked by PAM
revisions

05.09.2022	01
05.19.2022	02

sheet number

C1.3

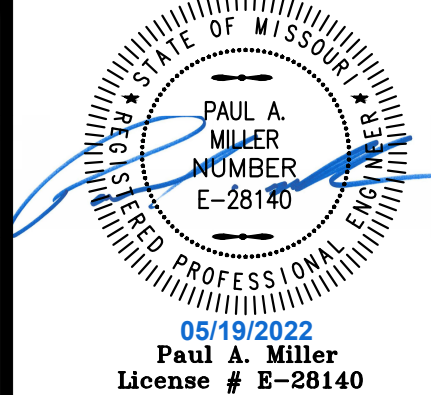
drawing type
FDP & Permit

project number
20231

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& Engineering, LLC
License # 2010029713



a new development for
D-BAT - Town Centre Lot 1
540 NE Town Centre Drive
Lee's Summit, Missouri

date
02.18.2022
drawn by
JMP
checked by
PAM
revisions

sheet number

C2.1

drawing type
FDP & Permit

project number
20231

Local Benchmarks:

BM-1: (Sanitary Sewer Manhole, Center of Lid)
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E: 2826933.88

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Elevation: 994.34'
N: 1013518.71
E: 2826136.03

Grading Legend

existing minor contour
existing major contour
proposed minor contour
proposed major contour

Utility Legend

existing
proposed

Linetypes

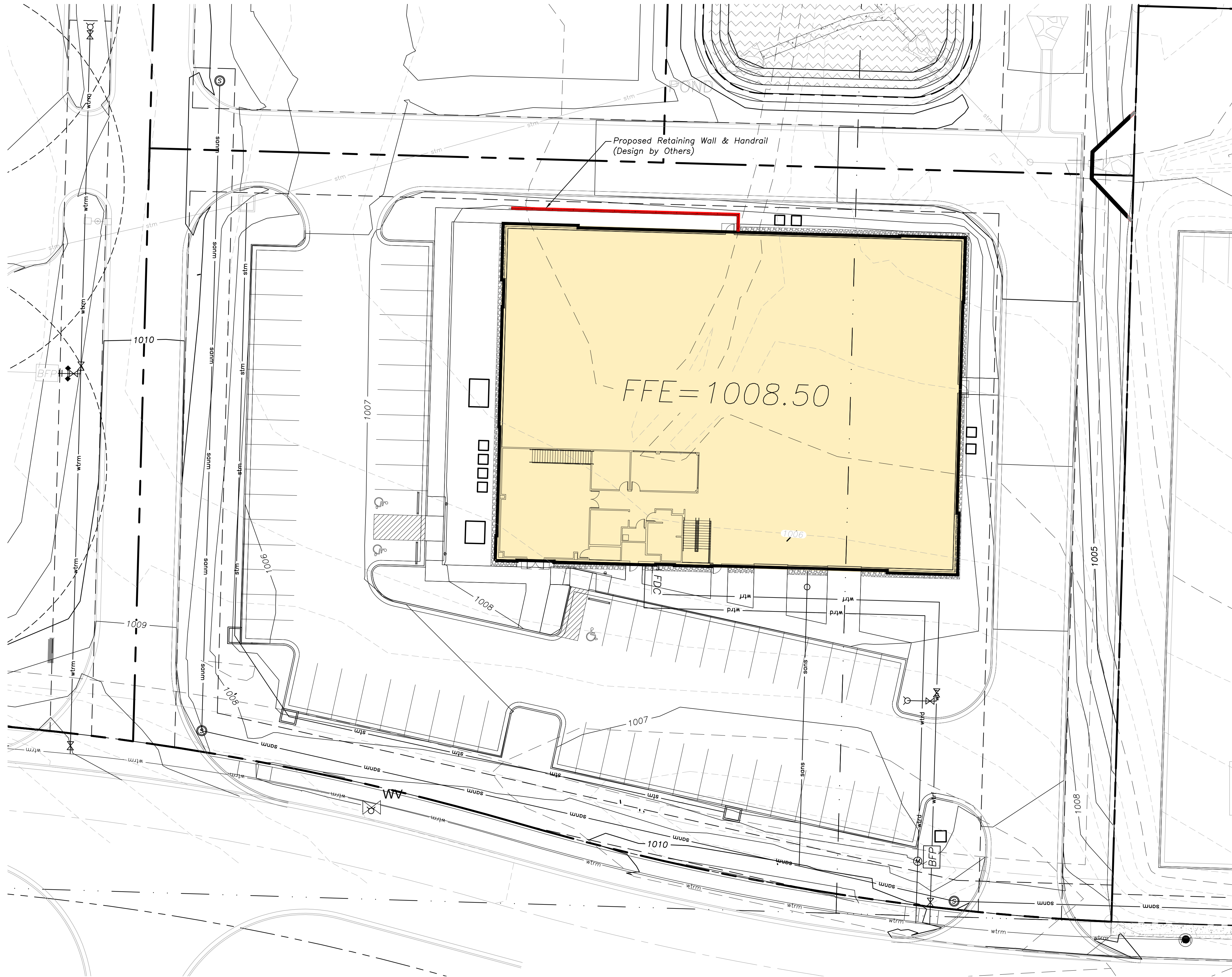
sanm sanitary main
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ssm storm sewer (existing)
ssm storm sewer (solid wall, proposed)
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wtrm water main
wtrf water service (fire)
wtrd water service (domestic)
wtri water service (irrigation)
gasm natural gas main
gass natural gas service schematic
elpu underground primary electric
elsu underground secondary electric
elpo overhead electric
datu underground cable/phone/data
datsu underground cable/phone/data service
fence-chainlink
fence-wood
fence-barbed wire
treeline

Property Legend

right of way
property lines
easements
setbacks

Symbols

sanitary manhole
service cleanout
force main release valve
rectangular structure
circular structure
fire hydrant
water valve
water meter
backflow preventer
natural gas meter
service transformer (pad mount)
primary switch gear
light pole
cable/phone/data junction box
street light
pedestrian street light
electric pole
guy wire
end section



1 Grading Plan
scale: 1"=20'



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Grading Legend

existing minor contour
existing major contour
proposed minor contour
proposed major contour

Utility Legend

existing
proposed

Linetypes

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sans sanitary service
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ssms storm sewer (solid wall, proposed)
stms storm sewer (solid wall, proposed)
stms storm sewer (perforated, proposed)
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wtrf water service (fire)
wtrd water service (domestic)
wtri water service (irrigation)
gasm natural gas main
gass natural gas service schematic
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elsu underground secondary electric
elpo overhead electric
datu underground cable/phone/data
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fence-chainlink
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treeline

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rectangular structure
circular structure
fire hydrant
water valve
water meter
backflow preventer
natural gas meter
service transformer (pad mount)
primary switch gear
light pole
cable/phone/data junction box
street light
pedestrian street light
electric pole
guy wire
end section

Erosion Control Legend

Phase I Silt fence
Phase I Inlet protection
limits of disturbance
construction entrance
rock check dam
topsoil stockpile area
concrete washout area

Property Legend

right of way
property lines
easements
setbacks

Note:

Contractor to construct stormwater management facilities, specifically those features related to detention, prior to any land disturbance of the site and prior to the construction of any other site development work as not to effect downstream neighbors with undetained stormwater discharge.

Erosion and Sediment Control Staging Chart

Project Stage	Description	Remove after Stage:	Note:
Phase I	Inlet Protection	E	Install inlet protection on existing area inlets. See detail ESC-06 on Sheet C4.1
	Temporary Construction Entrance and Staging Area	D	Install per ESC-01 detail on Sheet C4.1
	Perimeter Sediment Fence	E	Install per city of Lee's Summit standard. See detail ESC-03 on Sheet C4.1
	Construct Sediment Basin	N/A	At time of sediment basin construction, install stabilized buffer and utilize skimmer at sediment basin outlet structure. See detail ESC-12 on Sheet C4.1
Phase II	Concrete Washout	D	Remove only when graded areas have permanent stabilization established
	Stockpile Topsoil	D	Install sediment fence a minimum of 5' beyond toe of slope for all stockpile areas.
	Phase II Sediment Fence	E	Install as needed for intermediate sediment control during mass grading
	Remove Existing Pond	N/A	Reference Soil Stabilization notes on Sheet C2.2 for recommended stabilization procedures
Building Phase	Phase II Area and Curb Inlets Protection	E	Install sediment fence around all area inlets and open junction boxes. Install excavated area and throat protection on all curb inlets. See detail ECS-07 on Sheet C4.1
	Temporary Stabilization	N/A	Seed and mulch future development area. Temporarily stabilize with hydromulch if out of seeding season.
	Convert Sediment Basin to Detention Pond	N/A	Install inlet/outlet storm structures. Grade Detention Area per Construction Drawings.
	Phase II Area and Curb Inlets Protection	E	Following installation of storm structures and curb and gutter, install inlet filter bag. See detail ECS-07 on Sheet C4.1
Building Phase	Sediment Log/Wattle	E	To be placed at back of curb and installed per manufacturer instructions.
	Establish Perennial Vegetation and landscaping per landscape plan. Install Native Vegetation in designated areas using approved seed mix.	N/A	Redistribute topsoil and seed and mulch all disturbed areas. Sod right-of-way. Stabilization complete when 100% of disturbed area is established with perennial vegetation with a density of 70%. All plantings shall be during approved planting season. Planting shall be per approved landscape plan.

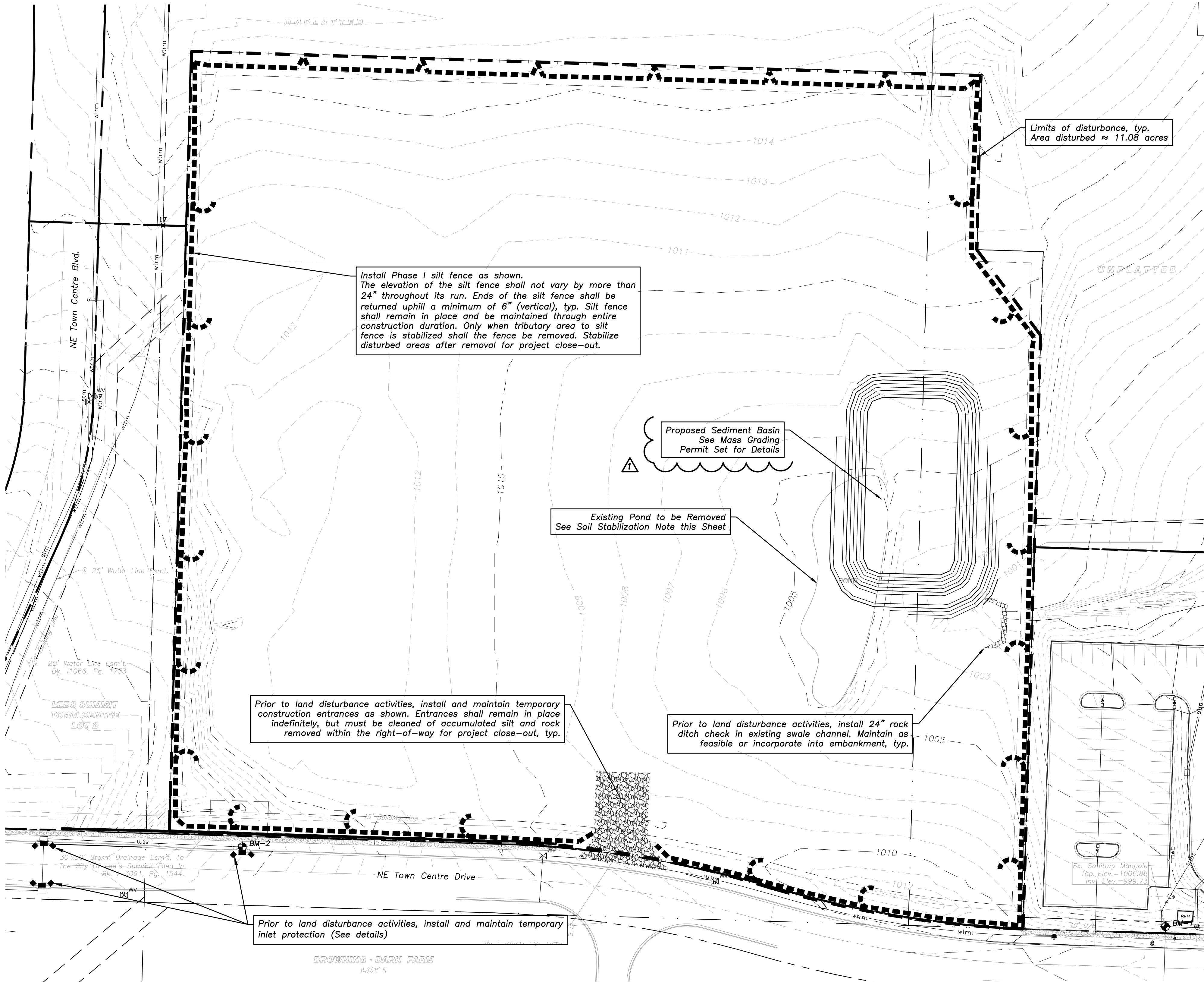
Soil Stabilization Notes (From Geotechnical Report by PSI Project No. 03382230):

The presence of shallow groundwater and potentially moisture sensitive shallow soils will increase the difficulty of site grading. PSI has been involved with projects in this region where these soils can undergo a loss of stability during wetter portions of the year. PSI anticipates that the soils at their current moisture levels will become easily disturbed if subjected to conventional rubber tire or narrow track-type equipment resulting in a loss of strength and characteristic "pumping". Soils that become disturbed would need to be excavated and replaced; however, this remedial excavation may expose progressively wetter soils with depth, thus compounding the condition. Thus, a normal approach to subgrade preparation may not be possible. In the event these conditions are observed, PSI recommends that the following remediation procedures be considered to further stabilize wet/soft areas if typical surface moisture conditioning/disking/recompacting methods are not affective.

1. Track in 3 to 5-inch minus well-graded crushed limestone or similar material into the failing areas to attempt to bridge the soft zones. These materials should be placed in loose lifts of no more than 10 inches and tracked in with a loaded rubber tire truck or beat in with a backhoe bucket. Once the areas are stabilized onsite soils then be placed to the recommended low volume change material subgrade elevation for pavements. If for some reason areas do not stabilize with 1 to 2 lifts of stone, a layer of grid or fabric may need to be incorporated into those areas at that time, followed by additional lifts of stone consisting of ¾ inch minus materials (AB-3).

2. A second option would be to place geo grid similar to Tensar BX1100 and then place new granular fill similar to ¾-inch minus material in compacted lifts. The grid should extend at least 10 feet past the perimeter of the failing areas and should be overlapped according to the manufactures requirements. If the area does not stabilize by the second lift of ¾ inch minus material an additional layer of grid should then be placed and the process should be repeated until it is stabilized.

PSI recommends a test section be performed to verify the selected remediation method.



1
scale: 1"=50'
0 25 50 100



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existing minor contour
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proposed minor contour
proposed major contour

Utility Legend

existing
proposed

Linetypes

sanm sanitary main
sans sanitary service
stm storm sewer (existing)
stm storm sewer (solid wall, proposed)
stm storm sewer (solid wall, proposed)
stm storm sewer (perforated, proposed)
wtrm water main
wtrf water service (fire)
wtrd water service (domestic)
wtri water service (irrigation)
gasm natural gas main
gass natural gas service schematic
elpu underground primary electric
elsu underground secondary electric
elpo overhead electric
datu underground cable/phone/data
datsu underground cable/phone/data service
fence-chainlink
fence-wood
fence-barbed wire
treeline

Symbols

sanitary manhole
service cleanout
force main release valve
rectangular structure
circular structure
fire hydrant
water valve
water meter
backflow preventer
natural gas meter
service transformer (pad mount)
primary switch gear
light pole
cable/phone/data junction box
street light
pedestrian street light
electric pole
guy wire
end section

Erosion Control Legend

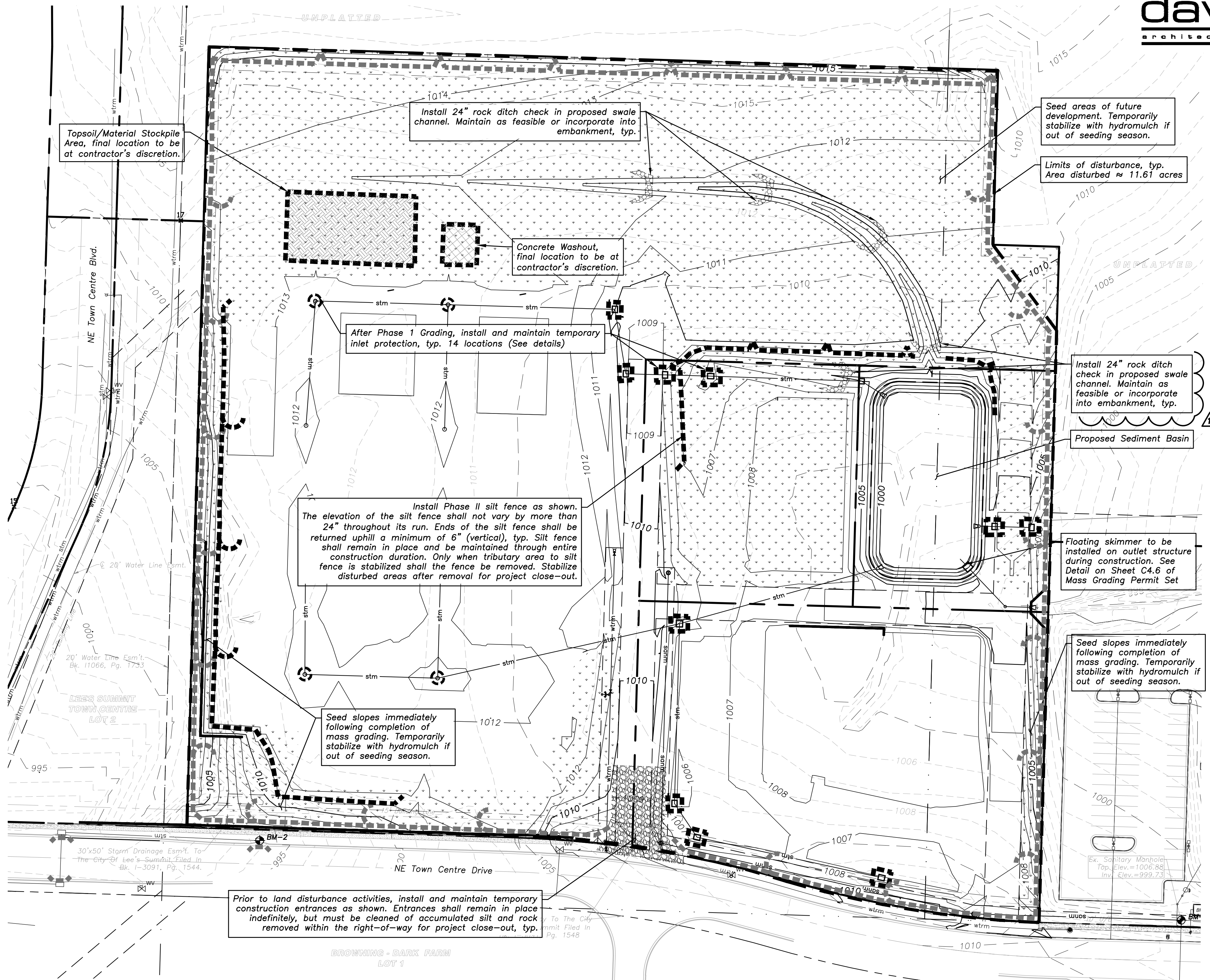
Phase I Silt fence
Phase I Inlet protection
Phase II Silt fence
Phase II Inlet protection
limits of disturbance
construction entrance
rock check dam
topsoil stockpile area
concrete washout area
temporary seeding

Property Legend

right of way
property lines
easements
setbacks

Note:

Contractor to construct stormwater management facilities, specifically those features related to detention, prior to any land disturbance of the site and prior to the construction of any other site development work as not to effect downstream neighbors with undetained stormwater discharge.



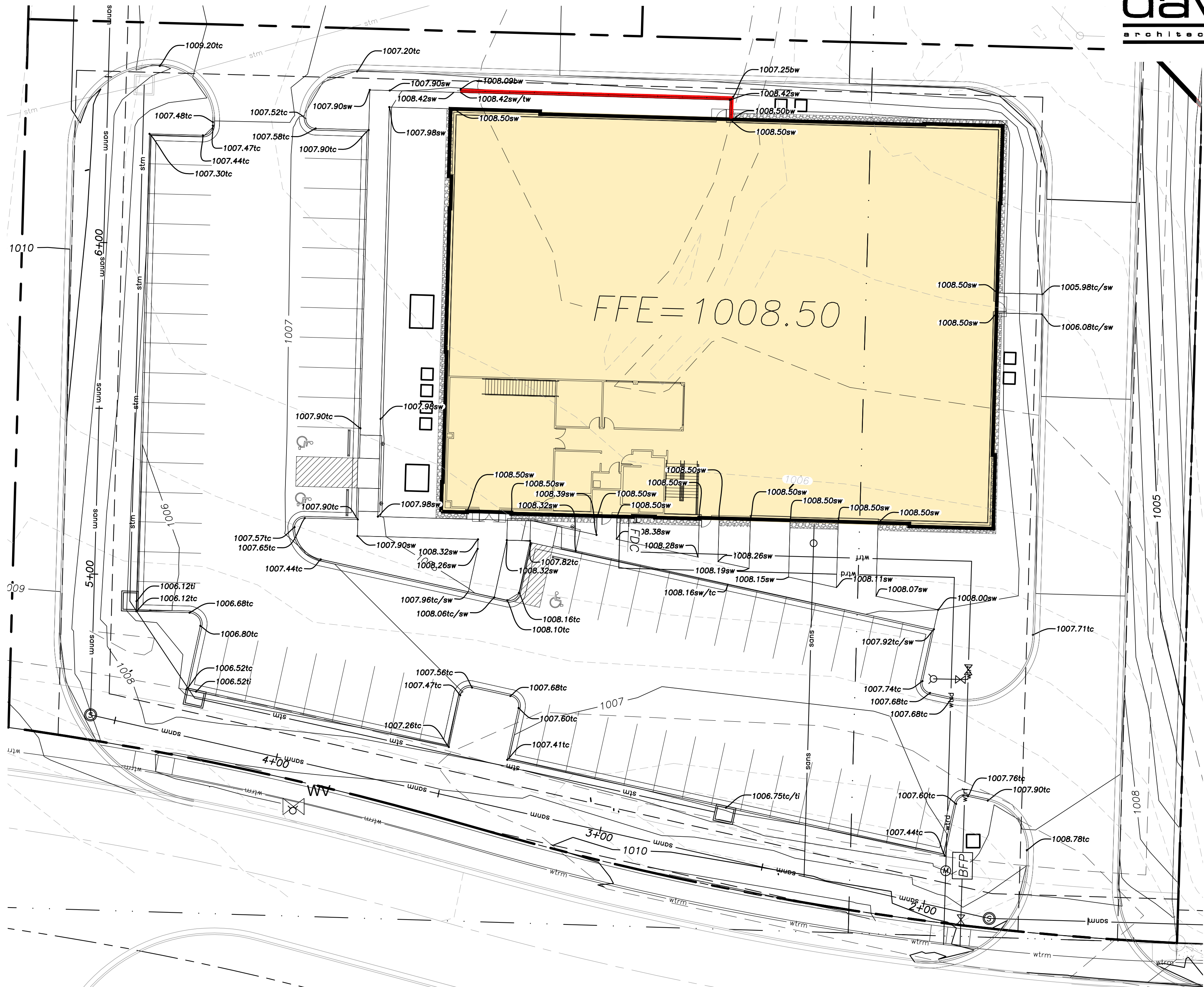
Erosion and Sediment Control Staging Chart				
	Project Stage	Description	Remove after Stage:	Notes:
Phase I	A - Prior to Land Disturbance	Inlet Protection	E	Install inlet protection on existing area inlets. See detail ESC-06 on Sheet C4.1.
		Temporary Construction Entrance and Staging Area	D	Install per ESC-01 detail on Sheet C4.1
		Perimeter Sediment Fence	E	Install per city of Lee's Summit standard. See detail ESC-03 on Sheet C4.1.
		Construct Sediment Basin	N/A	At time of sediment basin construction, install stabilized buffer and utilize skimmer at sediment basin outlet structure. See detail ESC-12 on Sheet C4.1.
Phase II	B - Mass Grading	Concrete Washout	D	Remove only when graded areas have permanent stabilization established.
		Stockpile Topsoil	D	Install sediment fence a minimum of 5' beyond toe of slope for all stockpile areas.
		Phase II Sediment Fence	E	Install as needed for intermediate sediment control during mass grading
		Remove Existing Pond	N/A	Reference Soil Stabilization notes on Sheet C2.2 for recommended stabilization procedures
Building Phase	C - Storm Sewer Installation	Phase II Area and Curb Inlets Protection	E	Install sediment fence around all area inlets and open junction boxes. Install excavated area and throat protection on all curb inlets. See detail ECS-07 on Sheet C4.1.
		Temporary Stabilization	N/A	Seed and mulch future development area. Temporarily stabilize with hydromulch if out of seeding season.
	D - Construction of Detention Pond, Building, and Pavements	Convert Sediment Basin to Detention Pond	N/A	Install inlet/outlet storm structures. Grade Detention Area per Construction Drawings.
		Phase II Area and Curb Inlets Protection	E	Following installation of storm structures and curb and gutter, install inlet filter bag. See detail ECS-07 on Sheet C4.1
	E - Final Grading & Stabilization	Establish Perennial Vegetation and landscaping per landscape plan. Install Native Vegetation in designated areas using approved seed mix.	N/A	Redistribute topsoil and seed and mulch all disturbed areas. Sod right-of-way. Stabilization complete when 100% of disturbed area is established with perennial vegetation with a density of 70%. All plantings shall be during approved planting season. Planting shall be per approved landscape plan.



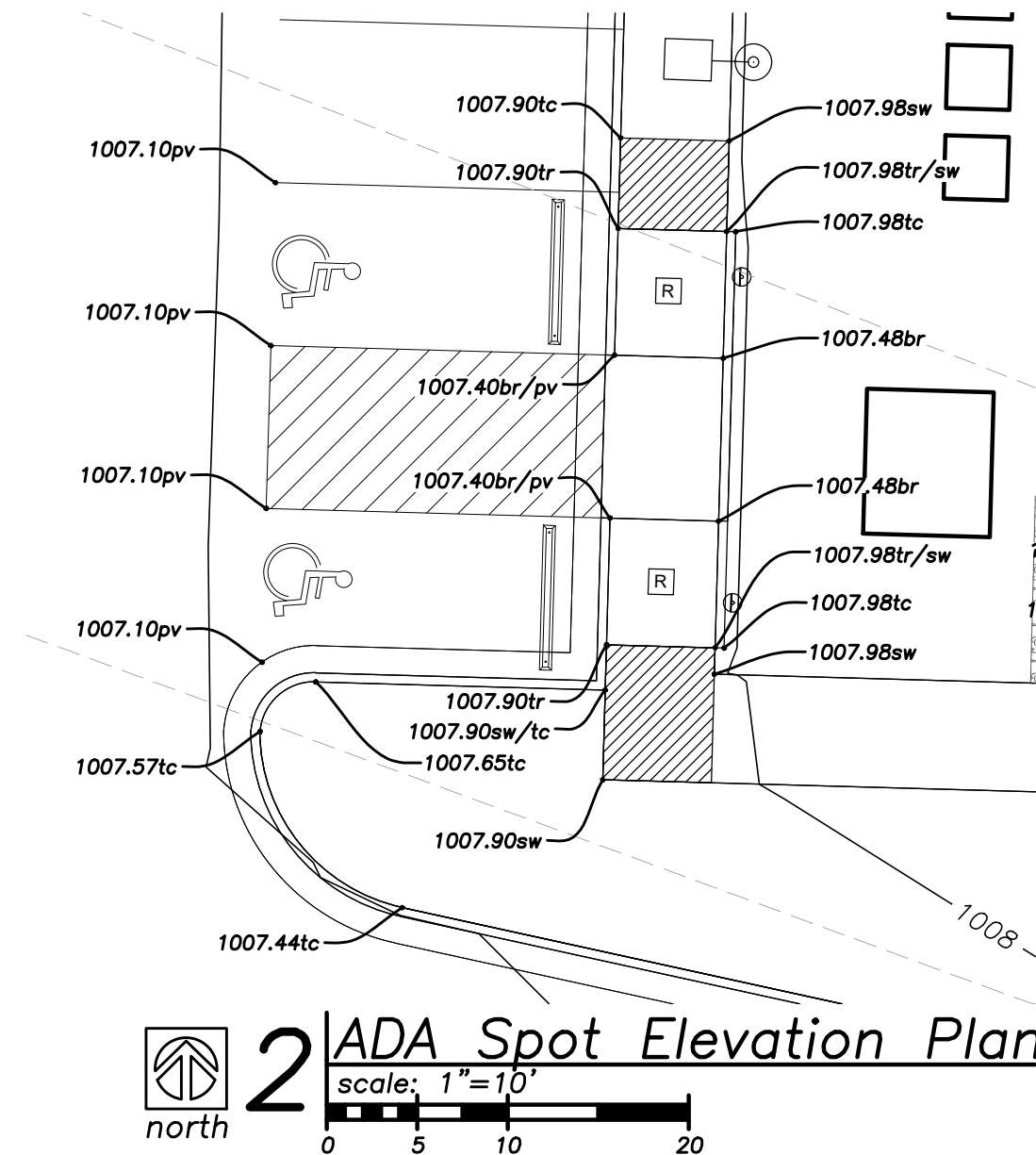
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Phase II: Erosion Control Plan

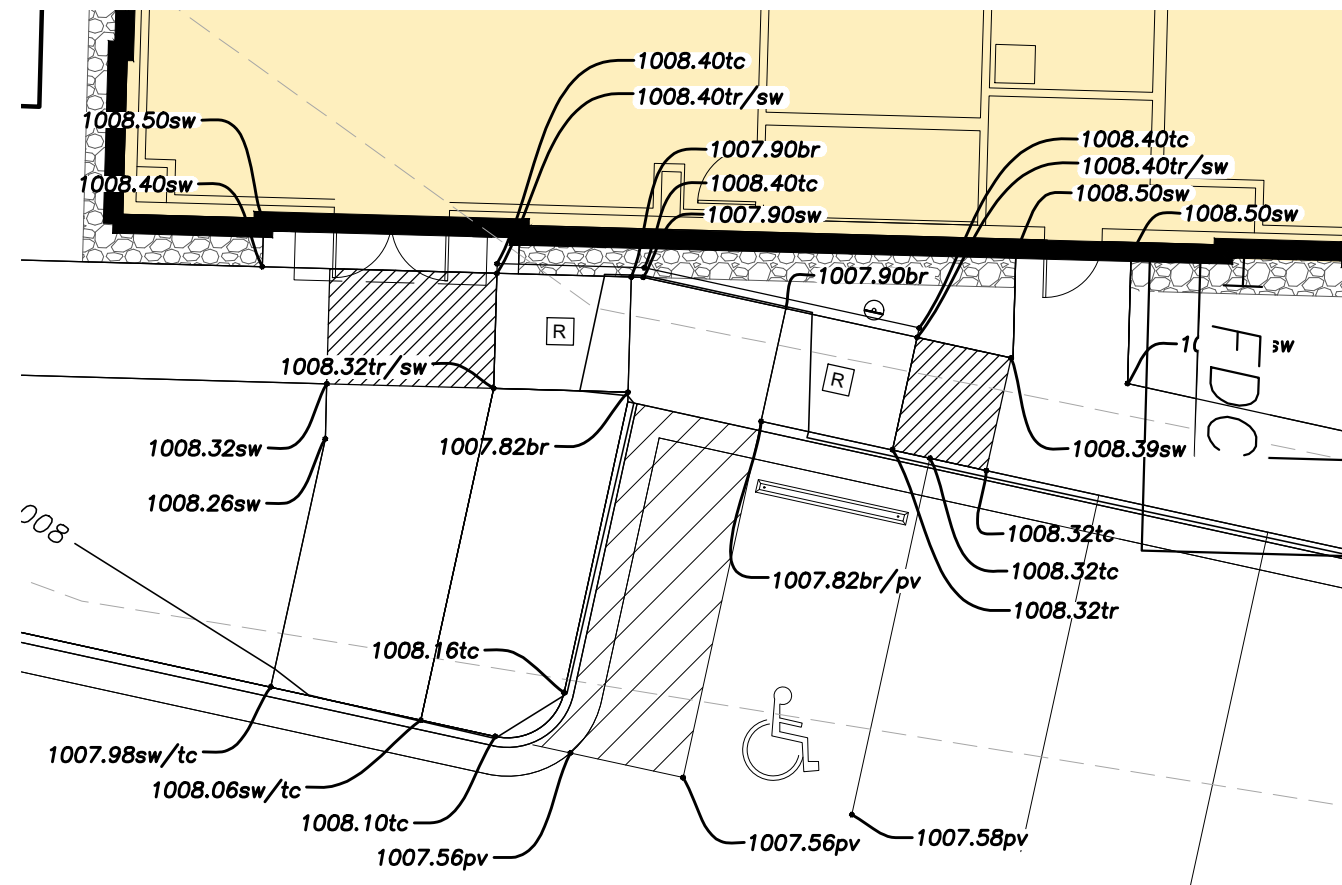




1 Spot Elevation Plan
scale: 1"=20'
0 10 20 40



2 ADA Spot Elevation Plan
scale: 1"=10'
0 5 10 20



3 ADA Spot Elevation Plan
scale: 1"=10'
0 5 10 20

Local Benchmarks:

BM-#

BM-1: (Sanitary Sewer Manhole, Center of Lid)
Elevation: 1006.88'
N: 1013449.78
E: 2826933.88

BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03

Property Legend

— right of way
--- property lines
--- easements
--- setbacks

Grading Legend

--- existing minor contour
--- existing major contour
--- proposed minor contour
--- proposed major contour

Utility Legend

--- existing
--- proposed

Linetypes

--- sanm sanitary main
--- sans sanitary service
--- ssm storm sewer (existing)
--- ssw storm sewer (solid wall, proposed)
--- stw storm sewer (solid wall, proposed)
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--- datu underground cable/phone/data
--- datsu underground cable/phone/data service
--- fence-chainlink
--- fence-wood
--- fence-barbed wire
--- treeline

Symbols

⊙ sanitary manhole
⊙ service cleanout
⊙ force main release valve
□ rectangular structure
○ circular structure
⊕ fire hydrant
⊕ water valve
⊕ water meter
⊕ backflow preventer
⊕ natural gas meter
⊕ service transformer (pad mount)
⊕ primary switch gear
⊕ light pole
⊕ cable/phone/data junction box
⊕ street light
⊕ pedestrian street light
⊕ electric pole
⊕ guy wire
⊕ end section

Americans with Disabilities Act (ADA) Notes:

- The running and cross slopes for all sidewalks, accessible paths, ramps, designated parking stalls, etc., shall be in compliance with latest Federal ADA guidelines, in addition to any accessibility standards adopted by the governing municipality. Prior to installation/construction, if any discrepancies are found within the plans, the Engineer shall be notified.
- All ADA parking areas shall have NO slopes greater than 2% in any direction.
- Sidewalk construction must not exceed a 2% cross-slope and an 8.33% running slope.

Spot Elevation Legend

br = bottom of ramp
tr = top of ramp
me = match existing
pv = pavement
bw = bottom of wall
tw = top of wall
tc = top of curb
sw = sidewalk
ti = top of inlet
mi = mid-point
hp = high-point
lp = low-point
pc = point of curvature
pt = point of tangency
bldg = building
FFE = finished floor elevation
ex = existing
mp = match pavement
gnd = ground
ts = top of stair
bs = bottom of stair

ADA Legend

[Pattern] detectable warning strip
[Pattern] turning space
[R] ADA ramp

Local Benchmarks:

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E: 2826933.88

BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03

Drainage Legend

drainage area

Property Legend

right of way
property lines
easements
setbacks

Grading Legend

existing minor contour
existing major contour
proposed minor contour
proposed major contour

Utility Legend

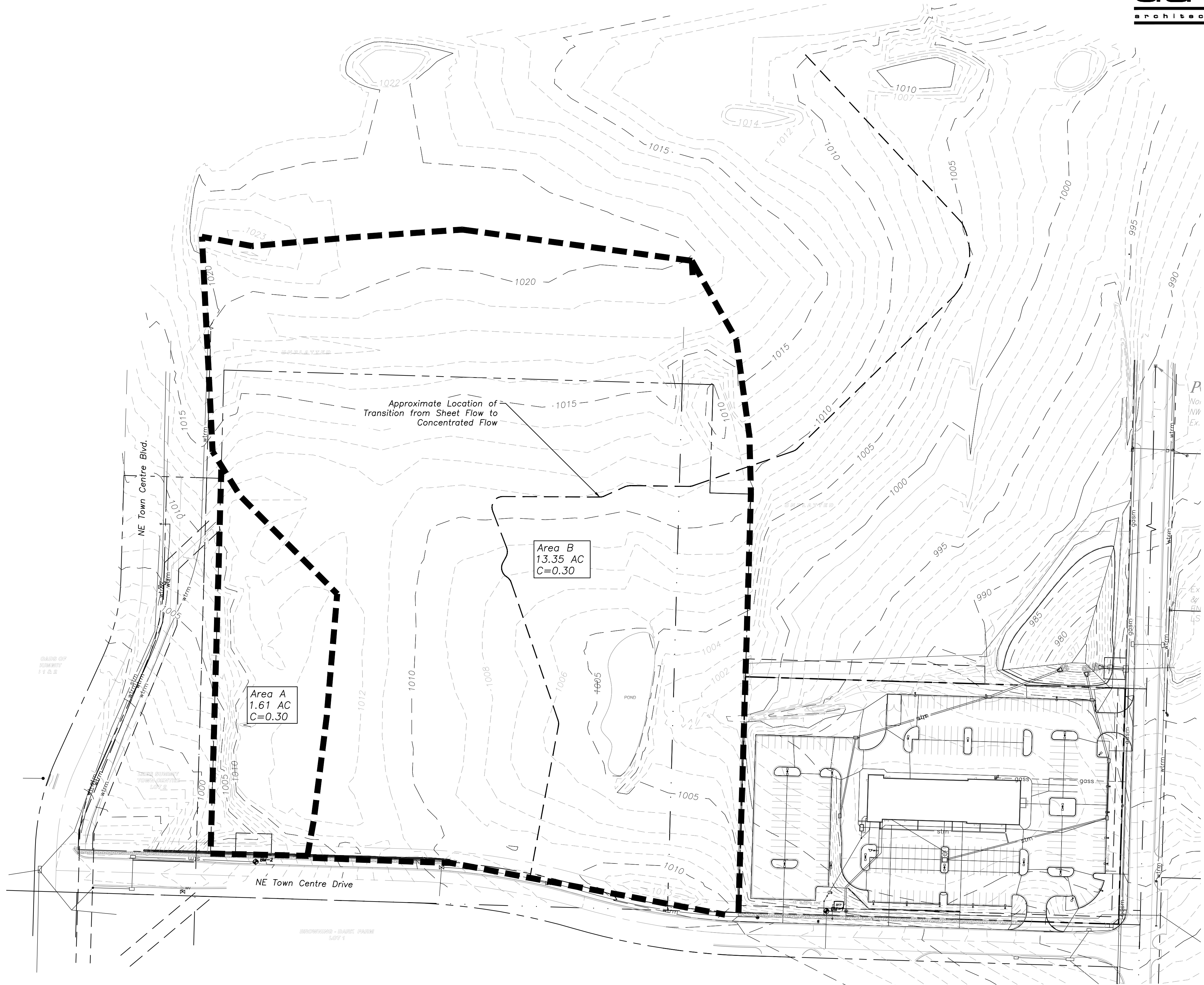
existing
proposed

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street light
pedestrian street light
electric pole
guy wire
end section



Pre-Construction Impervious Area Calculations

	Square Feet	Acres
Area of Site	505,732	11.61
Impervious Area	0	0
Pervious Area	505,732	11.61
Q: 10 year	23.26 cfs	
100 year	35.04 cfs	



1 Existing Drainage Area Map
scale: 1"=80'



Local Benchmarks:

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E: 2826933.88

BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03

Drainage Legend

drainage area

Property Legend

right of way
property lines
easements
setbacks

Grading Legend

existing minor contour
existing major contour
proposed minor contour
proposed major contour

Utility Legend

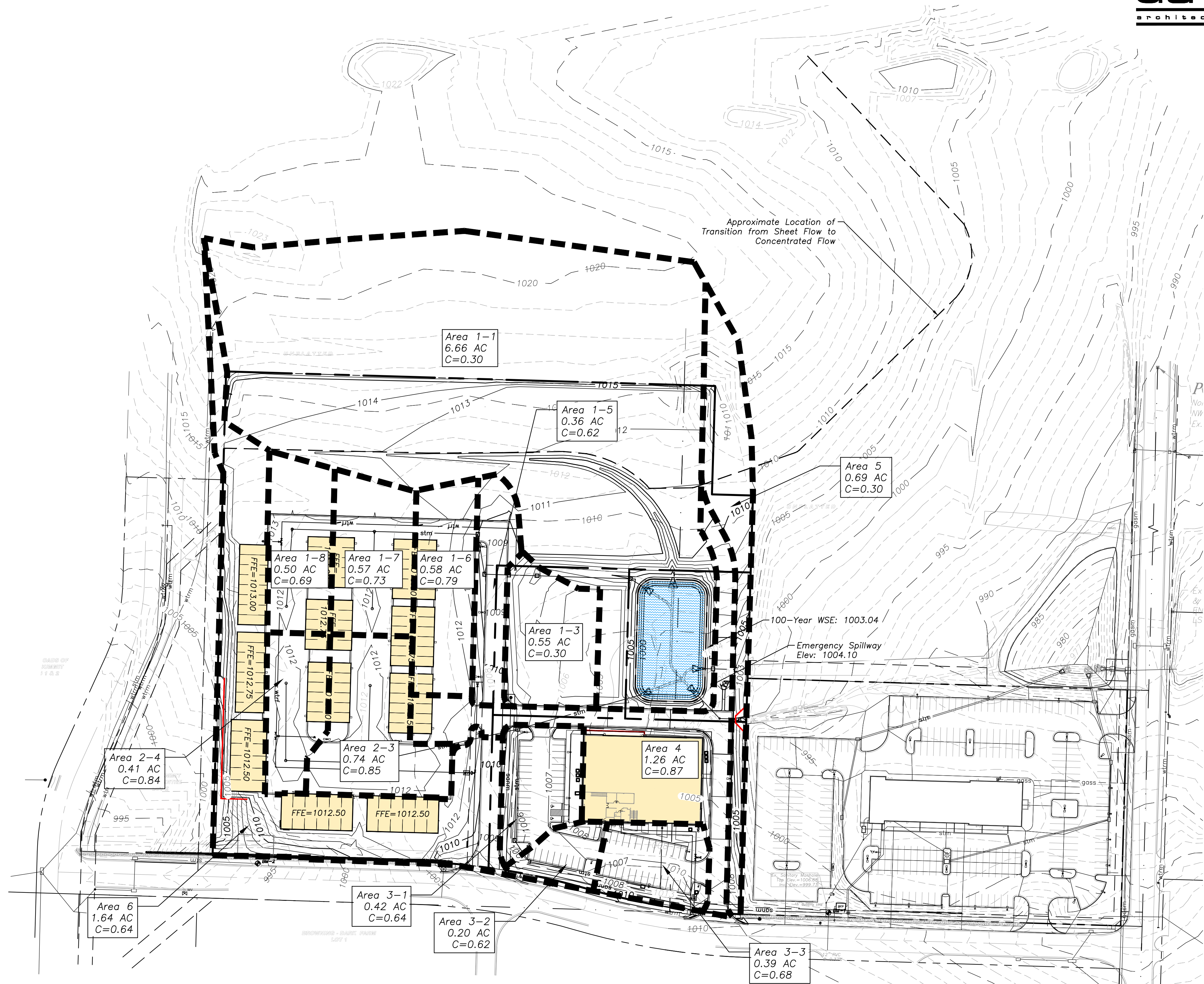
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proposed

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pedestrian street light
electric pole
guy wire
end section



Post-Construction Impervious Area Calculations

	Square Feet	Acres
Area of Site	505,723	11.61
Impervious Area	255,706	5.18
Pervious Area	280,017	6.43
Q: 10 year	6.59 cfs	
100 year	19.91 cfs	



1 Proposed Drainage Area Map
scale: 1"=80'



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

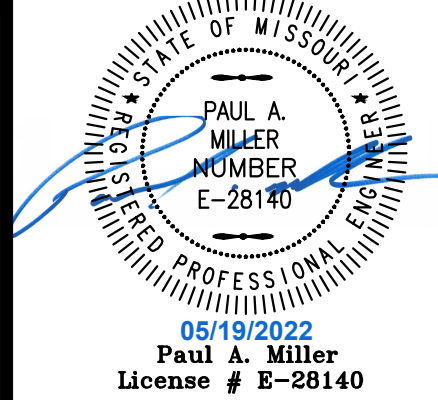
date 02.18.2022
drawn by JMP
checked by PAM
revisions

sheet number

C3.2

drawing type
FDP & Permit

project number
20231



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive
Lee's Summit, Missouri

date
02.18.2022
drawn by
JMP
checked by
PAM
revisions

03.18.2022 01
05.09.2022 02

sheet number

C3.3

drawing type
FDP & Permit

project number
20231



LineNo.	InletID	LineID	DrainageArea	RunoffCoeff	TotalRunoff	CapacityFull	DepthDn	DepthUp	CriticalDepth	EGLDn	EGLUp	HGLDn	HGLUp	InvertDn	InvertUp	LineLength	LineSlope	TotalArea	TotalCxA	VelAve	FlowRate
			(ac)	(C)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(ac)		(ft/s)	(cfs)
1	1-2	1-2 to 1-1	0	0	7.26	17.24	1.14	0.96**	0.96	1002.52	1002.45	1002.15	1002.08	1001.01	1001.12	22.228	0.49	2.56	1.61	4.41	7.26
2	1-3	1-3 to 1-2	0.55	0.3	7.41	17.4	0.91	0.97**	0.97	1002.61	1003.32	1002.23	1002.95	1001.32	1001.98	130.857	0.5	2.56	1.61	5.12	7.41
3	1-4	1-4 to 1-5	0	0	6.7	22.06	0.77	0.92**	0.92	1003.3	1003.77	1002.95	1003.42	1002.18	1002.5	39.492	0.81	2.01	1.44	5.41	6.7
4	1-5	1-5 to 1-4	0.36	0.62	6.74	22.23	0.76	0.92**	0.92	1003.8	1004.24	1003.45	1003.89	1002.69	1002.97	34.004	0.82	2.01	1.44	5.49	6.74
5	1-6	1-6 to 1-5	0.58	0.79	5.76	22.57	0.69	0.85**	0.85	1004.47	1005.11	1004.15	1004.79	1003.46	1003.94	56.578	0.85	1.65	1.22	5.28	5.76
6	1-7	1-7 to 1-6	0	0	3.7	11.16	0.59	0.73**	0.73	1005.31	1006.84	1005.03	1006.55	1004.43	1005.82	144.508	0.96	1.07	0.76	4.98	3.7
7	1-8	1-8 to 1-7	0	0	1.76	10.06	0.53	0.50**	0.5	1006.74	1007.6	1006.55	1007.42 j	1006.02	1006.92	114.98	0.78	0.5	0.35	3.27	1.76
8	8-1	8-1 to 1-8	0.5	0.69	1.8	2.7	0.6	0.6	0.57	1008.23	1008.76	1008.02	1008.55	1007.42	1007.95	108.116	0.49	0.5	0.35	3.68	1.8
9	9-1	9-1 to 1-7	0.57	0.73	2.17	3.68	0.55	0.63**	0.63	1007.34	1008.4	1007.07	1008.13	1006.52	1007.5	107.912	0.91	0.57	0.42	4.52	2.17
10	2-2	2-2 to 2-1	0	0	7.64	7.19	1.27	1.32	1.07	1002.63	1003.38	1002.27	1003.04	1001	1001.72	180.275	0.4	2.16	1.63	4.71	7.64
11	2-3	2-3 to 2-2	0	0	4.8	7.89	1.25	0.89**	0.89	1003.65	1006	1003.42	1005.59 j	1001.97	1004.7	214.634	1.27	1.15	0.97	4.53	4.8
12	2-4	2-4 to 2-3	0	0	1.76	8.25	0.64	0.53**	0.53	1005.79	1007.28	1005.59	1007.08 j	1004.95	1006.55	114.996	1.39	0.41	0.34	3.19	1.76
13	10-1	10-1 to 2-4	0.41	0.84	1.79	2.73	0.59	0.59	0.57	1007.61	1008.15	1007.39	1007.93	1006.8	1007.34	108.098	0.5	0.41	0.34	3.71	1.79
14	11-1	11-1 to 2-3	0.74	0.85	3.28	5.45	0.56	0.77**	0.77	1006.15	1008.53	1005.76	1008.13	1005.2	1007.36	108.051	2	0.74	0.63	6.14	3.28
15	3-1	3-1 to 2-2	0.42	0.64	3.19	8.05	1.39	0.68**	0.68	1003.63	1003.69	1003.36	1003.43 j	1001.97	1002.75	155.694	0.5	1.01	0.66	2.98	3.19
16	3-2	3-2 to 3-1	0.2	0.62	1.9	4.86	0.54	0.55**	0.55	1003.75	1003.93	1003.54	1003.72	1003	1003.17	35.163	0.48	0.59	0.39	3.7	1.9
17	3-3	3-3 to 3-2	0.39	0.68	1.38	4.92	0.45	0.46**	0.46	1004	1004.82	1003.82	1004.64	1003.37	1004.18	163.499	0.5	0.39	0.27	3.39	1.38
18	4-2	4-2 to 4-1	0	0	5.69	4.7	0.97	1.1	0.97	1001.83	1001.94	1001.35	1001.55	1000.38	1000.45	15.493	0.45	1.26	1.1	5.28	5.69
19	4-3	4-3 to 4-2	1.26	0.87	5.71	4.95	1.25	1.25	0.97	1002.24	1002.45	1001.9	1002.11	1000.65	1000.81	32.013	0.5	1.26	1.1	4.65	5.71
20	7-2	7-2 to 7-1	0	0	0	15.13	2	2	0.16	1002.85	1002.85	1002.85	1002.85	999.74	999.82	20.988	0.38	0	0	0.07	0.21
21	7-3	7-3 to 7-2	0	0	0	15.46	2	2	0.16	1002.85	1002.85	1002.85	1002.85	999.82	1000	45.234	0.4	0	0	0.07	0.21

10–Year Storm Calculations

LineNo.	InletID	LineID	DrainageArea	RunoffCoeff	TotalRunoff	CapacityFull	DepthDn	DepthUp	CriticalDepth	EGLDn	EGLUp	HGLDn	HGLUp	InvertDn	InvertUp	LineLength	LineSlope	TotalArea	TotalCxA	VelAve	FlowRate
			(ac)	(C)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(ac)		(ft/s)	(cfs)
1	1-2	1-2 to 1-1	0	0	10.66	17.24	1.14	1.17**	1.17	1002.64	1002.78	1002.15	1002.29	1001.01	1001.12	22.228	0.49	2.56	1.61	5.68	10.66
2	1-3	1-3 to 1-2	0.55	0.3	10.81	17.4	1.14	1.18**	1.18	1002.95	1003.65	1002.46	1003.16	1001.32	1001.98	130.857	0.5	2.56	1.61	5.73	10.81
3	1-4	1-4 to 1-5	0	0	9.75	22.06	0.98	1.12**	1.12	1003.61	1004.07	1003.16	1003.62	1002.18	1002.5	39.492	0.81	2.01	1.44	5.9	9.75
4	1-5	1-5 to 1-4	0.36	0.62	9.79	22.23	0.93	1.12**	1.12	1004.08	1004.55	1003.62	1004.09	1002.69	1002.97	34.004	0.82	2.01	1.44	6.13	9.79
5	1-6	1-6 to 1-5	0.58	0.79	8.34	22.57	0.84	1.03**	1.03	1004.71	1005.38	1004.3	1004.97	1003.46	1003.94	56.578	0.85	1.65	1.22	5.88	8.34
6	1-7	1-7 to 1-6	0	0	5.3	11.16	0.73	0.89**	0.89	1005.53	1007.08	1005.16	1006.71	1004.43	1005.82	144.508	0.96	1.07	0.76	5.56	5.3
7	1-8	1-8 to 1-7	0	0	2.48	10.06	0.69	0.60**	0.6	1006.93	1007.74	1006.71	1007.52 j	1006.02	1006.92	114.98	0.78	0.5	0.35	3.47	2.48
8	8-1	8-1 to 1-8	0.5	0.69	2.52	2.7	0.77	0.76	0.68	1008.42	1008.95	1008.19	1008.71	1007.42	1007.95	108.116	0.49	0.5	0.35	3.91	2.52
9	9-1	9-1 to 1-7	0.57	0.73	3.04	3.68	0.69	0.75**	0.75	1007.58	1008.61	1007.21	1008.25	1006.52	1007.5	107.912	0.91	0.57	0.42	5.03	3.04
10	2-2	2-2 to 2-1	0	0	11.1	7.19	1.27	1.5	1.27	1003.02	1004.69	1002.27	1004.08	1001	1001.72	180.275	0.4	2.16	1.63	6.61	11.1
11	2-3	2-3 to 2-2	0	0	6.85	7.89	1.25	1.25	1.05	1005.23	1007.29	1004.75	1006.8	1001.97	1004.7	214.634	1.27	1.15	0.97	5.58	6.85
12	2-4	2-4 to 2-3	0	0	2.48	8.25	1.25	0.86	0.63	1007.35	1007.53	1007.29	1007.41	1004.95	1006.55	114.996	1.39	0.41	0.34	2.38	2.48
13	10-1	10-1 to 2-4	0.41	0.84	2.51	2.73	0.76	0.76	0.68	1007.8	1008.34	1007.56	1008.1	1006.8	1007.34	108.098	0.5	0.41	0.34	3.94	2.51
14	11-1	11-1 to 2-3	0.74	0.85	4.59	5.45	1	1	0.89	1007.82	1009.35	1007.29	1008.82	1005.2	1007.36	108.051	2	0.74	0.63	5.85	4.59
15	3-1	3-1 to 2-2	0.42	0.64	4.58	8.05	1.5	1.5	0.82	1004.77	1005.02	1004.66	1004.92	1001.97	1002.75	155.694	0.5	1.01	0.66	2.59	4.58
16	3-2	3-2 to 3-1	0.2	0.62	2.72	4.86	1.25	1.25	0.66	1005.06	1005.11	1004.98	1005.04	1003	1003.17	35.163	0.48	0.59	0.39	2.22	2.72
17	3-3	3-3 to 3-2	0.39	0.68	1.94	4.92	1.25	1.03	0.55	1005.13	1005.26	1005.09	1005.21	1003.37	1004.18	163.499	0.5	0.39	0.27	1.69	1.94
18	4-2	4-2 to 4-1	0	0	7.99	4.7	1.11	1.25	1.11	1002.24	1002.43	1001.49	1001.77	1000.38	1000.45	15.493	0.45	1.26	1.1	6.71	7.99
19	4-3	4-3 to 4-2	1.26	0.87	8	4.95	1.25	1.25	1.11	1002.56	1002.98	1001.9	1002.32	1000.65	1000.81	32.013	0.5	1.26	1.1	6.52	8
20	7-2	7-2 to 7-1	0	0	0	15.13	2	2	0.28	1002.85	1002.85	1002.85	1002.85	999.74	999.82	20.988	0.38	0	0	0.21	0.66
21	7-3	7-3 to 7-2	0	0	0	15.46	2	2	0.28	1002.85	1002.85	1002.85	1002.85	999.82	1000	45.234	0.4	0	0	0.21	0.66

100–Year Storm Calculations

Utility Notes

- Boundary information, existing utilities and topographic features shown are based on information supplied by owner, surveyor, and others.
- The existing utility locations shown on these plans are approximate and may not include all utility lines present. The contractor shall be responsible to make One Call and coordinate field location of all existing underground utilities prior to beginning excavation/construction activities.
- The contractor shall be responsible for any damage to any utilities or their structures during excavation/construction activities.
- The contractor shall coordinate and be responsible for connection fees, system development fees, taxes, etc. for all main connections and/or extensions with and from the city and/or respective utility unless otherwise coordinated with the Owner. All utility services for this project shall be coordinated with respective utility company by contractor.
- The contractor shall be responsible for adjusting all at-grade utilities such as manhole covers, valve box covers, etc. to finish grade, whether specifically indicated in these plans or not.
- Utilities shown on the plan with specific elevations and/or structure locations are SUE quality level "B", ie: storm sewer, sanitary sewer, water hydrants & valves, utility poles, etc. All other existing utility information shown is SUE quality level "D", primarily retracement of one-call and city records.

Property Legend

- right of way
- property lines
- easements
- setbacks

Grading Legend

- existing minor contour
- existing major contour
- proposed minor contour
- proposed major contour

Utility Legend

- existing
- proposed

Linetypes

- sanm sanitary main
- sans sanitary service
- ssm storm sewer (existing)
- ssm storm sewer (solid wall, proposed)
- ssm storm sewer (solid wall, proposed)
- ssm storm sewer (perforated, proposed)
- wtrm water main
- wtrf water service (fire)
- wtrd water service (domestic)
- wtri water service (irrigation)
- gasn natural gas main
- gass natural gas service schematic
- elpu underground primary electric
- elsu underground secondary electric
- elpo overhead electric
- datu underground cable/phone/data
- datasu underground cable/phone/data service
- fence-chainlink
- fence-wood
- fence-barbed wire
- treeline

Symbols

- sanitary manhole
- service cleanout
- force main release valve
- rectangular structure
- circular structure
- fire hydrant
- water valve
- water meter
- backflow preventer
- natural gas meter
- service transformer (pad mount)
- primary switch gear
- light pole
- cable/phone/data junction box
- street light
- pedestrian street light
- electric pole
- guy wire
- end section

Local Benchmarks:

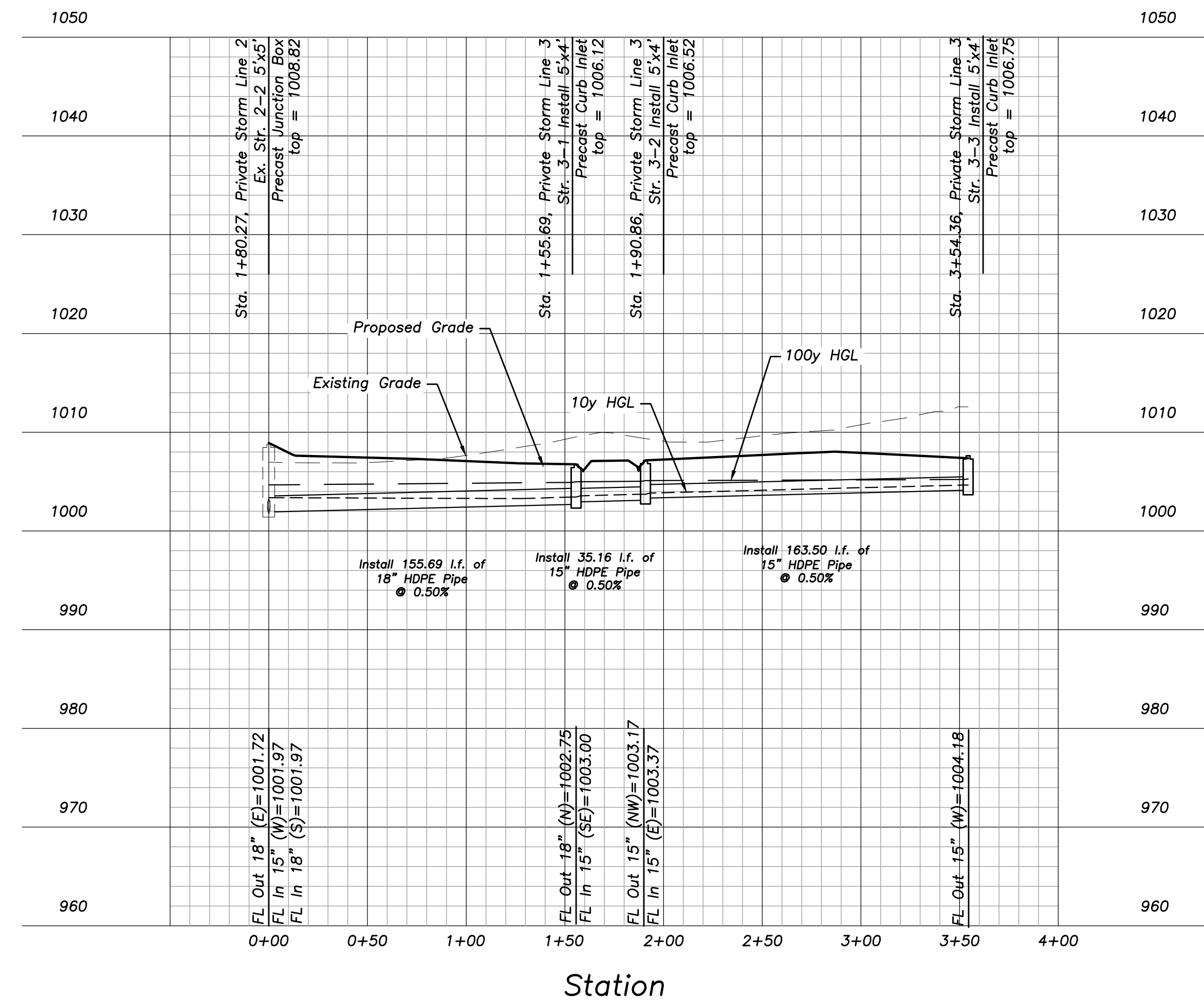
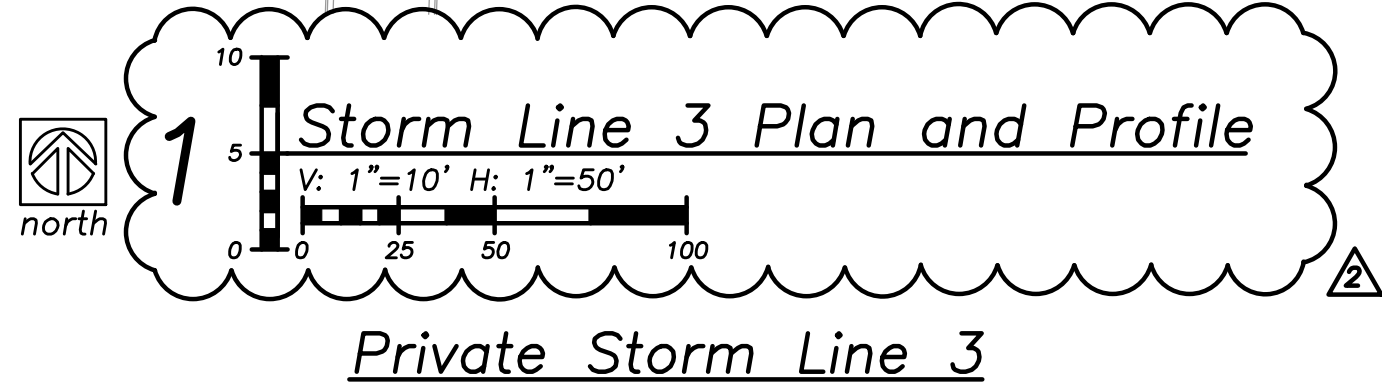
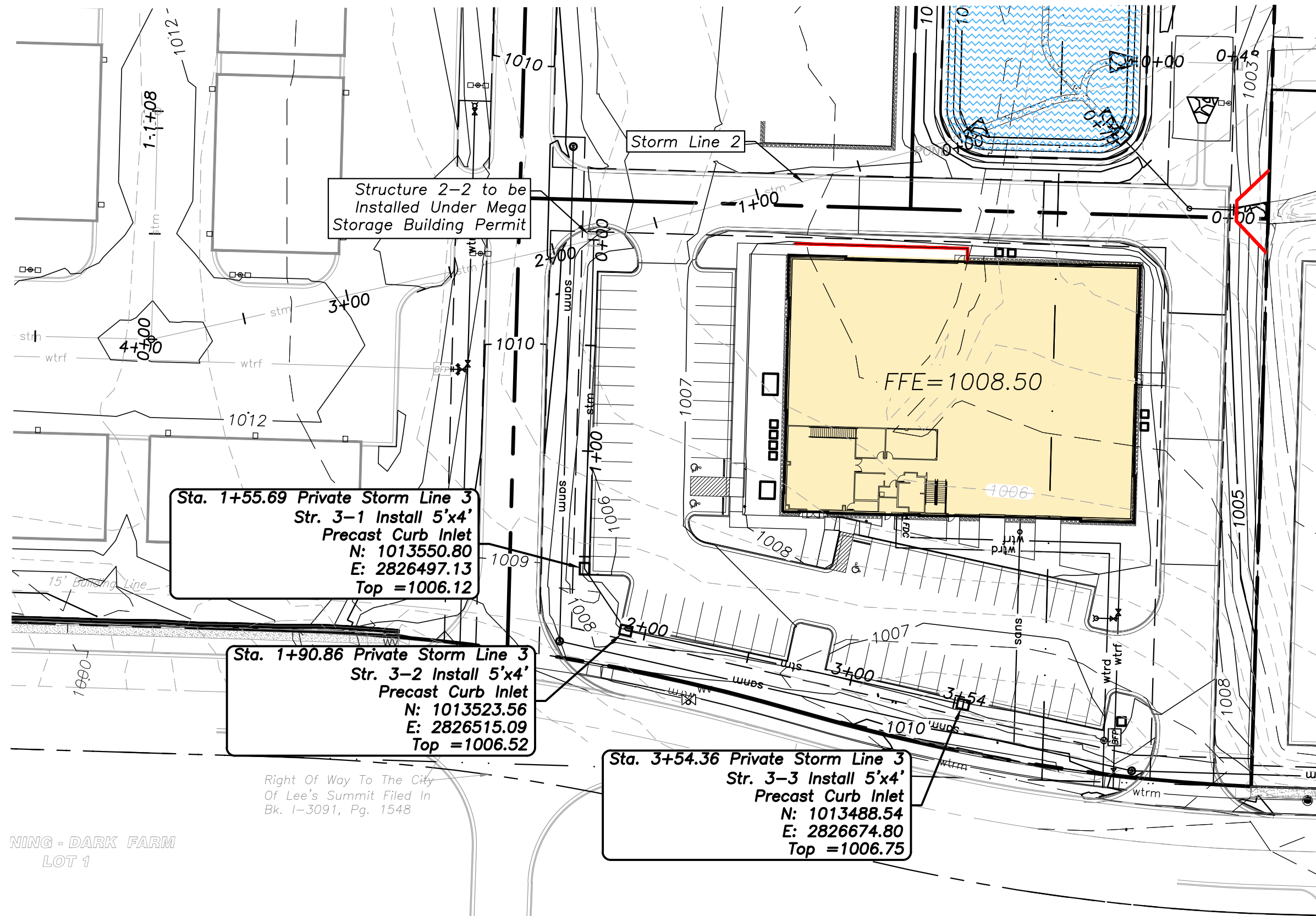
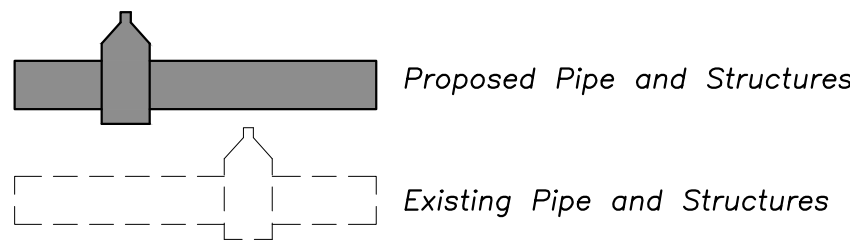
- BM-1: (Sanitary Sewer Manhole, Center of Lid)
Elevation: 1006.88'
N: 1013449.78
E: 2826933.88
- BM-2: (Storm Sewer Curb Inlet, Center of Lid)
Elevation: 994.34'
N: 1013518.71
E: 2826136.03



*NOTE:

Curb Inlet Coordinates are for Center Back of Curb

Grate Inlet, Junction Boxes, & Manhole Coordinates are to Center of Structure



a new development for

DeBartolo Centre Lot 1

520 NE Town Centre Drive
Lee's Summit, Missouri

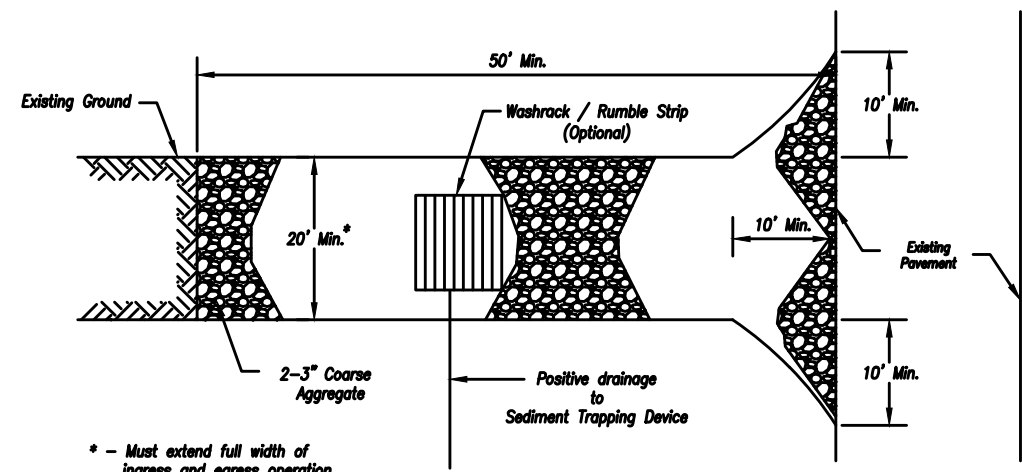
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drawn by	JMP
checked by	PAM
revisions	
05.09.2022	01
05.18.2022	02

sheet number

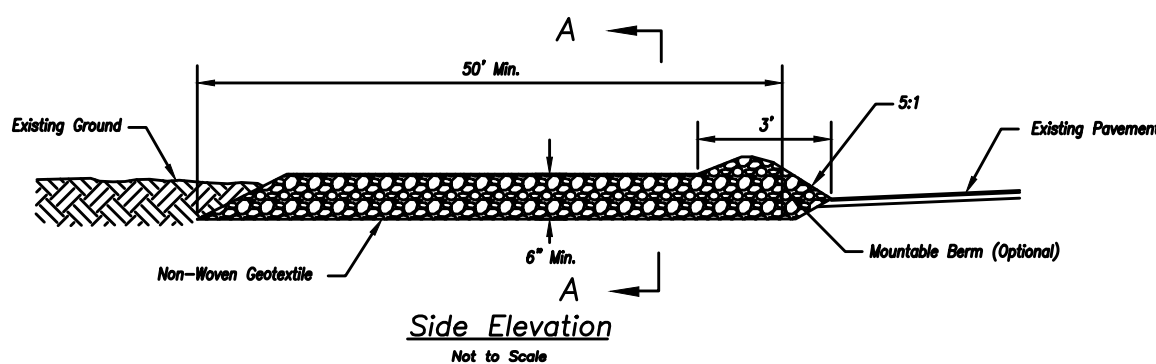
C3.4

drawing type
FDP & Permit

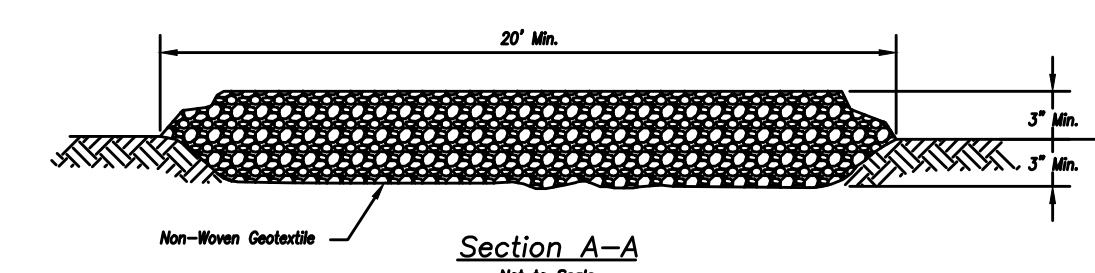
project number
20231



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 30:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

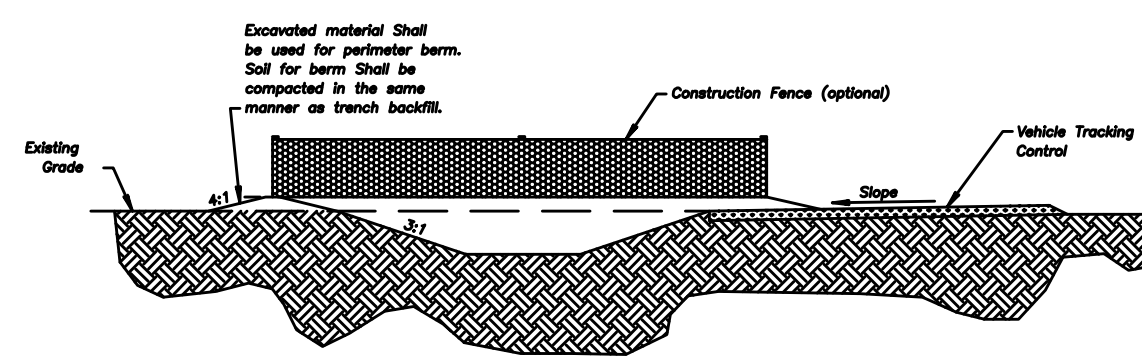
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

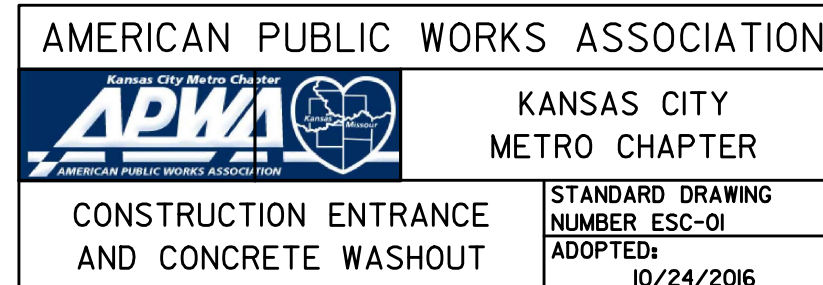
1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout areas shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slope leading out of the subsurface pit shall be 3:1. The vehicle tracking post shall be placed towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Stone shall be placed at the construction site entrance, washout area, and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

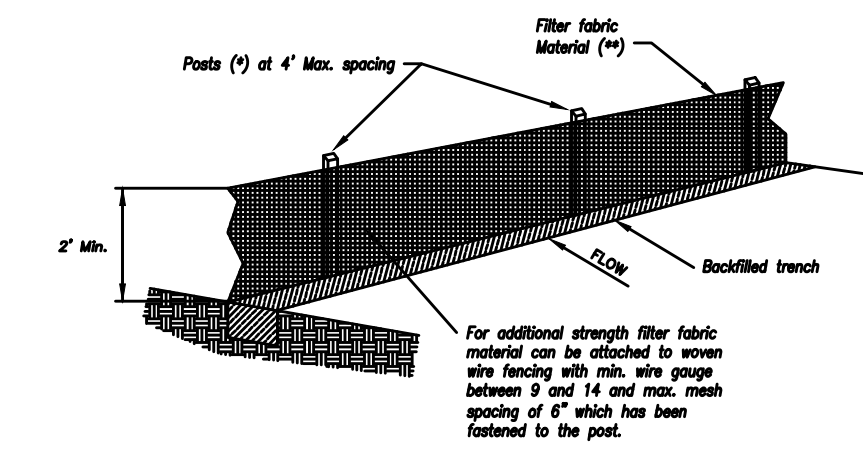
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for washed concrete.
3. Concrete washout water, spilled pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topped, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT



Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.



- (*) POSTS
- MIN. LENGTH 4'
 - HARDWOOD 1 1/2" x 1 3/4"
 - NO.2 SOUTHERN PINE 2 3/4" x 2 3/4"
 - STEEL 1.33 LB/FT

(**) - Geotextile fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

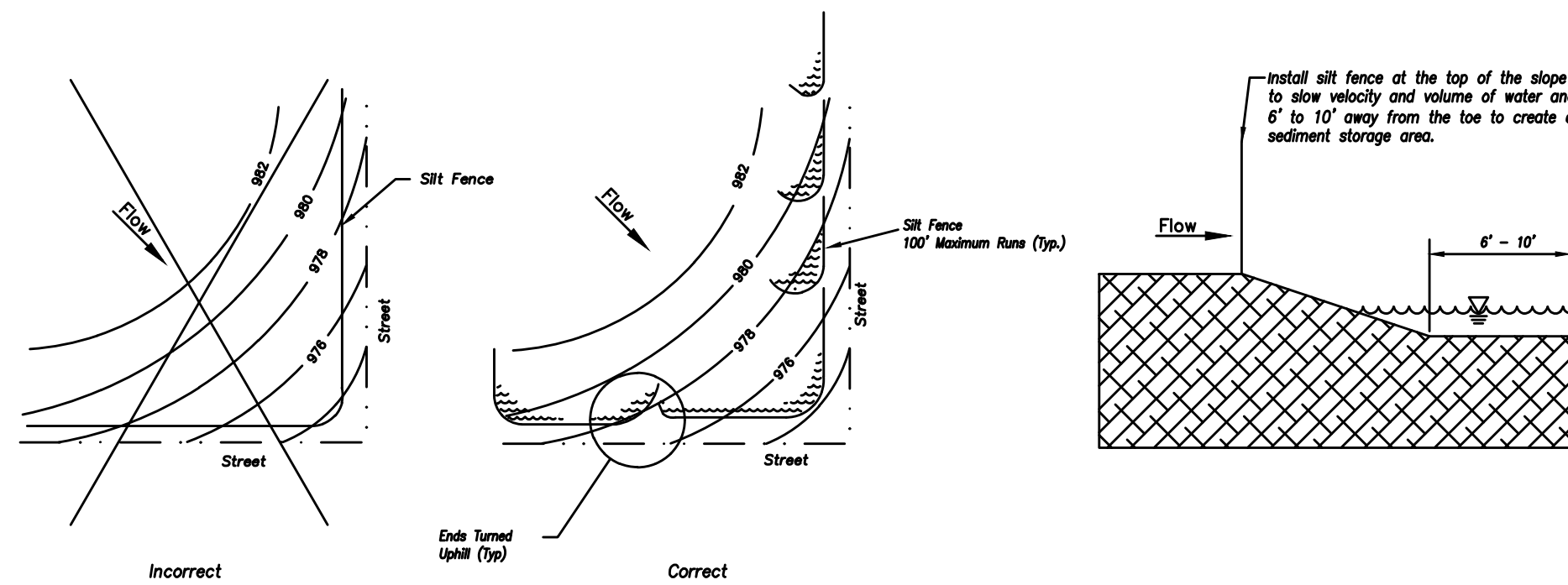
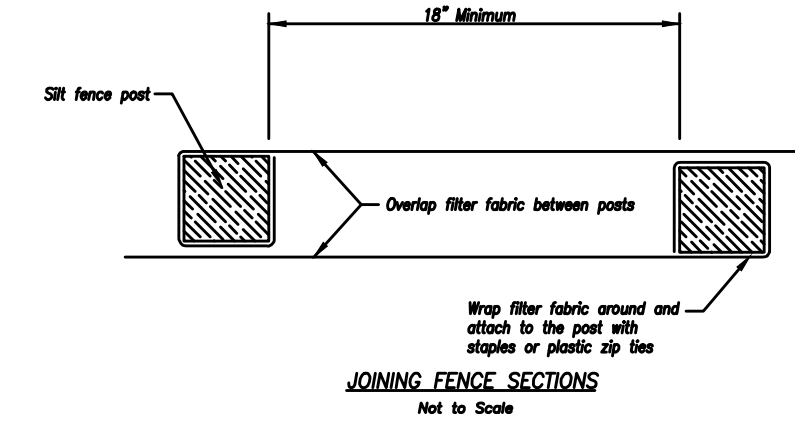


Figure A

SILT FENCE LAYOUT

Not to Scale



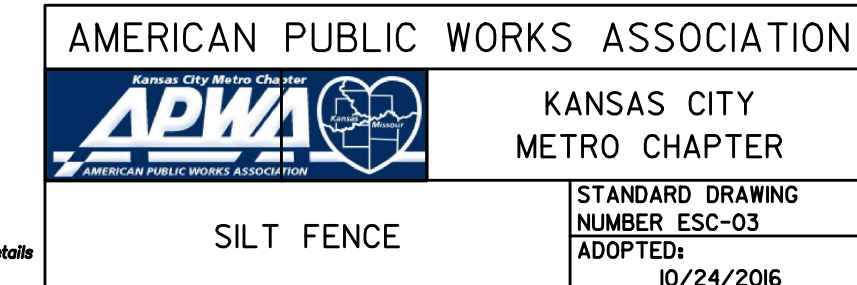
JOINING FENCE SECTIONS
Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Tranching will only be allowed for small or difficult installation, where staking machines cannot be reasonably used.

Maintenance:

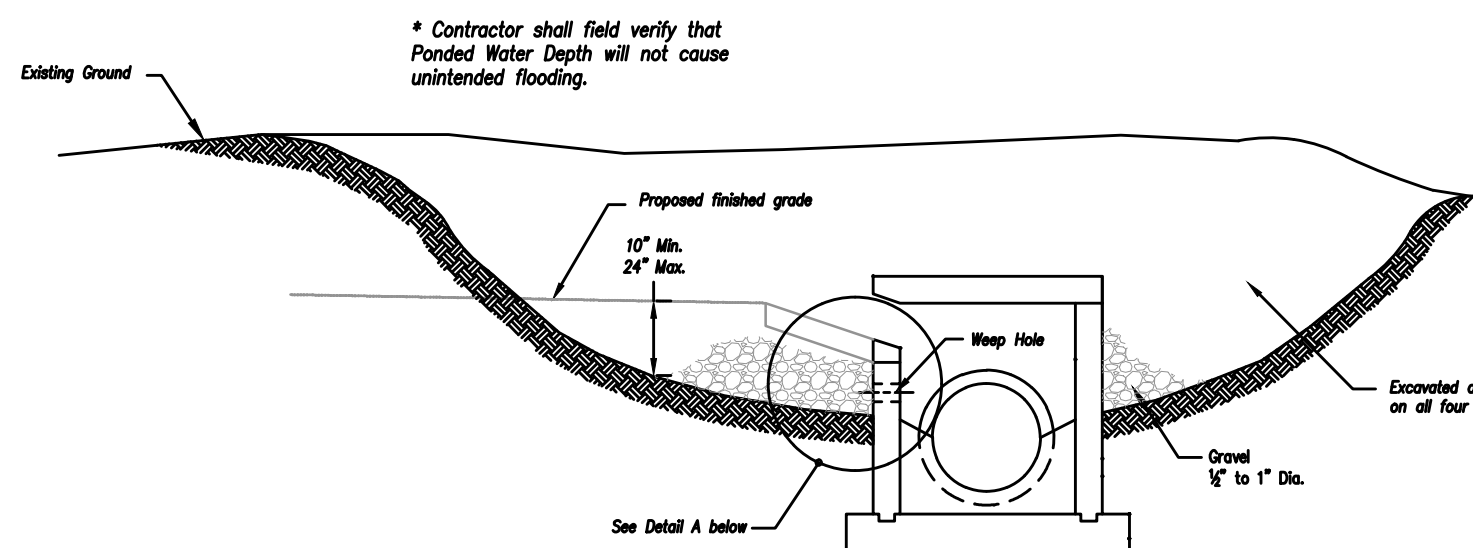
1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.



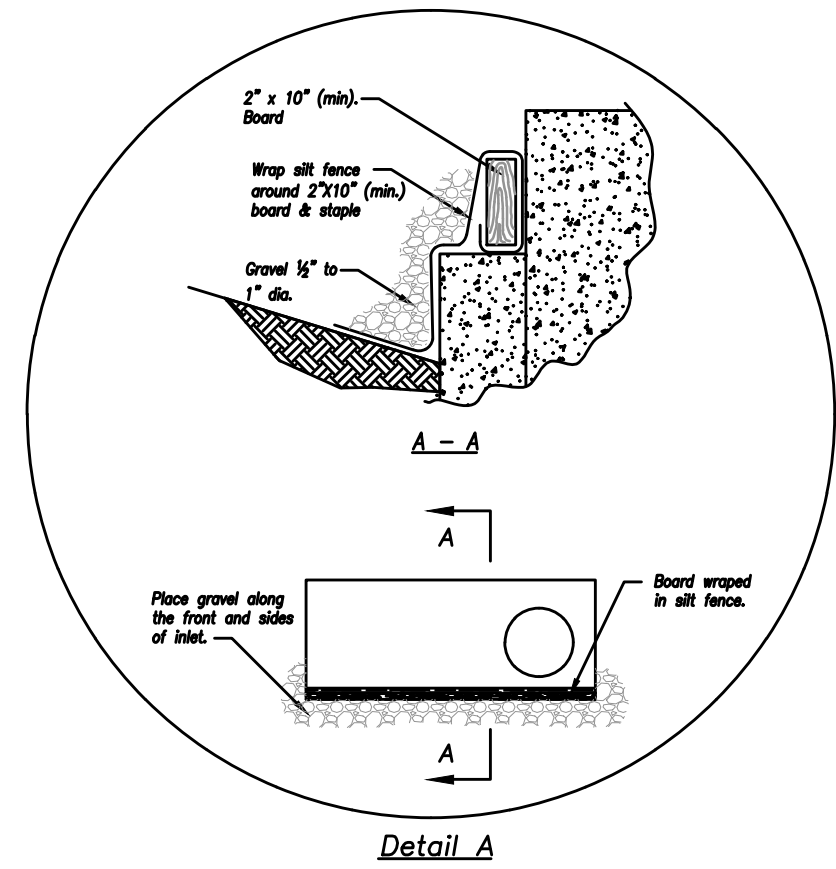
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

SILT FENCE

ADOPTED: 10/24/2016



Detail A



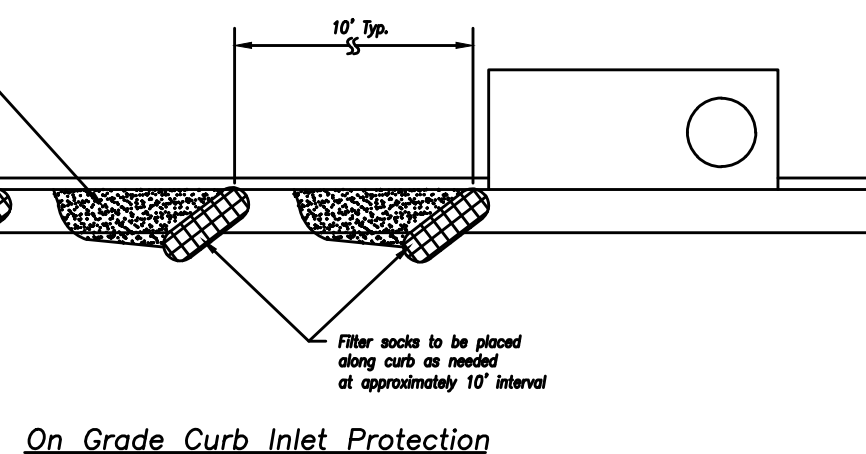
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

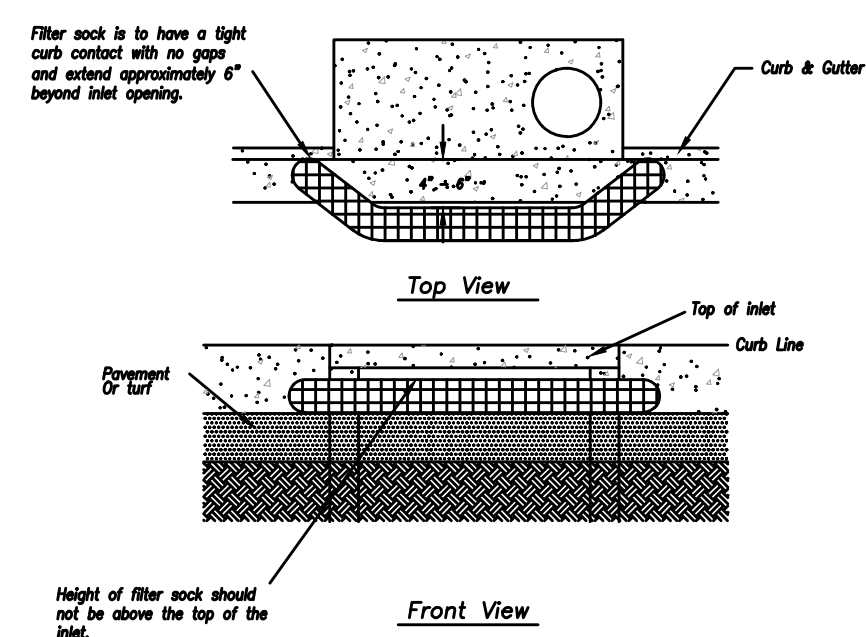
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2' x 10' (min.) board wrapped in silt fence. Structures shall have excavated storage areas on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

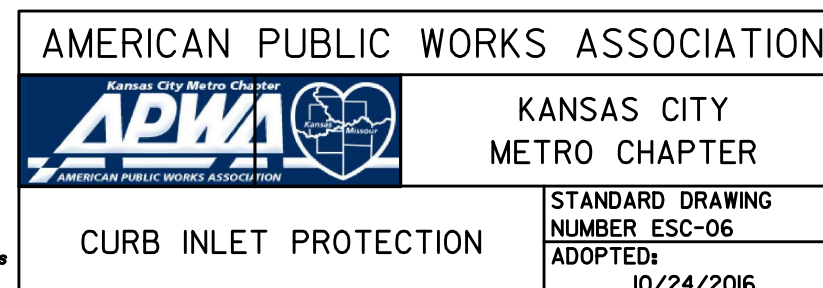


On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

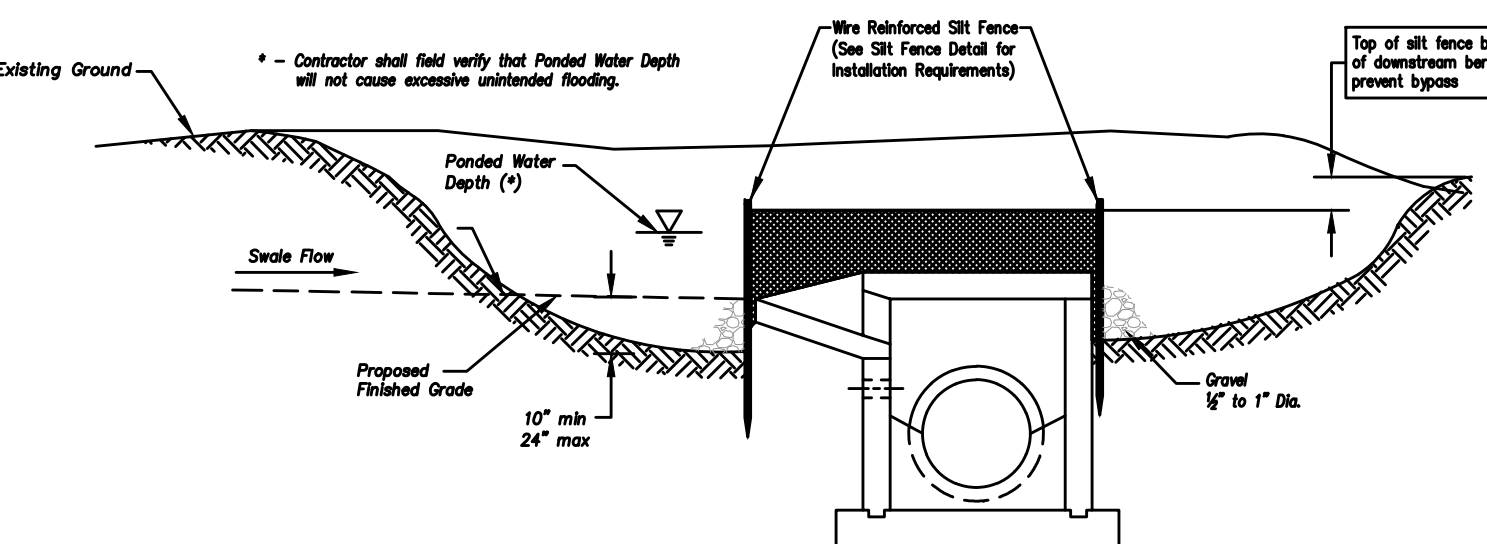
LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)



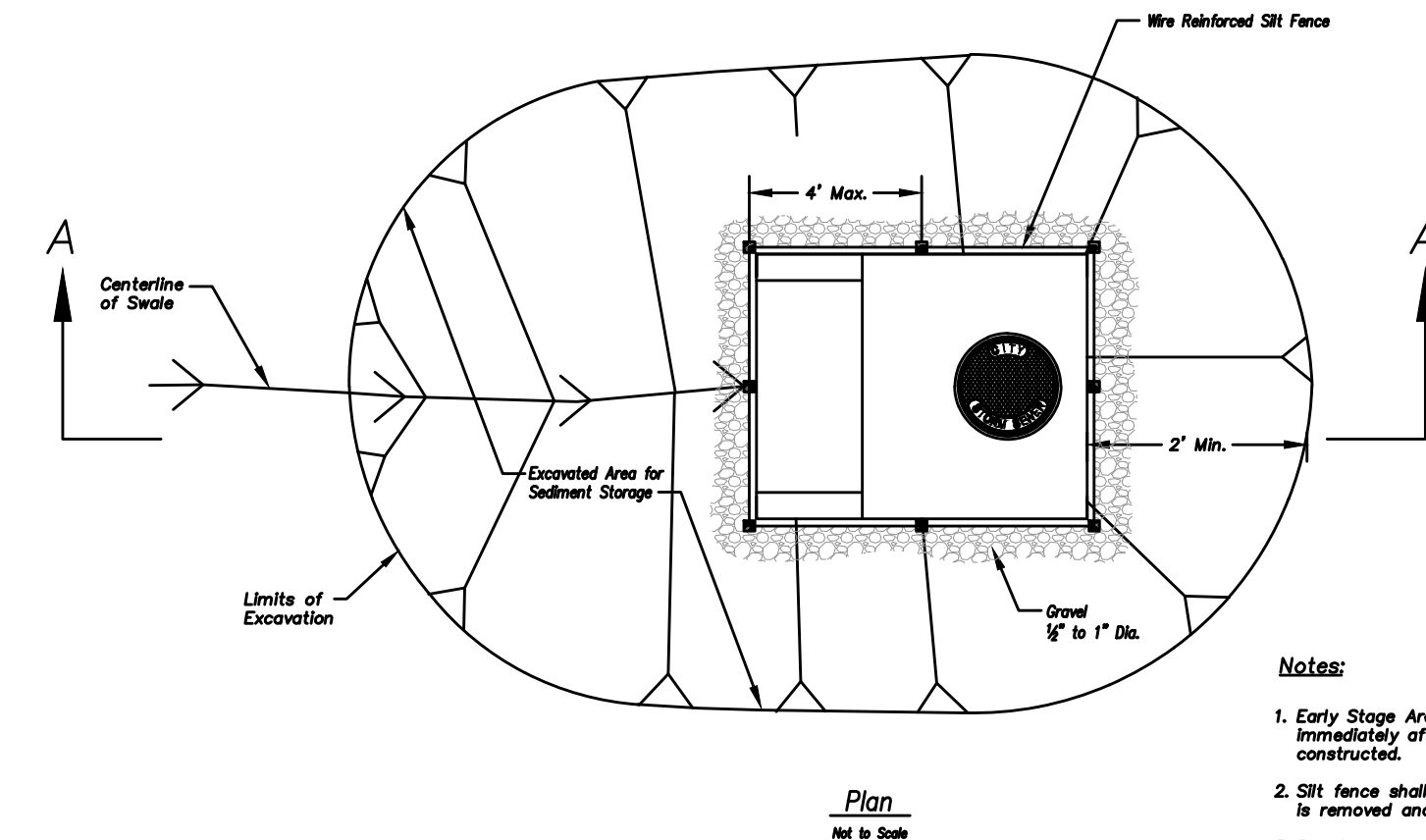
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

CURB INLET PROTECTION

ADOPTED: 10/24/2016



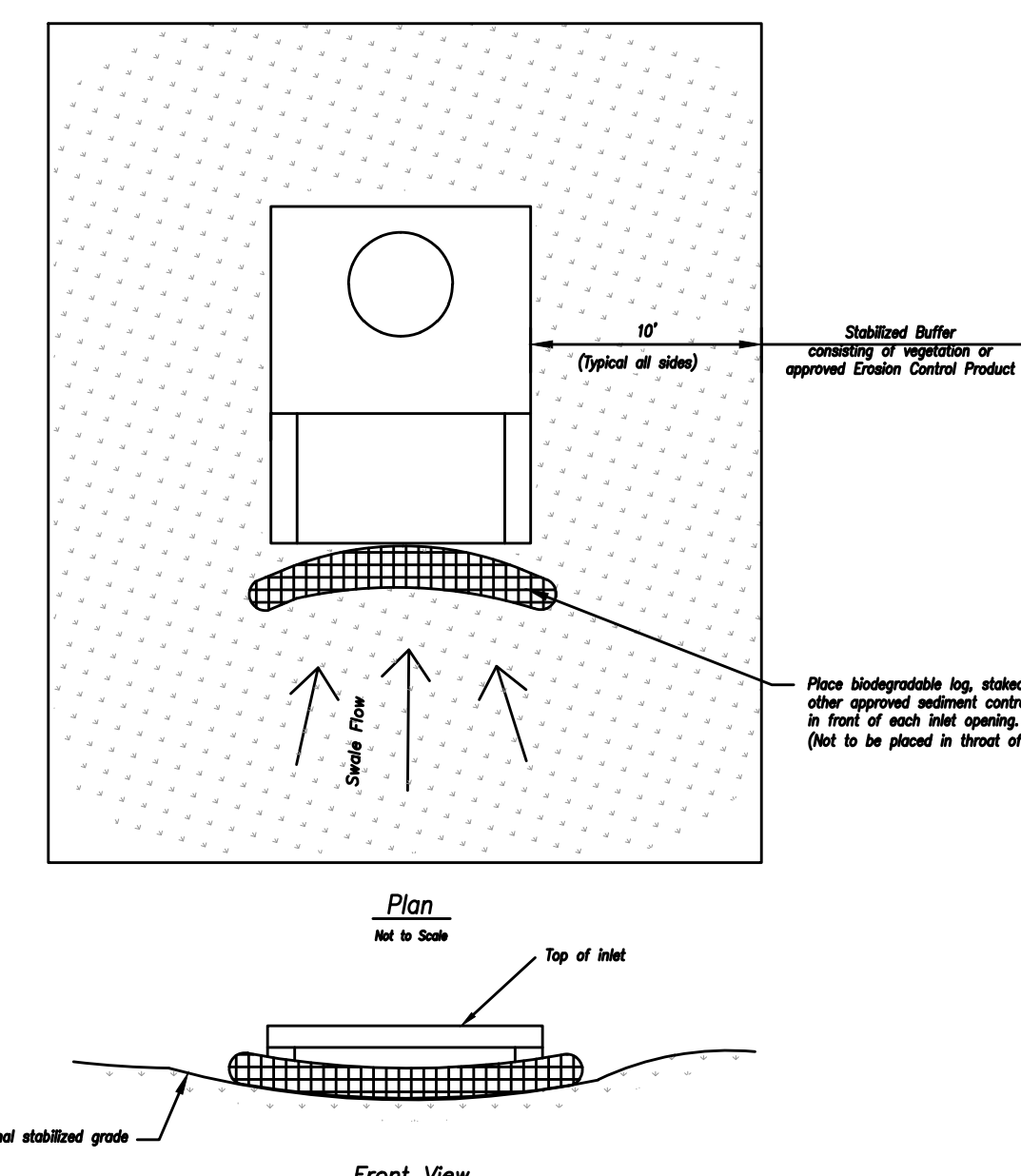
Section A-A
Not to Scale



EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

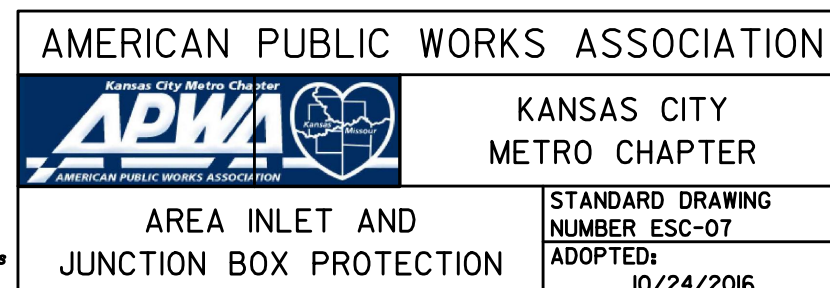
1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.



LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AREA INLET AND JUNCTION BOX PROTECTION

ADOPTED: 10/24/2016

a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive
Lee's Summit, Missouri

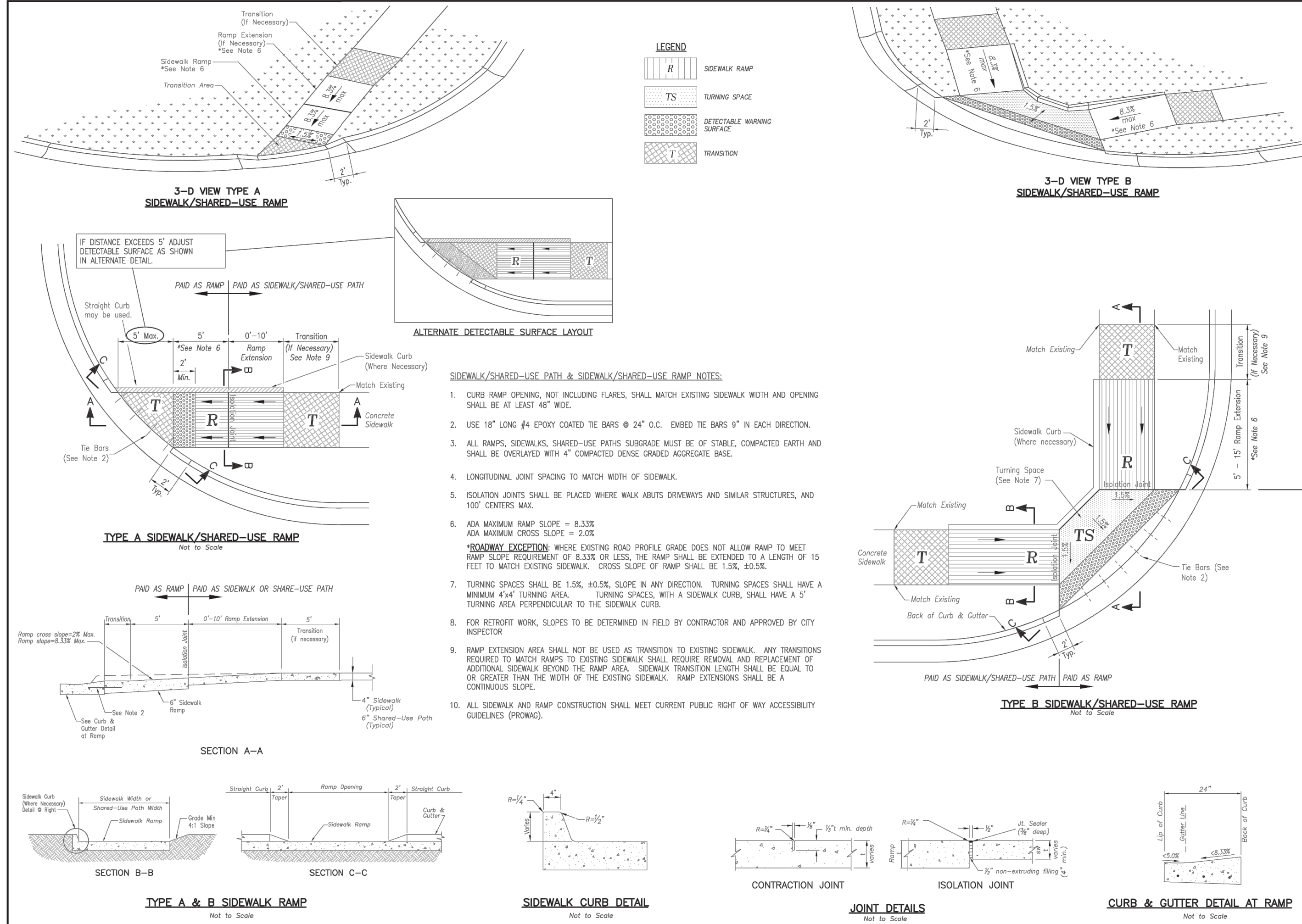
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checked by
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sheet number

C4.1

drawing type
FDP & Permit

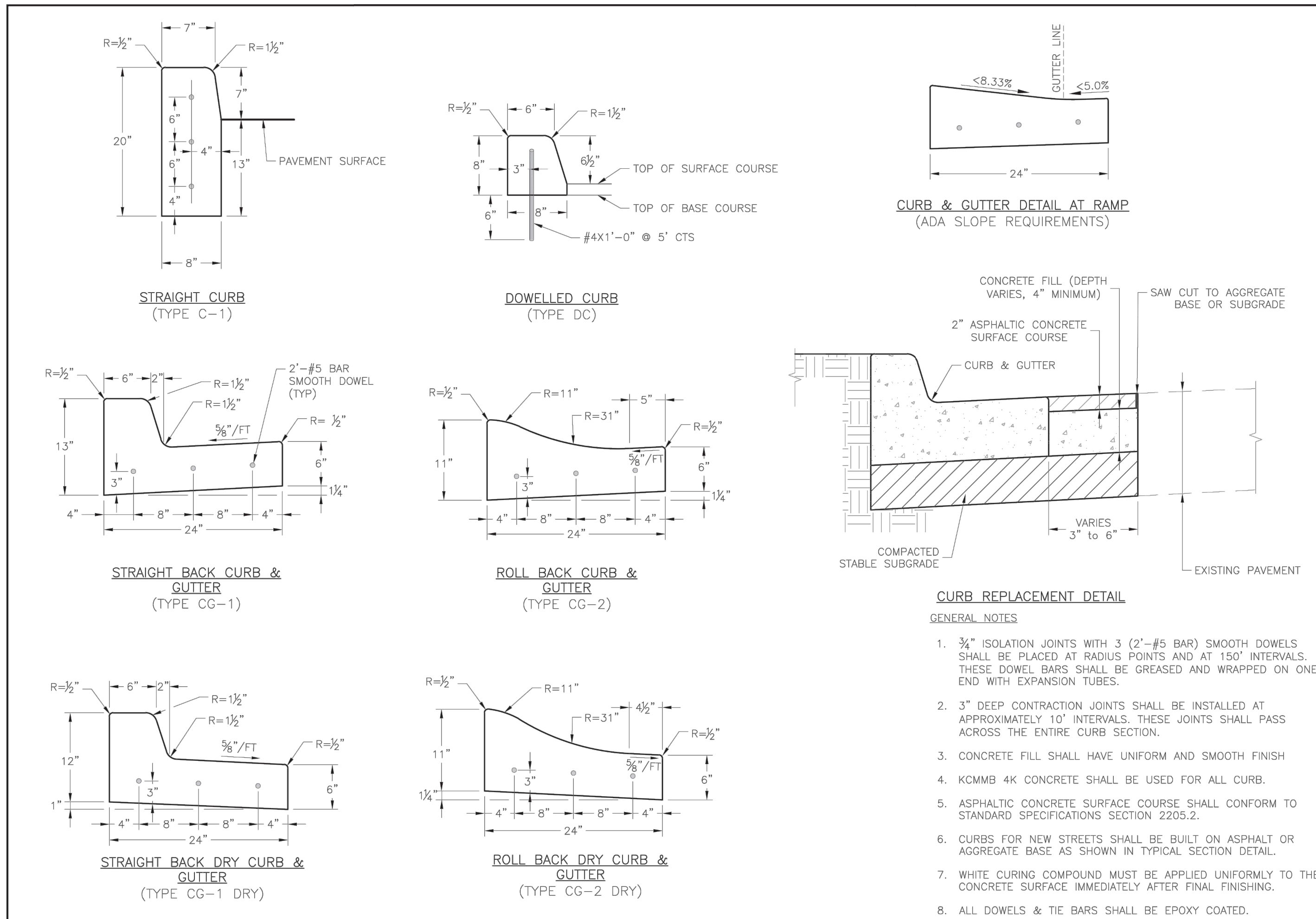
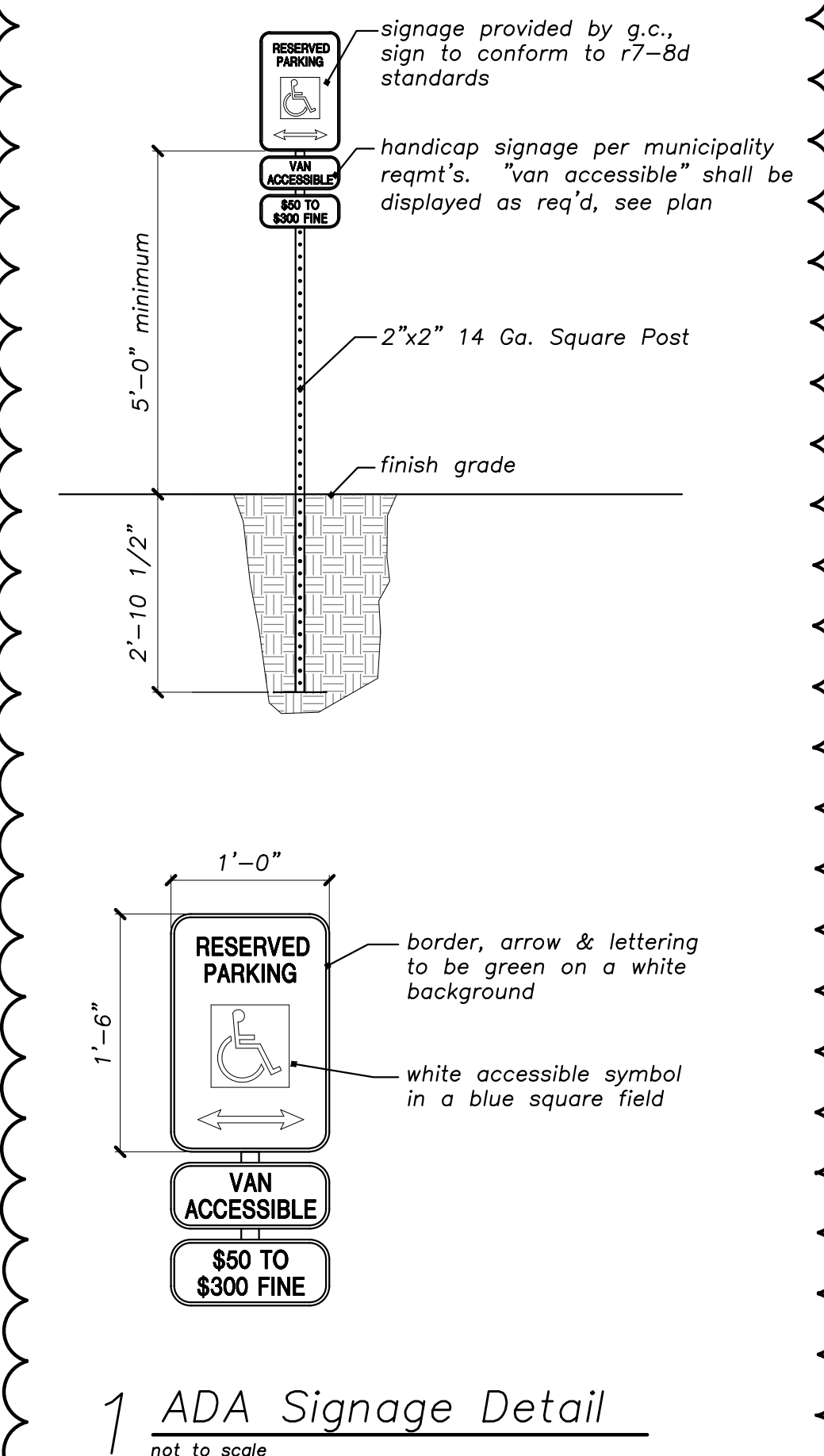
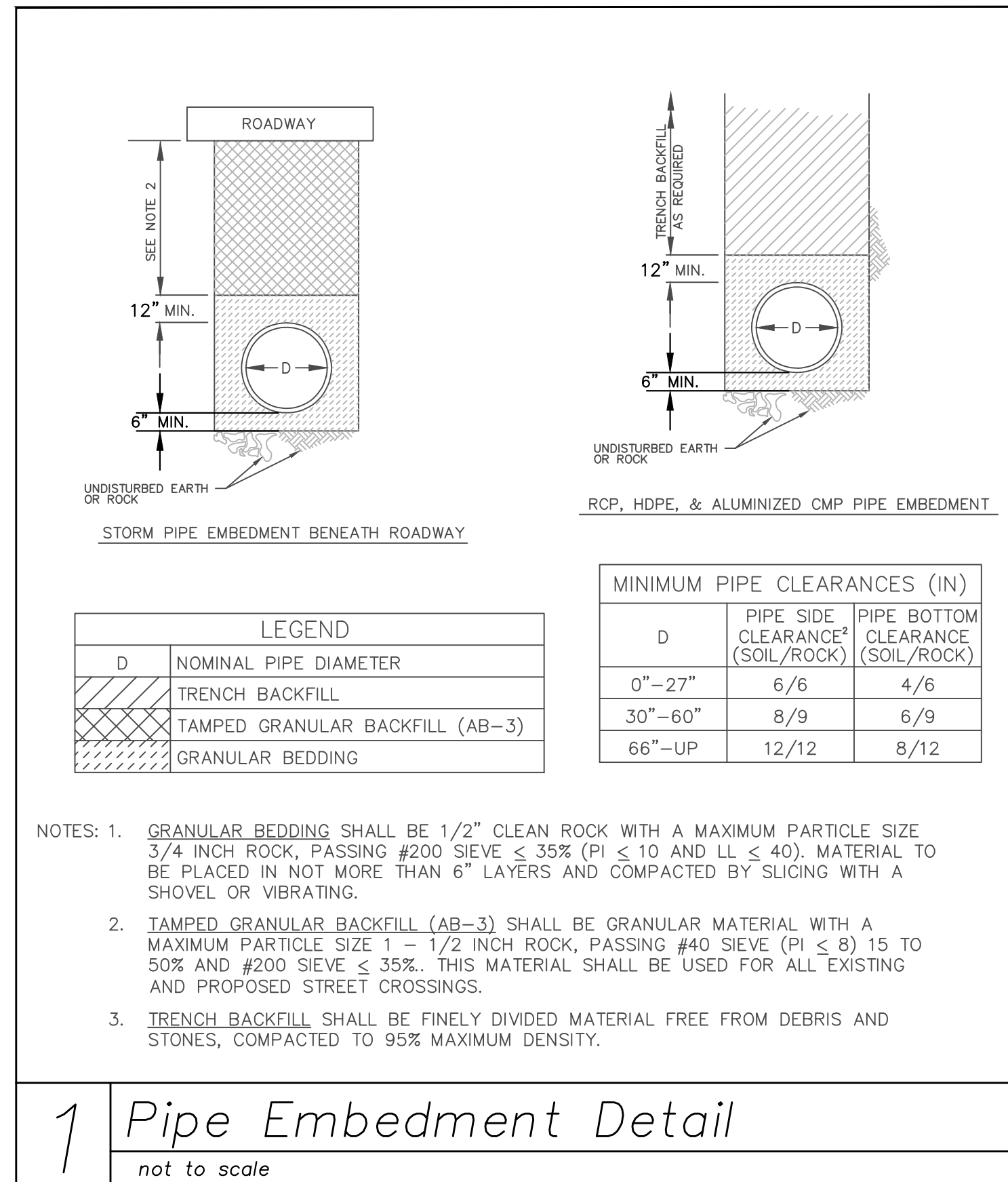
project number
20231



IS LEE'S SUMMIT MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

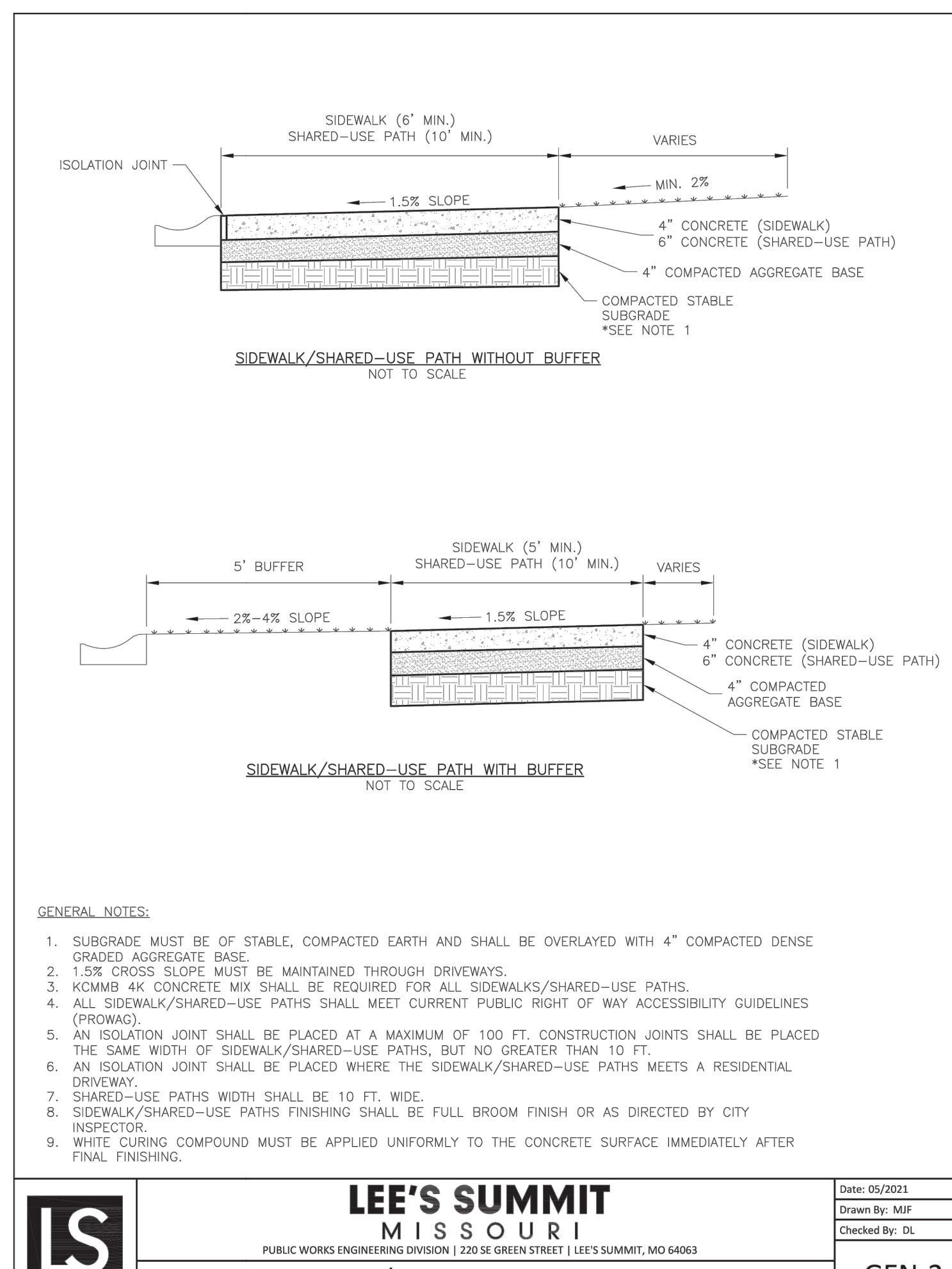
GEN-3A



IS LEE'S SUMMIT MISSOURI

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

GEN-4



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive
Lee's Summit, Missouri

date 02.18.2022
drawn by JMP
checked by PAM
revisions
05.09.2022 01
05.19.2022 02

sheet number

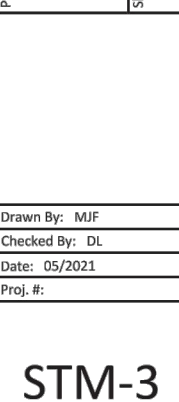
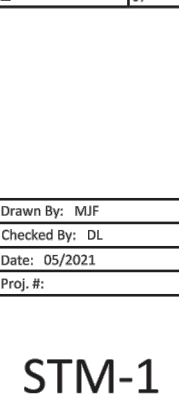
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drawing type
FDP & Permit

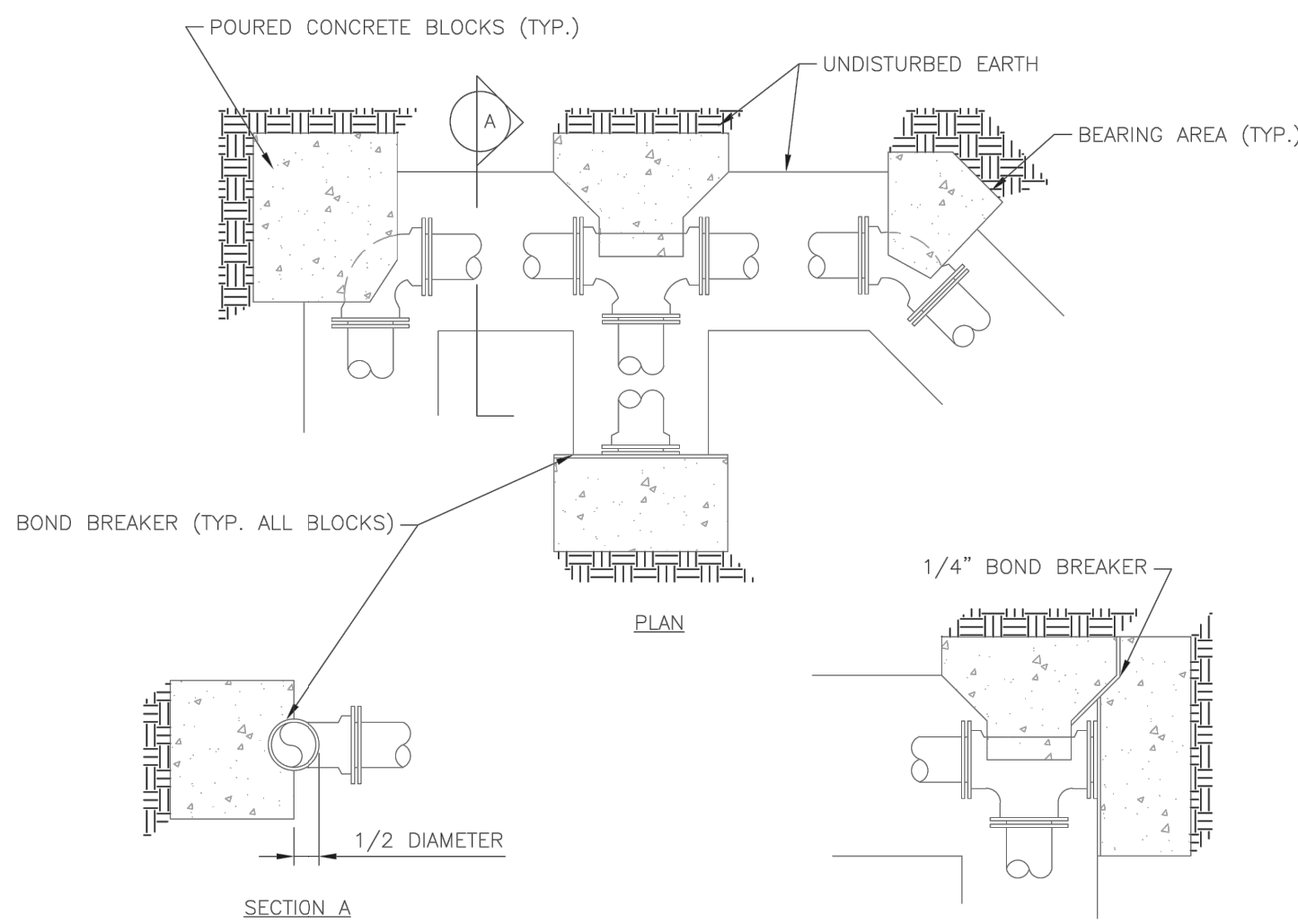
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drawing type
FDP & Permit

project number
20231



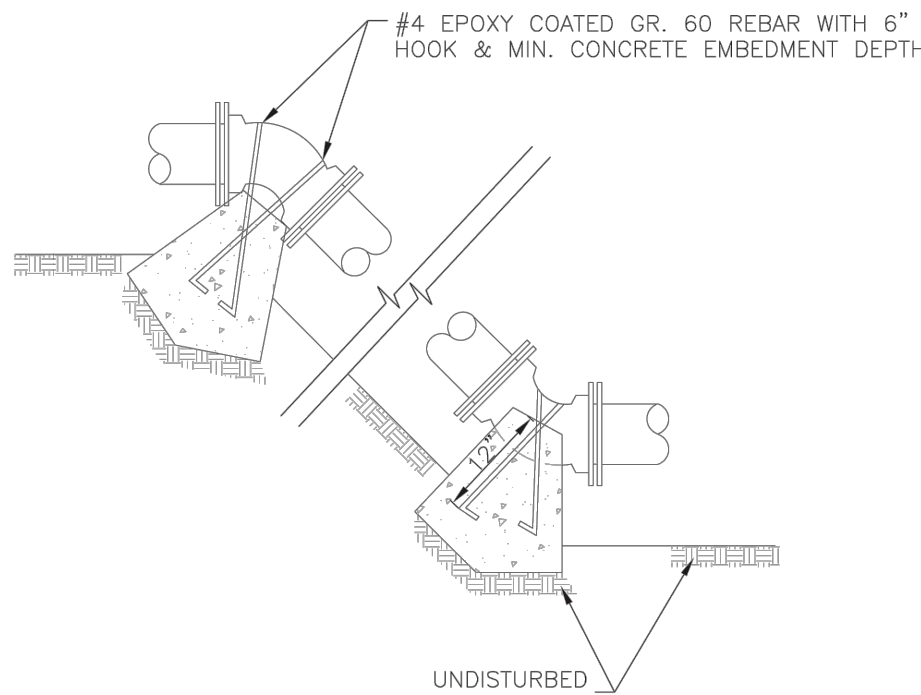
REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)					
NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8



- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
 4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.

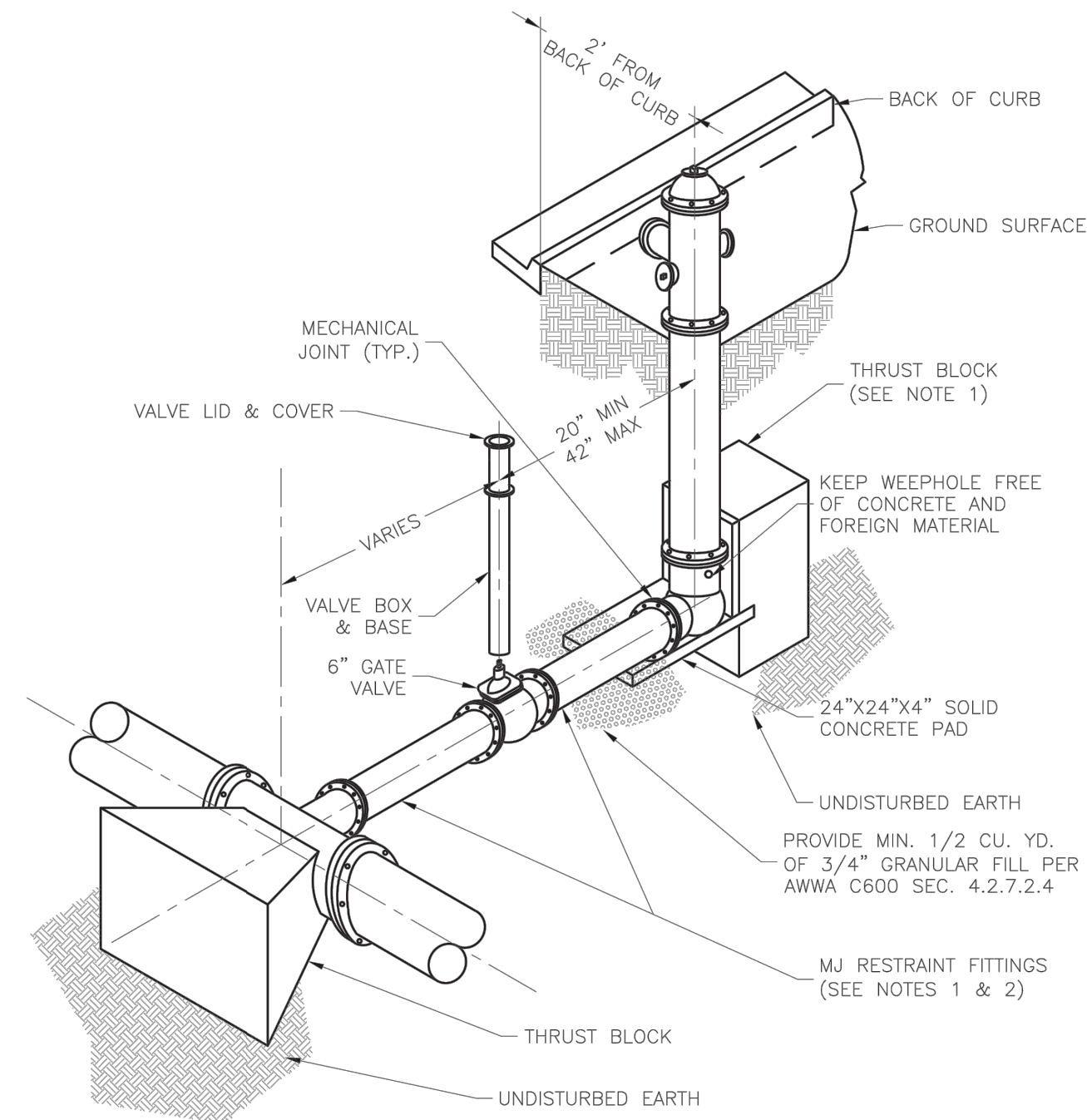
LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 01/2016 Drawn By: JN Checked By: DL
	HORIZONTAL THRUST BLOCK	WAT-1

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)					
NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4



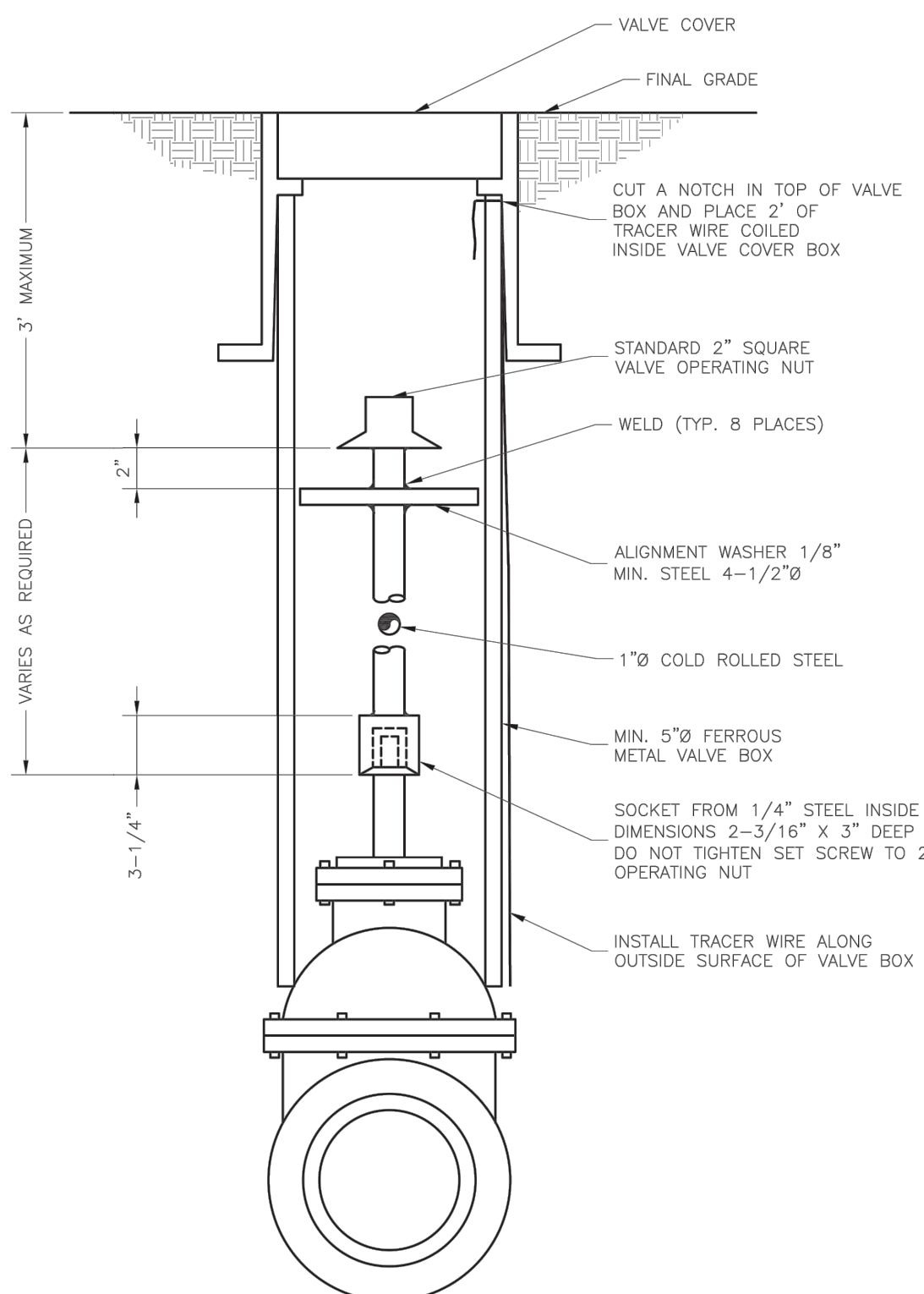
- NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
 2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
 3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
 4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: WAT-2 Drawn By: JN Checked By: DL
	VERTICAL THRUST BLOCK	WAT-2

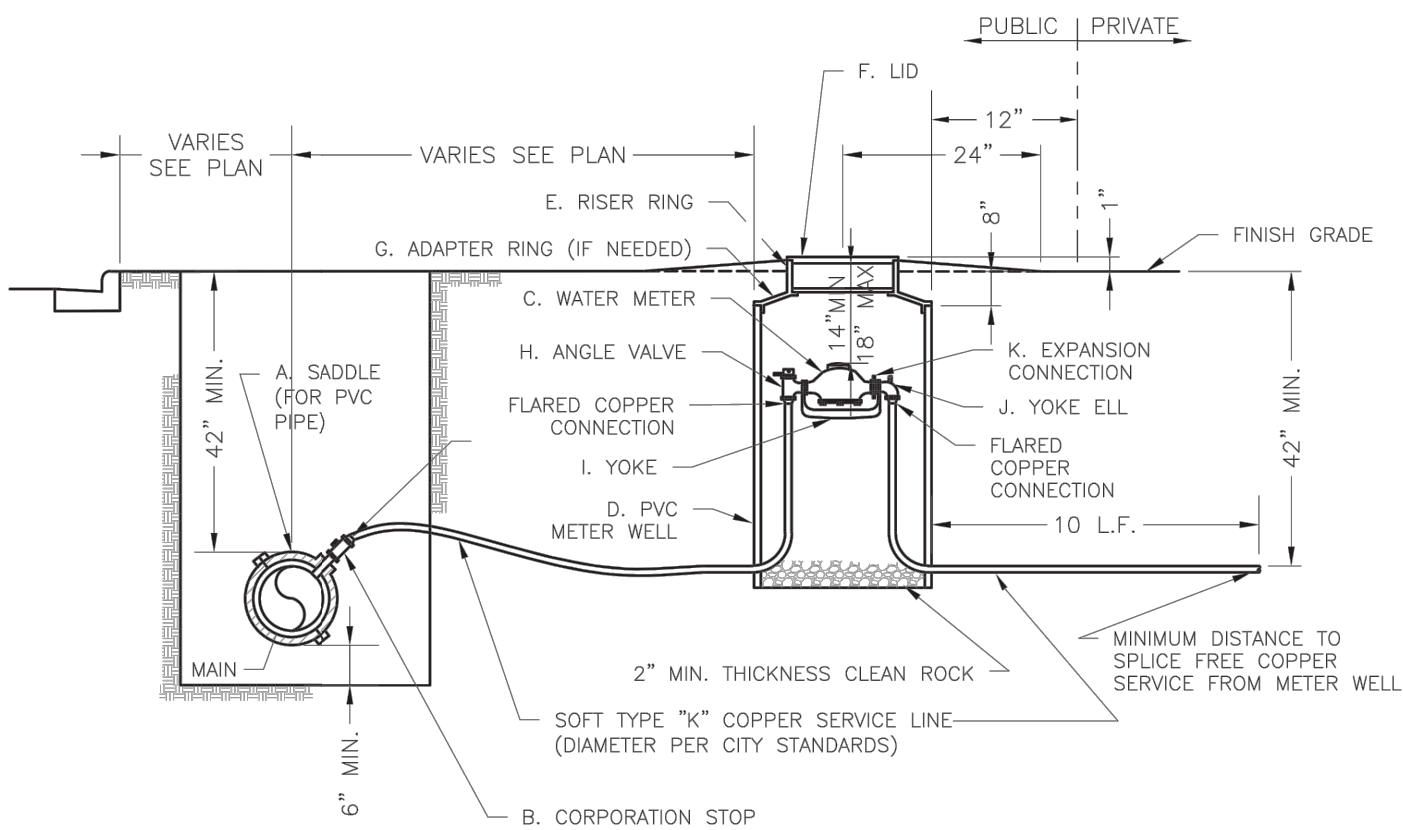


- NOTES:
1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
 2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
 3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
 4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
 5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 01/2016 Drawn By: JN Checked By: DL
	HYDRANT - STRAIGHT SET	WAT-7

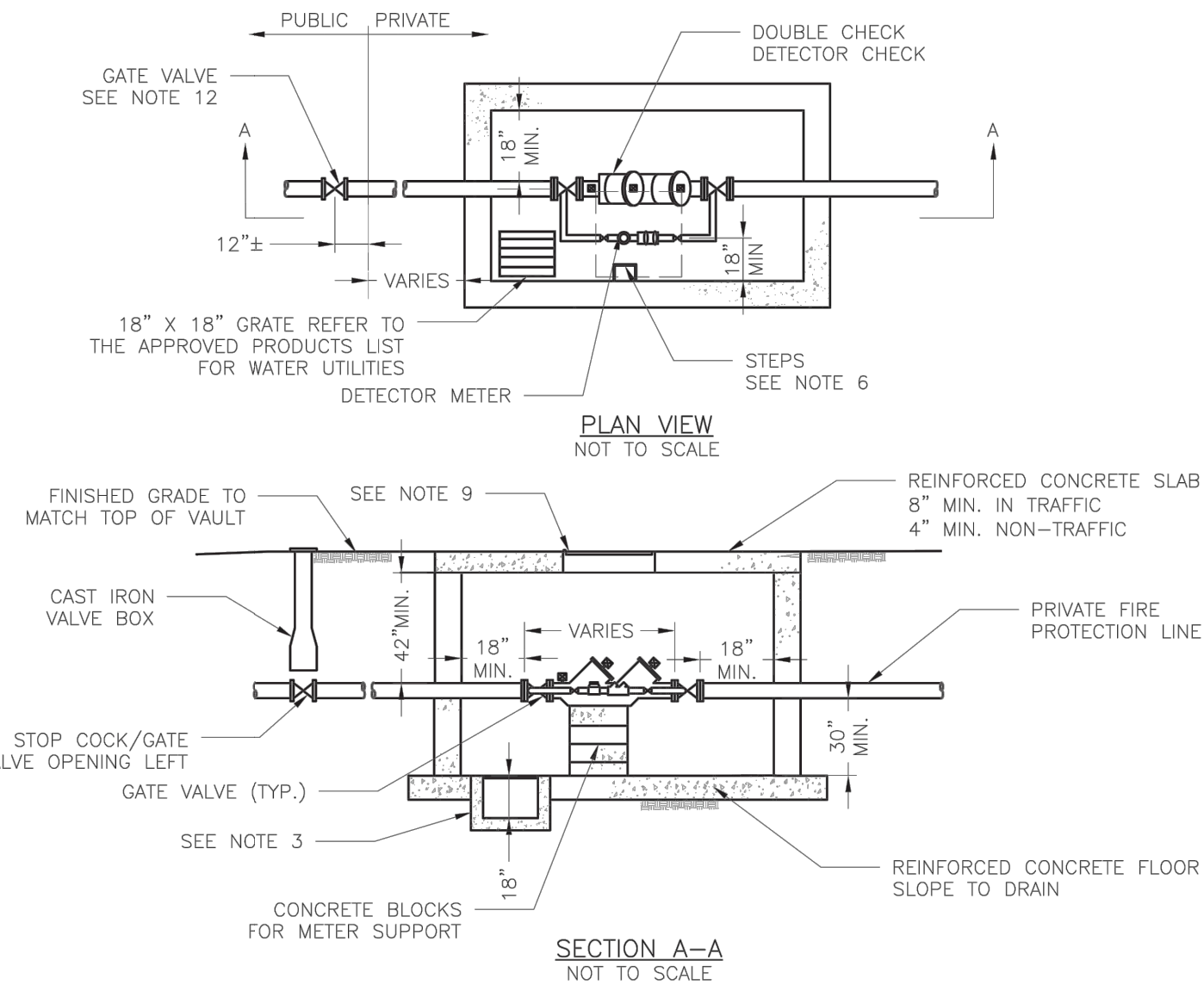


LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 01/2016 Drawn By: JN Checked By: DL
	VALVE STEM EXTENSION AND VALVE BOX	WAT-9



- NOTES:
1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
 2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
 3. CITY TO FURNISH ITEMS A-K.
 4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
 5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
 6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
 7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
 8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
 9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
 10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 06/2015 Drawn By: JN Checked By: DL
	SERVICE CONNECTION WITH METER WELL	WAT-11



- GENERAL NOTES:
1. METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE.
 2. METER VAULT ROOF TO BE REINFORCED CONCRETE OPENING CENTERED OVER DETECTOR METER.
 3. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA WHERE SURFACE WATER WILL NOT DRAIN INTO IT. VAULT MUST BE KEPT FREE OF WATER. PROVIDE CONCRETE SUMP AS A MINIMUM. WHERE PRACTICAL, PROVIDE A 2" PIPE DRAIN WITH AN ABOVE-GROUND DISCHARGE POINT. PROJECT OWNER MAY DESIRE A PERMANENTLY INSTALLED SUMP PUMP.
 4. ALL PIPE SHALL BE DUCTILE IRON CLASS 50. ALL PIPE FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
 5. ALL FITTINGS TO BE BRASS.
 6. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
 7. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR CHECK BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT THE WATER UTILITIES OPERATIONS DIVISION AT 816-969-1940. AS OF JANUARY 1, 1987, THE DNR REQUIRES FIRE SPRINKLER SYSTEMS USING CHEMICALS TO HAVE A DNR APPROVED PRESSURE BACKFLOW PREVENTER INSTALLED, PRIOR TO THE MIXING POINT.
 8. ALL VALVES SHALL HAVE RISING STEMS.
 9. FOR MANHOLE COVERS, SELECT A MANHOLE FOUND ON THE APPROVED PRODUCTS LIST FOR WATER UTILITIES SUITABLE FOR EITHER TRAFFIC OR NON-TRAFFIC CONDITIONS.
 10. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
 11. METER SHALL BE OWNED AND MAINTAINED BY THE WATER UTILITIES DEPARTMENT.
 12. IF PUBLIC WATER IS LOCATED ON THE OPPOSITE SIDE OF THE STREET, THEN THE PUBLIC WATER MAIN RESPONSIBILITY OF THE WATER UTILITIES DEPARTMENT ENDS AT THE GATE VALVE NEAREST THE VAULT.

LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 02/2016 Drawn By: JN Checked By: DL
	VAULT FOR DOUBLE CHECK DETECTOR CHECK	WAT-12

Tree and Shrub Planting List						
	ITEM	QTY.	COMMON NAME	BOTANICAL NAME	SIZE & CONDIT.	max growth size
SHADE TREES	 OGM	7	OCTOBER GLORY MAPLE	ACER RUBRUM 'OCTOBER GLORY'	3" CAL.	height 40-50', spread 35'
	 RM	3	RED MAPLE	ACER RUBRUM 'RED SUNSET'	3" CAL.	height 40-50', spread 30-35'
	 SL	7	SKYLINE LOCUST	GLEDITSIA TRICANTHOS INERMIS 'SKYCOLE'	3" CAL.	height 35'-45', spread 25'-35'
EVGN TREES	 BC	3	BALD CYPRUS	TAXODIUM DISTICHUM VAR. DISTICHUM	8' tall min.	height 50-70', spread 20-45'
	 RC	11	RED CEDAR	JUNIPERUS VIRGINIANA	8' tall min.	height 30'-65', spread 8'-25'
	 SP	11	SHORTLEAF PINE	PINUS ECHINATA	8' tall min.	height 50'-60', spread 20'-35'
ORNAMENTAL TREES	 FD	8	MAGNOLIA	MAGNOLIA 'BUTTERFLIES'	3" CAL.	height 15-20', spread 10'-15'
	 ER	6	EASTERN REDBUD	CERCIS CNADENSIS	3" CAL.	height 20-30', spread 25'-35'
	 BV	5	BLACKHAW VIBURNUM	VIBURNUM PRUNIFOLIUM	3" CAL.	height 12-15', spread 6'-12'
	 FT	7	FRINGE TREE	CHIOANTHUS VIRGINIOUS	3" CAL.	height 12-20', spread 12'-20'
	 JM	7	JAPANESE MAPLE	ACER PALMATUM 'GERMAINES GYRATION'	3" CAL.	height 6-8', spread 8'-12'
TOTAL		75				
	ITEM	QTY.	COMMON NAME	BOTANICAL NAME	SIZE & CONDIT.	max growth size
EG. SHRUB DEC. SHRUB	 FS	22	FRAGRANT SUMAC	RHUS AROMATICA	3-5 GALLON	height 2-6', spread 6-10'
	 WH	33	WILD HYDRANGEA	HYDRANGEA ARBORESCENS	3-5 GALLON	height 2-4', spread 3-5'
	 IH	30	INKBERRY HOLLY	ILEX GLABRA 'COMPACTA'	5 GALLON	height 3-14', spread 4-6'
	 SB	103	DENSE YEW	TAXUS x MEDIA DENSIFORMIS	5 GALLON	height 3-4', spread 4-6'
TOTAL		188				
GROUND COVER		-	SOD - TURF-TYPE FESCUE 2 YO STOCK - 3-WAY BLEND OF IMPROVED KENTUCKY BLUEGRASS (POSPARATENSIS) VARIETIES: NATIVE MIX OF HOUNDG, REBEL, OR FALCON LEAVE TALL FESCUE (FESCUE ARUNDINADEA), AND RYE (LOLIUM JULTIFLORIUM AND PERENE DOMESTIC) 20% KENTUCKY BLUEGRASS, 70% FINELEAFED TALL FESCUE, 10% RYE			
		-	RIVER ROCK AS NEEDED ONLY - PROVIDE SAMPLE FOR APPROVAL - NO GRAVEL SHALL BE USED AS A SUBSTITUTE			
*REFERENCE L1.2 FOR LANDSCAPING SPECIFICATIONS AND DETAILS						

LANDSCAPING NOTES

- Landscape shall be coordinated with the location of utilities, driveways and traffic clearance zones.
- The contractor doing excavation on public right-of-way shall give 48 hours advance notice to and obtain information from utility companies.
- Prior to commencement of work, the contractor shall notify all those companies which have facilities in the near vicinity of the construction to be performed.
- Existing underground, overhead, utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies to locate their utilities before actual construction.
- Contractor shall verify location of and protect all utilities and structures. Damage to utilities and structures shall be repaired by the contractor to the satisfaction of the owner at no additional expense.
- Landscape contractor shall water plant material as required until fully established. This site is not intended to be irrigated unless otherwise dictated by the city of Lee's Summit.
- Provide appropriate landscaping drainage from landscape areas directly adjacent to building to prevent ponding along north sides of building and along the foundation.
- All landscape materials shall be installed in accordance with the current planting procedures established by the most recent addition of the American Standard for Nursery Stock.
- Trees planted per this plan shall be installed during the spring (march 15 through june 15) or fall (september 15 through december 1).
- Written city approval will be required for planting during other times of the year.
- Stake and guy all trees per planting details.
- Install all shrubs and groundcover per planting details.
- Elevation of top of mulch shall be 1/2" below any adjacent pavement/turf areas.
- Root stimulator shall be applied to the soil backfill of each plant during installation.
- Contractor shall verify all landscape material quantities and shall report any discrepancies immediately to the Landscape Architect.
- Contractor shall guarantee all plant material for a period of one (1) year from date of initial acceptance. Contractor is responsible for maintaining plant material until acceptance is received. Maintenance shall include watering, maintaining plants in vertical position and shrub bed weed control.
- All plant material shall meet or exceed minimum requirements defined by the "American Standard for Nursery Stock" ANSI Z60.1.
- No plant material shall be substituted without written approval of the Landscape Architect per specifications.
- Trees and seasonal color areas shall be mulched with three (3) inches minimum shredded hardwood mulch, color TBD. Planting beds as delineated shall be separated from pavement/turf areas with metal edging and mulched with three (3) inches minimum shredded hardwood mulch over weed barrier fabric, except where otherwise specified.
- All existing plant material to be retained shall be wrapped with orange, or bright, colored plastic snow fence around base of trees and around all shrubs. Stake to hold in place during construction.
- All shrubs used as parking buffer to be min. 18" tall at planting and maintained 3'-0" max. height. Install plants not to encroach upon cars parked, when at full growth.
- All trees with above a 2" caliper shall be double staked, while smaller trees shall be single staked.
- Ground mechanical and electrical equipment shall be wholly screened from street right-of-way and residential developments.
- Maximum slope shall be not greater than 3 : 1.
- All portions of site not covered by paving, mulch, plantings, etc. are to be sodded. Sod shall extend to all disturbed areas and shall include portions of right of way if necessary.
- Landscape areas (including along building perimeter and parking lot islands) equal to or narrower than 3'-0" should utilize river rock in lieu of sod or mulch.

Landscaping Requirements:

Street Frontage:

- 1 tree per 30 feet of street frontage within the landscaped setback
- 1 shrub per 20 feet of street frontage within the

Parking Lot Screening:

- 12 shrubs per 40 linear feet of parking

Open Yard Areas:

- 2 shrubs per 5,000 sq. ft. of total lot area excluding building footprints
- 1 tree per 5,000 sq. ft. of total lot area excluding building

General Buffers:

- Front Lot: 20'
- Side Lot: 20' or as approved by the governing body
- Rear Lot: 20' or as approved by the governing body

Adjacent Property Zoning/Uses:

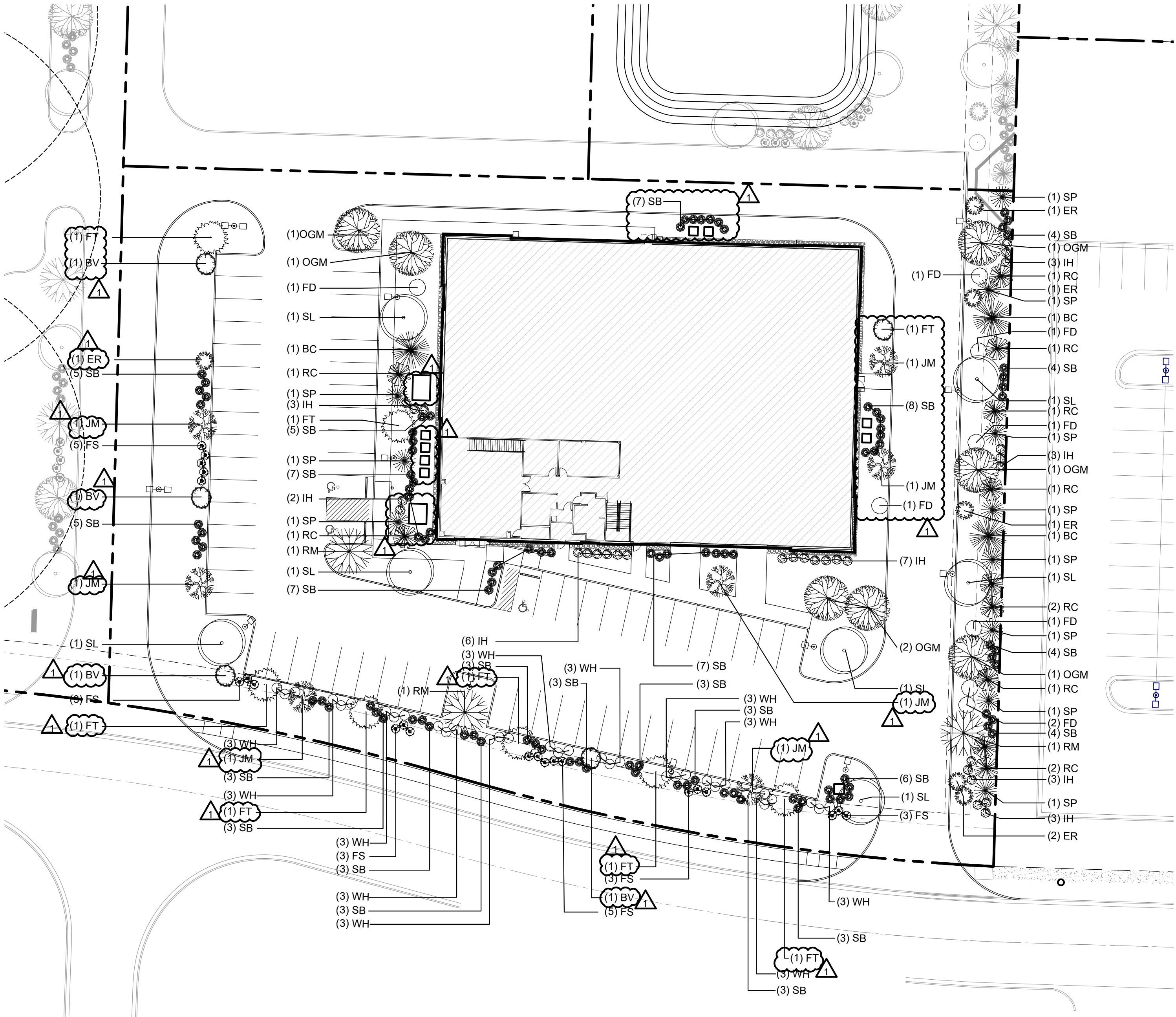
- Lee's Summit Tow Centre LLC: CP-2/Undeveloped with proposed future zoning PI as land develops
- Commercial BFRE LLC: CP-2/Car Detailing
- E J Plesko & Associates Inc.: CP-2/Undeveloped with proposed future zoning PI as land develops

Buffer Requirements:

- PI/CP-2: Medium, 70% semi-opaque screening
- Shade Trees 1 per 1,000 sq. ft.
- Ornamental Trees 1 per 500 sq. ft.
- Evergreen Trees 1 per 300 sq. ft.
- Shrubs 1 per 200 sq. ft.

P/PI: N/A

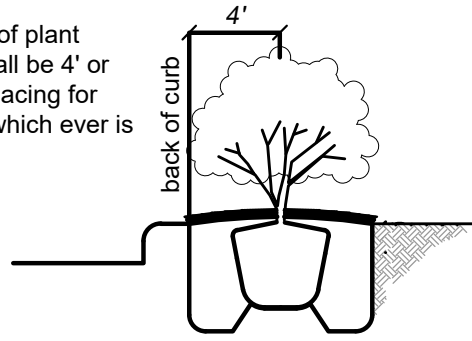
Pad Site A	Required	Provided
Parking Lot Screening: 207 ft. of parking		
Shrubs: 207/40x12 =	62	62
Street Frontage: 343 ft. of frontage		
Trees (Ornamentals): 343/30 =	11	11
Shrubs: 343/20=	17	18
Open Yard Areas: 83,267-20,130 = 63,137 sq. ft.		
Trees: 63,137/5000 =	13	28
Shade =		9
Evergreen =		6
Ornamental =		13
Shrubs: 63,137/5000x2=	25	42
Equipment Screening	as required to screen	38
Buffers: PI/CP-2 Buffer		
East Lot Line = 269x20=5,380 sq. ft		
Shade 5,380/1000=	5	6
Ornamental 5,380/500=	11	11
Evergreen 5,380/300=	18	19
Shrubs 5,380/200=	27	28
North Lot Line: P/PI - N/A		
West Lot Line: P/PI - N/A		
South Lot Line: Street Frontage - See Above		
Total Shade	5	26
Total Ornamental	11	24
Total Evergreen	18	25
Total Trees	58	75
Total Shrubs	131	188



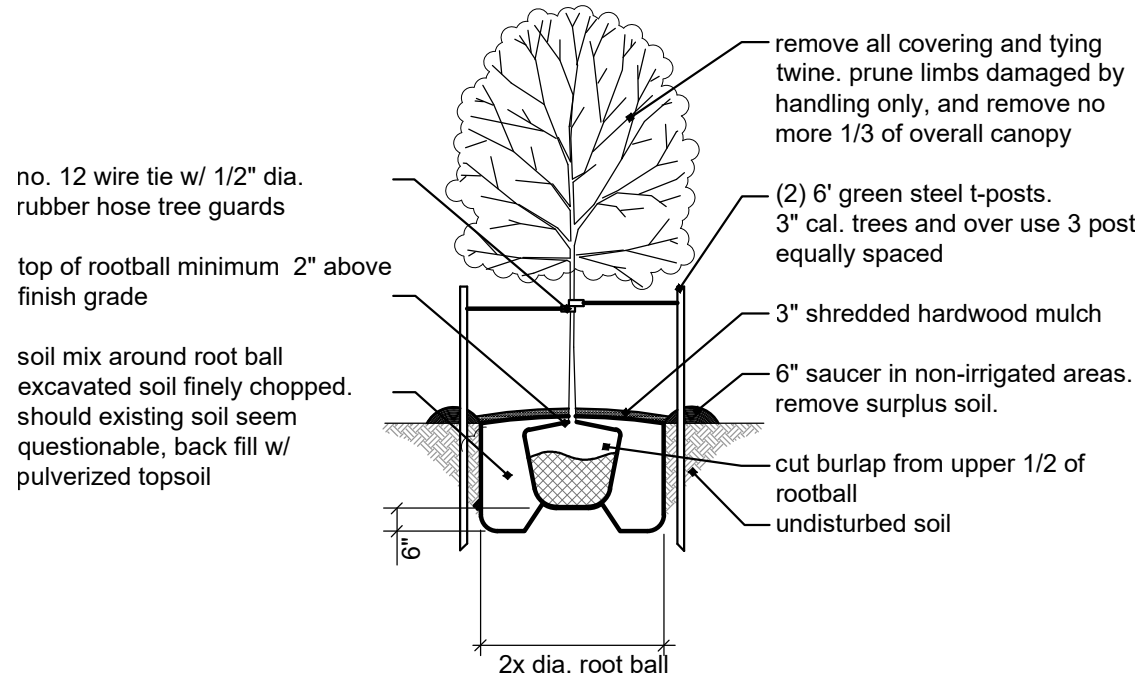
general landscaping notes

- A. Acceptable Plant Material:
- A.1. The following are the minimum plant sizes and conditions to be used in satisfying the requirements of this division. Acceptable plant materials for landscaping, buffers and tree replacement shall be as approved by the City of Lee's Summit:
- A.1.1. Medium shrubs, 18- to 24-inch balled and burlapped or two-gallon container.
- A.1.2. Large shrubs, 24- to 30-inch balled and burlapped or 5-gallon container.
- A.1.3. Ground cover, two and one-half-inch peat pot.
- A.1.4. Deciduous trees shall be a minimum of three-inch caliper, measured at a point 6 inches above the ground or top of the root ball, at planting.
- A.1.5. Evergreen trees shall be a minimum height of eight feet at planting.
- A.2. The American Standard for Nursery Stock, published by the American Association for Nurserymen, shall be the standard reference for the determination of plant standards.
- B. Installation of Plant Materials:
- B.1. The City of Lee's Summit allows one planting season in a 12-month period in which the installation of plant materials shall be completed.
- B.2. Buffers, if required, shall be installed before a certificate of occupancy permit is granted; except where the weather is not suitable for planting and escrow provisions are made in accordance with guidelines of the City of Lee's Summit.
- C. Maintenance of Required Plants:
- C.1. The owner, tenant and their agent, if any, shall be jointly responsible for the maintenance in good condition of the plant materials used to meet the minimum requirements of this Lee's Summit Development Ordinance for landscaping, buffer or tree replanting. The plant materials shall be kept free from refuse and debris.
- C.2. Plants that are not in sound growing condition or are dead shall be removed and replaced with a plant of a species or variety as determined by the City of Lee's Summit.
- C.3. Other landscape materials shall be maintained in proper repair and shall be kept clear of refuse and debris.
- D. Landscaping Minimum Requirements:
- D.1. Street frontage.
- D.1.1. A minimum 20-foot-wide landscape strip shall be provided along the full length of street frontage.
- D.1.2. Shrubs may be clustered or arranged within the setback.
- D.2. Open yard areas.
- D.2.1. All portions of the site not covered with paving or buildings shall be landscaped. Open areas not covered with other materials shall be covered with sod. Ground cover shall be utilized on all slopes in excess of 3:1 slope.
- E. Landscaping Along Street Frontages:
- E.1. Frontage landscape strips shall contain no structures, parking areas, patios, storm water detention facilities unless included in the landscape plan as an amenity or any other accessory uses except for the following:
- E.1.1. Retaining walls or earthen berms constructed as part of an overall landscape design;
- E.1.2. Pedestrian-oriented facilities such as sidewalks and bus stops;
- E.1.3. Underground utilities;
- E.1.4. Driveways required for access to the property; or
- E.1.5. Signs otherwise permitted by the development ordinance.
- E.2. All portions of a frontage landscape strip shall be planted in trees, shrubs, grass or ground cover, except for those ground areas that are mulched or covered by permitted structures.
- E.3. Plant materials in the frontage landscape strip are not to extend into the street right-of-way.
- F. Parking Lot Landscaping and Trees:
- F.1. Deciduous shade trees shall be provided in parking lots as indicated below.
- F.1.1. Landscape islands, strips as a minimum, shall be no less than nine feet wide for at least one-half the length of the adjacent parking space. The island shall be planted in trees, shrubs, grass, or ground cover, except for those areas that are mulched.
- F.1.2. Tree planting areas shall be no less than ten feet in width. No tree shall be located less than four feet from the back of curb. All parking lot landscape islands, strips or other planting areas shall be curbed with minimum six-inch high curbs of the type required by this chapter or other regulations for parking areas.
- G. Parking Lot Screening:
- G.1. Screening to a height of two and one-half feet must be provided along the edge of the parking lot or loading area closest to and parallel to the street. A driveway to the parking lot or loading area may interrupt the screening.
- G.2. Screening shall be decorative and 100 percent opaque to a height of two and one-half feet above the elevation of the parking/loading area or the street, whichever is highest.
- G.3. Screening may be provided in the following way:
- G.3.1. A hedge consisting of at least 12 shrubs per 40 linear feet that will spread into a continuous visual screen within two growing seasons. Shrubs must be at least 18 inches tall at the time of planting and be of a species that will normally grow to at least two and one-half feet in height at maturity and be suitable for the parking lot application.
- G.4. The street-side screening treatment may be located within the required landscape buffer along the front yard of the property.
- G.5. Berming and/or screening shall not encroach into the required sight triangle of streets or access drives.
- H. Buffers:
- H.1. Buffer areas shall contain no driveways, parking areas, patios, storm water detention facilities, or any other structures or accessory uses except for a fence, wall, or earthen berm constructed to provide the visual screening required to meet the standards of this chapter. Underground utilities may be permitted to cross a buffer if the screening requirement can be achieved. Required vehicular access through a buffer may be allowed as a condition of preliminary development plan approval.
- H.2. Natural buffers shall contain evergreen shrubs and trees suitable to local growing conditions that will provide an opaque visual screen during all seasons of the year.
- H.3. Planted materials (trees and shrubs) shall meet the expected opacity within two growing seasons.
- H.4. Every buffer required by the city shall be maintained by the owner of the property where the buffer is located, in order to provide the visual screen at the opacity identified, on a year-round basis.
- H.5. Buffer modifications.
- H.5.0.1. The Director may waive a buffer requirement or reduce its extent to a temporarily appropriate level of screening if the Comprehensive Plan anticipates future development on the adjoining property in a land use category such that a buffer would not be required by this chapter once the adjoining property is rezoned or developed.
- H.6. Medium impact screening - A 70 percent semi-opaque screen between land uses which are dissimilar in character. Semi-opaque screening should partially block views from adjoining land uses and create a separation between the adjoining land uses.
- I. Additional Specifications:
- I.1. Landscaping shall be coordinated with the location of utilities, driveways and traffic clearance zones.
- I.2. The contractor doing excavation on public right-of-way shall give 48 hours advance notice to and obtain information from utility companies.
- I.3. Prior to commencement of work, the contractor shall notify all those companies which have facilities in the near vicinity of the construction to be performed.
- I.4. Existing underground, overhead, utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies to locate their utilities before actual construction.
- I.5. Contractor shall verify location of and protect all utilities and structures. Damage to utilities and structures shall be repaired by the contractor to the satisfaction of the owner at no additional expense.
- I.6. Owner shall be responsible for contracting or providing landscape maintenance for watering until plants are well established and can thrive on their own.
- I.7. If property owners elect to provide an irrigation system, irrigation system shall include an automatic rain sensor and be fully concealed below ground.
- I.8. Provide appropriate landscaping drainage from landscape areas directly adjacent to building to prevent ponding along north sides of building and along the foundation.
- I.9. All landscape materials shall be installed in accordance with the current planting procedures established by the most recent addition of the American Standard for Nursery Stock.
- I.10. Trees planted per this plan shall be installed during the spring (march 15 through june 15) or fall (september 15 through december 1). Written city approval will be required for planting during other times of the year.
- I.11. Stake and guy all trees per planting details.
- I.12. Install all shrubs and groundcover per planting details.
- I.13. Elevation of top of mulch or rock shall be 1/2" below any adjacent pavement/turf areas.
- I.14. Root stimulator shall be applied to the soil backfill of each plant during installation.
- I.15. Contractor shall verify all landscape material quantities and shall report any discrepancies immediately to the Landscape Architect.
- I.16. Contractor shall stake plant locations in the field and have approval by the Landscape Architect before proceeding with installation.
- I.17. Contractor shall guarantee all plant material for a period of one (1) year from date of initial acceptance. Contractor is responsible for maintaining plant material until acceptance is received. Maintenance shall include watering, maintaining plants in vertical position and shrub bed weed control.
- I.18. All plant material shall meet or exceed minimum requirements defined by the "American Standard for Nursery Stock" ANSI Z60.1.
- I.19. No plant material shall be substituted without written approval of the Landscape Architect per specifications.
- I.20. Trees and seasonal color areas shall be mulched with three (3) inches minimum shredded hardwood mulch, color TBD. Planting beds as delineated shall be separated from pavement/turf areas with metal edging and mulched with three (3) inches minimum shredded hardwood mulch over weed barrier fabric, except where otherwise specified.
- I.21. All existing plant material to be retained shall be wrapped with orange, or bright, colored plastic snow fence around base of trees and around all shrubs. Stake to hold in place during construction.
- I.22. All shrubs used as parking buffer to be min. 18" tall at planting and maintained 3'-0" max. height. Install plants not to encroach upon cars parked, when at full growth.
- I.23. All trees with a 2" caliper or greater shall be double staked, while smaller trees shall be single staked.
- I.24. Ground mechanical and electrical equipment shall be wholly screened from street right-of-way and residential developments.
- I.25. Maximum slope shall be not greater than 3 : 1.
- I.26. All portions of site not covered by paving, mulch, plantings, etc. are to be sodded. **Sod shall extend to all disturbed areas and shall include portions of right of way if necessary.**
- I.27. Landscaping areas (including along building perimeter and parking lot islands) equal to or narrower than 3'-0" should utilize river rock in lieu of sod or mulch.

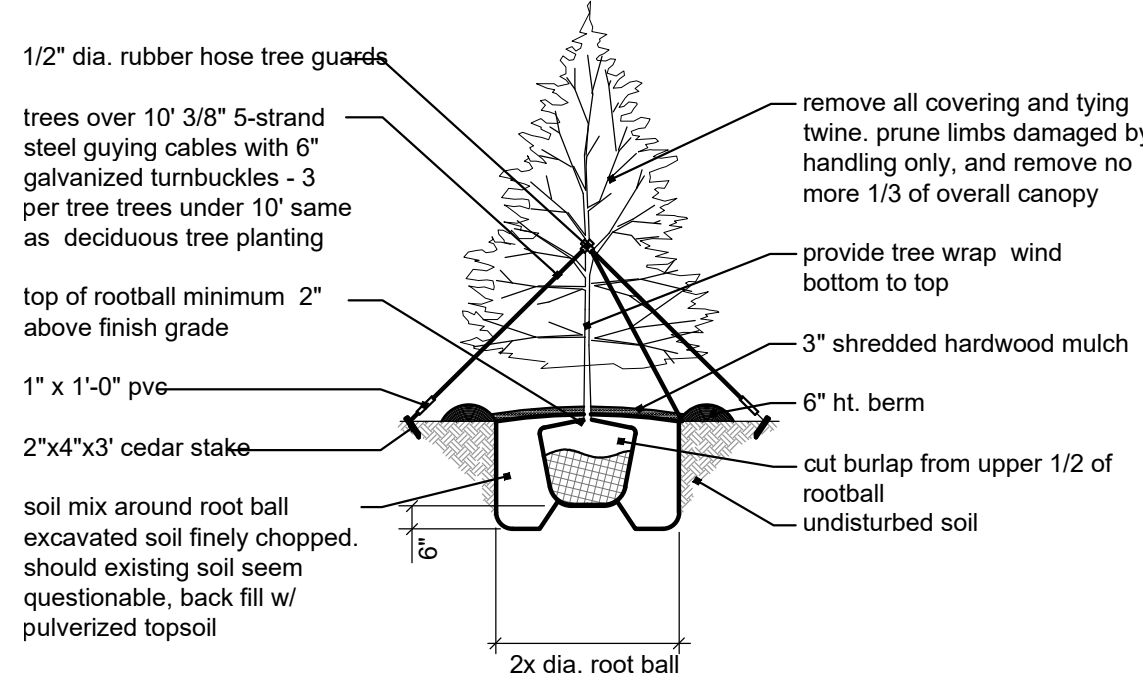
note: distance from center of plant material to back of curb shall be 4' or the suggested minimum spacing for the variety being planted, which ever is greater.



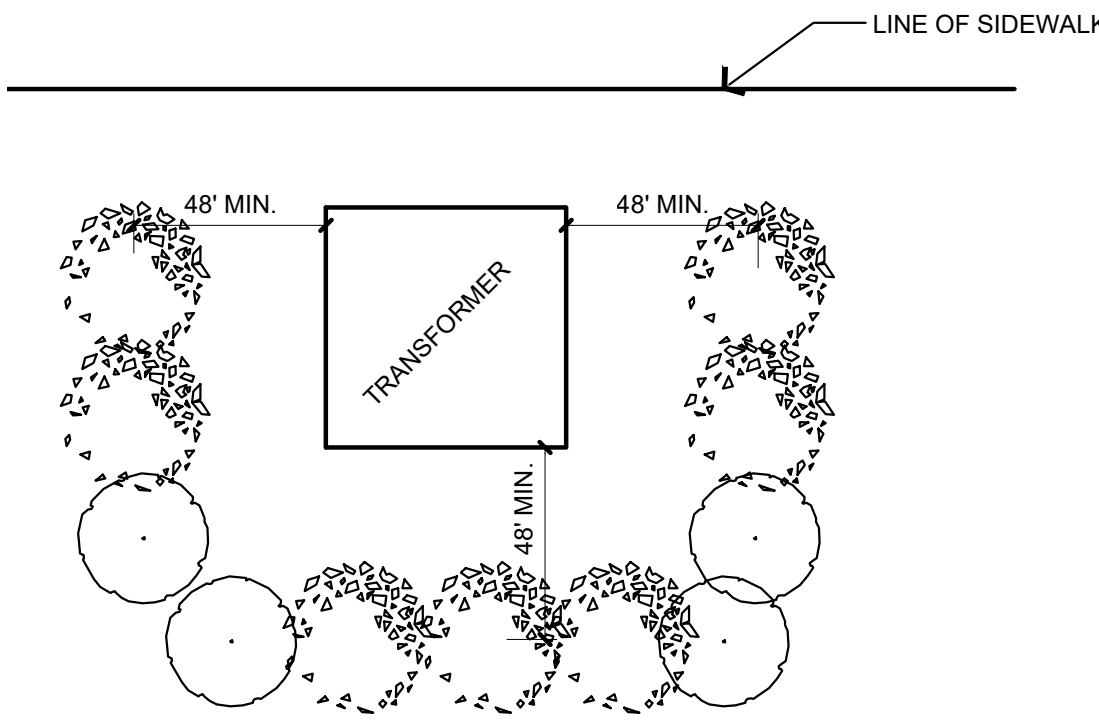
3 | back of curb detail
scale: 1" = 50'-0"



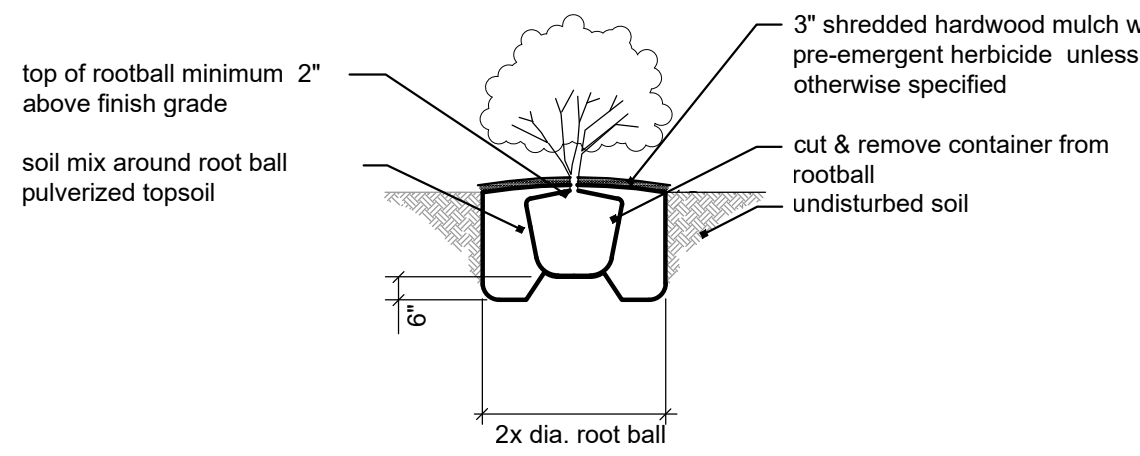
6 | deciduous tree planting detal
scale: 1" = 50'-0"



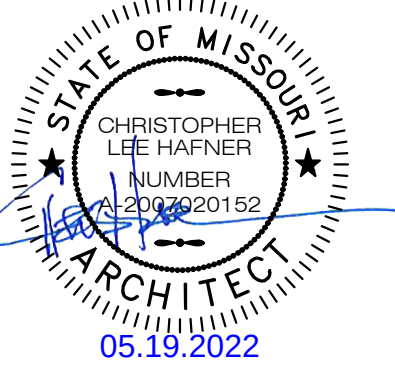
5 | evergreen tree planting detail
scale: 1" = 50'-0"



1 | typ. utility screening
scale: 1" = 50'-0"

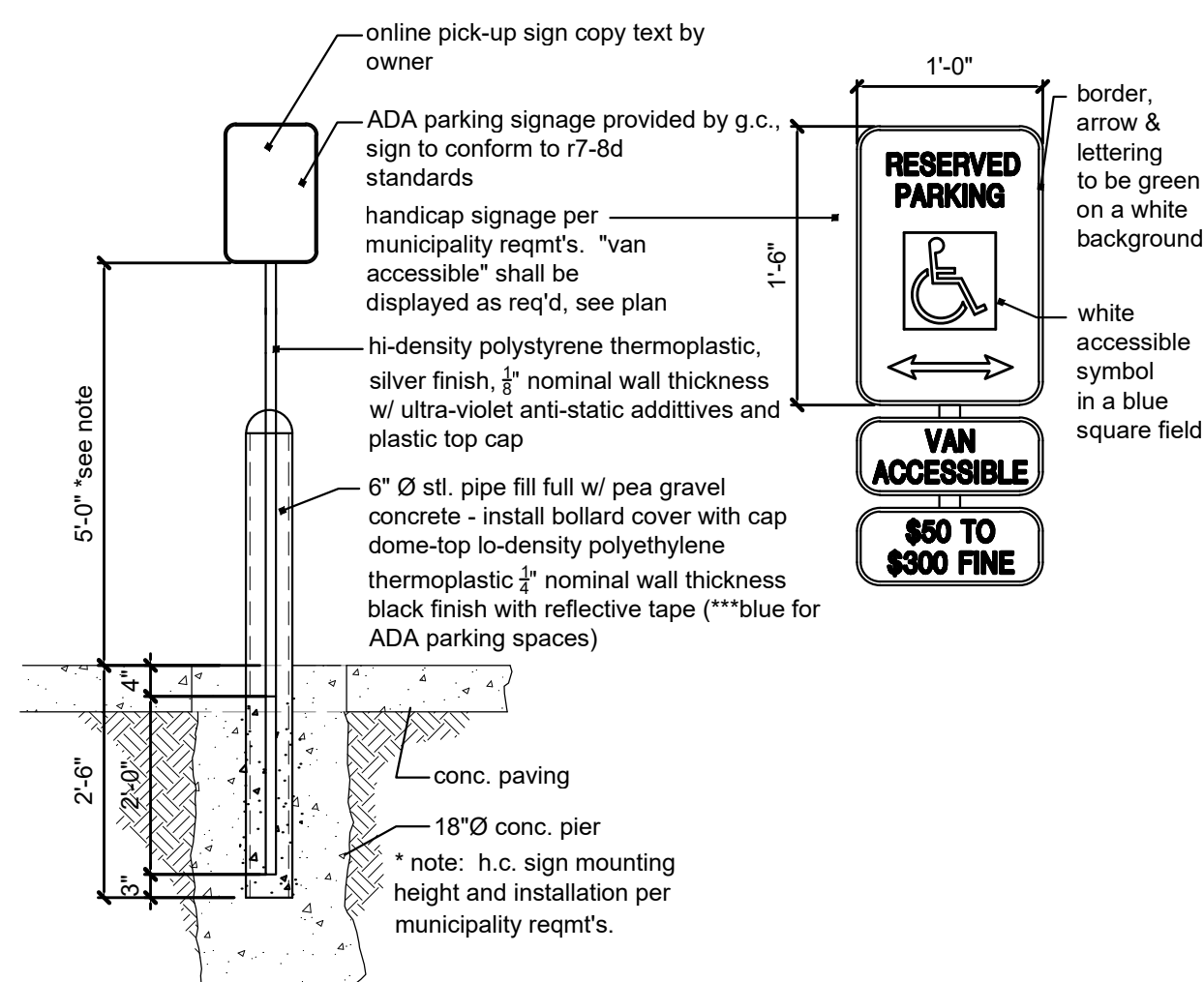


4 | shrub planting detail
scale: 1" = 50'-0"

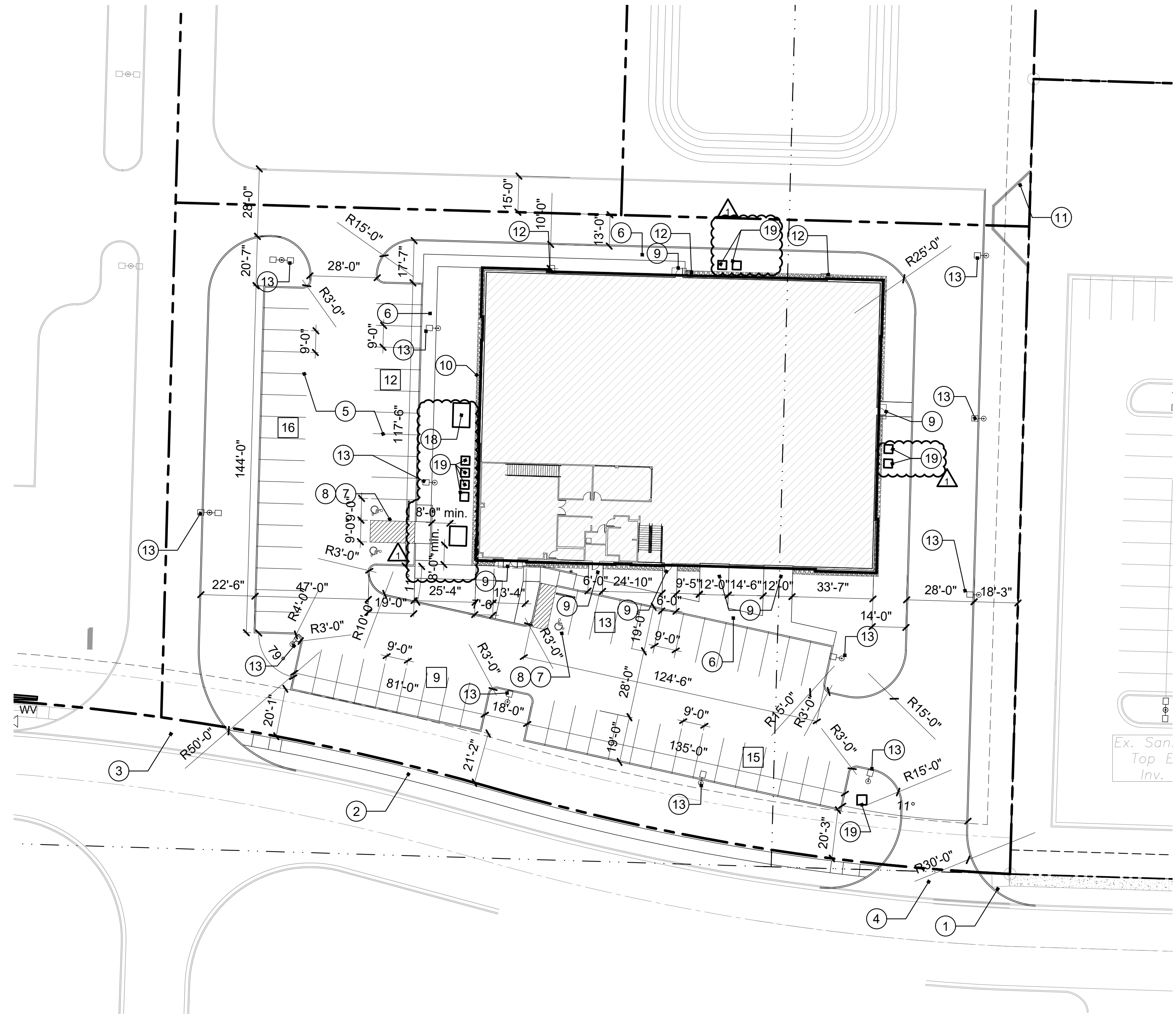


Standard Parking Space Size: 9'-0"x19'-0"
*Parking Space Length can reduce by 2'-0" at curbed landscaping and 6' deep sidewalks.

1. Furnish and install 5'-0" wide concrete sidewalk with broom finish per city of Lee's Summit standards to connect to existing sidewalk.
2. Furnish and install 5'-0" wide concrete sidewalk with broom finish per city of Lee's Summit standards. Sidewalk shall be in the r.o.w. offset by 1'-0" from the property line.
3. Furnish and install new curb cut per city of Lee's Summit standards. Align with access across the street.
4. Furnish and install new curb cut per city of Lee's Summit standards.
5. Furnish and install 4" wide white parking space striping.
6. Furnish and install 5'-0" wide concrete sidewalk with broom finish per city of Lee's Summit standards.
7. Furnish and install handicap parking spaces with striped access aisle per UDO requirements.
8. Furnish and install handicap parking space bollard sign per UDO requirements.
9. Furnish and install door stop with turn down edge doveled into building foundations; coordinate with city drawings.
10. Furnish and install strip of clean rock at perimeter of building for drainage and maintenance if required by the geotechnical report.
11. Location of block retaining wall; reference city drawings.
12. Furnish and install UDO compliant building mounted area light.
13. Furnish and install UDO compliant pole mounted area light; maximum top of pole height to be 18'-0".
14. Furnish and install ground mounted monument sign to meet ordinance requirements. Provide electrical to sign as required.
15. Furnish and install wall mounted sign to meet ordinance requirements. Provide electrical as required.
16. Property line.
17. Building setback line.
18. Furnish and install concrete pad for ground mounted RTU; provide landscaping screening as required around the equipment.
19. Furnish and install equipment pad.



2 bollard parking sign
scale: 1/2" = 1'-0"



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive
Lee's Summit, Missouri

date
05.23.2022
drawn by
DAE
checked by
DAE
revisions

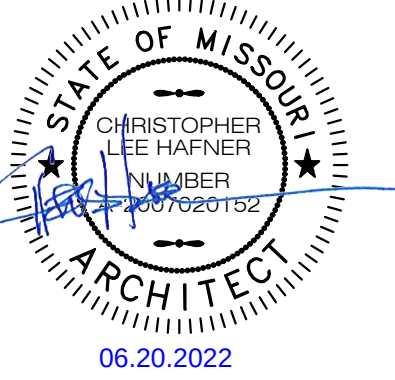
sheet number

A1.1

drawing type
FDP & Permit

project number
20231





- Double keyed locks are not permitted on any required or marked exit.
- Exit/emergency lighting are subject to an on site inspection.
- Provide min. 3 1/2" batt insulation between conditioned & unconditioned spaces.
- Egress doors shall be opened from the inside without the use of a key or any special knowledge or effort
- Provide electrical outlets @ 15' ± a.d. to the lowest outlet per a.d.
- Egress illumination will be provided at the intensity of not less than 1 foot candle at floor level.
- Construction materials exposed within plenums shall be noncombustible or shall have flame spread rating of not more than 25 and a smoke development rating of not more than 50.
- All electrical outlets within 6' of any sink or water source to be GFCI protected.
- Mezzanine floor height shall be 12' ± above first floor.
- Paint liner panels in batting cage areas PT-4 (green) up to 12'-0" a.d.
- Reference DBA standards for painting patterns.

1. PEMB Furnished and installed metal paint, painted; Furnish and install handrails with guardrails as required at stairs (paint handrails) - reference details on A0.1.
2. Merchandise display by others.
3. Verify point of sale location with owner. Coordinate stub up if required.
4. Furnish and install built-in bar height counter.
5. Furnish and install secessed interior windows.
6. Furnish and install Recessed knob box in stone. Verify final location with fire marshal.
7. Cage by others.
8. Provide access to overhead doors.
9. Benches by others.
10. Furniture by others.
11. Provide data and power at wall mural TV location.
12. Netting by others.
13. Premanufactured awning above by PEMB manufacturer.
14. Decorative wall sconce.
15. Reference site and landscaping plans for perimeter rock.
16. Furnish and install millwork per details.
17. Furnish and install bracket mounted fire extinguisher, min. 5lb ABC.
18. Furnish and install semi-recessed ADA fire extinguisher cabinet (verify with min. 5lb ABC fire extinguisher).
19. Furnish and install metal guardrail at mezzanine viewing area, white attachment to structure with structural engineering: railing must have supports/attachments a maximum of 5'-0" apart, and railing must meet loading requirements per the 2018 IBC. Railing selection must be a minimum of 42" above finish floor of the mezzanine - open space between railings parts must not allow a sphere of 4" or greater to pass through.
20. Furnish and install door stoops; reference structural.
21. Furnish and install prefabricated concrete pads for condensing units per mechanical drawings.
22. Provide concrete pad for ground mounted RTU as required, consult with structural.
23. Furnish and install ADA bathroom partitions.
24. Furnish and install lintel above door to support stone.

 door tag
 elevation

 construction note
 wall section

 partition type
 enlarged detail

 room tag

Insulated Interior Partition:
3-5/8" metal studs @ 16" o.c. to 6" above ceiling or to underside of decking with 5/8" gypsum board on both sides and 3-1/2" sound attenuation batt insulation. Stud gauge per supplier.

Interior Partition:
3-5/8" metal studs @ 16" o.c. to 6" above ceiling or to underside of decking with 5/8" gypsum board on both sides. Stud gauge per supplier.

*Utilize DensArmour Plus on plumbing walls

- utilize 6" or 8" studs for plumbing walls
- walls with no ceiling shall extend up to underside of decking unless otherwise noted (reference reflected ceiling plan).
- walls with a lowered suspended ceiling should extend 6" above the ceiling height (reference reflected ceiling plan).
- interior wall height note: Utilize 3 1/2" metal studs @ 16" o.c. to an unbraced height of 13'-8", at heights up to 20'-0", utilize 6" 20 ga. studs @ 16" o.c. adjust stud size as required for allowable L240 deflection. Verify stud gauge with supplier.
- expansion joint note: Expansion joints shall be installed at a max. of 30'-0". Joints shall be located to anticipate building movement, structural elements and substrate transition per elevations and wall sections.
- wet wall note: Utilize DensArmor Plus in all plumbing wet walls, walls receiving ceramic tile, and all walls adjacent to plumbing walls or where anticipated to be in contact with moisture.
- substrate: provide tile backerboards in any wall tile locations.
- blocking: Provide in wall blocking for all wall mounted items, including, but not limited to toilet accessories, plumbing fixtures, and hardware.
- maximum length of an unbraced wall shall be 8'-0".

a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

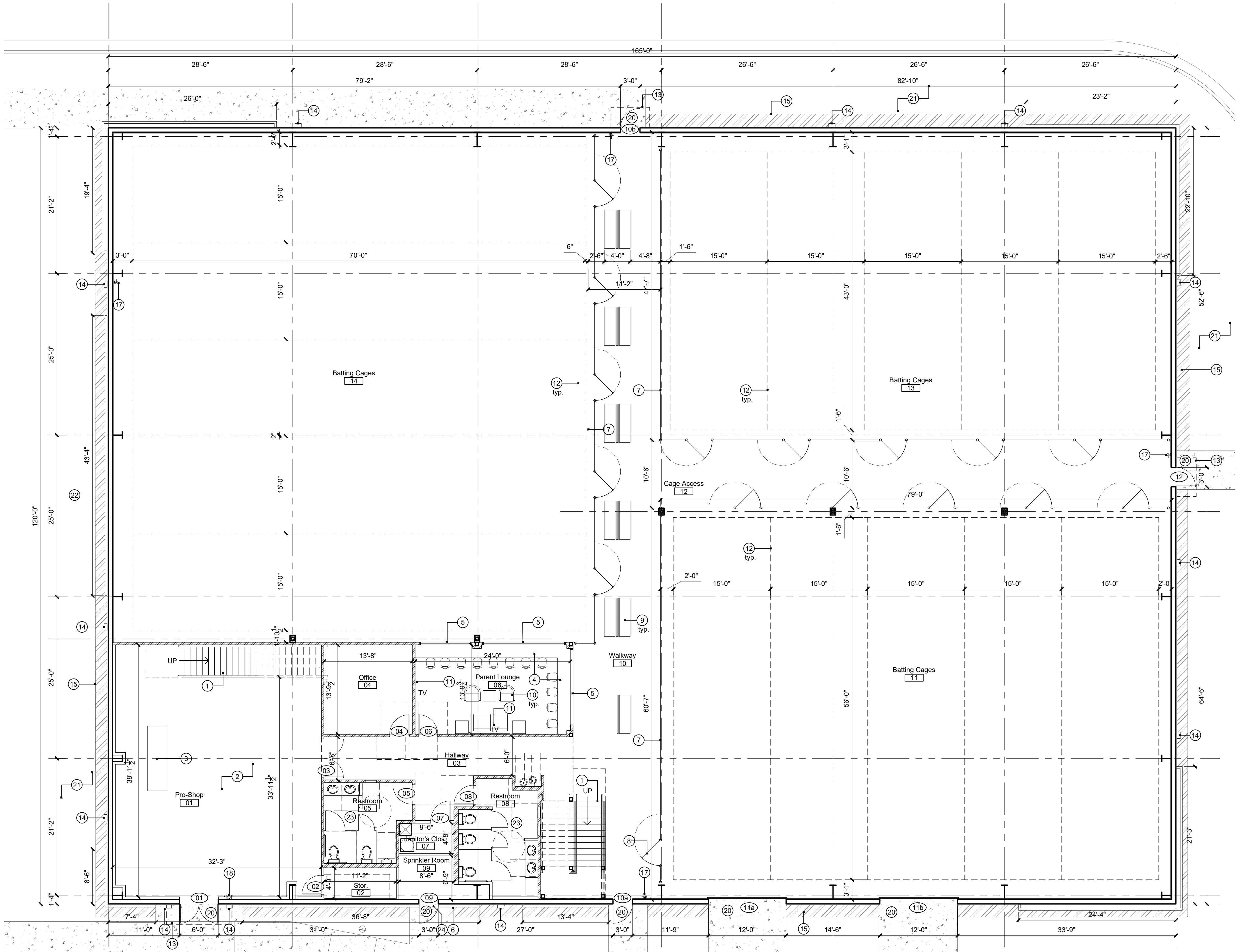
date
05.19.2022
drawn by
DAE
checked by
DAE
revisions

sheet number

A2.1

drawing type
FDP & Permit

project number
20231



1 | **Floor Plan** | 
scale: 1/8" = 1'-0" | north

general notes

- Double keyed locks are not permitted on any required or marked exit.
- Exit/emergency lighting are subject to an on site inspection.
- Provide min. 3 1/2" batt insulation between conditioned & unconditioned spaces
- Exit doors shall be operable from the inside without the use of a key or any special knowledge or effort
- Provide electrical outlets @ 15" a.f.f. to the lowest outlet per a.d.a.
- Egress illumination will be provided at an intensity of not less than 1 foot candle at floor level.
- Construction materials exposed within plenums shall be noncombustible or shall have flame spread rating of not more than 25 and a smoke development rating of not more than 50.
- All electrical outlets within 6' of any sink or water source to be GFCI protected.
- Mezzanine floor height is 12'-0" above first floor.
- Paint liner panels in batting cage areas PT-4 (green) up to 12'-0" a.f.f.
- Reference DBAT standards for painting patterns.

construction notes

1. PEMB Furnished and installed metal stair, painted; Furnish and install handrails with guardrails as required at stairs (paint handrails) - reference details on A0.1.
2. Merchandise display by others.
3. Verify point of sale location with owner. Coordinate stub up if required.
4. Furnish and install built-in bar height counter.
5. Furnish and install seamless interior windows.
6. Furnish and install Recessed knox box in stone. Verify final location with fire marshal.
7. Cage by others.
8. Provide access to overhead doors.
9. Benches by others.
10. Furniture by others.
11. Provide data and power at wall mounted TV location.
12. Netting by others.
13. Premanufactured awning above by PEMB manufacturer.
14. Decorative wall sconce.
15. Reference site and landscaping plans for perimeter rock.
16. Furnish and install millwork per details.
17. Furnish and install bracket mounted fire extinguisher, min. 5lb ABC.
18. Furnish and install semi-recessed ADA fire extinguisher cabinet (white) with min. 5lb ABC fire extinguisher.
19. Furnish and install metal guardrail at mezzanine viewing area; verify attachment to structure with structural engineer; railing must have supports/attachments a maximum of 5'-0" apart, and railing must meet loading requirements per the 2018 IBC. Railing selection must be a minimum of 42" above finish floor of the mezzanine - open space between railing parts must not allow a sphere of 4" or greater to pass through.
20. Furnish and install door stoops; reference structural.
21. Furnish and install prefabricated concrete pads for condensing units per mechanical drawings.
22. Provide concrete pad for ground mounted RTU as required, consult with structural.
23. Furnish and install ADA bathroom partitions.
24. Furnish and install lintel above door to support stone.

symbol legend:

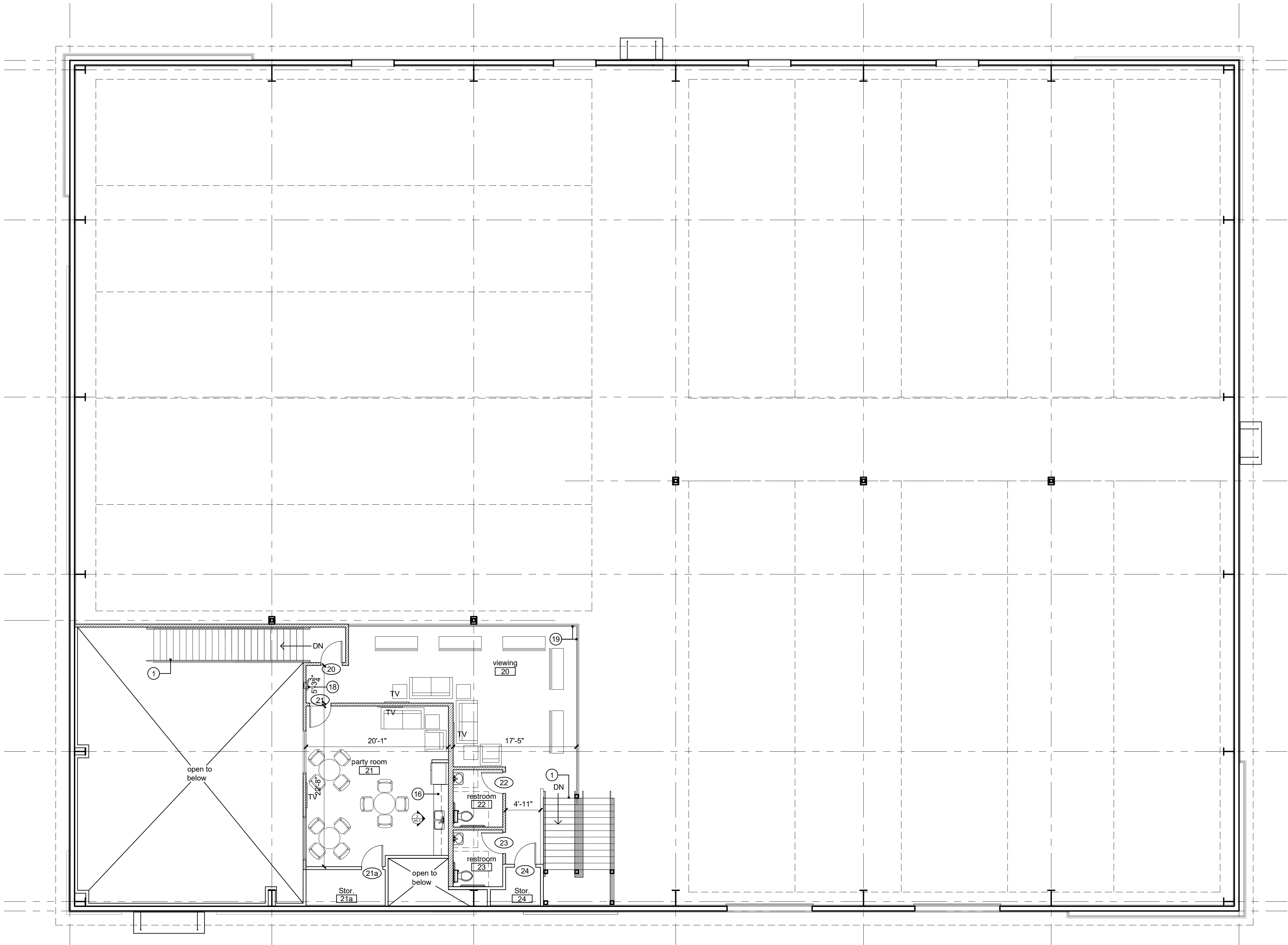
- ## door tag
- ## construction note
- P# partition type
- room name ## room tag
- # elevation
- # wall section
- # enlarged detail

partition legend

- Insulated Interior Partition:
3-5/8" metal studs @ 16" o.c. to 6" above ceiling or to underside of decking with 5/8" gypsum board on both sides and 3-1/2" sound attenuation batt insulation. Stud gauge per supplier.
- Interior Partition:
3-5/8" metal studs @ 16" o.c. to 6" above ceiling or to underside of decking with 5/8" gypsum board on both sides. Stud gauge per supplier.
- *Utilize DensArmor Plus on plumbing walls

partition notes

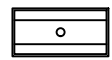
- utilize 6" or 8" studs for plumbing walls
- walls with no ceiling shall extend up to underside of decking unless otherwise noted (reference reflected ceiling plan).
- walls with a lowered suspended ceiling should extend 6" above the ceiling height (reference reflected ceiling plan).
- interior wall height note: Utilize 3 5/8" metal studs @ 16" o.c. to an unbraced height of 13'-8", at heights up to 26'-0", utilize 6" 20 ga. studs @ 16" o.c. - adjust stud size as required for allowable L/240 deflection. Verify stud gauge with supplier.
- expansion joint note: Expansion joints shall be installed at a max. of 30'-0". Joints shall also be located to anticipate building movement, structural elements and substrate transition per elevations and wall sections.
- wet wall note: Utilize DensArmor Plus in all plumbing wet walls, walls receiving ceramic tile, and all walls adjacent to plumbing walls or where anticipated to be in contact with moisture.
- substrate: provide tile backerboard at any wall tile locations.
- blocking: Provide in wall blocking for all wall mounted items, including, but not limited to toilet accessories, plumbing fixtures, and hardware.
- maximum length of an unbraced wall shall be 8'-0".



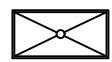
reflected ceiling notes #

- Paint exposed structure off-white in areas open to the public.
- Furnish and install 2x4 suspended ceiling with lighting per reflected ceiling plan.
- Exposed structure finish to remain as-is.
- Reference room finish schedule for ceiling heights
- all materials above suspended ceilings must be fire retardant

reflected ceiling legend



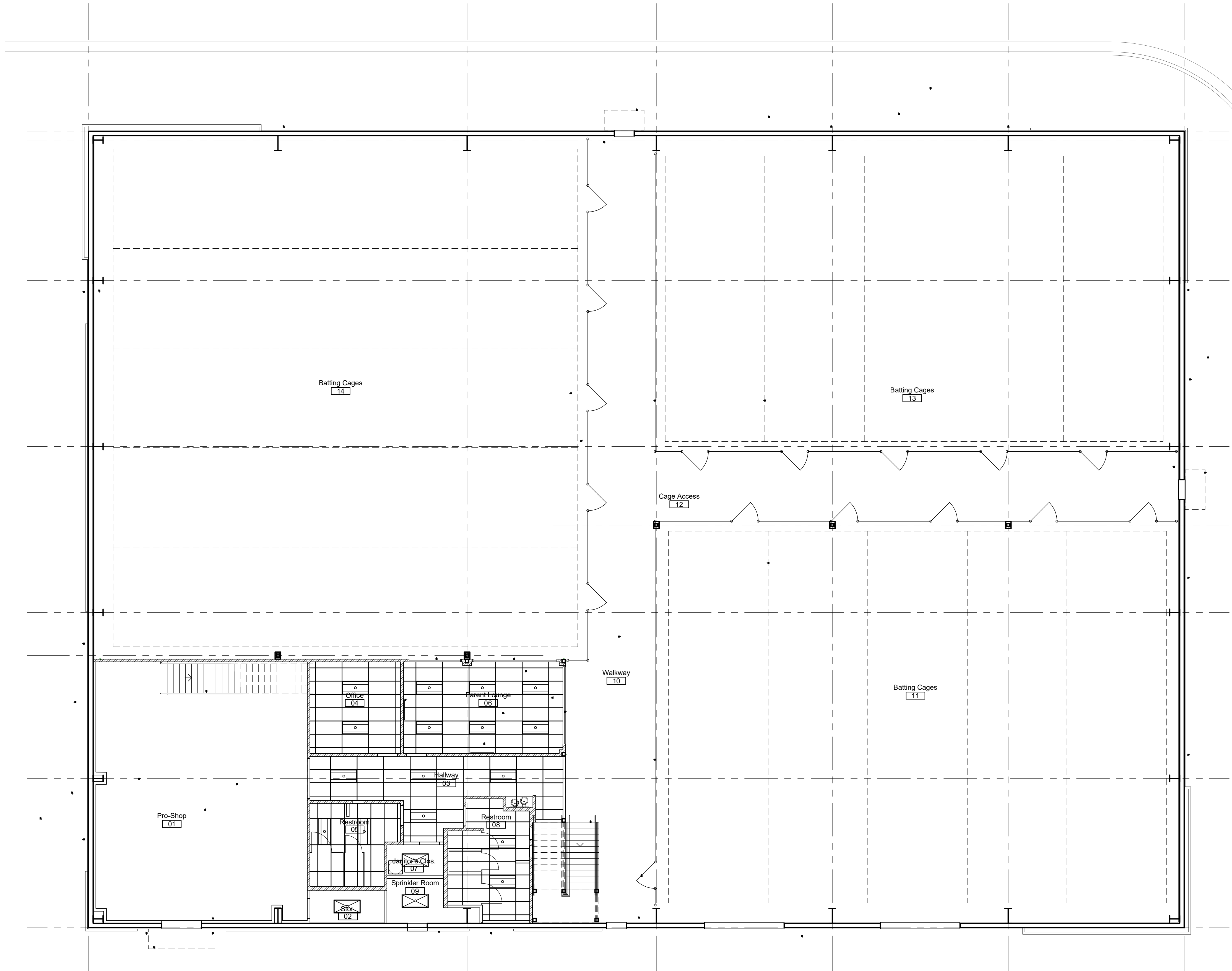
2x4 lay-in LED light fixture with direct/indirect lens for finished areas



2x4 LED utility light fixture for unfinished areas



CLG - 1: 2' x 4' x 3/4", with 15/16" Exposed Tee Grid System, color white



a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

date
05.19.2022
drawn by
DAE
checked by
DAE
revisions



sheet number

A2.3

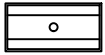
drawing type
FDP & Permit

project number
20231

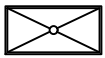
reflected ceiling notes #

- Paint exposed structure off-white in areas open to the public.
- Furnish and install 2x4 suspended ceiling with lighting per reflected ceiling plan.
- Exposed structure finish to remain as-is.
- Reference room finish schedule for ceiling heights
- all materials above suspended ceilings must be fire retardant

reflected ceiling legend



2x4 lay-in LED light fixture with direct/indirect lens for finished areas



2x4 LED utility light fixture for unfinished areas



CLG - 1: 2' x 4' x 3/4", with 15/16" Exposed Tee Grid System, color white



general notes

- provide appropriate covers for flue penetrations - paint to match the building,
- furnish and install knox box; reference floor plan; verify final location with code official and fire department
- all building mounted equipment shall be painted to match the adjacent wall colors, including pipes, and panels; do not paint meters.
- furnish and install landscape screening for all building mounted equipment; reference MEP
- material substitutes and changes MUST be approved by the City of Lee's Summit prior to purchase
- provide blocking and electrical at building mounted sign locations
- reference window elevation sheet
- reference door schedule and detail sheets
- all signage must be reviewed as part of a separate sign permit through the City of Lee's Summit
- stone shall align with seams in metal panels
- windows shall be centered with metal panels

exterior materials & finishes

Metal Panel

- Panel 2 - textured metal panel per PEMB supplier, color Gray
- Panel 3 - textured metal panel per PEMB supplier, color Off-White
- Panel 1 - tenant accent color, textured metal panel per PEMB supplier, color Blue

flashing/trim

- prefinished to match adjacent wall colors

fascia panels

- prefinished panels per PEMB supplier, color Black

soffit panels

- color to match building fascia

- prefabricated metal awnings per PEMB supplier, color Black

Gutter & Downspout:

- To match PEMB wall panel Gray - per supplier

Stone

- manufactured stone, Versetta ledgerstone color

Windows

- 1" insulated low-e glass with argon fill in 2" thermally broken frames per PEMB supplier (caulk at perimeter inside and out); frames color Black

Storefront Door

- 1" insulated clear glass with thermally broken frames per PEMB supplier; frames color Black

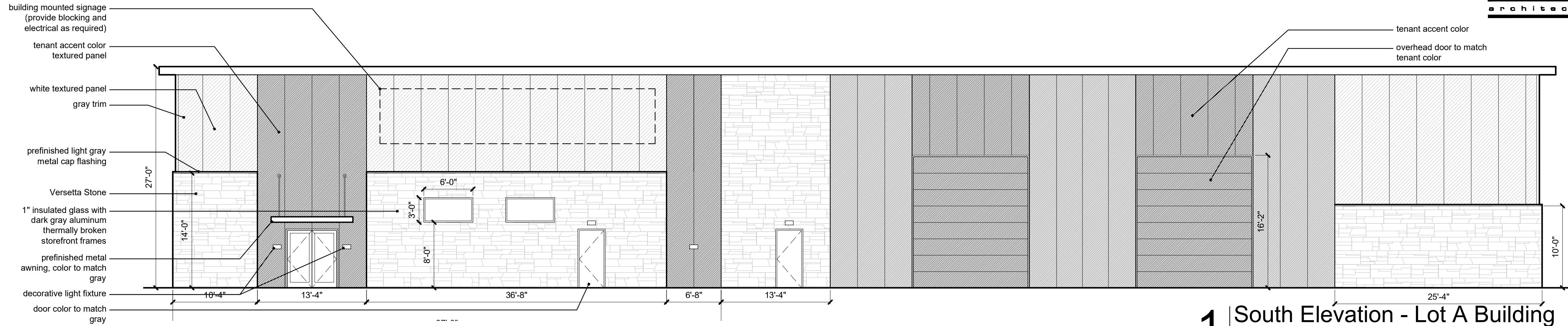
Overhead Doors

- insulated manual overhead doors, painted to match tenant accent color per building elevations

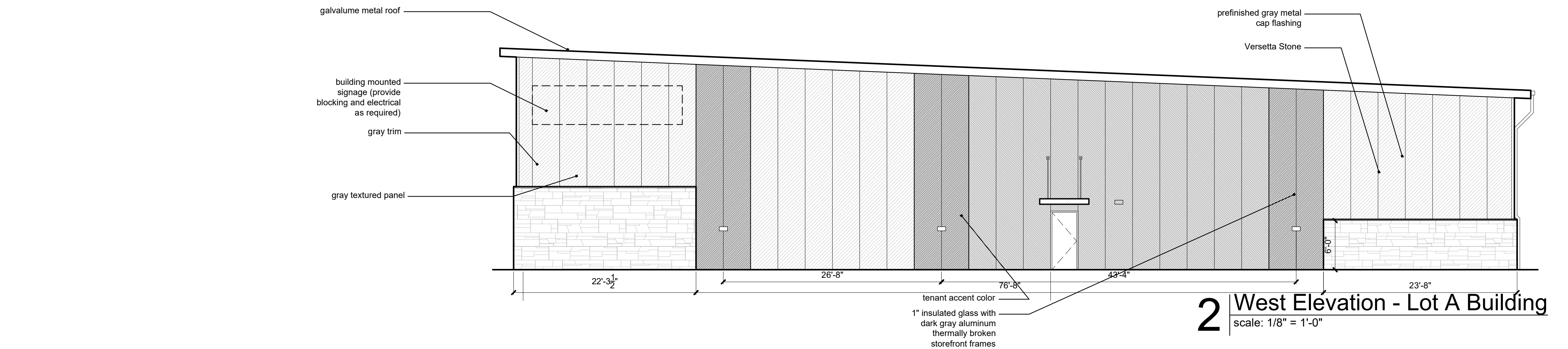
Hollow Metal Doors

- galvanized insulated hollow metal door and frame, painted to match adjacent wall color

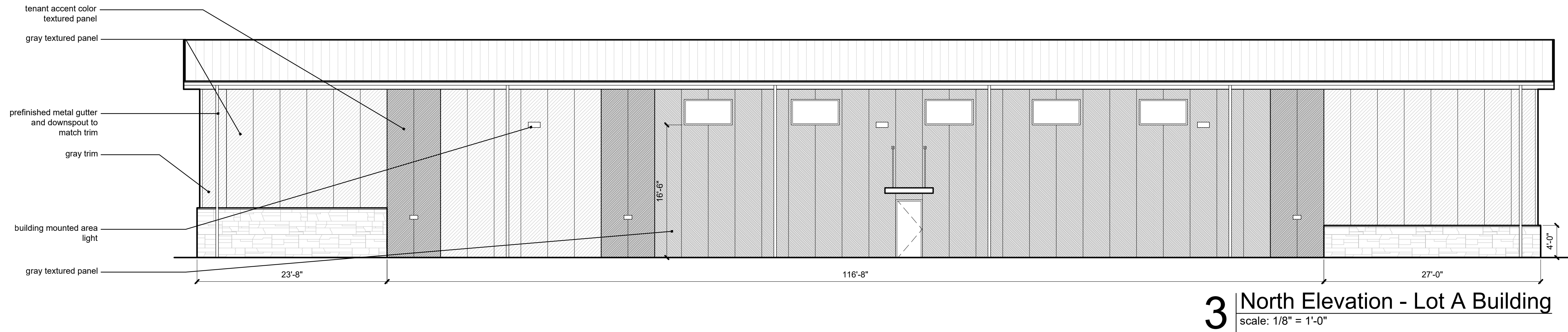
- caulk - color to match adjacent wall colors



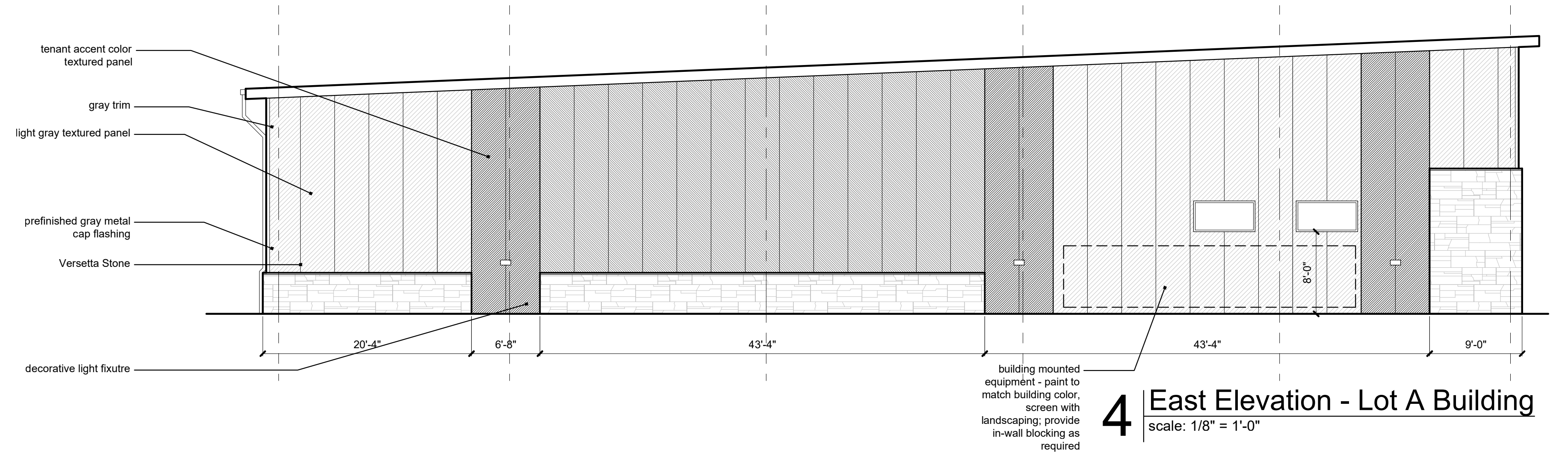
1 South Elevation - Lot A Building
scale: 1/8" = 1'-0"



2 West Elevation - Lot A Building
scale: 1/8" = 1'-0"



3 North Elevation - Lot A Building
scale: 1/8" = 1'-0"



4 East Elevation - Lot A Building
scale: 1/8" = 1'-0"

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sheet number

A3.1

drawing type
FDP & Permit

project number
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a new development for
D-BAT - Town Centre Lot 1
540 NE Town Centre Drive
Lee's Summit, Missouri

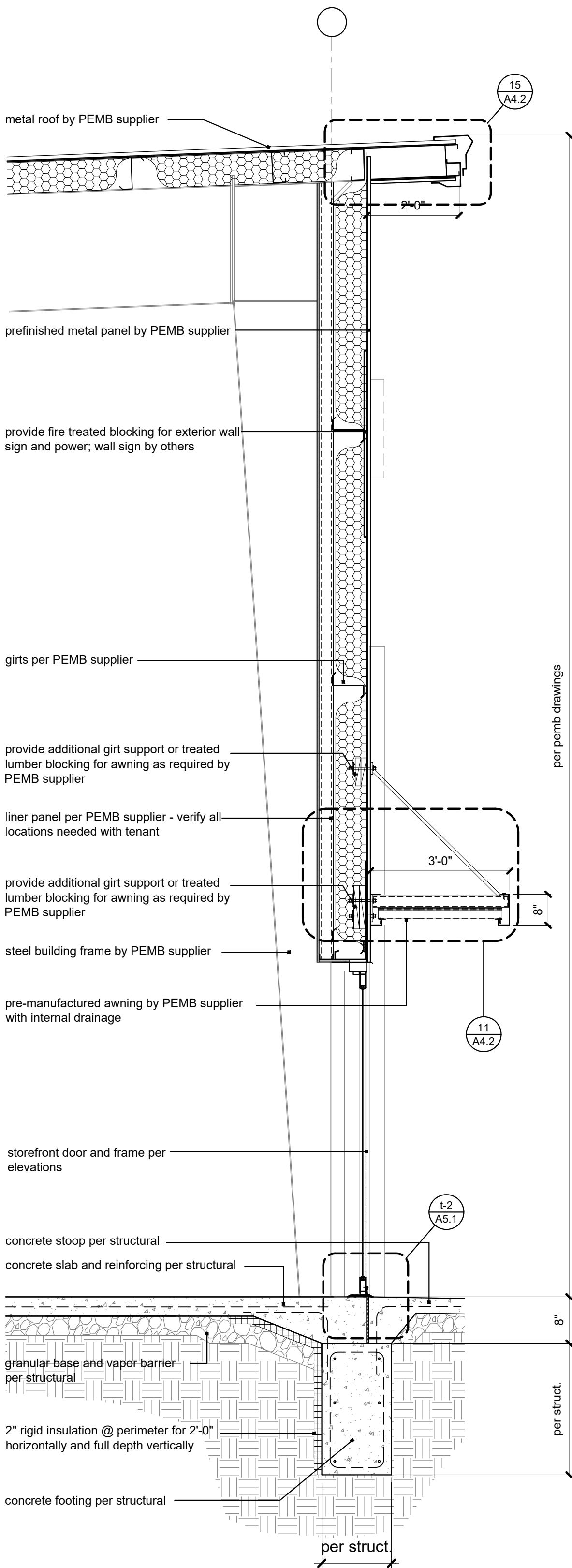
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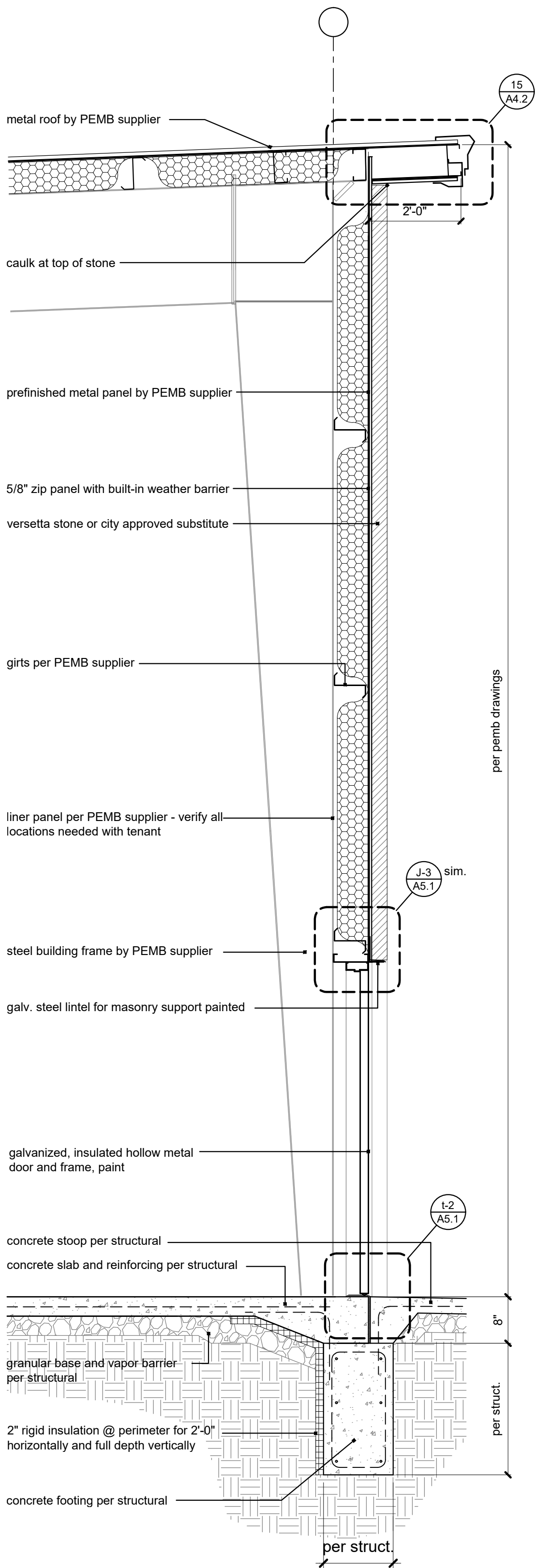
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drawing type
FDP & Permit

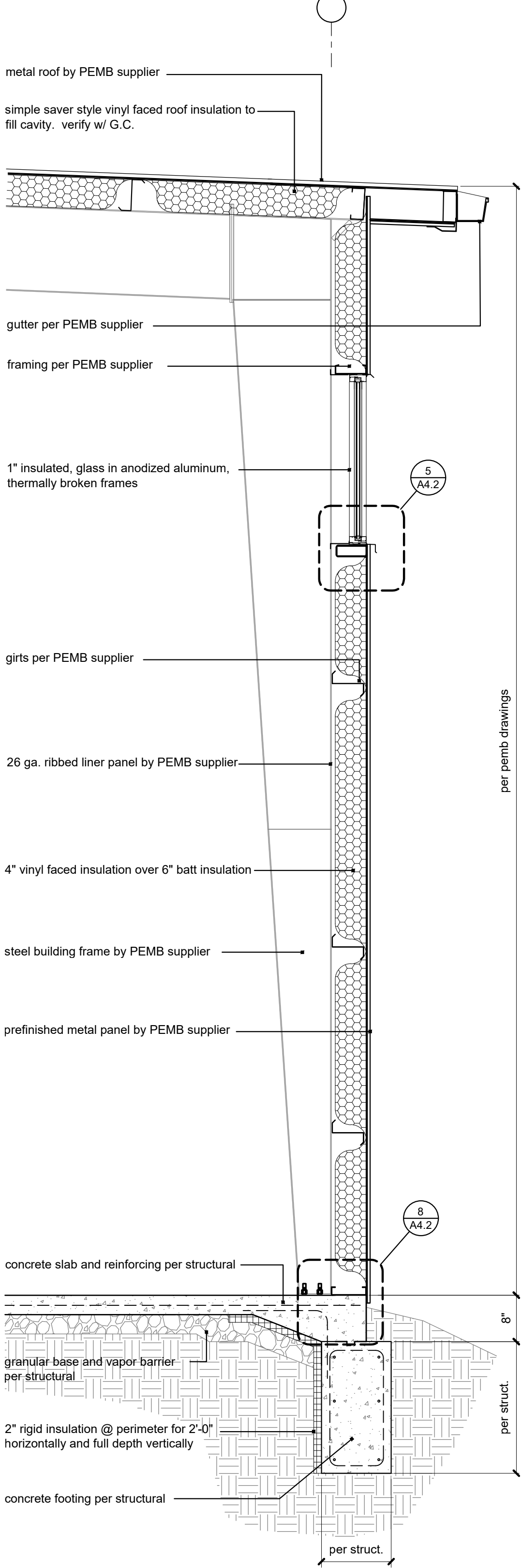
project number
20231



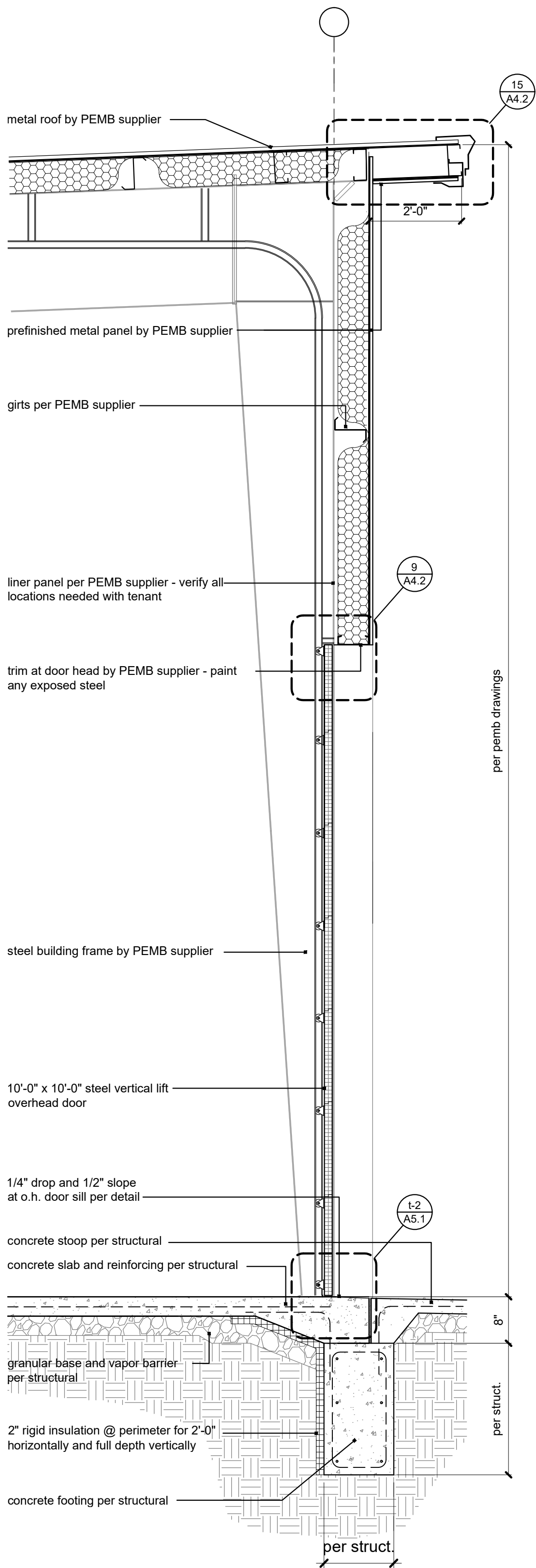
1 Wall Section
scale: 1/2" = 1'-0"



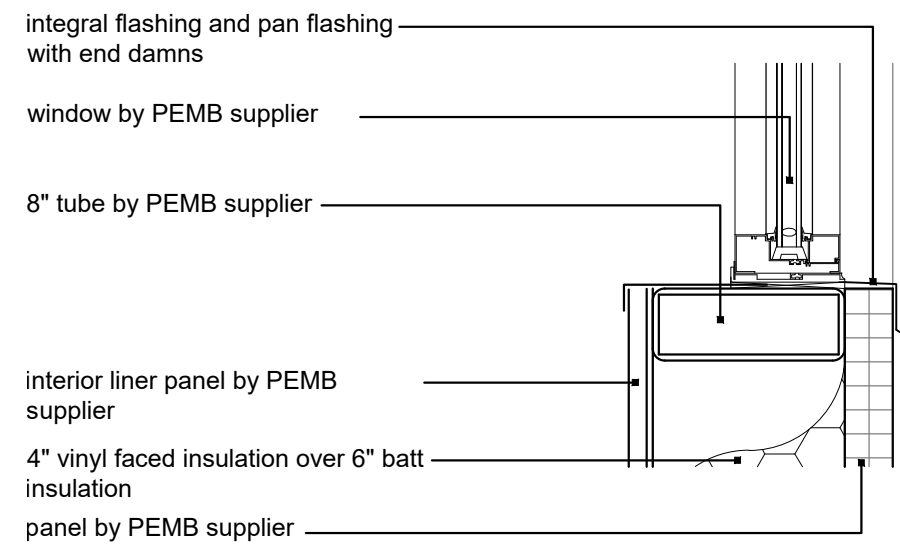
2 Wall Section
scale: 1/2" = 1'-0"



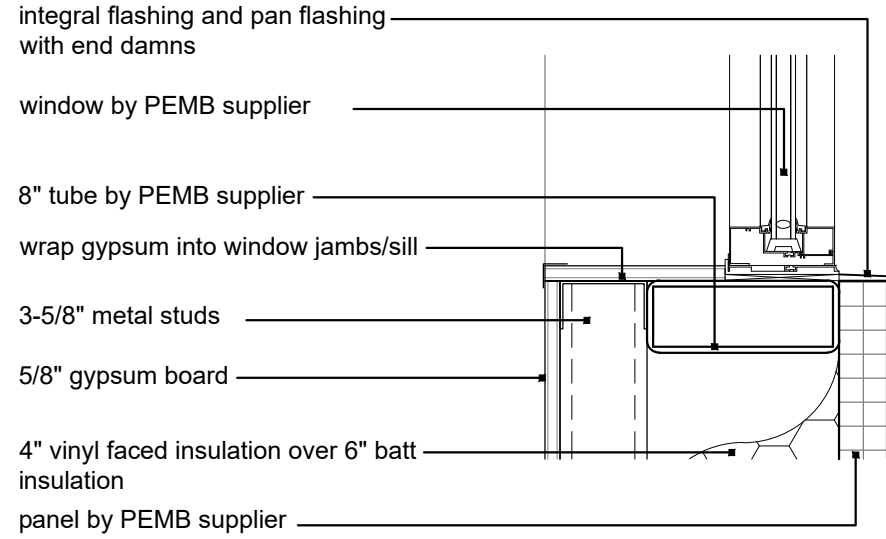
3 Wall Section
scale: 1/2" = 1'-0"



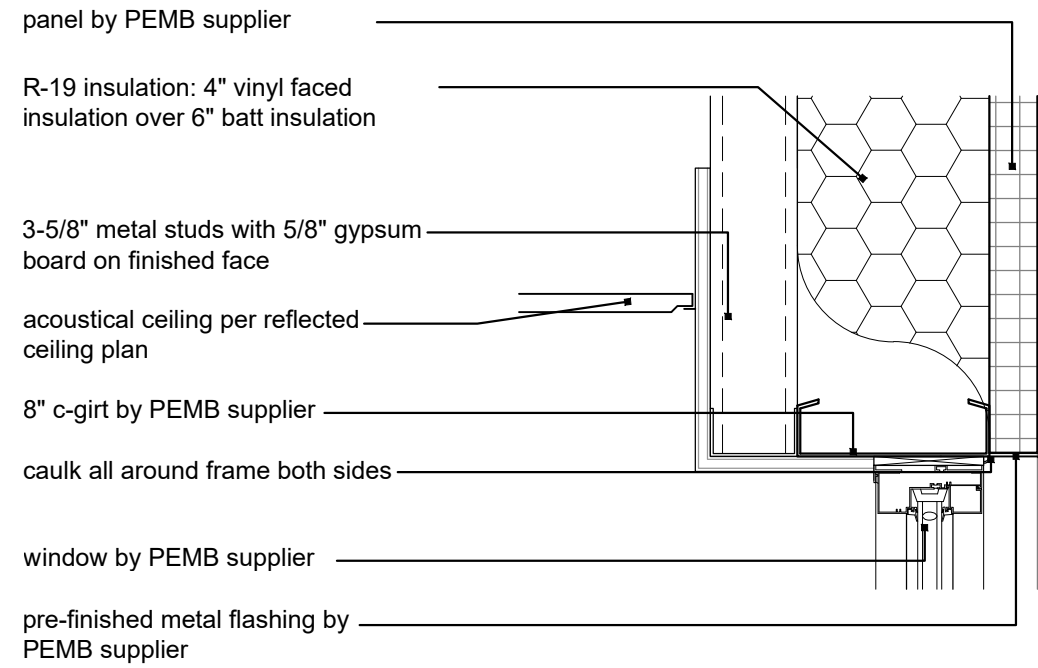
4 Wall Section
scale: 1/2" = 1'-0"



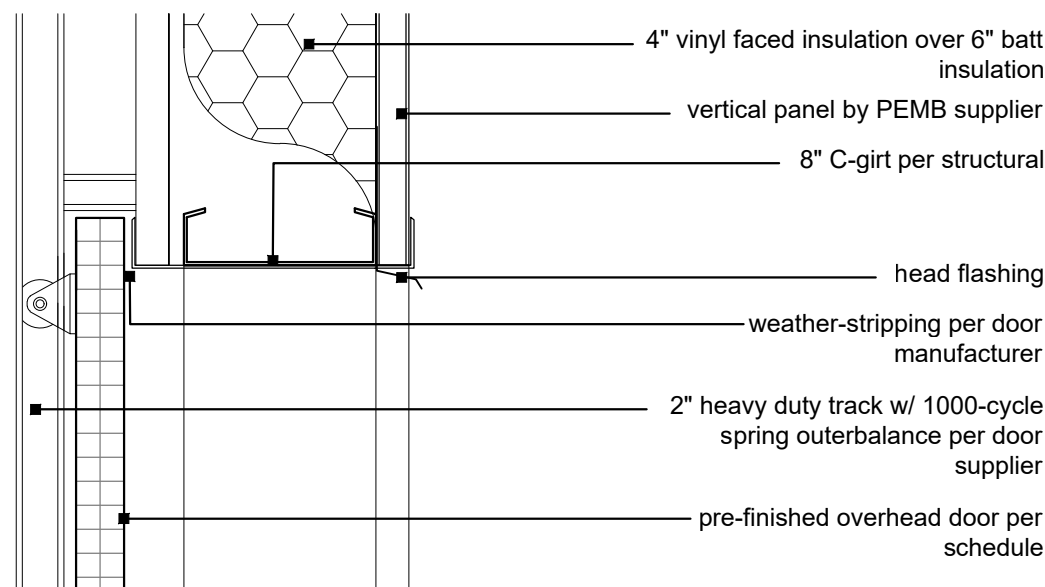
5 | Clerestory Sill
scale: 1-1/2" = 1'-0"



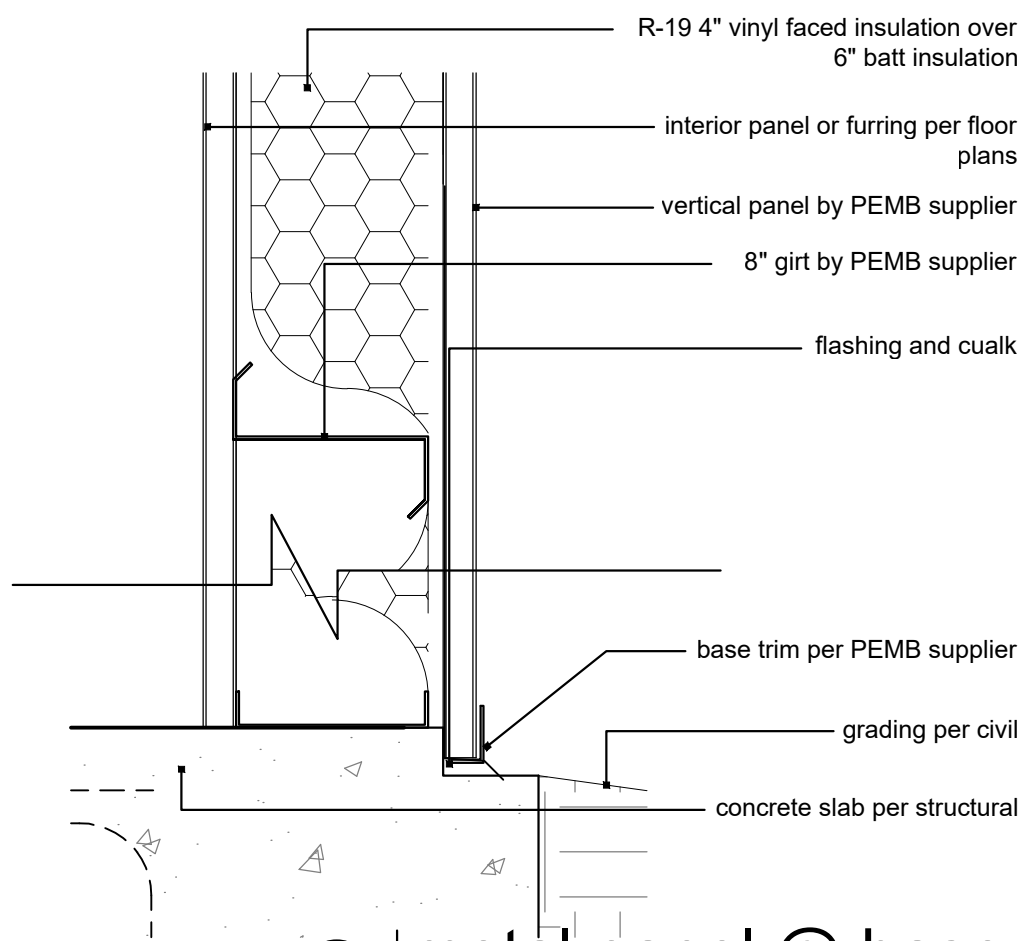
4 | Window Sill @ Shop
scale: 1-1/2" = 1'-0"



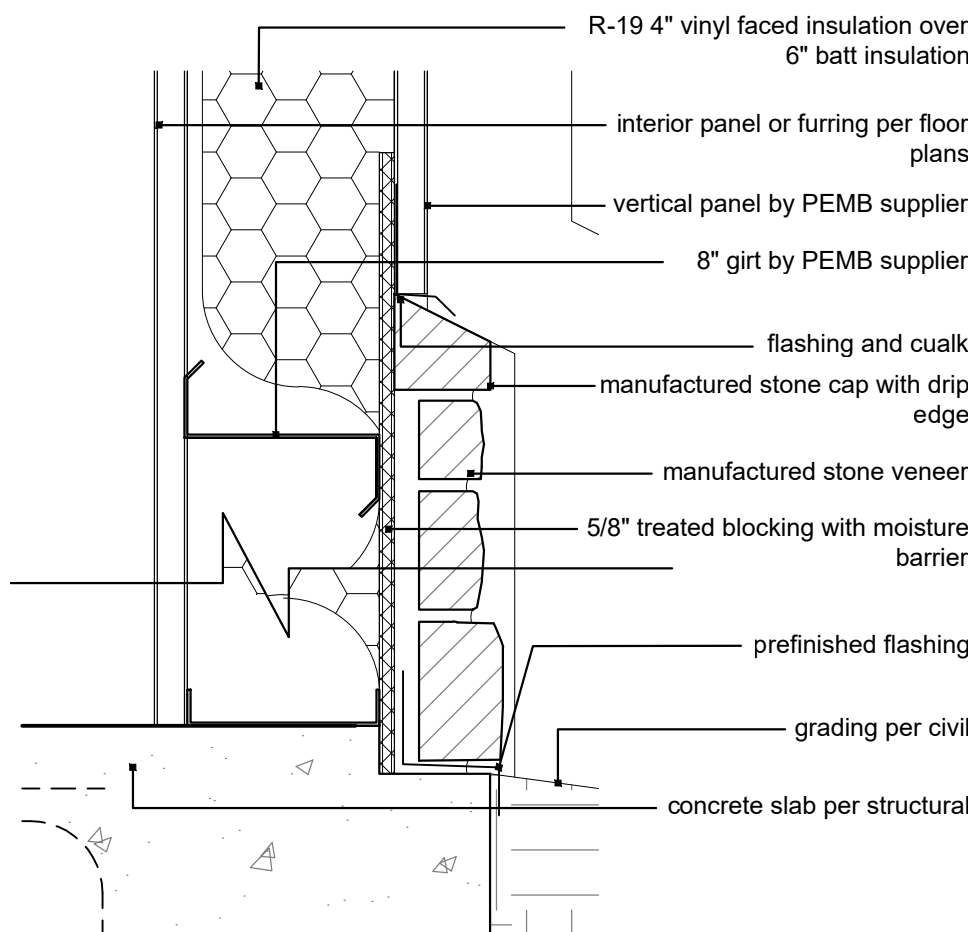
2 | Window Head @ metal panel
scale: 1-1/2" = 1'-0"



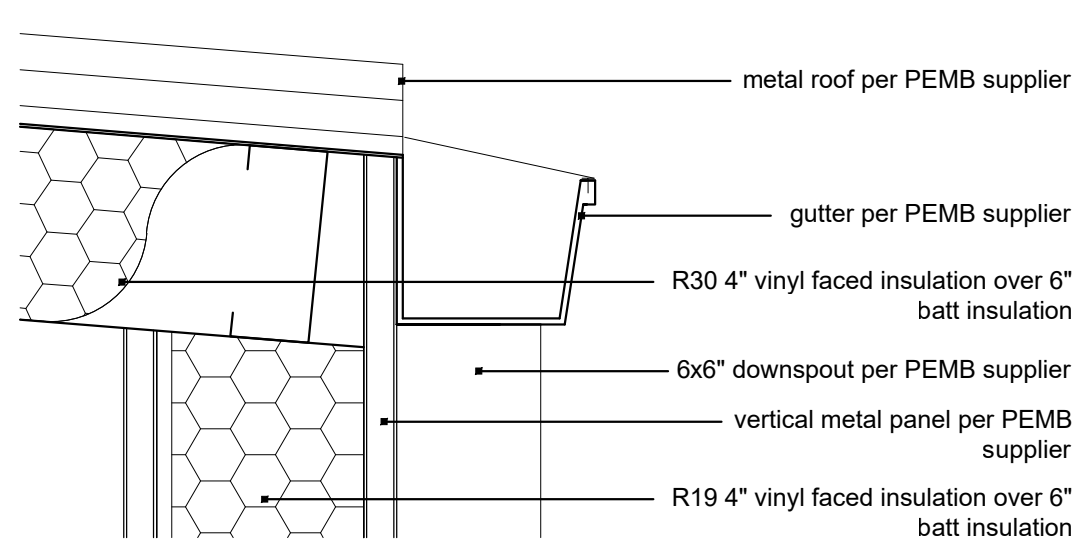
9 | Ovhd Door
scale: 1-1/2" = 1'-0"



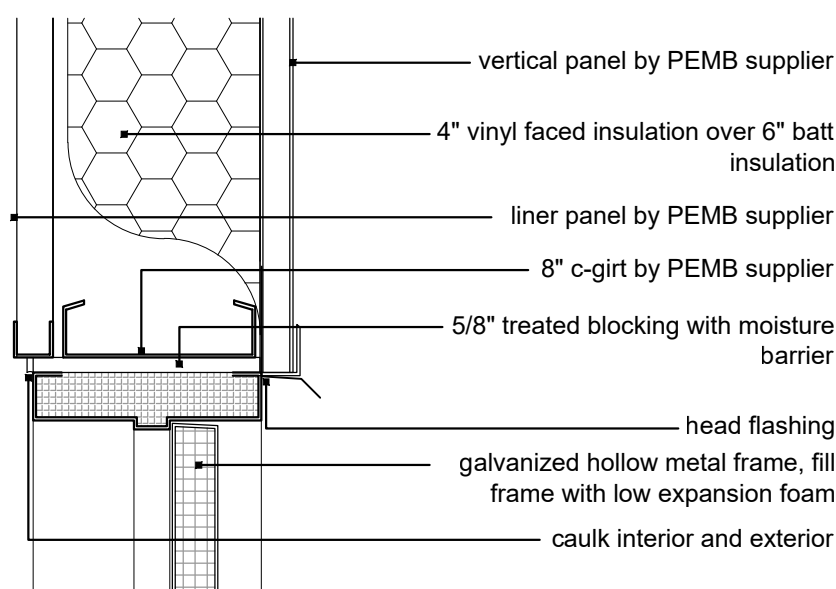
8 | metal panel @ base
scale: 1-1/2" = 1'-0"



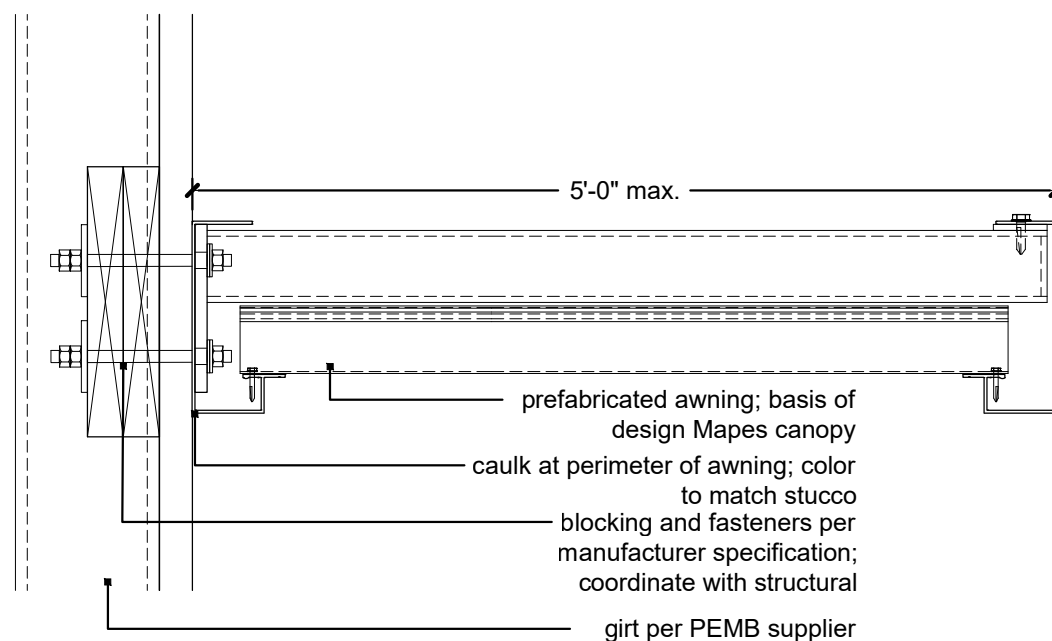
7 | Stone Cap
scale: 1-1/2" = 1'-0"



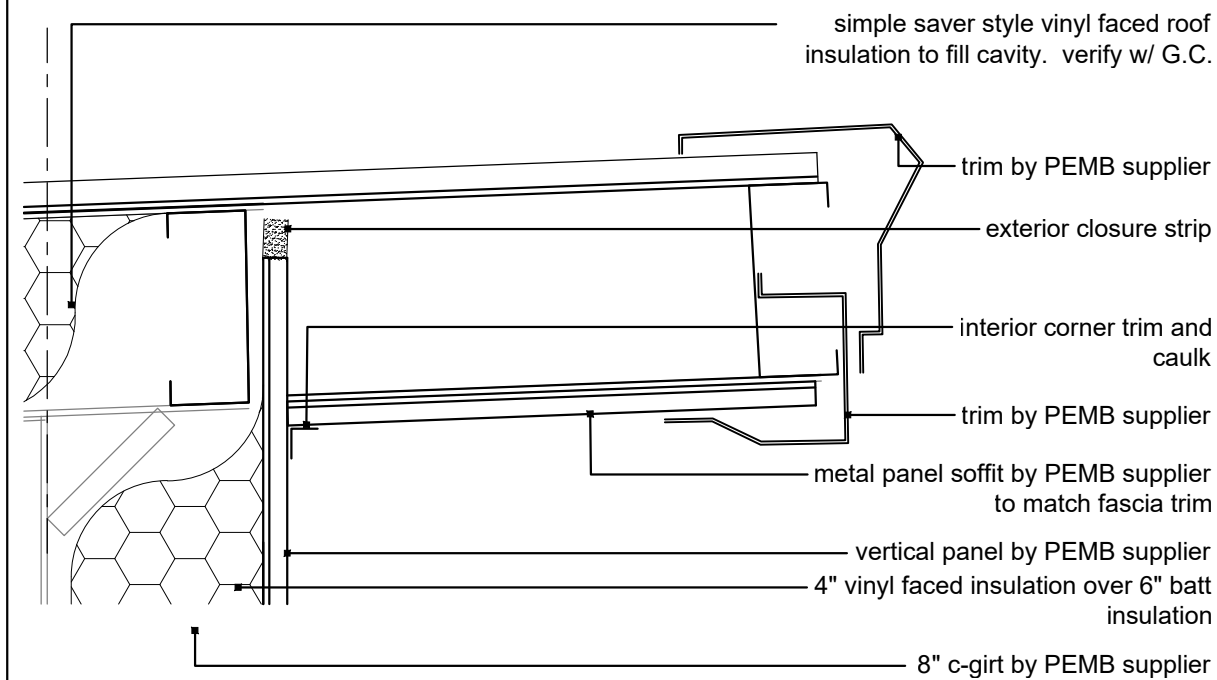
6 | Gutter
scale: 1-1/2" = 1'-0"



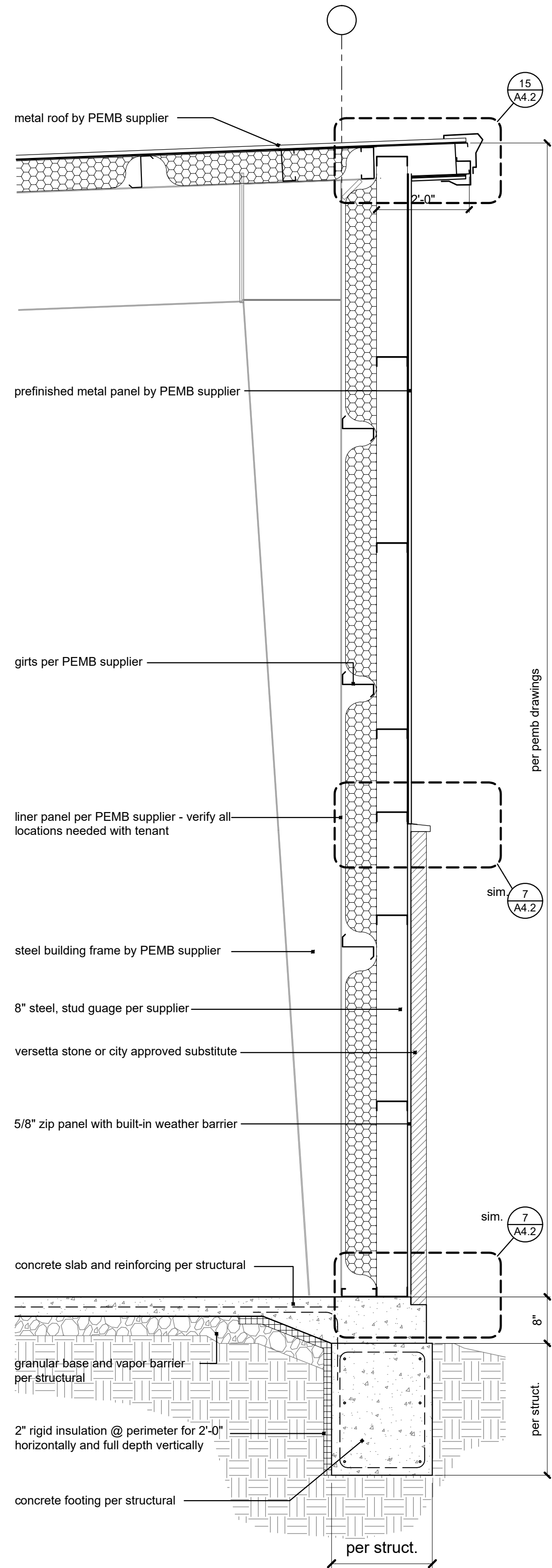
12 | Door @ Liner Panel
scale: 1-1/2" = 1'-0"



11 | Awning
scale: 1-1/2" = 1'-0"



15 | Wall Section
scale: 1/2" = 1'-0"



14 | Wall Section
scale: 1/2" = 1'-0"

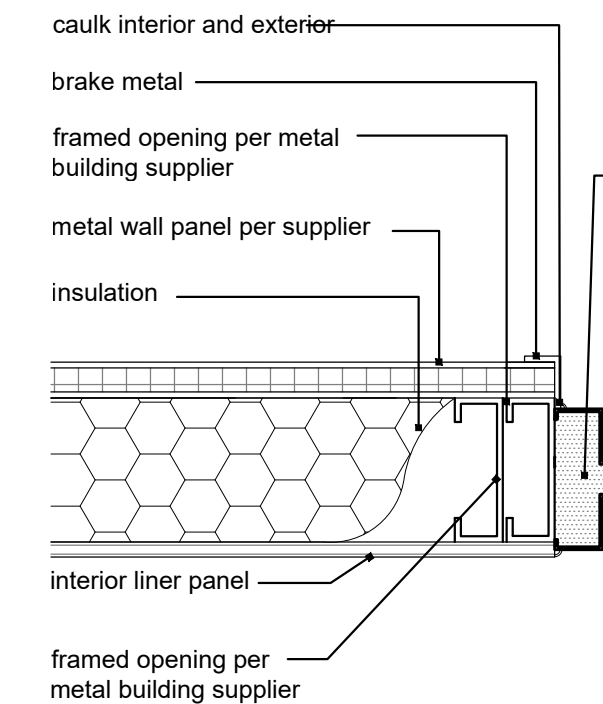
door schedule													
door #	doors						frames				fire rating	remarks	
	type	mat.	finish	size			type	material	finish	details			
				width	height	thick				jamb			sill
01	E	alum.	black	3'-0" pr.	7'-0"	1 3/4"	F4	alum.	black	J-2	t-1	-	verify color matches window frames
02	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
03	B	wd.	paint	3'-0" pr	7'-0"	1 3/4"	F2	h.m.	paint	J-4	-	-	
04	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
05	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
06	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
07	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
08	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
09	C	galv. h.m.	paint	3'-0"	7'-0"	1 3/4"	F1	galv. h.m.	paint	J-3	t-2	-	
10a	C	galv. h.m.	paint	3'-0"	7'-0"	1 3/4"	F1	galv. h.m.	paint	J-1	t-2	-	
10b	C	galv. h.m.	paint	3'-0"	7'-0"	1 3/4"	F1	galv. h.m.	paint	J-1	t-2	-	
11a	D	ovhd	prefin.	3'-0"	7'-0"	1 3/4"	-	-	-	-	t-3	-	paint door to match blue siding, verify size with PEMB dwgs
11b	D	ovhd	prefin.	3'-0"	7'-0"	1 3/4"	-	-	-	-	t-3	-	paint door to match blue siding, verify size with PEMB dwgs
12	C	galv. h.m.	paint	3'-0"	7'-0"	1 3/4"	F1	galv. h.m.	paint	J-1	t-2	-	
20	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
21a	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
21b	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
22	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
23	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	
24	A	wd.	paint	3'-0"	7'-0"	1 3/4"	F3	h.m.	paint	J-4	-	-	

door and hardware notes

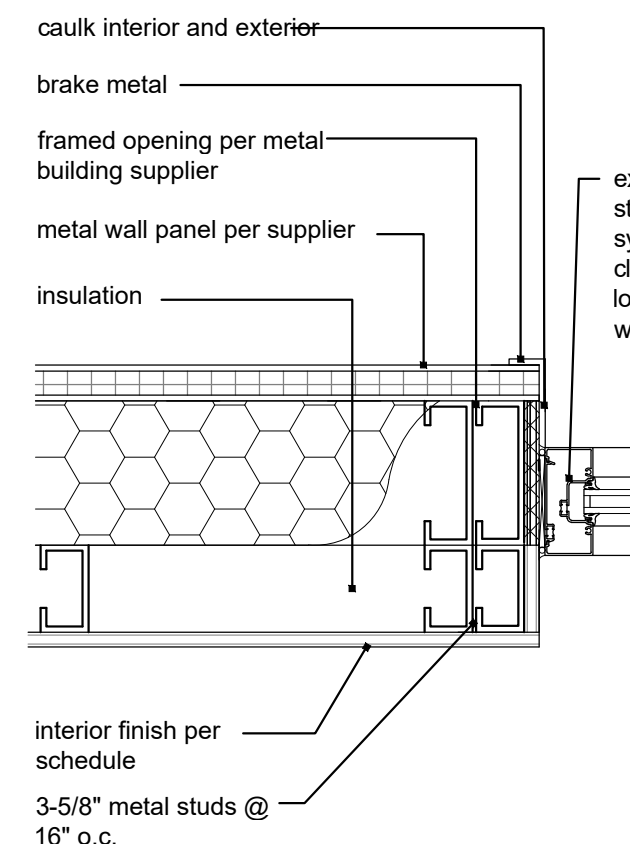
- All hardware shall be clear anodized aluminum or close match with the exception of the exterior entry storefront door, which should match the window frames.
- Coordinate security hardware and electrical that may be required with tenant.
- All hinges at exterior doors shall have non-removable pins.
- Doors with closers shall have ball bearing hinges
- Threshold shall coordinate with adjacent floor finish at either site
- Hardware shall be heavy-duty, commercial grade, level 1 with lever handle
- Finish hardware shall meet article III of ADA
- Keying shall be coordinated with owner prior to order of hardware
- All storefronts shall be caulked around entire perimeter and at the inside corners
- All exterior doors shall include a rain guard
- All glazing shall comply with section 2406 of the 2018 IBC
- All glazing interior or exterior per Section 2406 of the 2018 IBC, including glass mirrors shall be constructed with safety glazing
- Category II glazing is required in storefront doors per section 2406 of the 2018 IBC
- Category A glazing shall be utilized in glazed panels greater than 9 sq. ft. per section 2406 of the 2018 IBC.
- Each pane of safety glazing installed in hazardous locations shall be identified by a manufacturer's designation specifying who applied the designation, the manufacturer or installer and the safety glazing standard with which is complies, as well as the information specified in '2403.1' Section 2403.1. The designation shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or aof a type that once applied, cannot be removed without being destroyed. Tempered spandrel glass is permitted to be identified by the manufacturer with a removable paper designation.
- Panic hardware shall be provided per section 1008.1.10 of the 2018 IBC.

hardware list

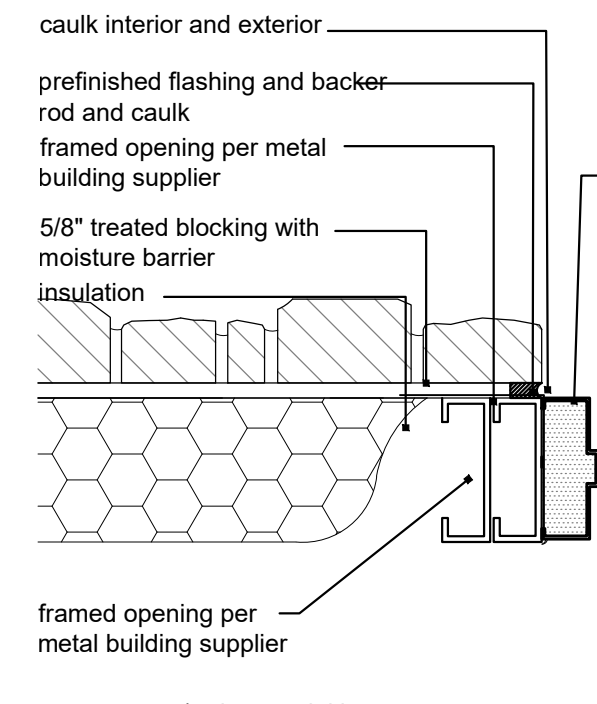
- exterior storefront door: 01 *match hardware color to door color)
 - rain drip
 - ADA offset door pull
 - panic hardware with closer (compatible with storefront)
 - entry door lockset
 - none removeable hinges
 - door sweep
 - weather gasketing
 - wall stop
- exterior hollow metal door: 10a, 10b, 12
 - rain drip
 - ADA exterior lever handle
 - panic hardware with closer
 - lockset
 - non removeable hinges
 - door sweep
 - weather gasketing
 - floor stop (locate away from floor traffic to avoid tripping hazard)
- interior double door: 03
 - push bar with closer
 - ADA door pulls
 - vertical
 - silencers
 - non removable hinges
 - wall stop
- sprinkler room: 09
 - rain drip
 - ADA exterior lever handle
 - closer
 - nonremovable hinges
 - door sweep
 - weather gasketing
- office door: 04
 - door stop
 - ADA lever handles with privacy lockset
 - hinges
 - silencers
 - wall stop
- party room/lounge: 06, 21
 - closer
 - ADA lever handles with storeroom lockset
 - hinges
 - silencers
 - wall stop
- multi-stall bathroom: 05, 08
 - closer
 - ADA door pull
 - no-hands door pull
 - push plate
 - kick plate
 - hinges
 - silencers
 - wall stop
- single user bathroom: 22, 23
 - closer
 - ADA lever handles with privacy lockset
 - hinges
 - silencers
 - wall stop
- storage/closet: 02, 07, 21a, 24
 - ADA lever handles with storeroom lockset
 - hinges
 - silencers
 - wall stop
- stair: 20
 - panic hardware with closer
 - ADA door pull
 - silencers
 - kick plates
 - hinges
 - wall stop



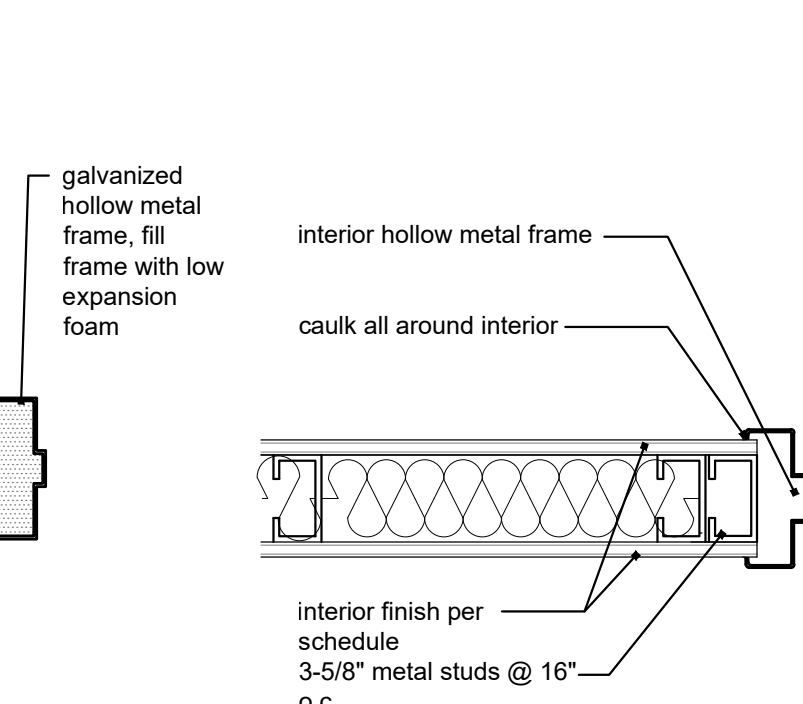
j-1



j-2



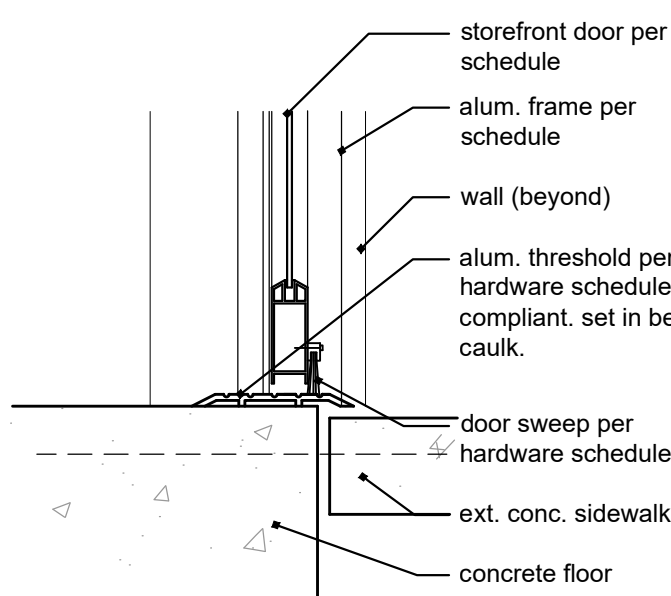
j-3



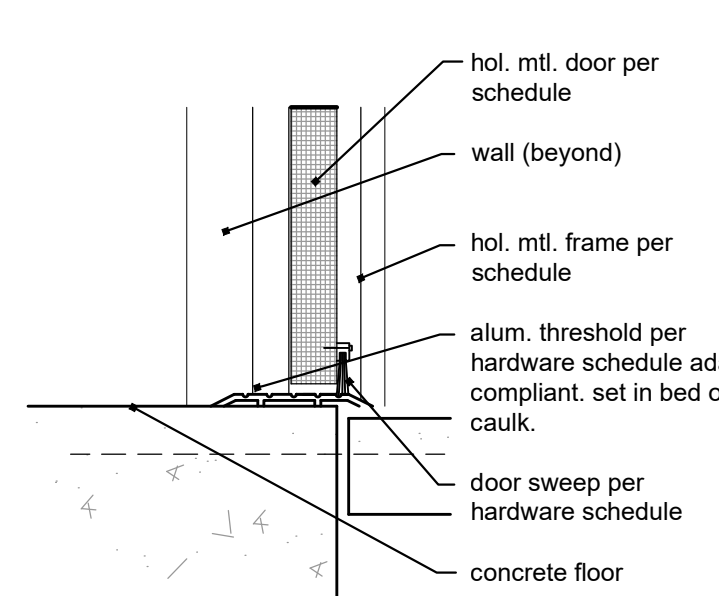
j-4

4 Jamb Types

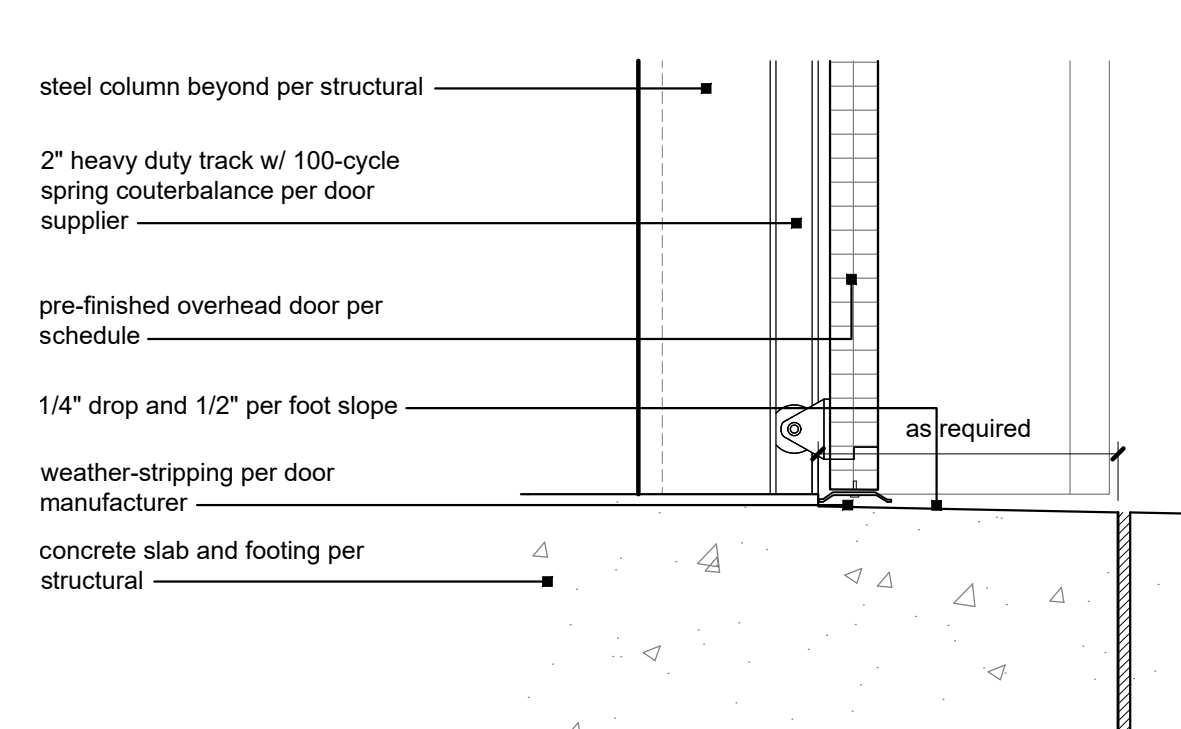
scale: 1'-1/2" = 1'-0"



t-1



t-2



t-3

5 Threshold Types

scale: 1'-1/2" = 1'-0"

a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive

Lee's Summit, Missouri

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05.19.2022
drawn by
DAE
checked by
DAE
revisions

sheet number

A5.1

drawing type
FDP & Permit

project number
20231

a new development for
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Lee's Summit, Missouri

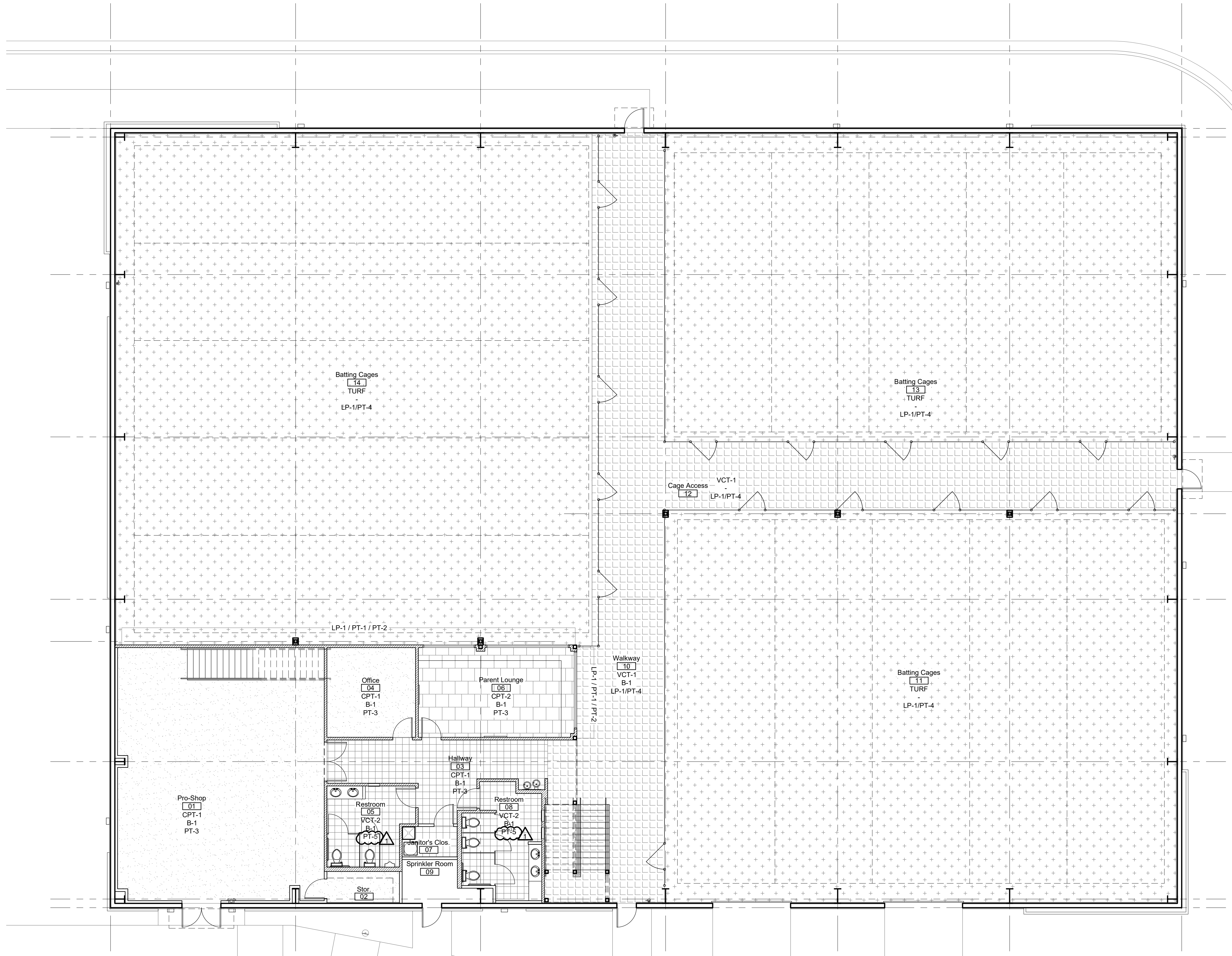
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drawn by DAE
checked by DAE
revisions
06.20.2022 1

sheet number

A5.2

drawing type
FDP & Permit

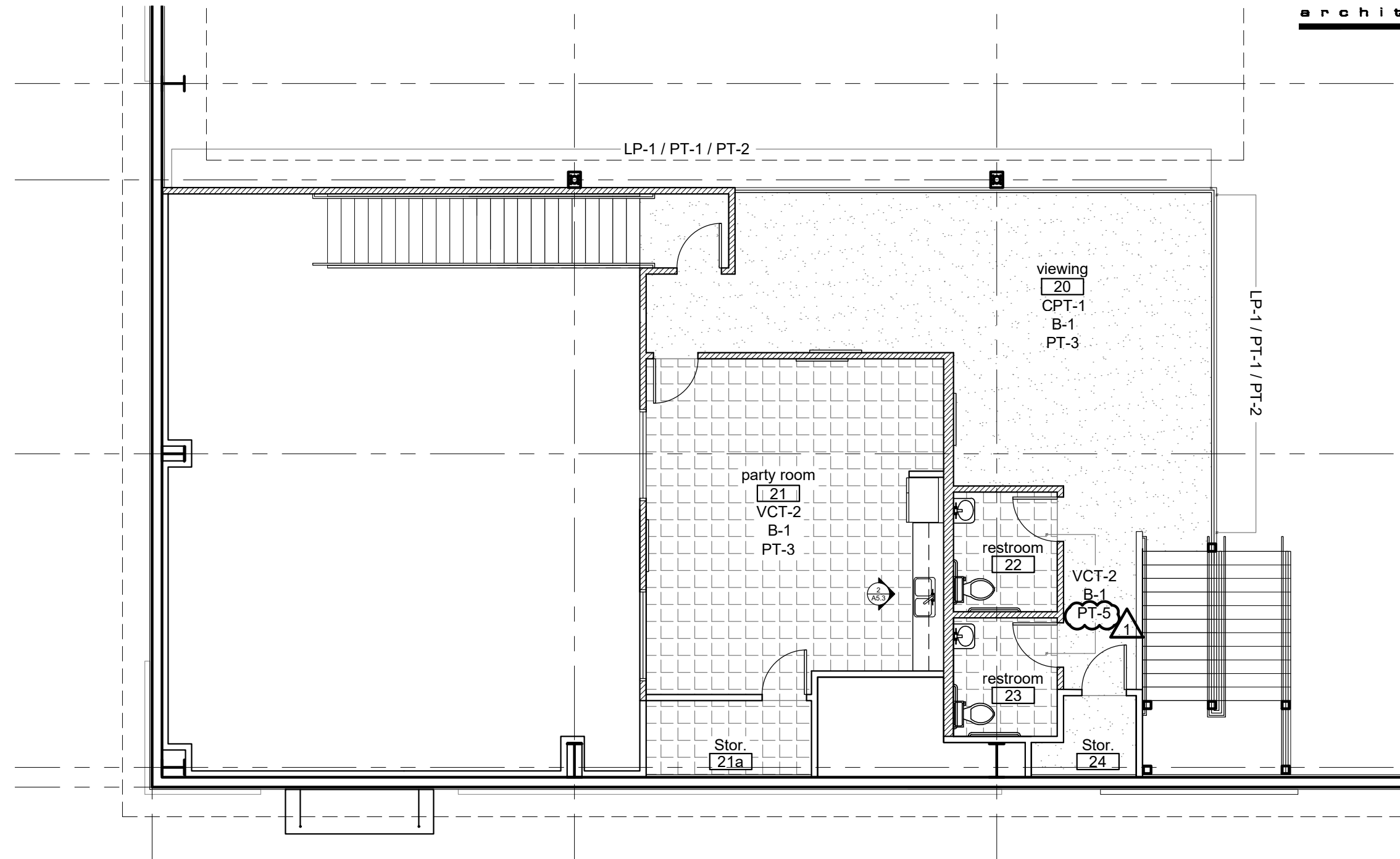
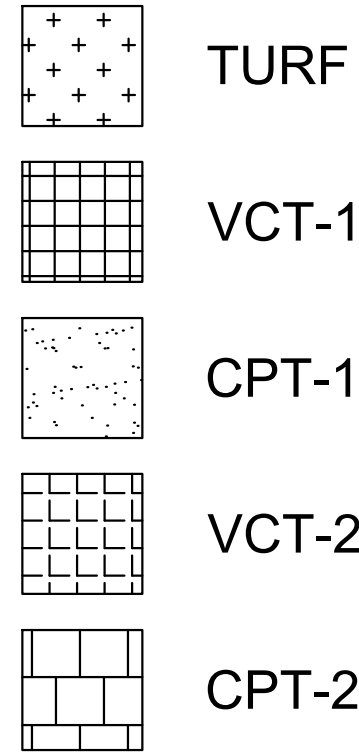
project number
20231



1 Finish Floor Plan
scale: 1/8" = 1'-0" north

room finish schedule																
room no.	room name	floor					base		wall				ceiling		remarks	
		CPT-1	CPT-2	VCT-1	VCT-2	TURF	sc	b1	none	nw	sw	ne	se	act 1 open	clg. ht.	
01	Pro-Shop	●						●		wall finishes per plan 1/A5.2				●	open	-
02	Storage	●						●		wall finishes per plan 1/A5.2				●	open	-
03	Hallway			●				●		wall finishes per plan 1/A5.2				●	9'-0"	-
04	Office	●						●		wall finishes per plan 1/A5.2				●	8'-0"	-
05	Restroom			●				●		wall finishes per plan 1/A5.2				●	8'-0"	-
06	Parent Lounge		●					●		wall finishes per plan 1/A5.2				●	9'-0"	-
07	Janitor's Closet			●				●		wall finishes per plan 1/A5.2				●	8'-0"	-
08	Restroom			●				●		wall finishes per plan 1/A5.2				●	8'-0"	-
09	Sprinkler Room						●	●		wall finishes per plan 1/A5.2				●	open	-
10	Walkway			●				●		wall finishes per plan 1/A5.2				●	open	-
11	Batting Cages				●			●		wall finishes per plan 1/A5.2				●	open	-
12	Cage Access				●			●		wall finishes per plan 1/A5.2				●	open	-
13	Batting Cages				●			●		wall finishes per plan 1/A5.2				●	open	-
14	Batting Cages				●			●		wall finishes per plan 1/A5.2				●	open	-
20	Viewing	●						●		wall finishes per plan 1/A5.3				●	open	-
21	Party Room		●					●		wall finishes per plan 1/A5.3				●	9'-0"	-
21a	Storage		●					●		wall finishes per plan 1/A5.3				●	open	-
22	Restroom			●				●		wall finishes per plan 1/A5.3				●	8'-0"	-
23	Restroom			●				●		wall finishes per plan 1/A5.3				●	8'-0"	-
24	Storage	●						●		wall finishes per plan 1/A5.3				●	open	-

finish legend	
CPT-1	carpet tile, Philadelphia Commercial, style: Counterpart (54816), size: 24" x 24", color: Copilot (16400)
CPT-2	carpet tile, Philadelphia Commercial, style: Counterpart (54816), size: 24" x 24", color: Correlate (16505)
VCT-1	vinyl composite tile, Armstrong Flooring, style: Standard Excelon Imperial Texture VCT, size: 12" x 12", color: Gentian Blue (51946)
VCT-2	vinyl composite tile, Armstrong Flooring, style: Standard Excelon Imperial Texture VCT, size: 12" x 12", color: Pomegranate Red (51814) pricing alternate: basis of design Restek epoxy floor, colored flakes with red as primary color - submit sample for tenant approval
TURF	D-BAT Turf
SC	sealed concrete - ashford sealer
B-1	vinyl base, manufacturer: TBD, standard cove, size: 4", color: gray
PT-1	wall paint, manufacturer: TBD, finish: eggshell, color: D-Bat Gold (1 coat primer, 2 coats paint - to cover)
PT-2	wall paint, manufacturer: TBD, finish: eggshell, color: D-Bat Red (1 coat primer, 2 coats paint - to cover)
PT-3	wall paint, manufacturer: TBD, finish: eggshell, color: D-Bat White (1 coat primer, 2 coats paint - to cover)
PT-4	wall paint, manufacturer: TBD, finish: eggshell, color: D-Bat Green (1 coat primer, 2 coats paint - to cover) - from base to 12'-0" a.f.f.
PT-5	epoxy paint, manufacturer: TBD, color: D-Bat White (1 coat primer, 2 coats paint - to cover)
primer	primer, sherwin williams, PrepRite High Build latex primer/surfacer, B28V601
PL-1	plastic laminate, wilsonart, color: indigo (D379)
PL-2	plastic laminate, wilsonart, color: dove grey (D92)
ACT-1	acoustical ceiling tile, armstrong, 2x2, prelude xl 110" exposed tee grid, dune #1774, angled tegular (revealed), fine texture, white
LP-1	liner panel, Chief Buildings, steel liner panel, color: Emerald Green (EG)
door	door finish, manufacturer: TBD, color: manufacturer's standard white

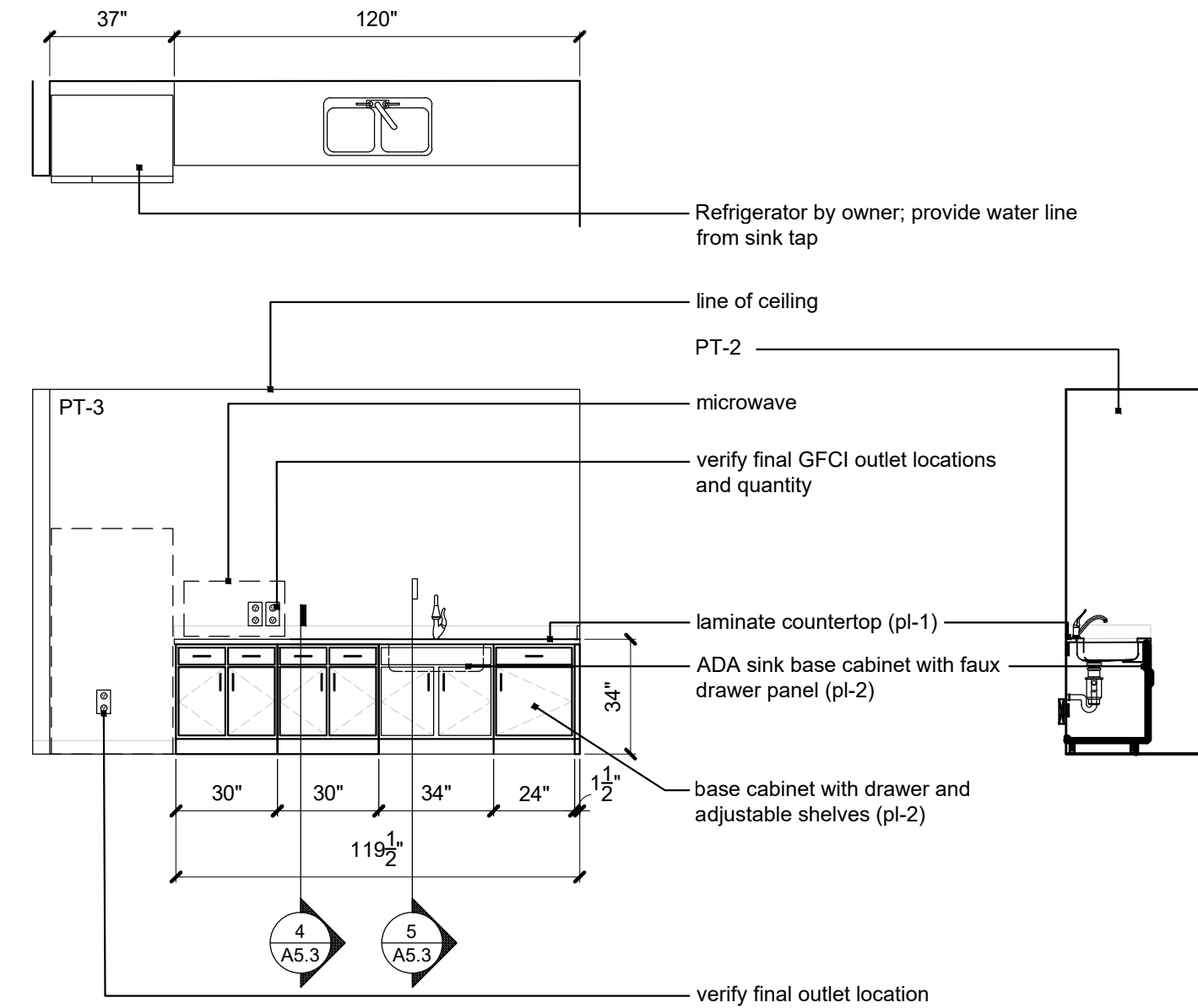


1 Mezzanine Finish Plan
scale: 1/8" = 1'-0"

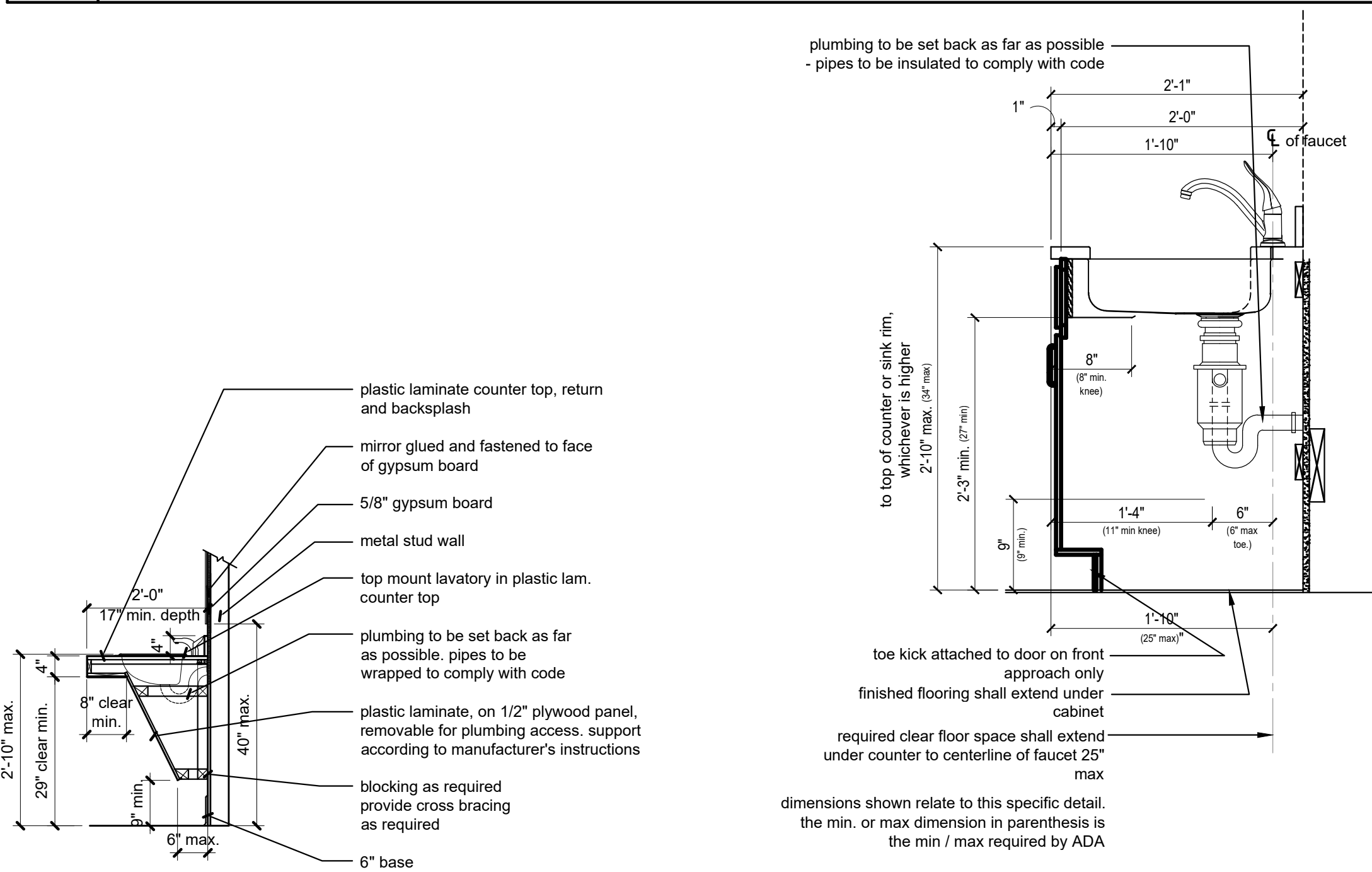


finish notes:

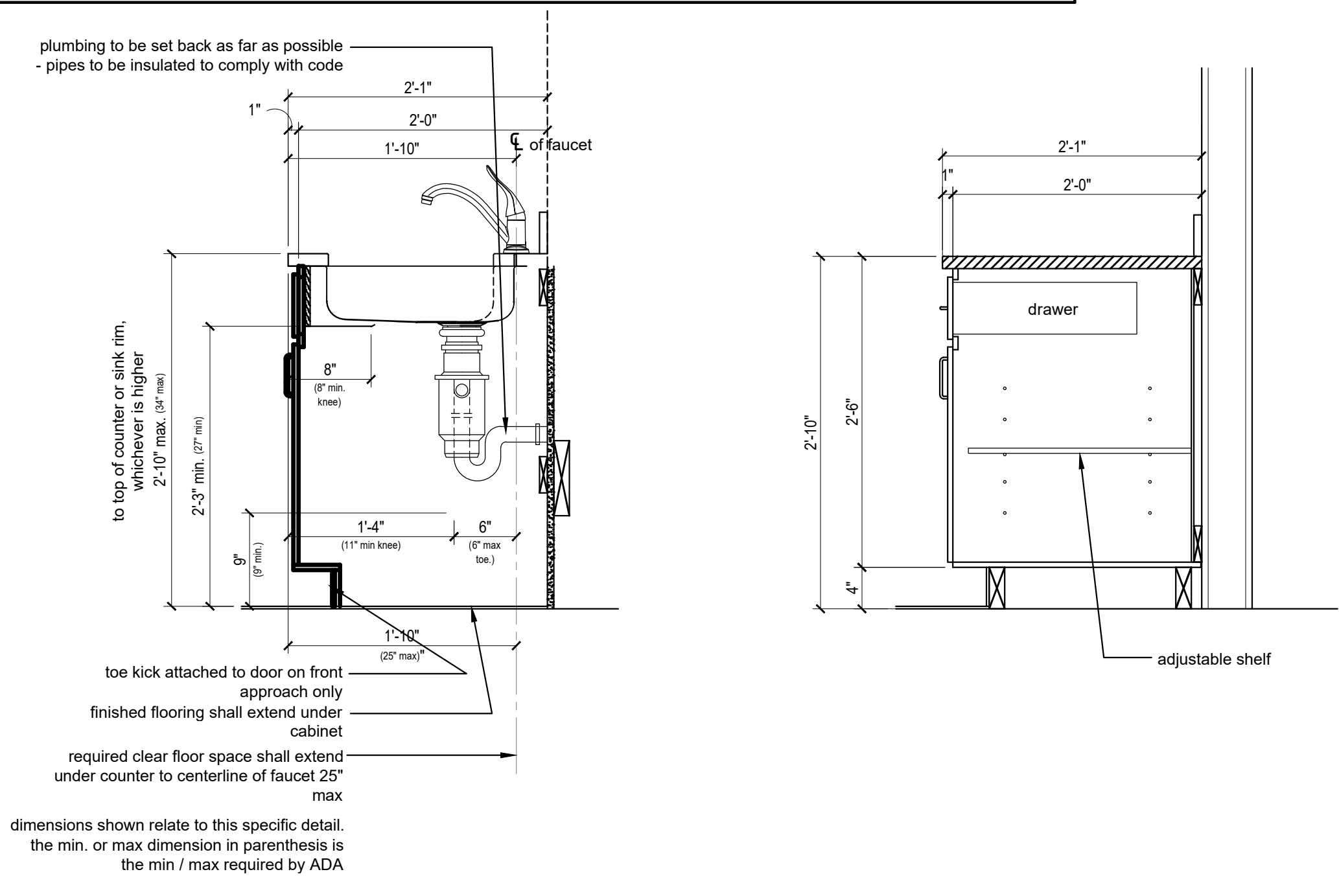
- All interior glazing to be clear. Temper all interior glass.
- Interior aluminum storefront shall have clear anodized aluminum finish
- Each material specified for application on the entire project shall be from the same dye lot.
- All surfaces shall be cleaned and conditioned to receive new finish as required by finish product manufacturer. Surfaces shall be smooth, free from depressions, protrusions, pits, slumps, streaks, flashing, and variation in texture. Installer/subcontractor shall notify general contractor prior to installation if conditions are not satisfactory.
- All wall mounted mechanical slots or grilles to be painted to match the wall on which they occur. Do not paint prefinished wall mullion end caps.
- Contractor shall be responsible for leveling of floor slabs to receive specified finishes.
- All patterned flooring to be centered in both directions and generated from center of room outward toward partitions, unless otherwise noted.
- All floor finish changes to occur under centerline of door in closed position.
- Combustible interior finish products shall be provided per the requirement of the international building code section 803.4.
- Carpet seams shall occur at junctions of partitions, thresholds or change of direction in corridors. No strip patch allowed smaller than 4'-0".
- Finishes shall be bid as specified or as approved equal only.
- Utilize dens-armour plus in all plumbing wet walls, walls anticipated to be in contact with moisture, or walls receiving ceramic tile.
- All interior ceramic corners & tops shall receive schluter trim.
- Refer to finish legend for level of gypsum board finish as defined by the gypsum association.
- LVT to sealed concrete shall occur with rubber transition to match base color.



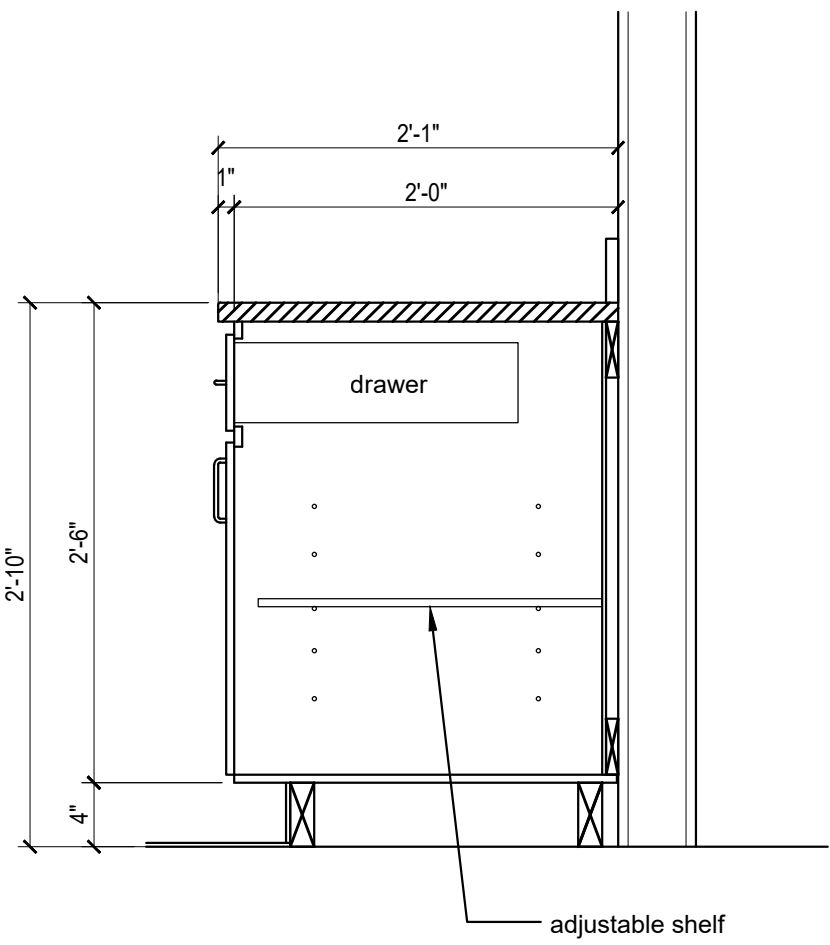
2 Party Room Elevation
scale: 1/4" = 1'-0"



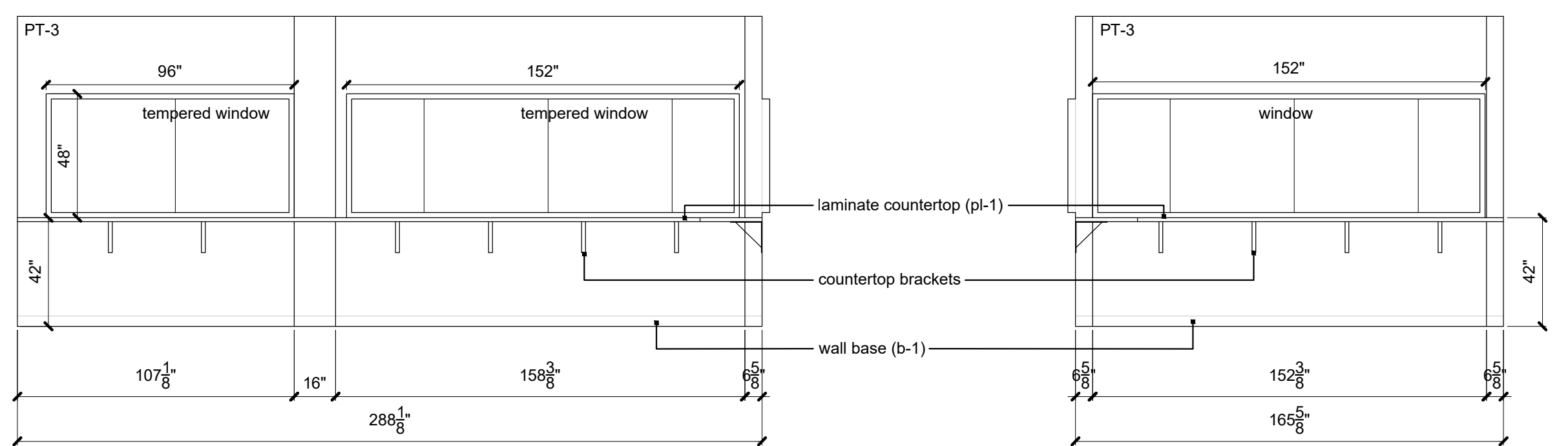
6 ADA sink
scale: 1/2" = 1'-0"



5 Sink Base Cabinet
scale: 1" = 1'-0"



4 Base Cabinet
scale: 1" = 1'-0"



3 Parents' Lounge Elevation
scale: 1/4" = 1'-0"

a new development for

D-BAT - Town Centre Lot 1

540 NE Town Centre Drive
Lee's Summit, Missouri

date 05.19.2022
drawn by DAE
checked by DAE
revisions
06.20.2022 1

sheet number

A5.3

drawing type FDP & Permit

project number 20231

NOTES - FOUNDATION

1. CONTRACTOR SHALL BE FULLY FAMILIAR WITH IBC CHAPTER 18 FOR USE OF PRESUMPTIVE LOAD-BEARING CAPACITY.
2. CONTRACTOR SHALL USE IBC SPECIFICATIONS AND DETAILS FOR PLACEMENT OF PERIMETER DRAINS, UNDER-SLAB DRAINS, AND ANY OTHER SOILS RELATED ITEMS.
3. ALL FOUNDATIONS TO BEAR ON ORIGINAL, UNDISTURBED SOIL. REMOVE ANY MUD, ORGANIC SILT, ORGANIC CLAYS, PEAT OR UNPREPARED FILL PRIOR TO PLACING FOUNDATIONS.
4. ALL FOOTING EXCAVATIONS TO BE APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
5. ALL EXTERIOR AND PERIMETER FOOTINGS SHALL EXTEND BELOW FROST DEPTH, REFERENCE DESIGN INFORMATION FOR FROST DEPTH.

NOTES - CONCRETE

1. ALL CONCRETE CONSTRUCTION TO CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", THE GOVERNING EDITION OF THE ACI 318, AND ACI "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" ACI 301, UNLESS NOTED OTHERWISE.
2. WATER REDUCING ADD MIXTURES ARE ALLOWED IN CONCRETE MIX DESIGNS.
3. SYNTHETIC MICRO-FIBERS ARE NOT ALLOWED UNLESS SPECIFICALLY NOTED IN THESE DRAWINGS.
4. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT THE EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.
5. REFERENCE ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIP SLOTS, REGLETS, MASONRY, ANCHORS, BRICK LEDGE ELEVATIONS AND FOR MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
6. REFERENCE ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES, WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
7. REFERENCE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DRAINS, SLEEVES, OUTLET BOXES, CONDUIT, ANCHORS, ETC.
8. CONTACT APEX ENGINEERS, INC. IF HOUSE KEEPING PADS OR INERTIA BASES ARE REQUIRED BEYOND WHAT IS SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS.
9. ALL REINFORCING STEEL TO BE DETAILED IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
10. REINFORCING SHALL BE CONTINUOUS WHEREVER POSSIBLE. SPLICES AND LAPS TO CONFORM TO ACI 318. REFER TO CONCRETE REBAR SCHEDULE.
11. DOWELS IN FOOTING, WALLS, AND DRILLED PIERS MUST BE IN POSITION BEFORE PLACING CONCRETE WHENEVER POSSIBLE.
12. REFERENCE TYPICAL FOUNDATION DETAILS FOR INFORMATION ON REINFORCING REQUIREMENTS AT WALL AND SLAB OPENINGS.
13. REFERENCE TYPICAL FOUNDATION DETAILS FOR INFORMATION ON REINFORCING REQUIREMENTS AT CORNER AND TEE INTERSECTIONS.
14. PROVIDE VERTICAL CONTROL JOINTS ON ALL POURED CONCRETE WALLS AND BASEMENT WALLS, EXCEPT FOUNDATION STEM WALLS LOCATED IN THE GROUND. SPACE JOINTS AT 3 x WALL HEIGHT FOR WALLS LESS THAN 10'-0" AND WALL HEIGHT FOR TALLER WALLS. PROVIDE ADDITIONAL JOINT WITHIN 10'-0" OF CORNERS.
15. OPENINGS IN SLAB OF 1'-4" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.

NOTES - STEEL

1. ALL STRUCTURAL STEEL TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE GOVERNING EDITION OF THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
2. BOLTED CONNECTIONS: ALL BOLTED CONNECTIONS SHALL BE SNUG-TIGHT IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM F3125 GRADE A325 OR A490 BOLTS" PUBLISHED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.
3. WELDED CONNECTIONS: ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING SOCIETY CODE" (AWS D1.1) PUBLISHED BY THE AMERICAN WELDING SOCIETY. ELECTRODES FOR WELDING SHALL COMPLY WITH THE REQUIREMENTS OF TABLE 3.1 OF (AWS D1.1). ALL WELDING TO BE DONE BY QUALIFIED WELDERS CONFORMING TO THE AMERICAN WELDING SOCIETY STANDARDS.
4. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT THE WRITTEN APPROVAL OF APEX ENGINEERS, INC.
5. CHANGES IN SIZE OR POSITION OF THE STRUCTURAL ELEMENTS, AND HOLES, SLOTS, CUTS, ETC. THROUGH ANY MEMBER, ARE NOT PERMITTED UNLESS THEY ARE DETAILED ON THE APPROVED SHOP DRAWINGS.
6. NO FINAL BOLTING OR WELDING SHALL BE MADE UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
7. FABRICATE ALL BEAMS WITH THE MILL CAMBER UP UNO.
8. ALL VISIBLE WELDED CONNECTIONS ON ARCHITECTURAL ELEMENTS TO BE GROUND SMOOTH. DO NOT REDUCE THROAT SIZE OF WELD.
9. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PERFORMANCE OF ALL CONNECTIONS NOT FULLY DESIGNED OR DETAILED IN THE CONTRACT DOCUMENTS. FABRICATOR TO PROVIDE ENGINEERED STAMPED SHOP DRAWINGS AND CALCULATIONS FOR ALL CONNECTIONS THAT DO NOT COMPLY WITH AISC STEEL CONSTRUCTION MANUAL CHAPTER 10 SIMPLE SHEAR CONNECTIONS.
10. STEEL MEMBERS ON THE EXTERIOR OF THE BUILDING OR EXPOSED TO SOIL MUST BE, AT A MINIMUM, PROPERLY PRIMED WITH RUST INHIBITING PRIMER AND PAINTED. STEEL MEMBERS COMPLETELY ENCLOSED IN BUILDING ENVELOPE DO NOT REQUIRE PRIMER OR PAINT. UNO. REFER TO ARCHITECTURAL DOCUMENTS FOR ADDITIONAL REQUIREMENTS OF EXPOSED STEEL.

NOTES - GENERAL

1. THESE DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
2. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
3. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
5. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
6. UNLESS OTHERWISE NOTED, FIREPROOFING METHODS AND MATERIALS FOR STRUCTURAL MEMBERS ARE NOT SHOWN ON STRUCTURAL DRAWINGS. REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FIRE RATING REQUIREMENTS, FIRE PROOFING METHODS AND MATERIALS.
7. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS SHOWN ON PLANS. THE CONTRACTOR SHALL INFORM THE ARCHITECT/ENGINEER OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY FOR SUCH DEVIATION BY THE ARCHITECT/ENGINEER'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, ETC.. UNLESS HE HAS SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE ARCHITECT/ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
9. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS, BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. PLANS AND/OR SPECIFICATIONS WILL BE CORRECTED, OR WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT/ENGINEER BEFORE THE AFFECTED WORK PROCEEDS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING, FABRICATION AND INSTALLATION. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS IN THE FIELD NECESSARY TO VERIFY OR SUPPLEMENT DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS AND HE SHALL VERIFY THAT ALL DIMENSIONS SHOWN ON THE SHOP DRAWINGS ARE COORDINATED WITH THE DIMENSIONS AND REQUIREMENTS OF THE CONTRACT DRAWINGS. REVIEW OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLETING THE WORK SUCCESSFULLY IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
11. SUBMIT PRINTS OR ELECTRONIC COPIES OF EACH SHOP DRAWINGS. REPRODUCIBLE COPIES OF CONTRACT DOCUMENTS SHALL NOT BE USED AS SHOP DRAWINGS. SHOP DRAWINGS SHALL BE REVIEWED BY CONTRACTOR PRIOR TO SUBMISSION. CONTRACTOR STAMP SHOP DRAWINGS ACCEPTING RESPONSIBILITY FOR COORDINATION OF DIMENSIONS SHOWN IN THE CONTRACT DOCUMENTS, QUANTITIES AND COORDINATION WITH OTHER TRADES. DRAWINGS NOT BEARING CONTRACTOR'S STAMP MAY BE REJECTED AT THE DISCRETION OF THE ARCHITECT OR STRUCTURAL ENGINEER.
12. REVIEW AND RETURN OF SHOP DRAWINGS SHALL BE BASED ON A MINIMUM OF TEN (10) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE FROM RECEIPT OF SUBMISSION TO RETURN TO THE NEXT PARTY FOR THEIR ACTION. SHOP DRAWINGS SHOULD BE SUBMITTED INCREMENTALLY AS APPROPRIATE PACKAGES ARE PREPARED TO EQUALIZE THE WORKLOAD FOR REVIEW OF THE DRAWINGS. SUBMISSION OF A LARGE VOLUME OF SHOP DRAWINGS AT ONE TIME MAY RESULT IN REVIEW TIMES WHICH WILL EXCEED THOSE NOTED ABOVE. DEFINITION OF A "LARGE VOLUME" OF SHOP DRAWINGS IS SUBJECT TO INTERPRETATION.

NOTES - DEFERRED SUBMITTALS

1. THE ARCHITECT OR ENGINEER OF RECORD SHALL LIST THE DEFERRED SUBMITTALS ON THE PLANS FOR REVIEW BY THE BUILDING OFFICIAL.
2. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN THE GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING.
3. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
4. DEFERRED SUBMITTALS ARE DEFINED AS THOSE PORTIONS OF THE DESIGN THAT ARE NOT SUBMITTED AT THE TIME OF THE APPLICATION AND THAT ARE TO BE SUBMITTED TO THE BUILDING OFFICIAL WITHIN A SPECIFIED PERIOD.
5. DEFERRAL OF ANY SUBMITTAL ITEMS SHALL HAVE THE PRIOR APPROVAL OF THE BUILDING OFFICIAL.
6. SUBMITTALS SHALL INCLUDE DETAILED DRAWINGS OF EACH MEMBER AND ITS CONNECTIONS ALONG WITH SUPPORTING CALCULATIONS. PREPARED UNDER THE SUPERVISION, BEARING THE SEAL AND SIGNATURE, OF A LICENSED PROFESSIONAL ENGINEER IN THE PROJECT JURISDICTION.
7. CONTRACTOR SHALL SUBMIT STRUCTURAL DEFERRED SUBMITTAL FOR THE FOLLOWING:
 - STEEL GUARDRAILS AND HANDRAILS
 - STEEL FABRICATED STAIRS AND LADDERS
 - PRE-MANUFACTURED CANOPIES AND AWNINGS

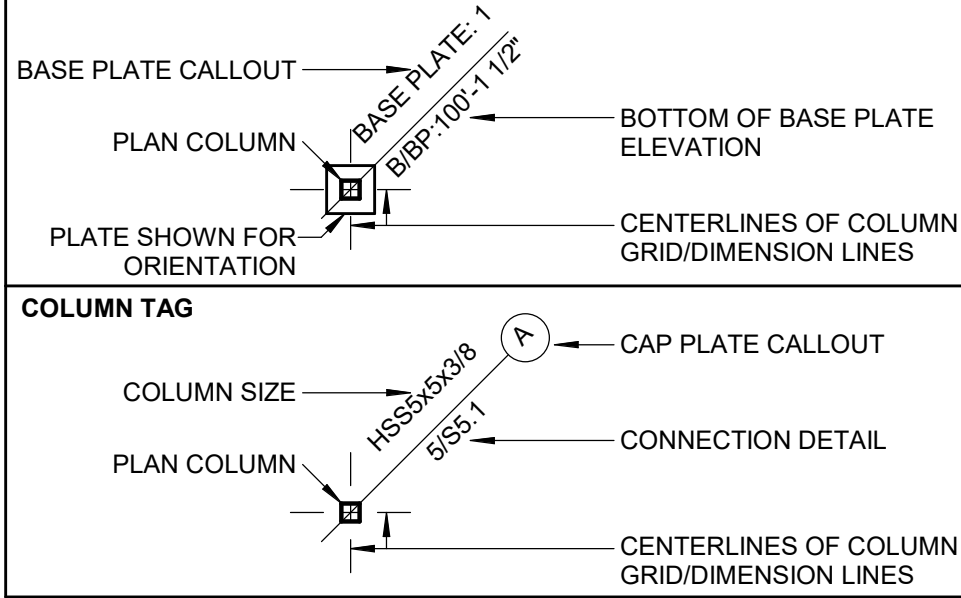
NOTES - SHOP DRAWING SUBMITTALS

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS. SHOP DRAWING REVIEW IS INTENDED FOR VERIFICATION OF DESIGN CONCEPT CONVEYANCE AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY.
2. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE CLOUDED BY MANUFACTURER/FABRICATOR. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW, UNO.
3. SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS SHOWN INCORRECTLY OR OMITTED AND NOT FLAGGED BY THE ENGINEER DURING REVIEW ARE NOT TO BE CONSIDERED CHANGES TO THE CONTRACT DOCUMENTS.
4. THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY. DESIGNED SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.
5. SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS. REPRODUCTION OF ANY PORTION OF THE CONTRACT DOCUMENTS FOR USE IN SUBMITTALS IS NOT PERMITTED AND MAY RESULT IN REJECTION.
6. THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANY TIME BEFORE OR AFTER SHOP DRAWING REVIEW.
7. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING:
 - CONCRETE MIX DESIGN, MATERIALS, AND TEST REPORTS
 - CONCRETE REINFORCING STEEL, HARDWARE, AND FASTENERS
 - PRE-ENGINEERED METAL BUILDING

SYMBOLS / ABBREVIATIONS

SYMBOL/TAG	DESCRIPTION	APPLIES TO	
X S X X	DETAIL ON SHEET SHEET NUMBER	DETAILS, SECTIONS, & ELEVATIONS	
T.O.W. = XXX' - XX" B.O.W. = XXX' - XX"	ELEVATION (TOP) ELEVATION (BOTTOM)	FOUNDATION WALLS AND LEDGES (SIM)	
T.O.X. XXX' - XX"	ELEVATION MARK	LEVELS, SPOT ELEVATIONS, & PLAN ELEVATIONS	
T.O.S. = XXX' - XX"	TOP OF STEEL ELEVATION	PLAN VIEW NOTATIONS	
JST BRG = XXX' - XX"	JOIST BEARING ELEVATION	PLAN VIEW NOTATIONS	
X	REVISION MARK	SHEET REVISIONS	
ABV	DEFINITION	ABV	DEFINITION
AB	ANCHOR BOLT	SIM	SIMILAR CONDITION
CJ	CONTRACTION JOINT	STD	STANDARD
CL	CENTERLINE	TOC	TOP OF CONCRETE
DIA	DIAMETER	TOD	TOP OF DECK
EOD	EDGE OF DECK ANGLE	TOL	TOP OF LEDGE
EOS	EDGE OF SLAB	TOM	TOP OF MASONRY
EXT	EXTERIOR	TOS	TOP OF STEEL
GA	GAUGE	TOW	TOP OF WALL
HAS	HEADED ANCHOR STUDS	TYP	TYPICAL CONDITION
OC	ON CENTER	UNO	UNLESS NOTED OTHERWISE
PAF	POWDER ACTUATED FASTNR	WP	WORK POINT

BASE PLATE TAG



DESIGN INFORMATION

BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE AS ADOPTED AND/OR AMENDED BY LOCAL BUILDING CODES	
SOILS INFORMATION: THE FOUNDATION DESIGN PROVIDED IS BASED OFF OF A MINIMUM ALLOWABLE PRESUMPTIVE LOAD-BEARING VALUE AS INDICATED BY IBC TABLE 1806.2 IN LIEU OF A SITE BASE GEOTECHNICAL EVALUATION. IT IS RECOMMENDED THAT A QUALIFIED GEOTECHNICAL ENGINEER BE RETAINED TO VERIFY THESE ASSUMPTIONS PRIOR TO CONSTRUCTION. BY USE OF THIS FOUNDATION DESIGN WITHOUT PROVIDING SUCH VERIFICATION, APEX WILL NOT BE LIABLE FOR THIS DESIGN PARAMETER, AND THE OWNER SHALL ACCEPT ALL RISKS ASSOCIATED WITH DAMAGE TO THE STRUCTURE AS A RESULT OF EXPANSIVE, COMPRESSIBLE, SHIFTING AND/OR DIFFERENTIAL MOVEMENT AS A RESULT OF DIFFERING SUBGRADE CONDITIONS BETWEEN EXISTING AND NEW FOUNDATION ELEMENTS.	
FROST DEPTH	36"
PRESUMPTIVE LOAD-BEARING PRESSURE	2000 psf

MATERIAL SPECIFICATIONS

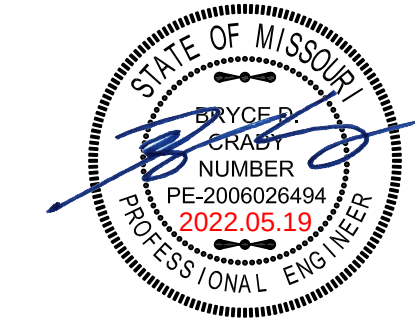
STEEL MATERIAL SPECIFICATIONS						
STEEL MEMBERS			MATERIAL			
WIDE FLANGE SHAPES (W)			ASTM A992			
CHANNELS (C), ANGLES (L)			ASTM A36			
PLATES			ASTM A36			
HOLLOW STRUCTURAL SHAPES (HSS)			ASTM A500, GRADE C			
HIGH STRENGTH BOLTS			ASTM F3125, GRADE A325			
ANCHOR BOLTS (HEX-HEAD UNO)			ASTM F1554 (55 ksi) "S1"			
EPOXY ANCHOR RODS			ASTM A36			
STEEL DECK, PLAIN STEEL			ASTM A1008, (33 ksi)			
STEEL DECK, GALVANIZED			ASTM A653, (33 ksi)			
NON-SHRINK GROUT, COL. BASES			5000 psi (28 DAY STRENGTH)			
CONCRETE & REINFORCING STEEL SPECIFICATIONS						
MATERIAL			SPECIFICATION			
REINFORCING BARS			ASTM A615, GRADE 60			
WELDED REBAR			ASTM A706			
WELDED WIRE FABRIC			ASTM A1064			
PORTLAND CEMENT			ASTM C 150			
FLY ASH			ASTM C 618, 15% MAX			
CONCRETE AGGREGATES			ASTM C 33, 3/4" MAX AGG. SIZE.			
EPOXY - THREADED ROD ANCHORS			HILTI HIT-HY 200 A OR SIMPSON SET 3G			
EPOXY - REINFORCING BARS			HILTI HIT-HY 200 R OR SIMPSON SET 3G			
REBAR CONDITION			MINIMUM CONCRETE COVER			
FORMED SURFACES EXPOSED TO GROUND OR WEATHER			2"			
UNFORMED SURFACE IN CONTACT WITH THE GROUND			3"			
WALLS AND SLABS NOT EXPOSED TO GROUND OR WEATHER			1"			
INTERIOR BEAMS AND COLUMNS (TO TIES OR STIRRUPS)			1 1/2"			
CONCRETE MIX DESIGN REQUIREMENTS						
CONCRETE USE	WEIGHT	28 DAY f'c	CEMENT TYPE	MAX W/C RATIO	SLUMP (+/- 1")	% AIR
FOOTINGS/PIERS	NW	3500 psi	I/II	0.55	5"	6% MAX
FOUNDATION WALLS	NW	3500 psi	I/II	0.50	4"	6% +/- 1%
INT. SLAB-ON-GRADE	NW	4000 psi	I/II	0.45	5"	3% MAX
ELEVATED SLABS	NW	5000 psi	I/II	0.45	5"	1.5% +/-
TILT-UP WALLS	NW	4000 psi	I/II	0.45	4"	5% +/- 1.5%
CONCRETE SLAB SPECIFICATIONS						
FLOOR FLATNESS, F _F			SOV: 35 MLV: 25			
FLOOR LEVELNESS, F _L			SOV: 24 MLV: 17			

SHEET LIST - STRUCTURAL

SHEET NUMBER	SHEET NAME
S100	GENERAL NOTES AND SPECIFICATIONS
S110	SPECIAL INSPECTIONS
S200	FOUNDATION PLAN
S500	TYPICAL FOUNDATION DETAILS
S501	TYPICAL FOUNDATION DETAILS

a new development for
D-Bats
520 NE Town Centre Drive
LEE'S SUMMIT, MO

date
Issue Date
drawn by
JMB
checked by
BDC
revisions



sheet number

S100

drawing type
Project Status
project number
Project Number

SCHEDULE - CONCRETE REBAR											
DEVELOPMENT LENGTHS - L _d											
f _c = 3000 PSI						f _c = 4000 PSI					
BAR SIZE	STD. L _d		CLASS B		BAR SIZE	STD. L _d		CLASS B			
	TYP.	TOP	TYP.	TOP		TYP.	TOP	TYP.	TOP		
#3	17"	22"	22"	28"	#3	15"	19"	19"	25"		
#4	22"	29"	29"	38"	#4	19"	25"	25"	33"		
#5	28"	36"	37"	47"	#5	24"	31"	32"	41"		
#6	33"	43"	43"	56"	#6	29"	37"	38"	49"		
#7	48"	63"	63"	82"	#7	42"	54"	55"	71"		
#8	55"	72"	72"	94"	#8	48"	62"	63"	81"		
#9	62"	81"	81"	106"	#9	54"	70"	71"	91"		
STANDARD HOOKS & BAR BENDS											
f _c = 3000 PSI						f _c = 4000 PSI					
BAR SIZE	L _{dh}	"Ø"	L _{ext}		BAR SIZE	L _{dh}	"Ø"	L _{ext}			
			180	90				180	90		
#3	6"	2 1/4"	2 1/2"	4 1/2"	#3	6"	2 1/4"	2 1/2"	4 1/2"		
#4	8"	3"	2 1/2"	6"	#4	7"	3"	2 1/2"	6"		
#5	10"	3 3/4"	2 1/2"	7 1/2"	#5	9"	3 3/4"	2 1/2"	7 1/2"		
#6	12"	4 1/2"	3"	9"	#6	10"	4 1/2"	3"	9"		
#7	14"	5 1/4"	3 1/2"	10 1/2"	#7	12"	5 1/4"	3 1/2"	10 1/2"		
#8	16"	6"	4"	12"	#8	14"	6"	4"	12"		
#9	18"	9"	4 1/2"	13 1/2"	#9	15"	9"	4 1/2"	13 1/2"		
BAR BENDS											
180 DEGREE HOOK				90 DEGREE HOOK				90 DEGREE HOOK			
STIRRUPS, TIES, & HOOPS											
BAR SIZE	Ø	L _{ext}			BAR SIZE	Ø	L _{ext}				
		90	135	180			90	135	180		
#3	1 1/2"	3"	3"	2 1/2"	#6	4 1/2"	9"	4 1/2"	3"		
#4	2"	3"	3"	2 1/2"	#7	5 1/4"	10 1/2"	5 1/4"	3 1/2"		
#5	2 1/2"	3 3/4"	3 3/4"	2 1/2"	#8	6"	12"	6"	4"		
90 DEGREE HOOK				135 DEGREE HOOK				180 DEGREE HOOK			
RECTANGULAR BEAM/COLUMN TIE				CIRCULAR COLUMN/PIER TIE				BAR CLEARANCE		BAR SPLICE	
NOTES:											
1. USE THE ABOVE TABLE UNLESS NOTED OTHERSIZE ON PLAN OR IN DETAILS.											
2. PROVIDE 6" LAP AT ALL WELDED WIRE FABRIC JOINTS.											
3. PROVIDE 1 D _b (1" MINIMUM) CLEARANCE BETWEEN ADJACENT BARS.											
4. PROVIDE WIRE TIES AT EACH END OF BAR SPLICE.											
5. DO NOT PROVIDE CLASS A SPLICE UNLESS SPECIFICALLY DETAILED.											

SCHEDULE - PAD FOOTING				
MARK	LENGTH	WIDTH	DEPTH	REINFORCING
F4.5	4' - 6"	4' - 6"	3' - 0"	(12) #5 EACH WAY (6) AT T&B
F5	5' - 0"	5' - 0"	3' - 0"	(14) #5 EACH WAY (7) AT T&B
F6.5	6' - 6"	6' - 6"	3' - 0"	(18) #5 EACH WAY (9) AT T&B
F7.5	7' - 6"	7' - 6"	4' - 0"	(26) #5 EACH WAY (13) AT T&B

SCHEDULE - CONTINUOUS FOOTING				
MARK	WIDTH	DEPTH	LONG BARS	TRANS BARS
CF16	1' - 4"	36"	(4) #4 CONT (2) AT T&B	#3 TIES AT 18" OC
CF27	2' - 3"	36"	(4) #4 CONT (2) AT T&B	#3 TIES AT 18" OC

SCHEDULE - SLAB ON GRADE				
MARK	SLAB THICKNESS	WEIGHT CLASS	SLAB REINFORCING	ADDITIONAL REQUIREMENTS
SG4	4"	NW	#3 AT 18"OC EA WAY OR 6X6 W2.9XW2.9 WWF	10 MIL VAPOR BARRIER ON 4" OF 3/4" CLEAN, GRADED ROCK.

SDI TABLE 1.1			
INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT:			
TASK	QC	QA	
A. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS.	P	P	
B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES.	P	P	

SDI TABLE 1.2			
INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT			
TASK	QC	QA	
A. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS.	P	P	
B. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS.	N/A	P	
C. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES.	P	P	

SDI TABLE 1.3			
INSPECTION OR EXECUTION TASKS PRIOR TO WELDING			
TASK	QC	QA	
A. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	O	O	
B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	O	O	
C. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O	
D. CHECK WELDING EQUIPMENT.	O	O	

SDI TABLE 1.4			
INSPECTION OR EXECUTION TASKS DURING WELDING			
TASK	QC	QA	
A. USE OF QUALIFIED WELDERS.	O	O	
B. CONTROL AND HANDLING OF WELDING CONSUMABLES.	O	O	
C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	O	O	
D. WPS FOLLOWED	O	O	

SDI TABLE 1.5			
INSPECTION OR EXECUTION TASKS AFTER WELDING			
TASK	QC	QA	
A. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS.	P	P	
B. WELDS MEET VISUAL ACCEPTANCE CRITERIA.	P	P	
C. VERIFY REPAIR ACTIVITIES.	P	P	
D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS.	P	P	

SDI TABLE 1.6			
INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING			
TASK	QC	QA	
A. MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS.	O	O	
B. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION.	O	O	
C. PROPER STORAGE FOR MECHANICAL FASTENERS.	O	O	

SDI TABLE 1.7			
INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING			
TASK	QC	QA	
A. FASTENERS ARE POSITIONED AS REQUIRED.	O	O	
B. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.	O	O	

SDI TABLE 1.8			
INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING			
TASK	QC	QA	
A. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS.	P	P	
B. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS.	P	P	
C. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS.	P	P	
D. VERIFY REPAIR ACTIVITIES.	P	P	
E. DOCUMENT ACCEPTANCES OR REJECTION OF MECHANICAL FASTENERS.	P	P	

AISC TABLE N5.4-1			
INSPECTION TASKS PRIOR TO WELDING			
	QC	QA	
1. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P	
2. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P	
3. MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O	
4. WELDER IDENTIFICATION SYSTEM ¹	O	O	
5. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)	O	O	
6. CONFIGURATION AND FINISH OF ACCESS HOLES	O	O	
7. FIT-UP OF FILLET WELDS	O	O	
8. CHECK WELDING EQUIPMENT	O	-	
¹ THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE			

AISC TABLE N5.4-2			
INSPECTION TASKS DURING WELDING			
	QC	QA	
1. USE OF QUALIFIED WELDERS	O	O	
2. CONTROL AND HANDLING OF WELDING CONSUMABLES	O	O	
3. NO WELDING OVER CRACKED TACK WELDS	O	O	
4. ENVIRONMENTAL CONDITIONS	O	O	
5. WPS FOLLOWED	O	O	
6. WELDING TECHNIQUES	O	O	
7. INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.)	O	O	
8. PROPER POSITION (F, V, H, OH)	O	O	
9. EACH PASS MEETS QUALITY REQUIREMENTS	O	O	

AISC TABLE N5.4-3			
INSPECTION TASKS AFTER WELDING			
	QC	QA	
1. WELDS CLEANED	O	O	
2. SIZE, LENGTH AND LOCATION OF WELDS	P	P	
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA	P	P	
4. CRACK PROHIBITION	P	P	
5. WELD/BASE-METAL FUSION	P	P	
6. CRATER CROSS SECTION	P	P	
7. WELD PROFILES	P	P	
8. WELD SIZE	P	P	
9. UNDERCUT	P	P	
10. POROSITY	P	P	
11. ARC STRIKES	P	P	
12. K-AREA ¹	P	P	
13. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P	
14. REPAIR ACTIVITIES	P	P	
15. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P	
¹ WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75 MM) OF THE WELD			

AISC TABLE N5.6-1			
INSPECTION TASKS PRIOR TO BOLTING			
	QC	QA	
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O	
3. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O	
4. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O	
5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O	
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O	
7. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O	

AISC TABLE N5.6-2			
INSPECTION TASKS DURING BOLTING			
	QC	QA	
1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O	
2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O	
3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O	
4. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O	

AISC TABLE N5.6-3			
INSPECTION TASKS AFTER BOLTING			
	QC	QA	
1. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P	

AISC TABLE N6.1			
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT			
	QC	QA	
1. PLACEMENT AND INSTALLATION OF STEEL DECK	P	P	
2. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P	
3. DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P	P	

STATEMENT OF SPECIAL INSPECTION			
IBC CODE REFERENCE	CONSTRUCTION TYPE	FREQUENCY CONT.	PER.
1705.2	STEEL CONSTRUCTION		
1705.2.1	STRUCTURAL STEEL		
1. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360. (REFER TO AISC CHARTS ON THIS SHEET)			
1705.2.2	COLD-FORMED STEEL DECK		
1. SPECIAL INSPECTIONS AND QUALIFICATIONS OF WELDING SPECIAL INSPECTORS FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC. (REFER TO SDI CHARTS ON THIS SHEET)			
1705.2.3	OPEN-WEB STEEL JOIST AND JOIST GIRDERS		
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS:			
A. END CONNECTIONS - WELDING OR BOLTED			X
B. BRIDGING - HORIZONTAL OR DIAGONAL			X
1. STANDARD BRIDGING			X
2. BRIDGING THAT DIFFERS FROM THE SJI SPECIFICATIONS LISTED IN SECTION 2207.1			X
1705.3	REINFORCED CONCRETE		
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.			
2. INSPECTION OF REINFORCING STEEL WELDING:			
A. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706			X
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"			X
C. INSPECT ALL OTHER WELDS	X		
3. INSPECTION OF ANCHORS CAST IN CONCRETE:			
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.			
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.		X	
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.4			X
5. VERIFYING USE OF REQUIRED MIX DESIGN			
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.			
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.			
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.			
9. INSPECTION OF PRECAST STRESSED CONCRETE:			
A. VERIFICATION OF PRESTRESSING FORCES.		X	
B. GRouting OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-RESISTING SYSTEM.		X	
10. ERECTION OF PRECAST CONCRETE MEMBERS.			
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORING.			
12. INSPECT FOR CORROSION OF REINFORCEMENT AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.			
SPECIAL INSPECTION AGENT TO PERFORM TESTS AT SEVEN (7) DAYS AND AT TWENTY EIGHT (28) DAYS. A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST TWO (2) 6"x12" CYLINDERS OR AT LEAST THREE (3) 4"x8" CYLINDERS MADE FROM THE SAME SAMPLE. IF THE CONCRETE HOLD ONE ADDITIONAL CYLINDER IN RESERVE UNTIL PROJECT IS COMPLETED. TESTING LABORATORY IS TO FURNISH ARCHITECT/ENGINEER WITH TEST RESULTS PROMPTLY.			
FREQUENCY OF TESTING IS TO BE IN ACCORDANCE WITH ACI 318:			
A. ONCE EACH DAY A GIVEN CLASS IS PLACED, NOR LESS THAN.			
B. ONCE FOR EACH 150 CUBIC YDS OF EACH CLASS PLACED EACH DAY, NOR LESS THAN.			
C. ONCE FOR EACH 5000 SQFT OR SLAB WALL OR SURFACE AREA PLACED EACH DAY.			
1705.6	SOILS		
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.			
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.			
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIAL.			
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.			
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.			
1705.8	CAST-IN-PLACE DEEP FOUNDATIONS		
1. OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.			
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LEAVE ELEVATION INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.			
1705.11.2	COLD-FORMED STEEL FRAMING		
1. MATERIAL VERIFICATION:			
A. MEMBER SIZE AND THICKNESS TO MATCH CONTRACT DOCUMENTS INCLUDING TRACKS, STUDS, ASSEMBLIES, CONNECTORS.			X
B. FASTENER MATERIAL AND COMPONENTS			X
2. INSPECTION OF INSTALLATION			
A. INSPECT MEMBER LAYOUT, CONNECTION, ORIENTATION			X
B. SPECIAL INSPECTION REQUIRED FOR FASTENERS PER MANUFACTURER.			X
C. INSPECTION PRIOR TO SHEATHING: VERIFY FLANGES ARE INTACT. STUDS ARE NOT CUT OR SPLICED.			X
3. INSPECTION OF WELDING.			
1705.14	SPRAYED FIRE-RESISTANT MATERIALS		
1. STRUCTURAL MEMBER SURFACE CONDITIONS.			
2. APPLICATION.			
3. THICKNESS.			
4. DENSITY.			
5. BOND STRENGTH.			



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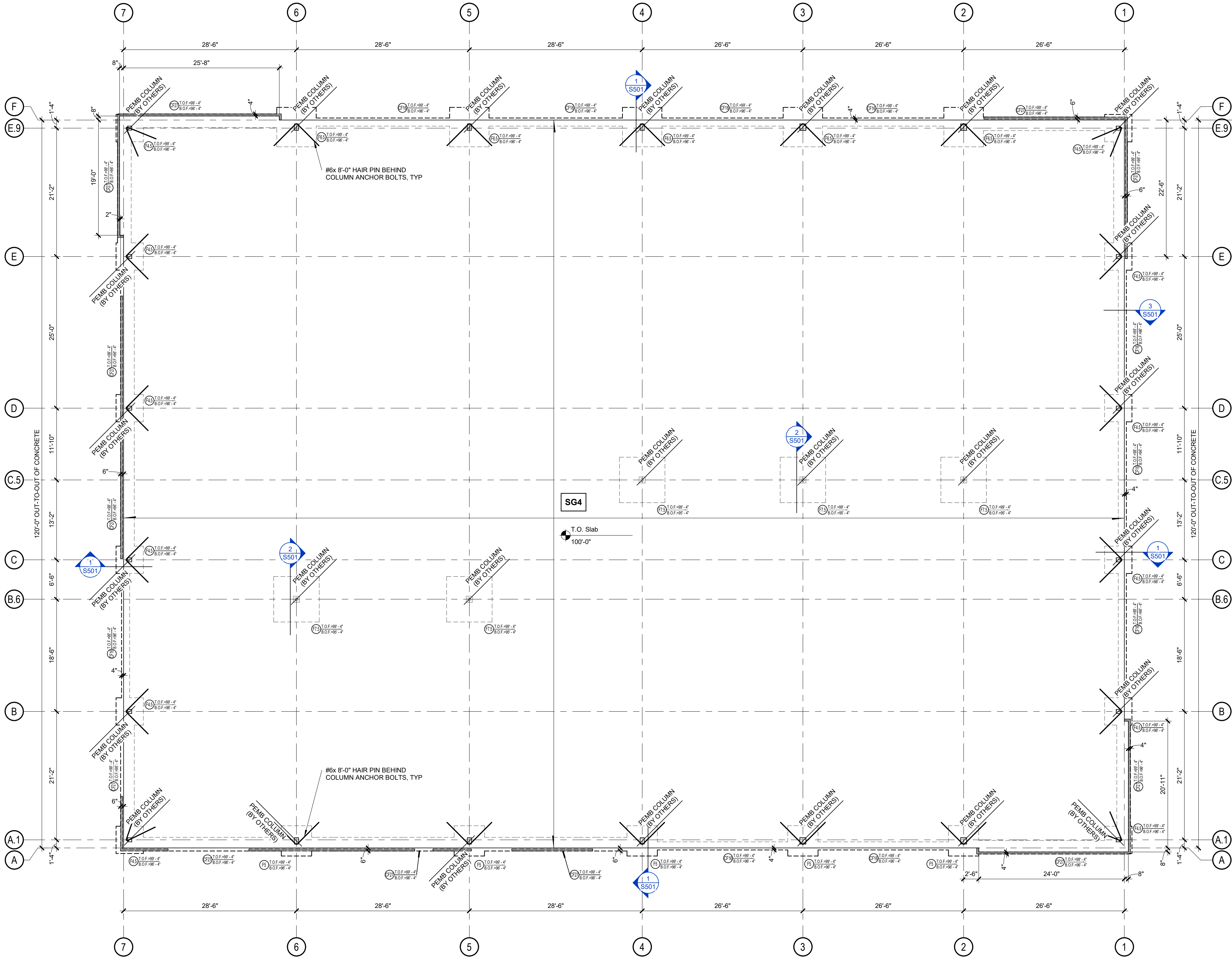
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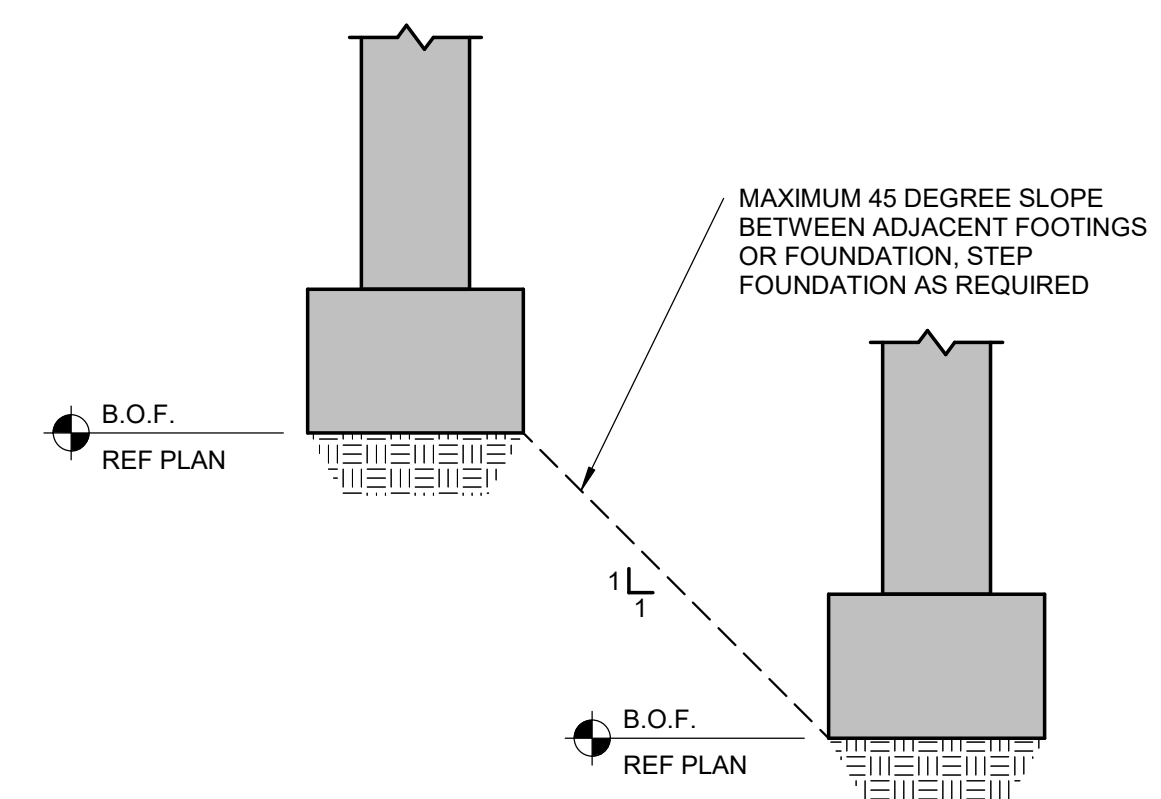
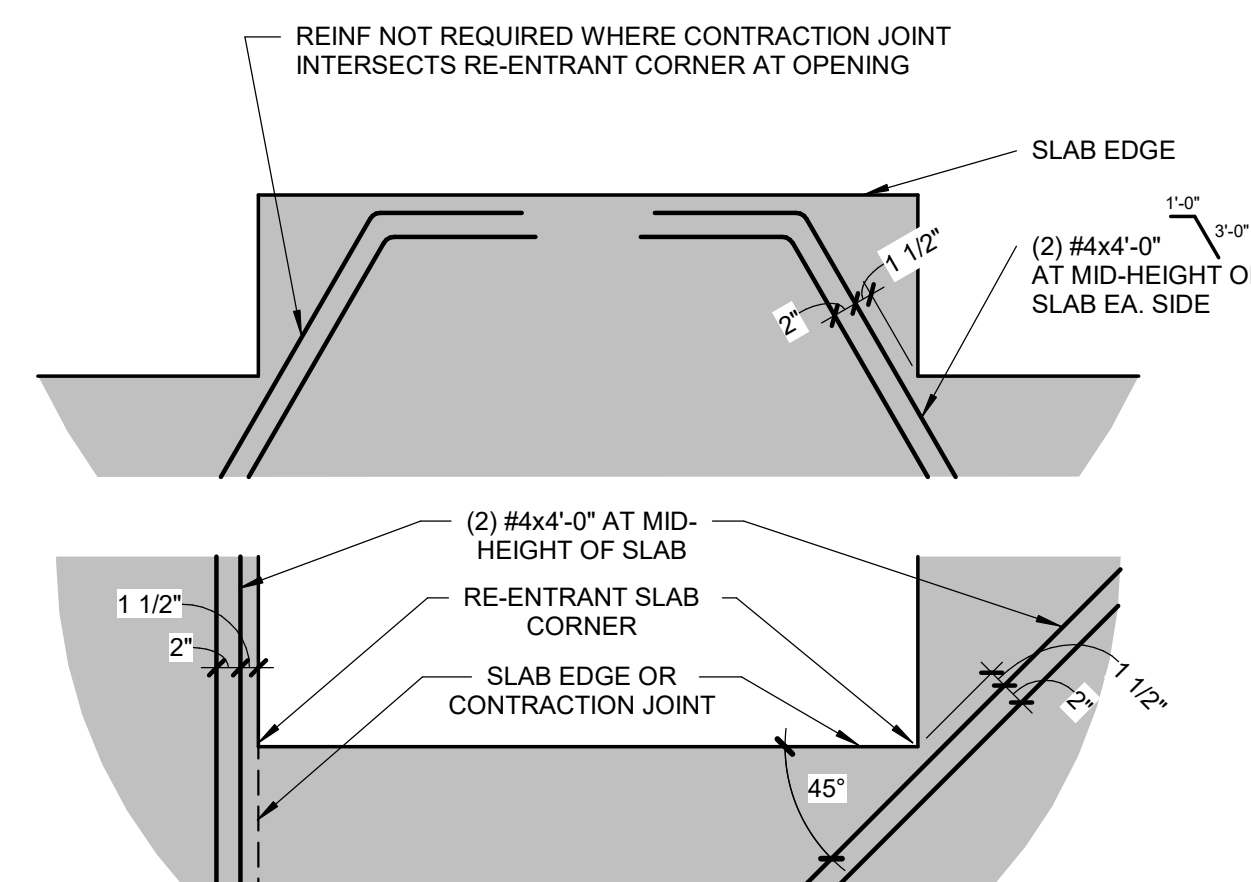
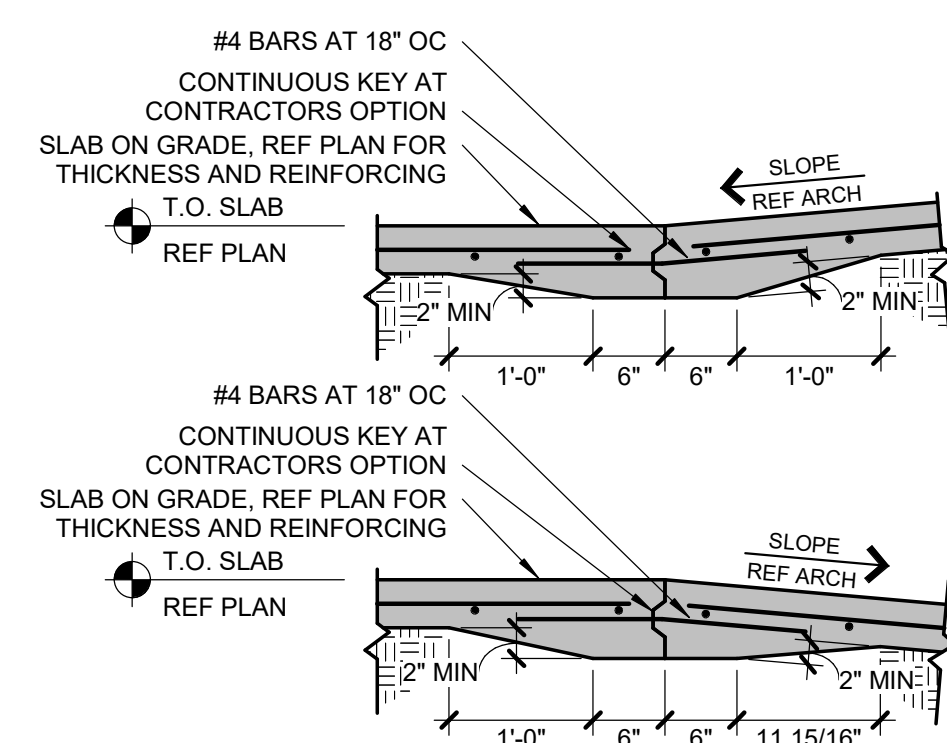
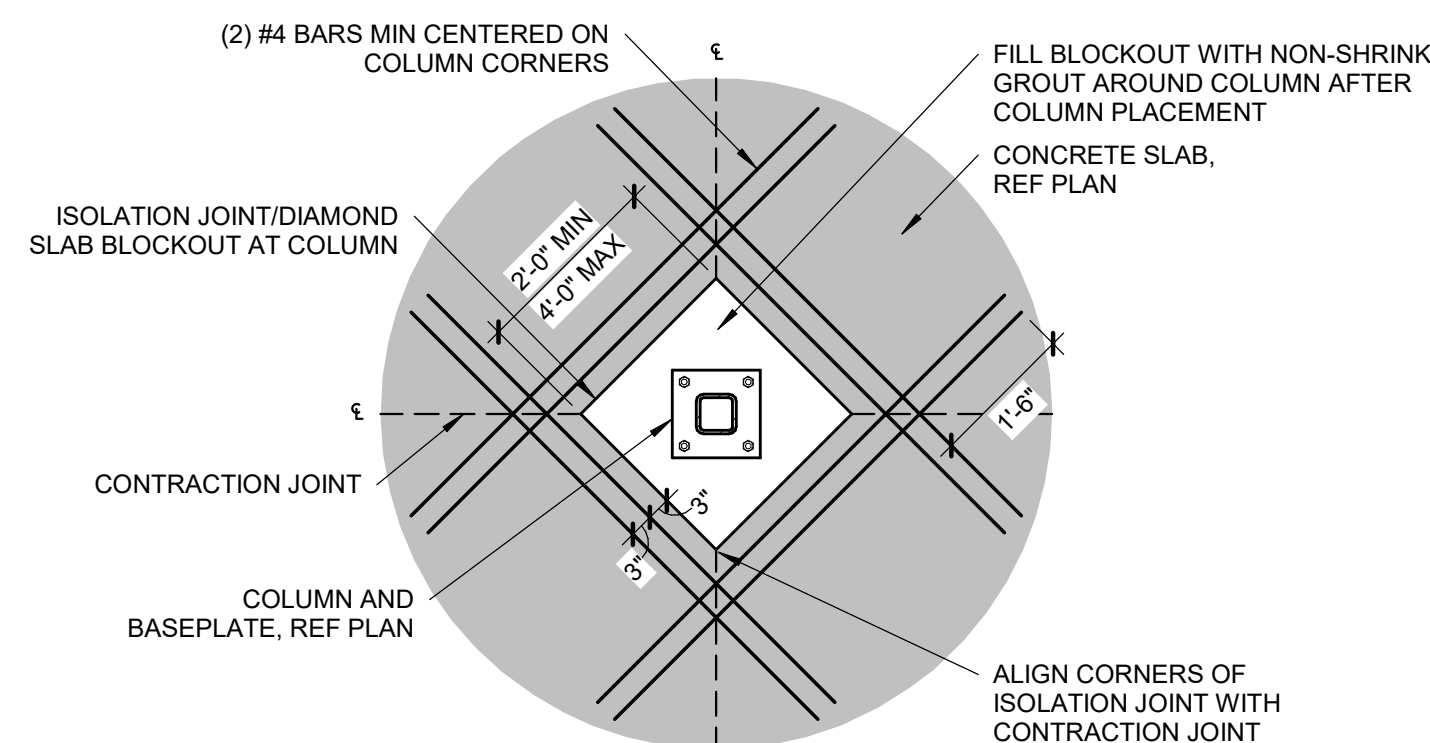
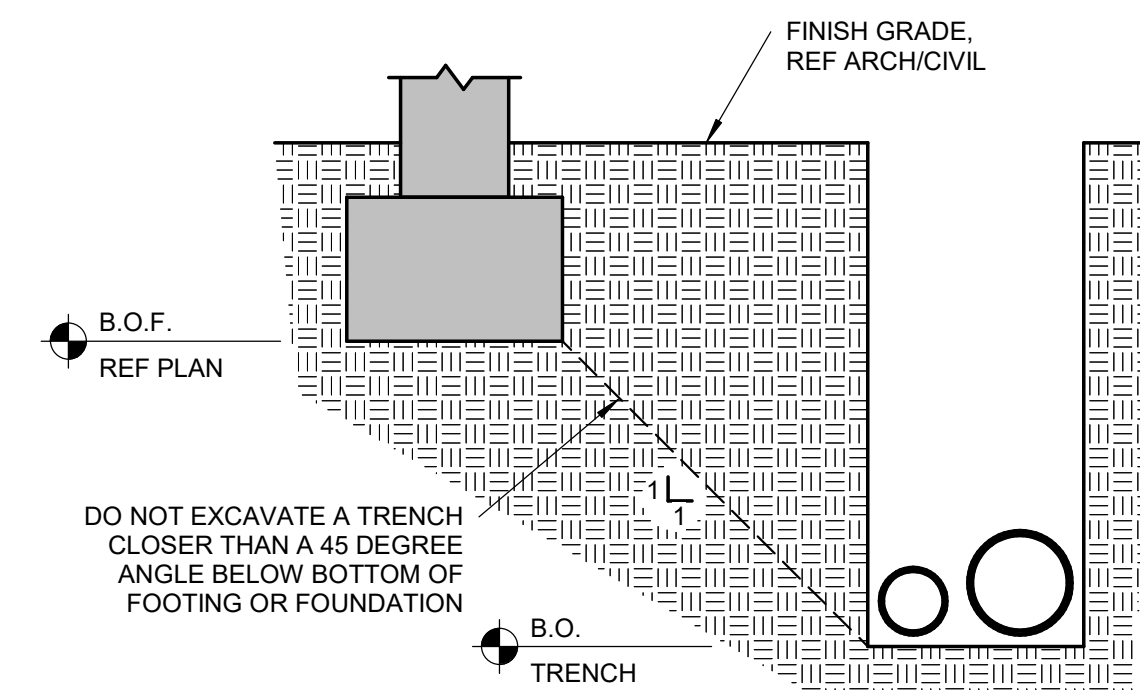
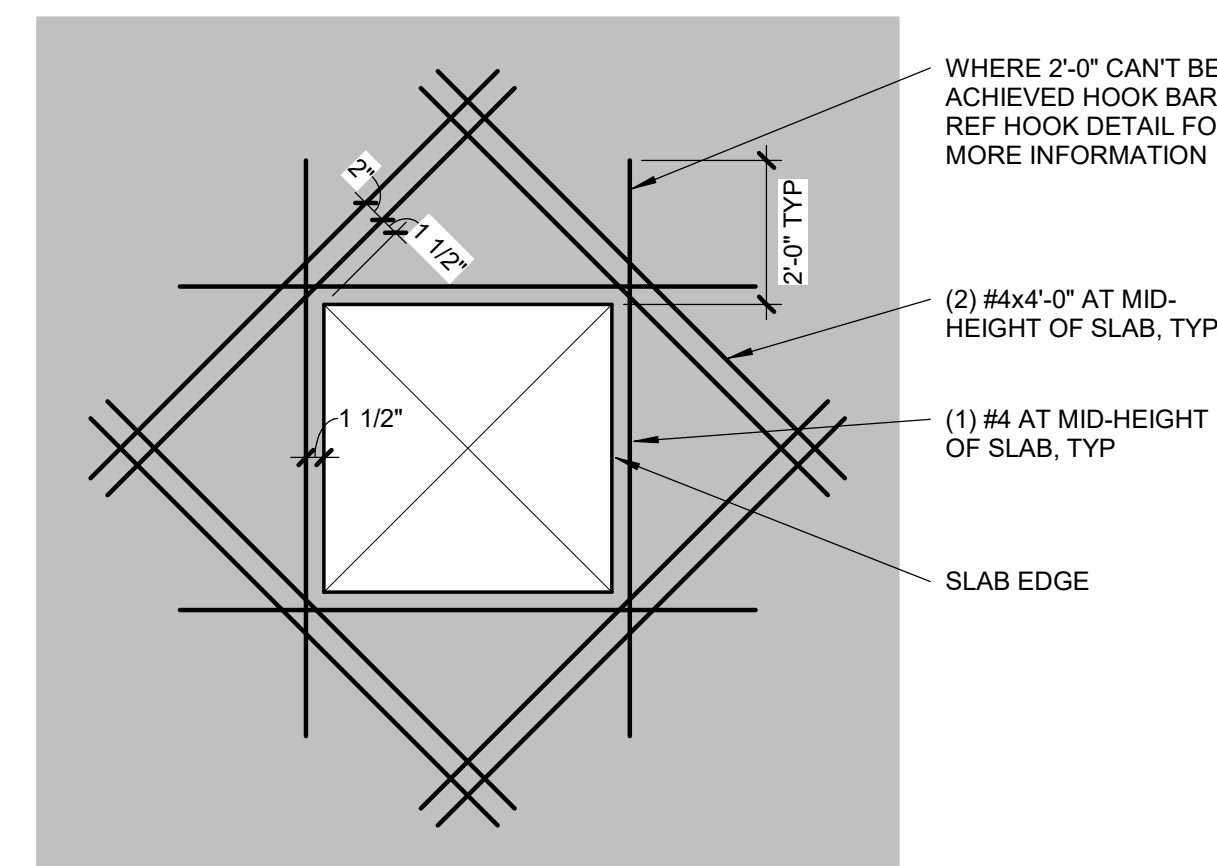
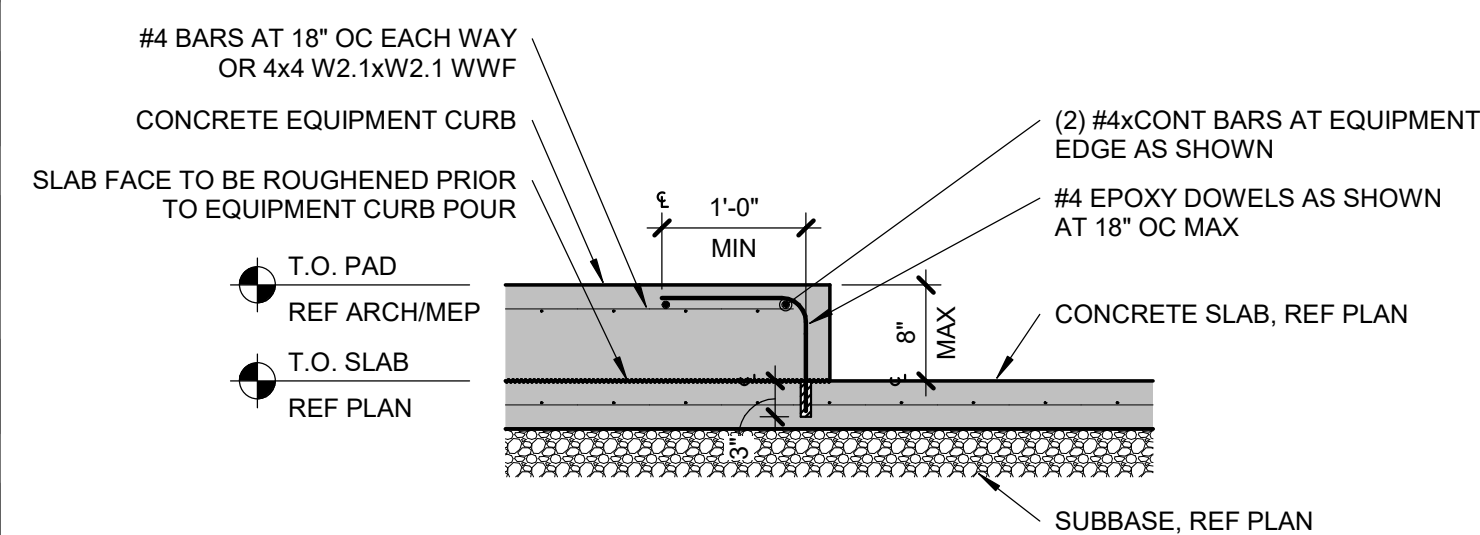
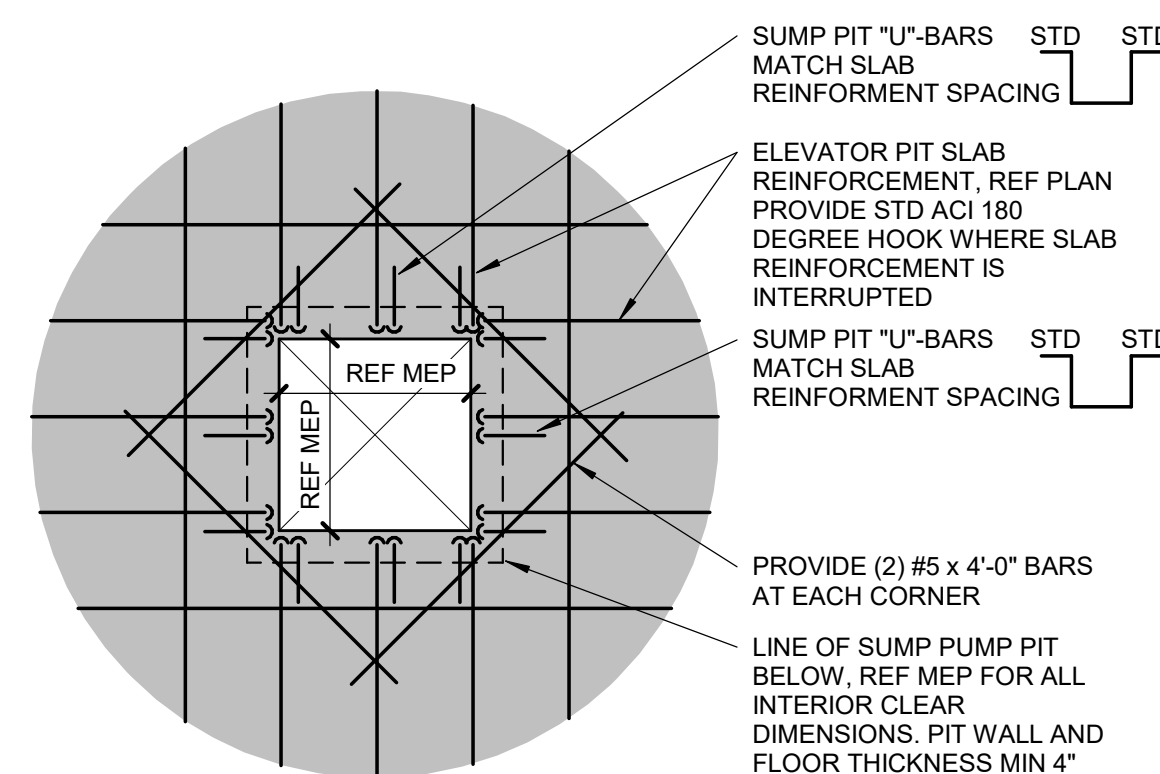
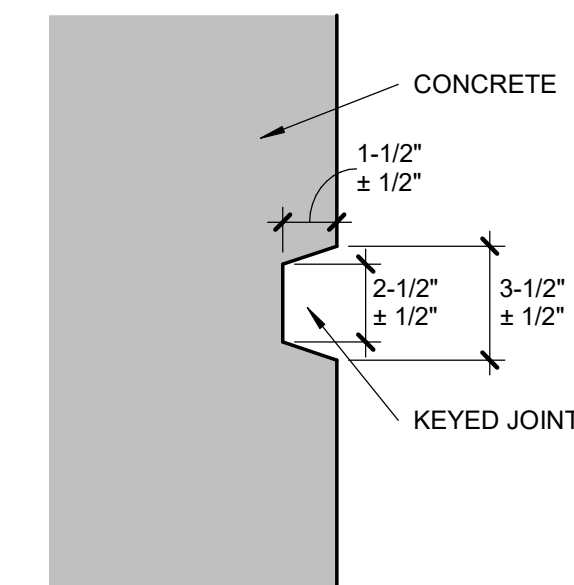
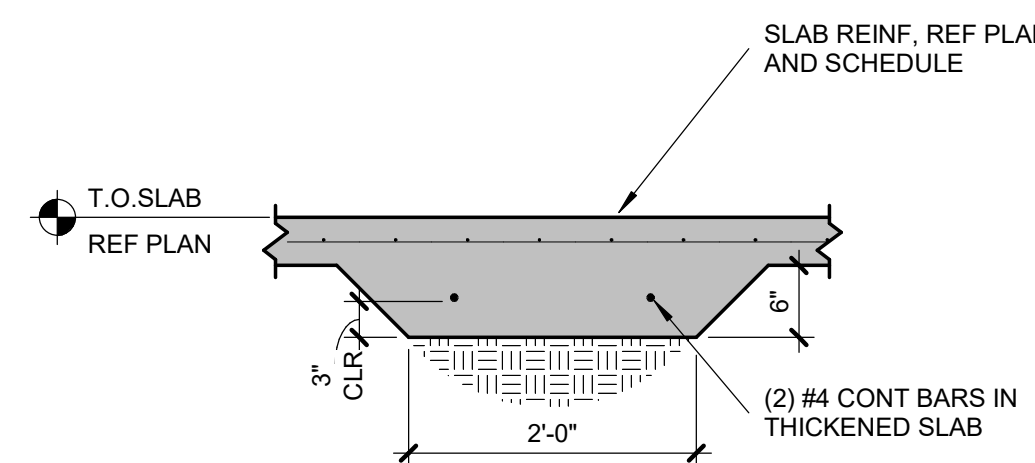
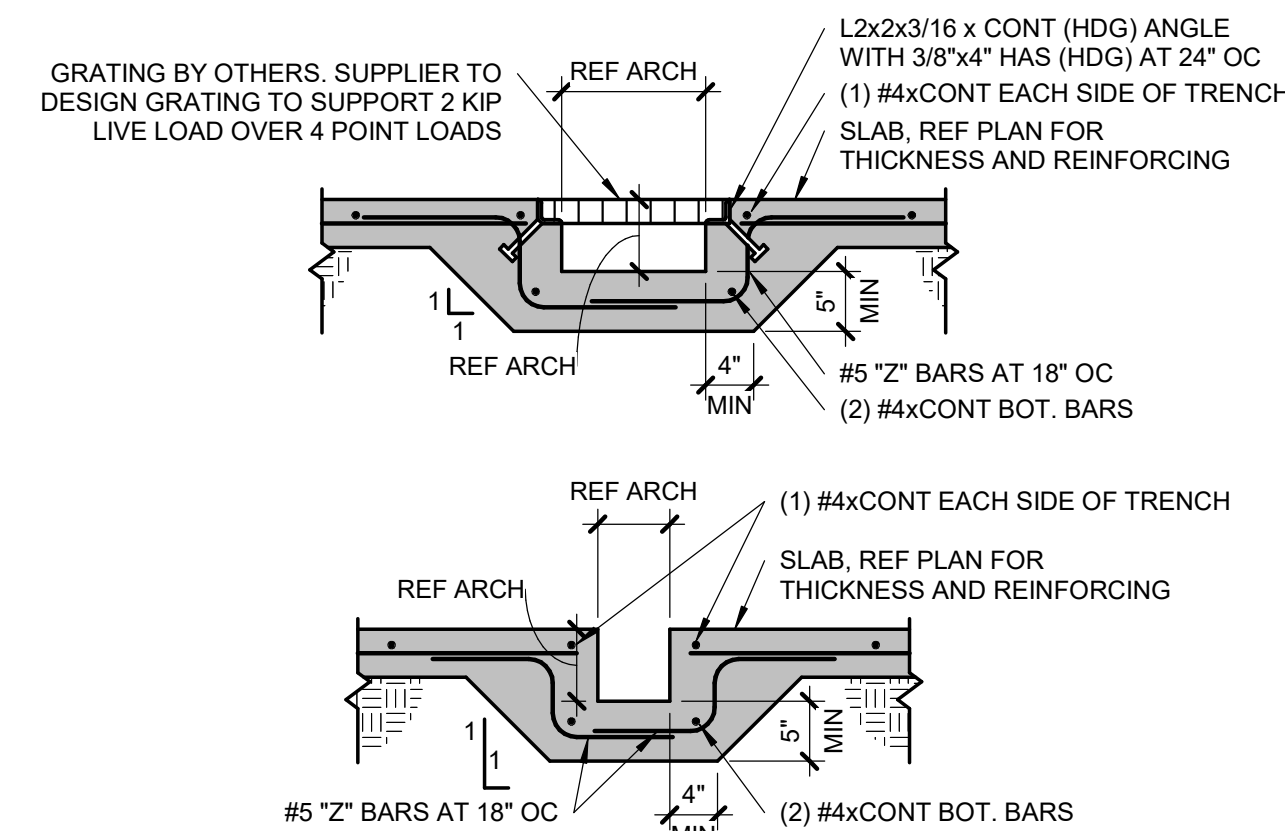
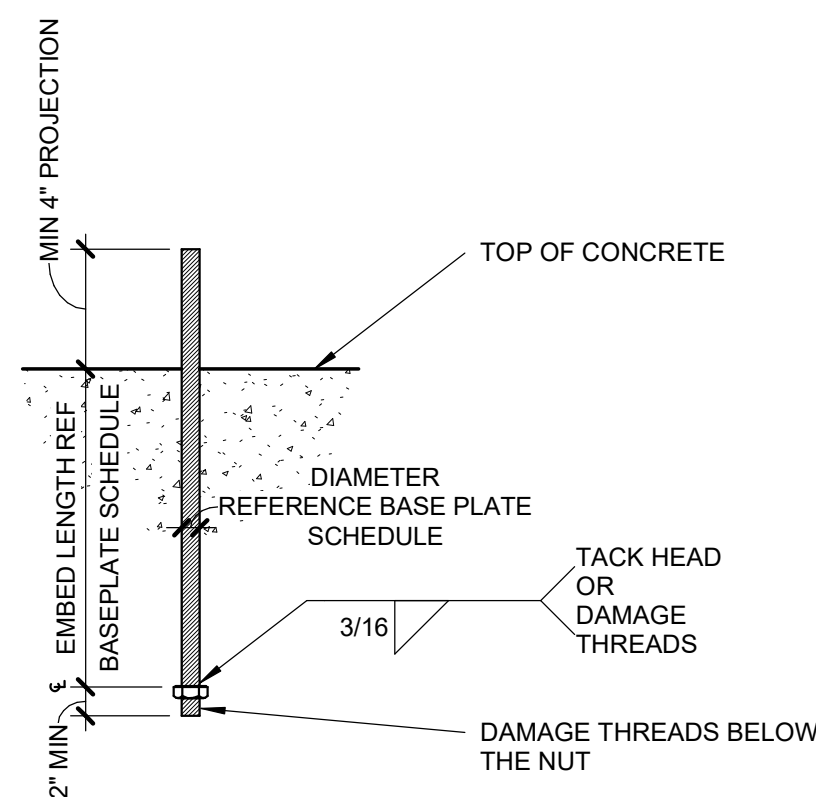
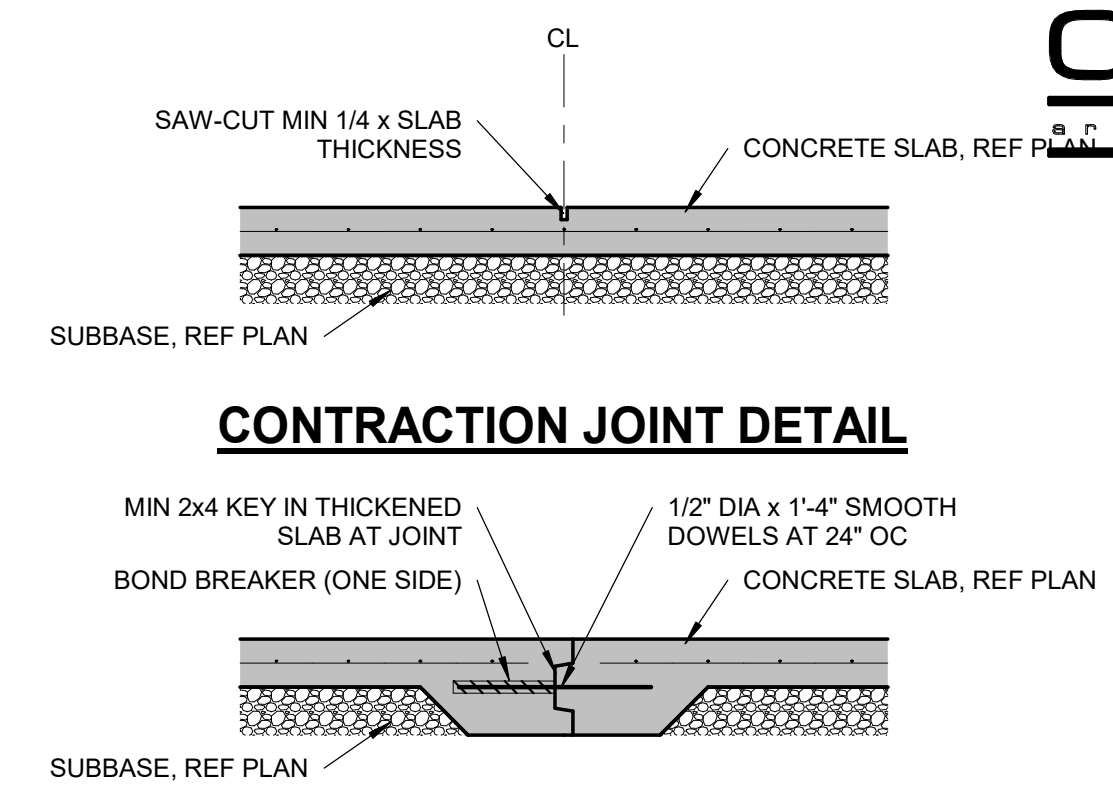
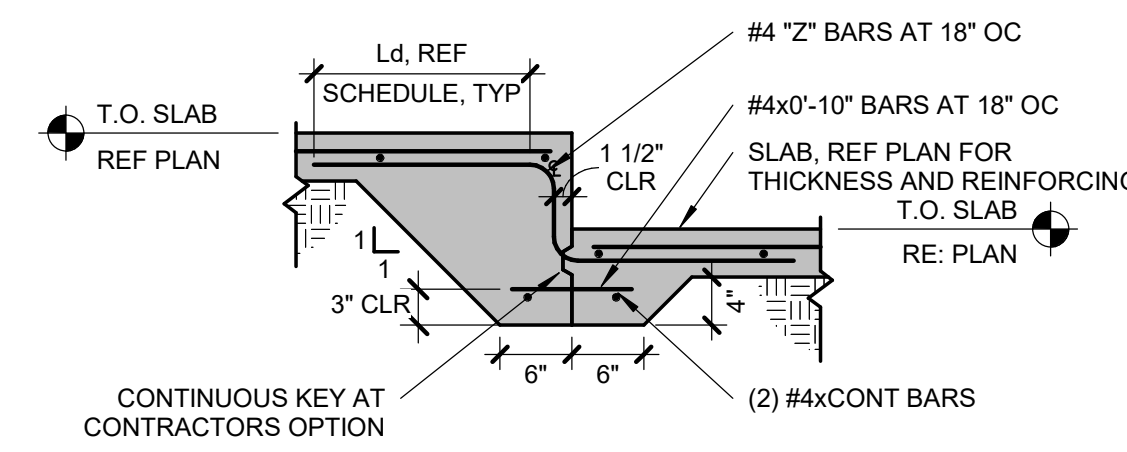
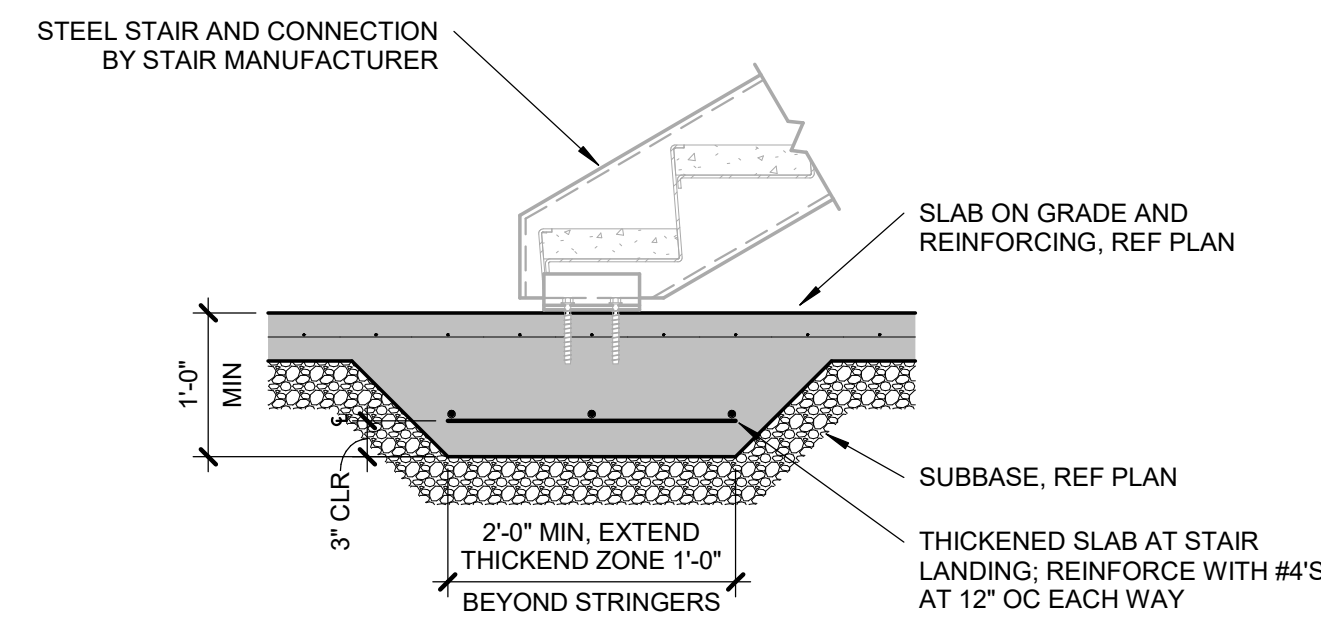
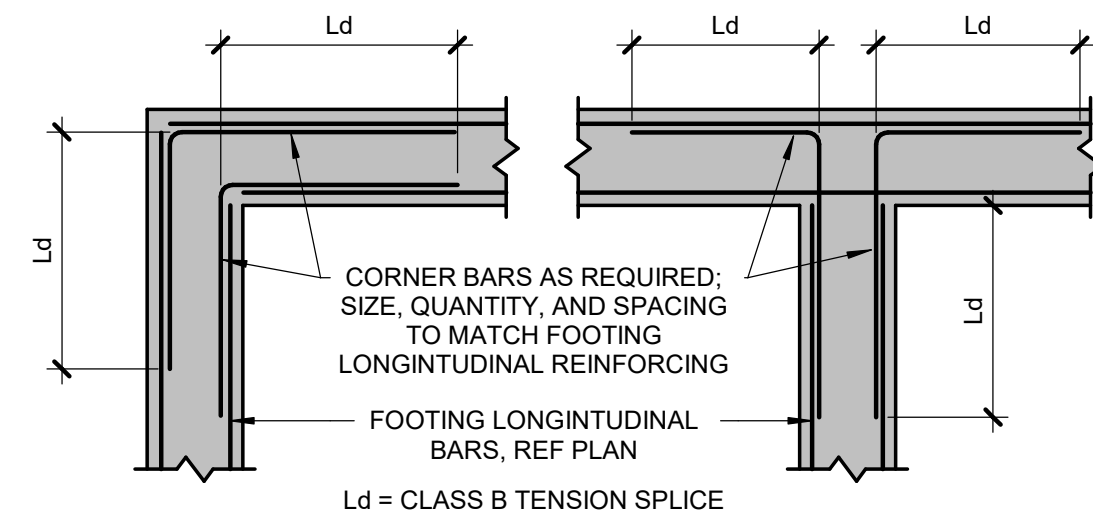


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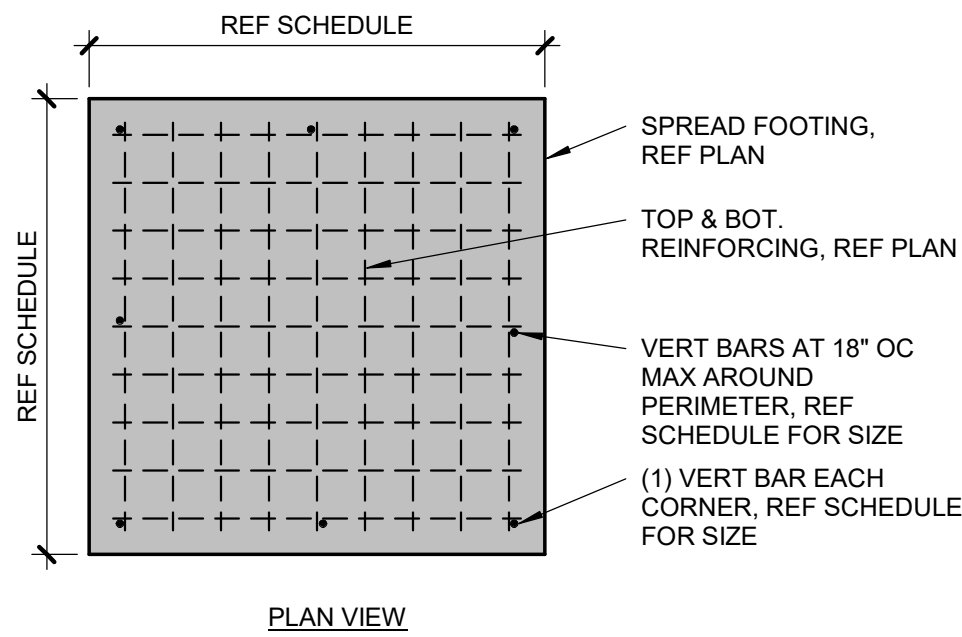
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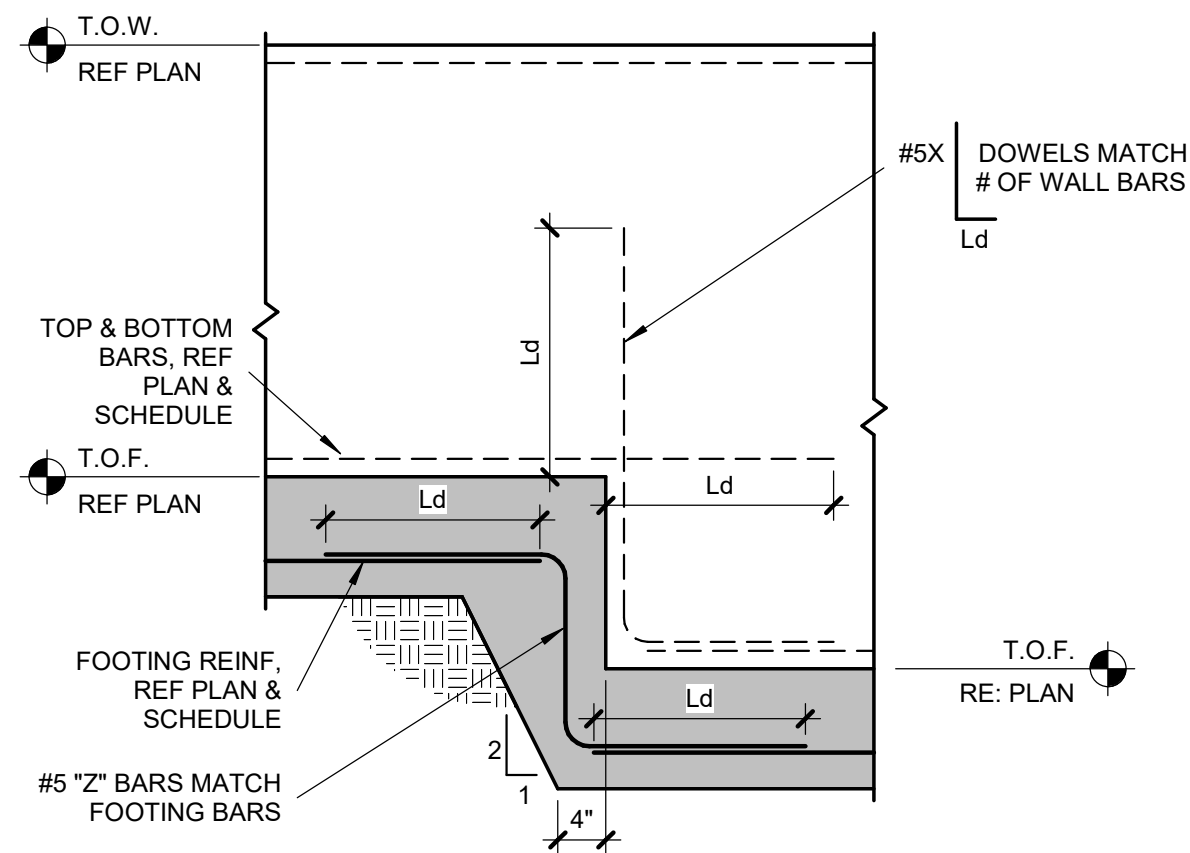


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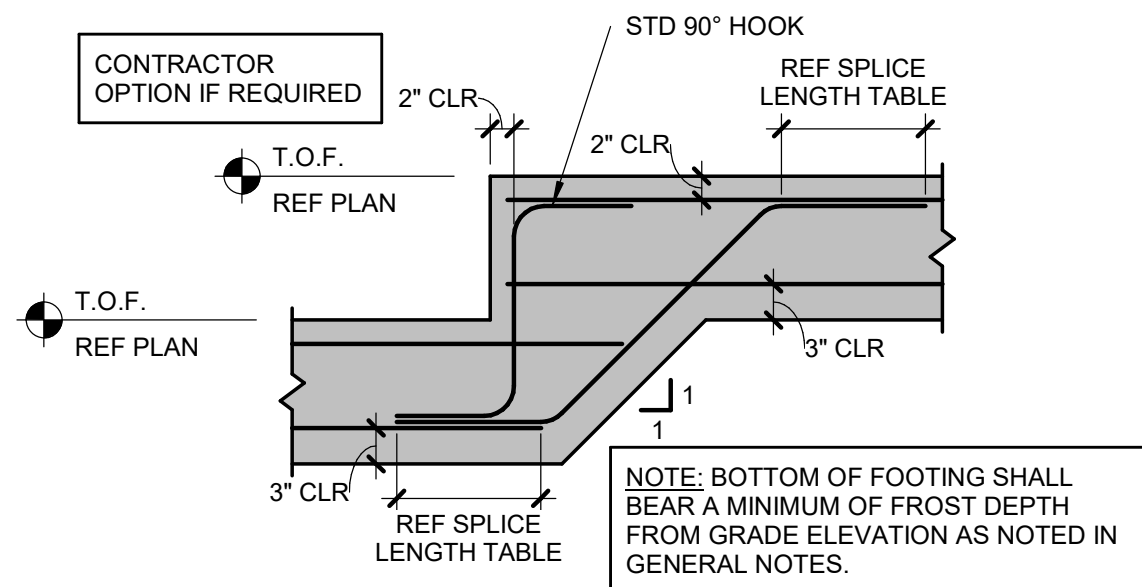
9 TYP DEEP SPREAD FOOTING VERTICAL REINFORCING

S501 3/4" = 1'-0"



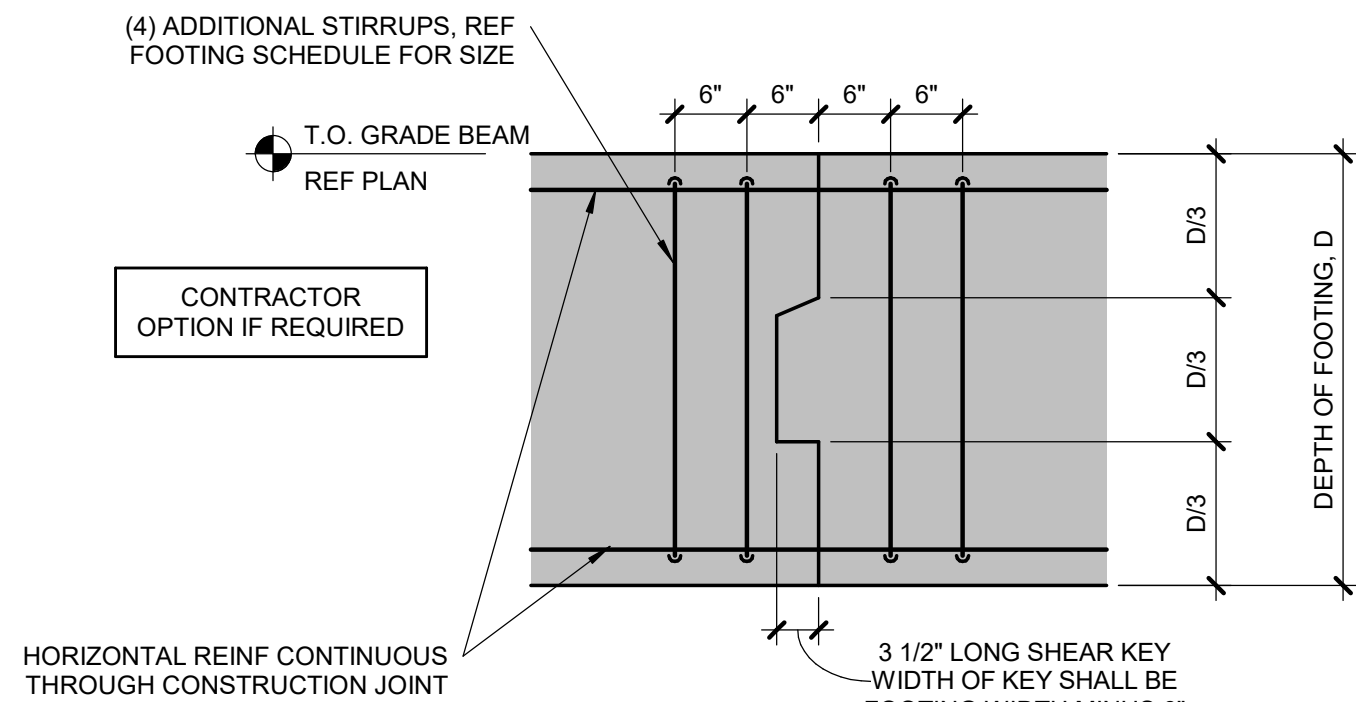
8 FOUNDATION WALL FOOTING STEP

S501 3/4" = 1'-0"



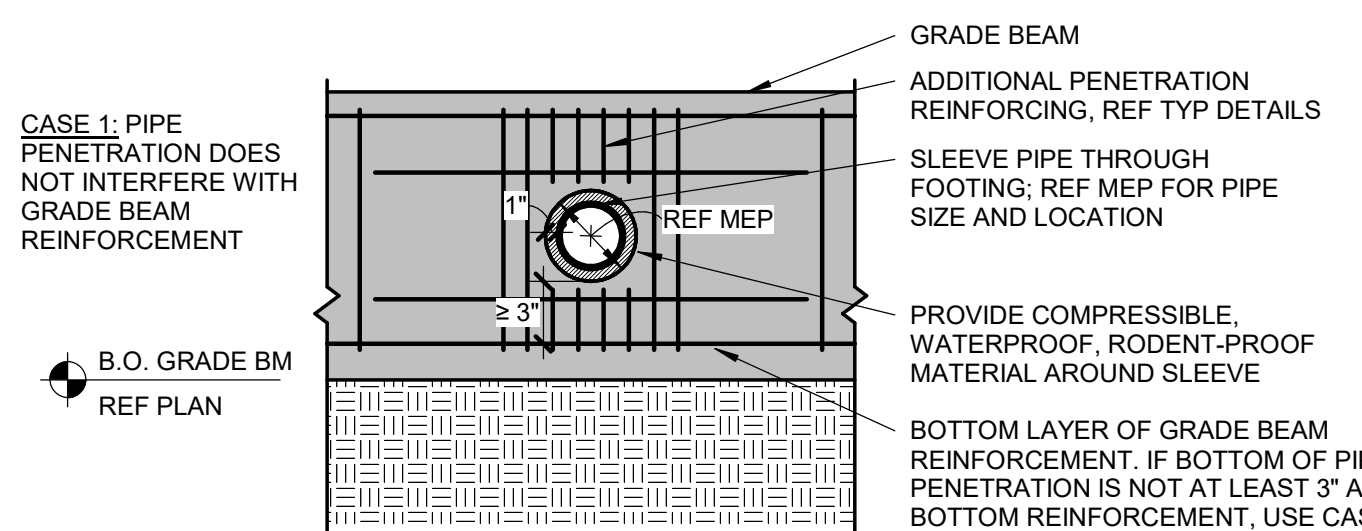
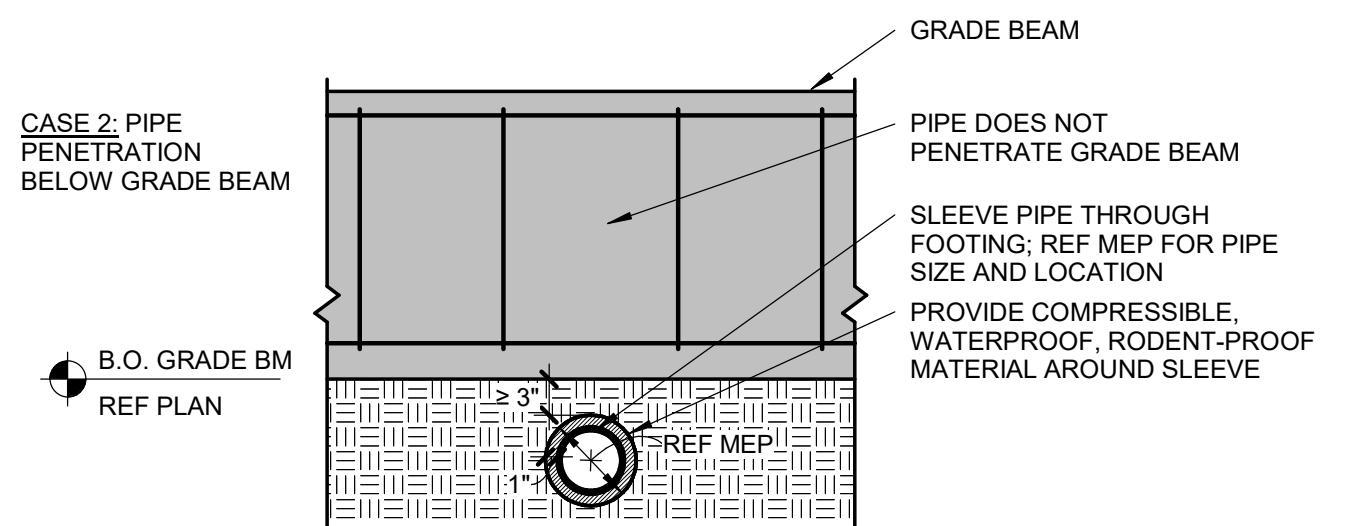
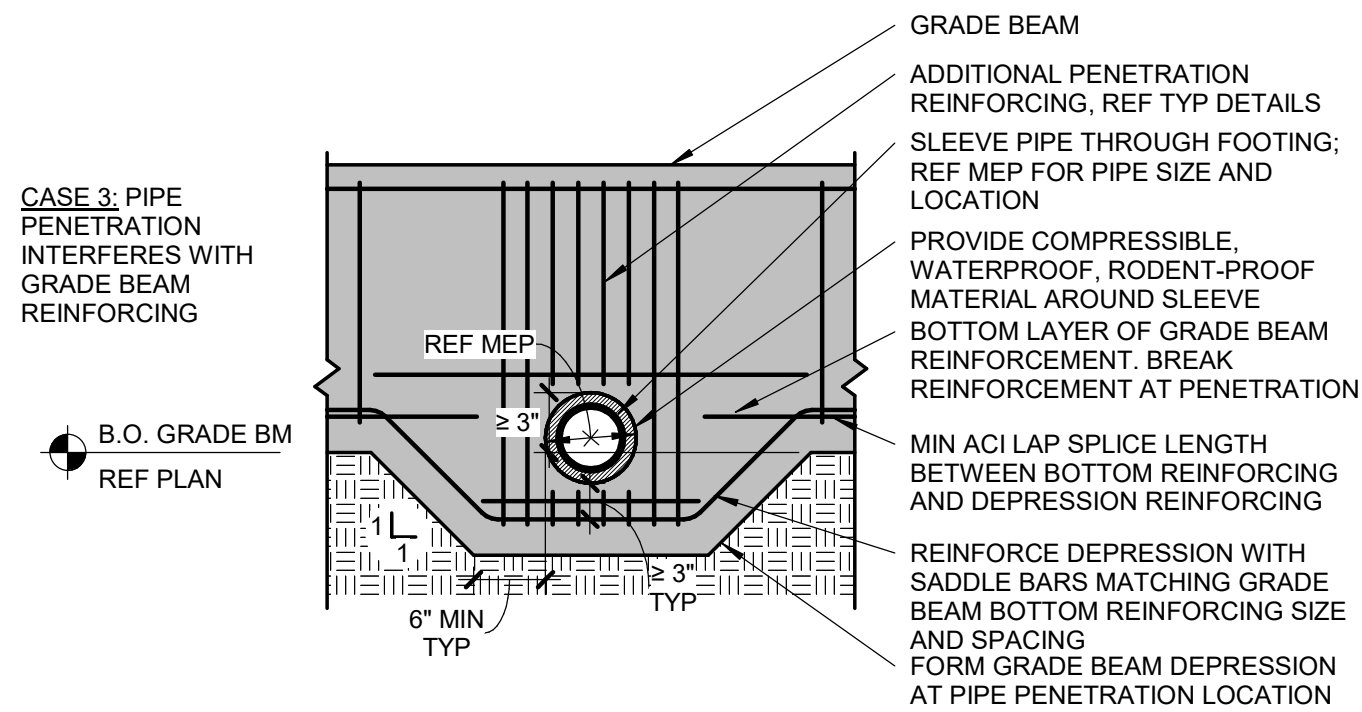
7 TYP FOOTING STEP

S501 3/4" = 1'-0"



6 TYP GRADE BEAM CONSTRUCTION JOINT

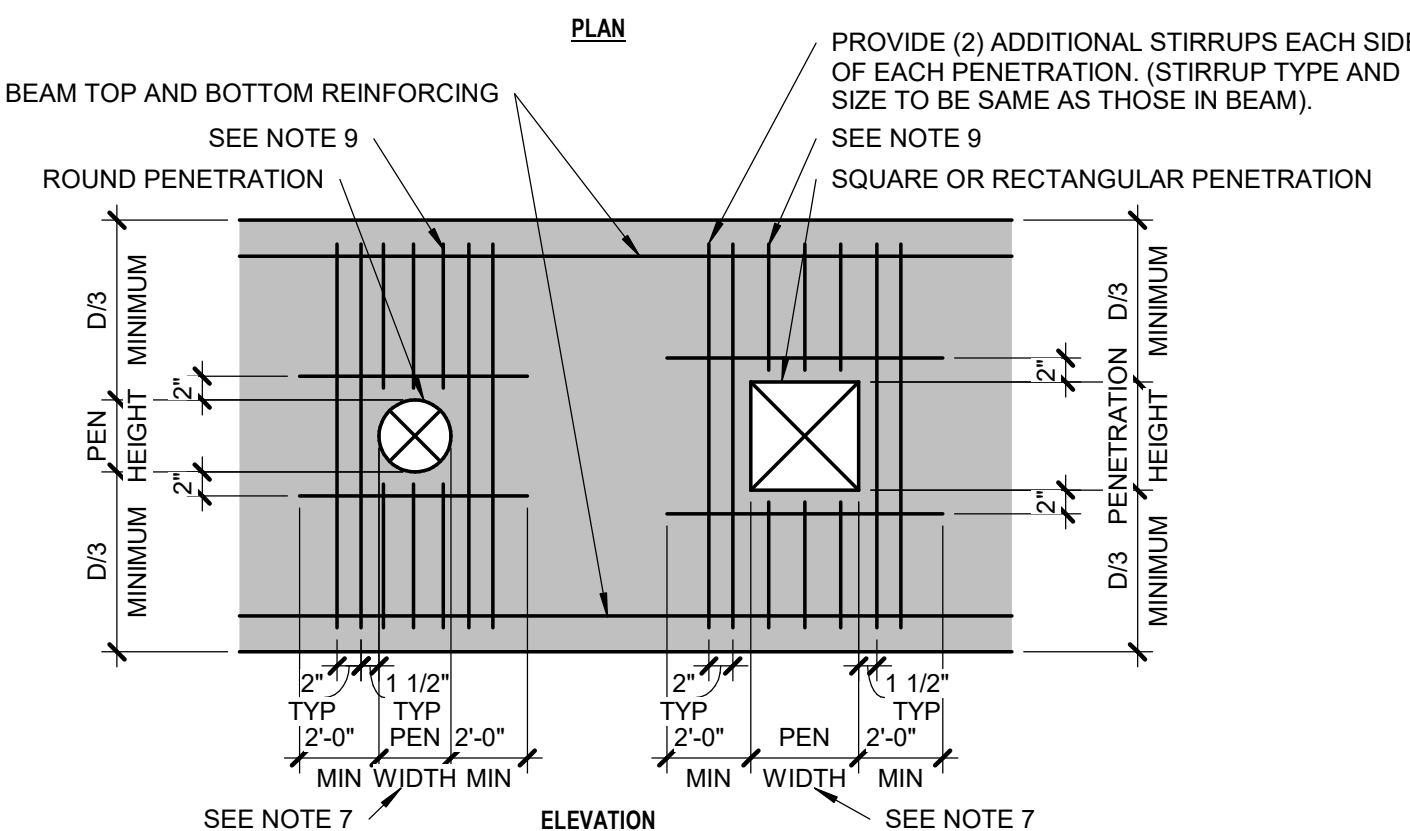
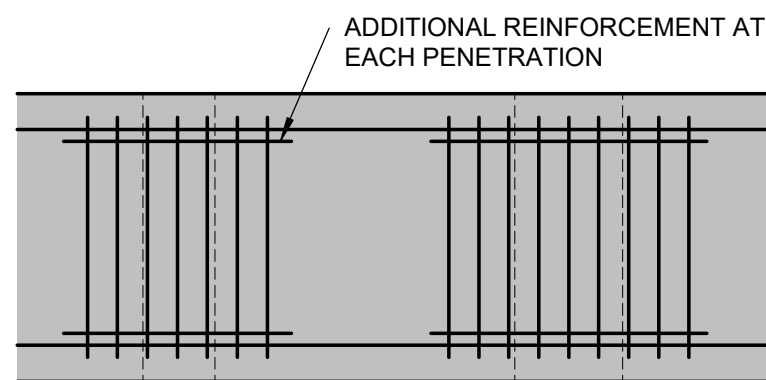
S501 3/4" = 1'-0"



5 GRADE BEAM AT PIPE PENETRATION

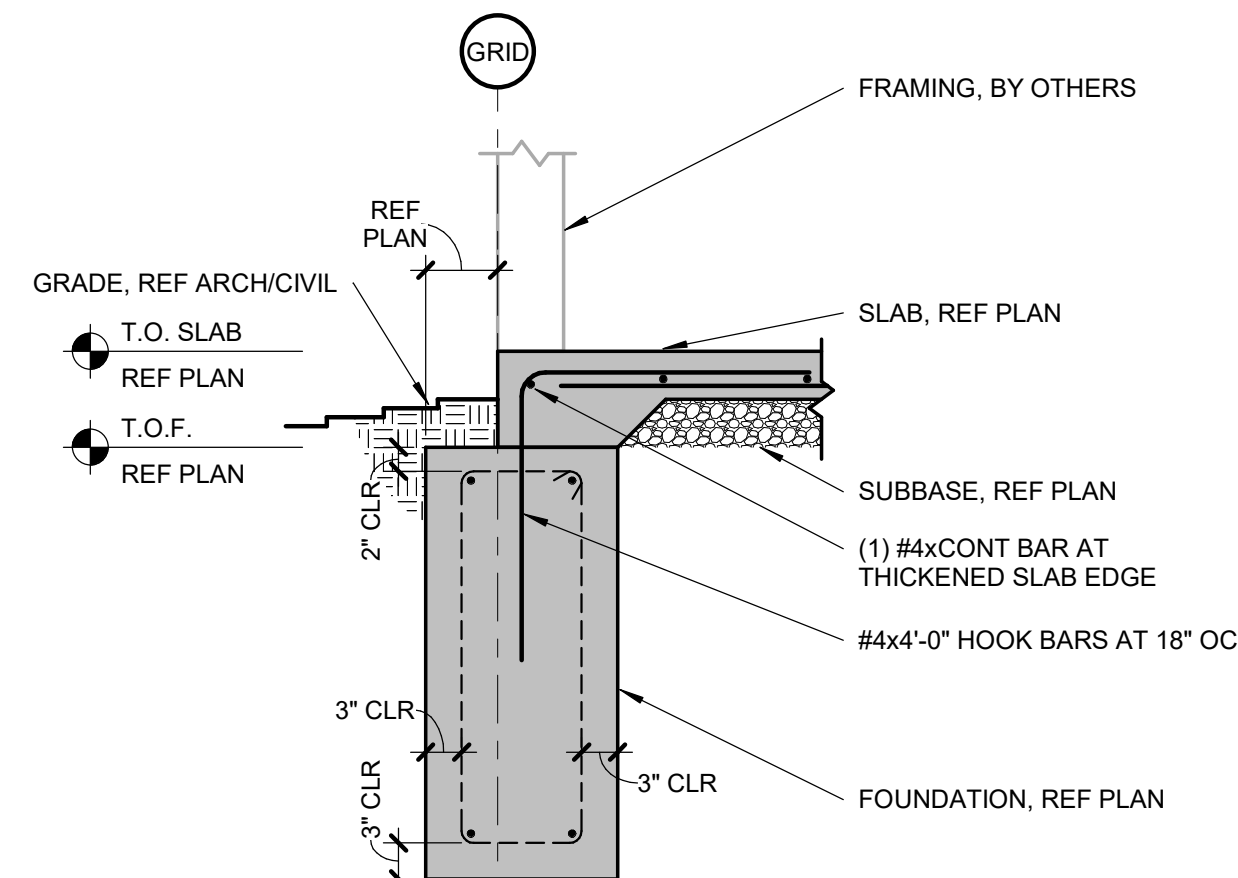
S501 3/4" = 1'-0"

- NOTES:
- CONTRACTOR TO COORDINATE LOCATION, SIZE AND ELEVATION AND INCLUDE IN HIS CONTRACT PRICE ALL REQUIRED HORIZONTAL PENETRATIONS THROUGH CONCRETE BEAMS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
 - WHERE BEAM PENETRATIONS ARE REQUIRED BUT ARE NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS, SUBMIT DRAWINGS, SHOWING DIMENSIONS AND LOCATIONS OF ALL REQUIRED PENETRATIONS, FOR REVIEW AND APPROVAL.
 - "D" DENOTES THE DEPTH OF BEAM.
 - CLEAR SPACING BETWEEN PENETRATIONS SHALL BE 24" MINIMUM UNLESS DESIGNED OTHERWISE BY THE ENGINEER.
 - PENETRATIONS SHALL BE LOCATED ACCORDING TO THE FOLLOWING CRITERIA:
 - A. FOR BEAMS NOT SUPPORTING INTERSECTING BEAMS: LOCATE PENETRATIONS WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
 - B. FOR BEAMS SUPPORTING INTERSECTING BEAMS: CHECK WITH STRUCTURAL ENGINEER.
 - AT EACH SLEEVE, UNLESS REQUIRED OTHERWISE BY NOTE #7 BELOW, PROVIDE THE FOLLOWING:
 - (1) #5 TOP AND BOTTOM AT BEAMS WITH WIDTHS LESS THAN 9".
 - (2) #5 TOP AND BOTTOM AT BEAMS WITH (2) LEG STIRRUPS.
 - (4) #5 TOP AND BOTTOM AT BEAMS WITH (4) LEG STIRRUPS.
 - (N) #5 TOP AND BOTTOM AT BEAMS WITH (N) LEG STIRRUPS.
 - PENETRATION WIDTH <= PENETRATION DEPTH (UNLESS SHOWN OTHERWISE ON THE STRUCTURAL DRAWINGS).
 - FOR LOCATIONS AND/OR SIZES OF PENETRATIONS NOT CONFORMING TO THE ABOVE CRITERIA AND NOT OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.
 - PROVIDE ADDITIONAL STIRRUPS AT SPACING NOT TO EXCEED ONE HALF OF THE SCHEDULED STIRRUP SPACING (UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS).
 - SEPARATE THE UTILITIES PASSING THRU SLEEVES / PENETRATIONS TO ADEQUATELY ACCOMMODATE ANY POTENTIAL SWELL FROM THE ON-SITE SOILS.



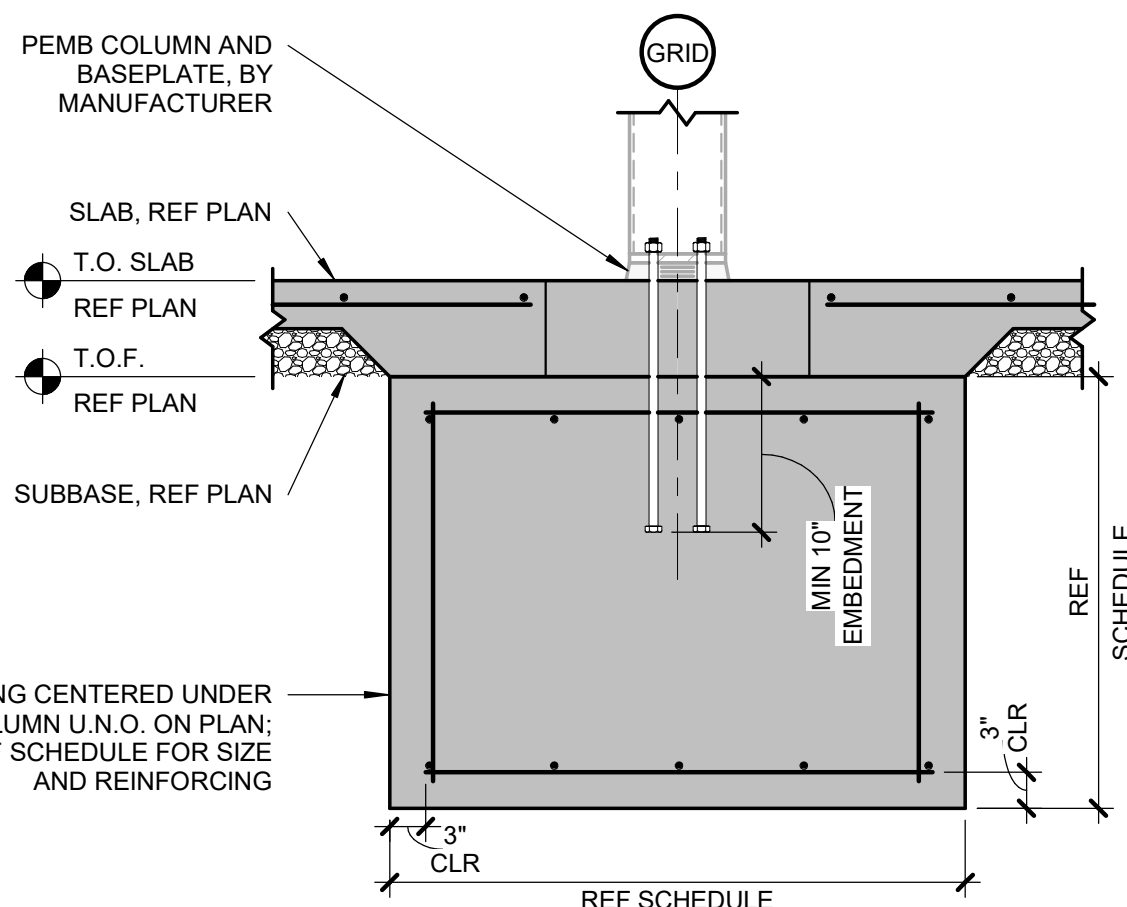
4 GRADE BEAM PIPE SLEEVE

S501 3/4" = 1'-0"



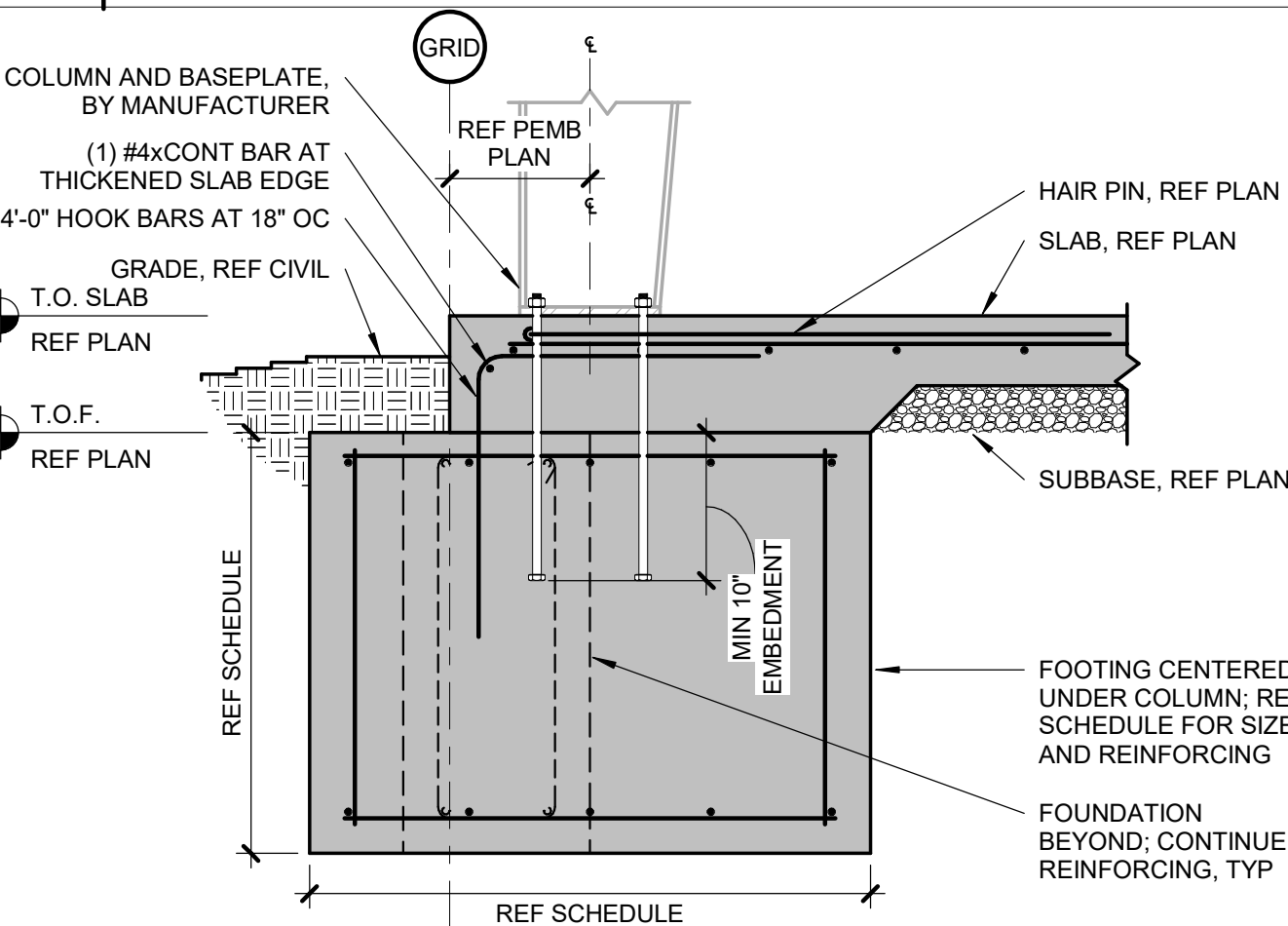
3 WOOD FRAMING ON CONTINUOUS FOOTING

S501 3/4" = 1'-0"



2 PEMB INTERIOR COLUMN SPREAD

S501 3/4" = 1'-0"



1 PEMB EXTERIOR COLUMN ON SLAB WITH CONTINUOUS FOOTING

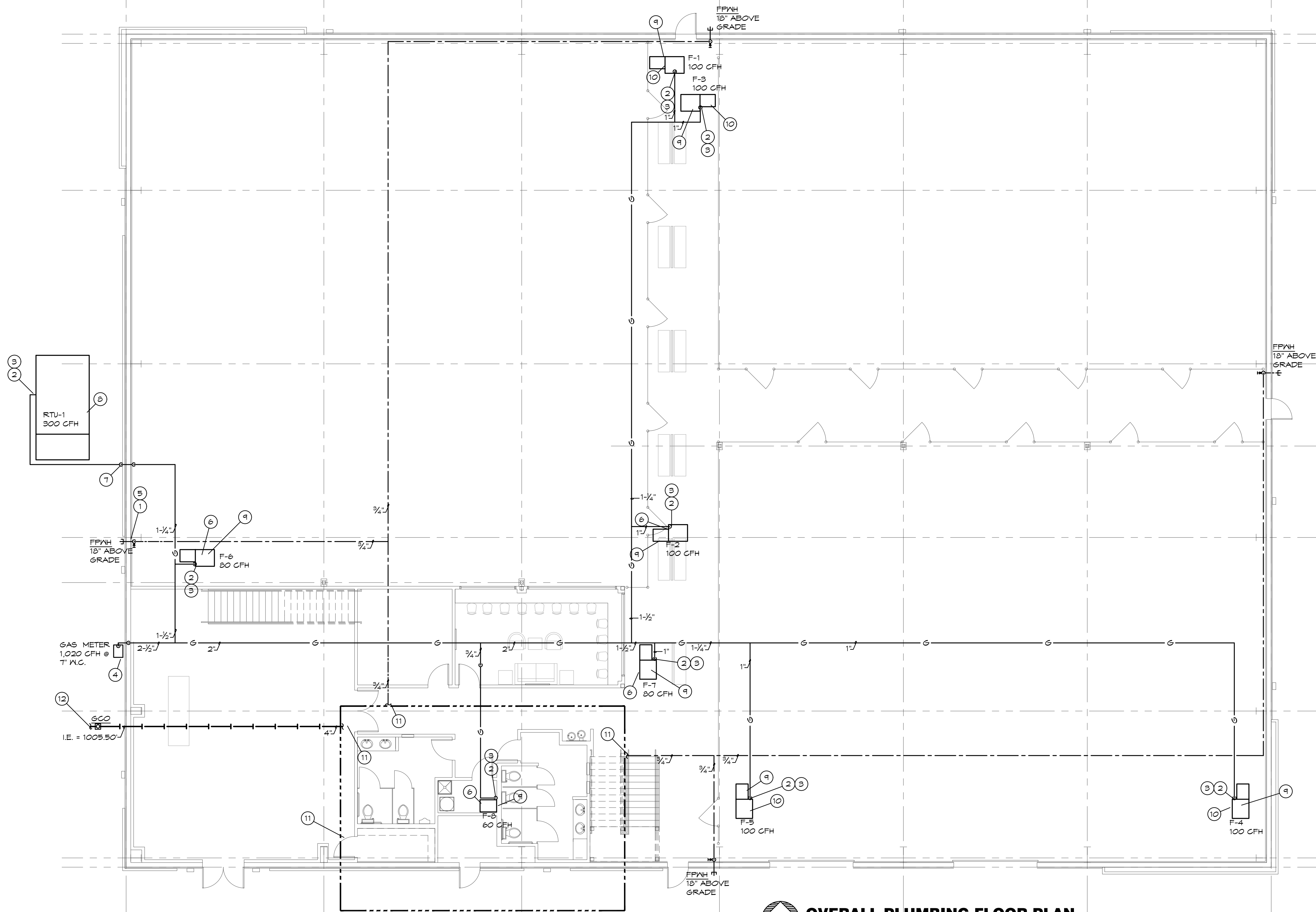
S501 3/4" = 1'-0"

PLUMBING GENERAL NOTES:

1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. PROVIDE 1" SCHEDULE 40 PVC CONDENSATE DRAIN PIPE FOR ROOFTOP UNIT LAID ROUTED TO GRASSY AREA. PROVIDE WATER TRAP AND CLEAN OUTS AS DETAILED. SECURE PVC PIPE TO DRAIN WITH NYLON STRAP.
6. PROVIDE 1" SCHEDULE 40 PVC CONDENSATE DRAIN PIPE FOR FURNACE AND FURNACE FLUE ROUTED TO GRASSY AREA. PROVIDE WATER TRAP AND CLEAN OUTS AS DETAILED. SECURE PVC PIPE TO DRAIN WITH NYLON STRAP.
7. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.
9. ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR.

PLUMBING SYMBOLS

- +—+— SOIL AND WASTE PIPING BELOW FLOOR/GRADE
- +—+— SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
- V— SANITARY VENT PIPING ABOVE GRADE
- V— SANITARY VENT PIPING BELOW GRADE
- — — DOMESTIC COLD WATER PIPING
- — — DOMESTIC HOT WATER PIPING
- G— GAS PIPING
- D— EQUIPMENT DRAIN LINE
- F— FIRE LINE
- +— PIPING TURNING DOWN
- +— PIPING TURNING UP
- +— TEE TOP CONNECTION
- +— UNION
- X—X— BACKFLOW PREVENTER
- FD FLOOR DRAIN
- FCO FLOOR CLEAN OUT
- WCO WALL CLEAN OUT
- GCO GRADE CLEAN OUT
- VALVE
- BALANCING VALVE
- SOLENOID VALVE
- PRESSURE REGULATOR
- CHECK VALVE
- CONNECT TO EXISTING
- I.E. INVERT ELEVATION OF PIPE
- MATCH MARKS ON PLUMBING RISER DIAGRAM



PLUMBING PLAN NOTES:

1. INSTALL WALL HYDRANT 18" ABOVE GRADE / FINISHED FLOOR.
2. CONNECT GAS TO EQUIPMENT AS REQUIRED AND AS DETAILED.
3. ALL APPLIANCE CONNECTIONS SHALL BE MADE WITH UL LISTED FLEXIBLE APPLIANCE CONNECTOR. FLEX CONNECTORS SHALL BE PROVIDED BY TENANT. CONTRACTOR SHALL PROVIDE SAFETY LOCK AND CHAIN AT ALL GAS APPLIANCES ON WHEELS. PROVIDE PIPING REDUCERS AND INCREASERS AS REQUIRED TO MATE HARD PIPING WITH FLEX CONNECTORS.
4. COORDINATE WITH GAS COMPANY FOR INSTALLATION OF A METER WITH CAPACITY FOR 1,020 CFH @ 1" N.C. ROUTE PIPING UP INSIDE THE EXTERIOR WALL AND UP TO 18'-0" ABOVE FINISHED FLOOR. ALL CONCEALED JOINTS ARE TO BE WELDED OR USE FITTINGS APPROVED FOR CONCEALED USE. VERIFY ALL EQUIPMENT GAS CAPACITIES AND OPERATING PRESSURES PRIOR TO INSTALLATION OF ANY PIPING.
5. ROUTE PIPING ON INTERIOR SIDE OF INSULATION FOR FREEZE PROTECTION.
6. ROUTE 3/4" DRAIN FROM FURNACE DRAIN PAN AND 3/4" DRAIN FROM EVAPORATOR COILS TO MOP BASIN/FLOOR DRAIN AS REQUIRED. LEAVE AIR GAP.
7. ROUTE GAS PIPE DOWN TO 18" AFF AND PENETRATE EXTERIOR WALL. ROUTE GAS PIPE ABOVE GRADE AND OVER TO RTU AS REQUIRED.

PLUMBING PLAN NOTES:

8. CONNECT CONDENSATE TO RTU AS REQUIRED AND AS DETAILED.
9. CONNECT CONDENSATE TO FURNACE AND FURNACE FLUE AS REQUIRED AND AS DETAILED.
10. ROUTE 3/4" DRAIN FROM FURNACE DRAIN PAN AND 3/4" DRAIN FROM EVAPORATOR COILS TO GRADE AS REQUIRED. LEAVE AIR GAP.
11. SEE ENLARGED PLUMBING PLAN ON SHEET P1.1 FOR CONTINUATION OF PIPING AND PIPING IN THIS AREA.
12. SEE CIVIL PLAN FOR CONTINUATION OF 4" SANITARY SEWER. MAINTAIN MIN 30" COVER.

OVERALL PLUMBING FLOOR PLAN
SCALE: 1/8" = 1'-0"
F.F.E. = 1005.50'

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MISSOURI PE COA #2009003629

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5720 Reeder Shawnee, Ks. 66203 (913)262-1772

a new development for

Town Centre Lot 1

520 NE Town Centre Drive

Lee's Summit, Missouri 64064

date
05.19.22
drawn by
MA/FS
checked by
EK/DS
revisions

sheet number

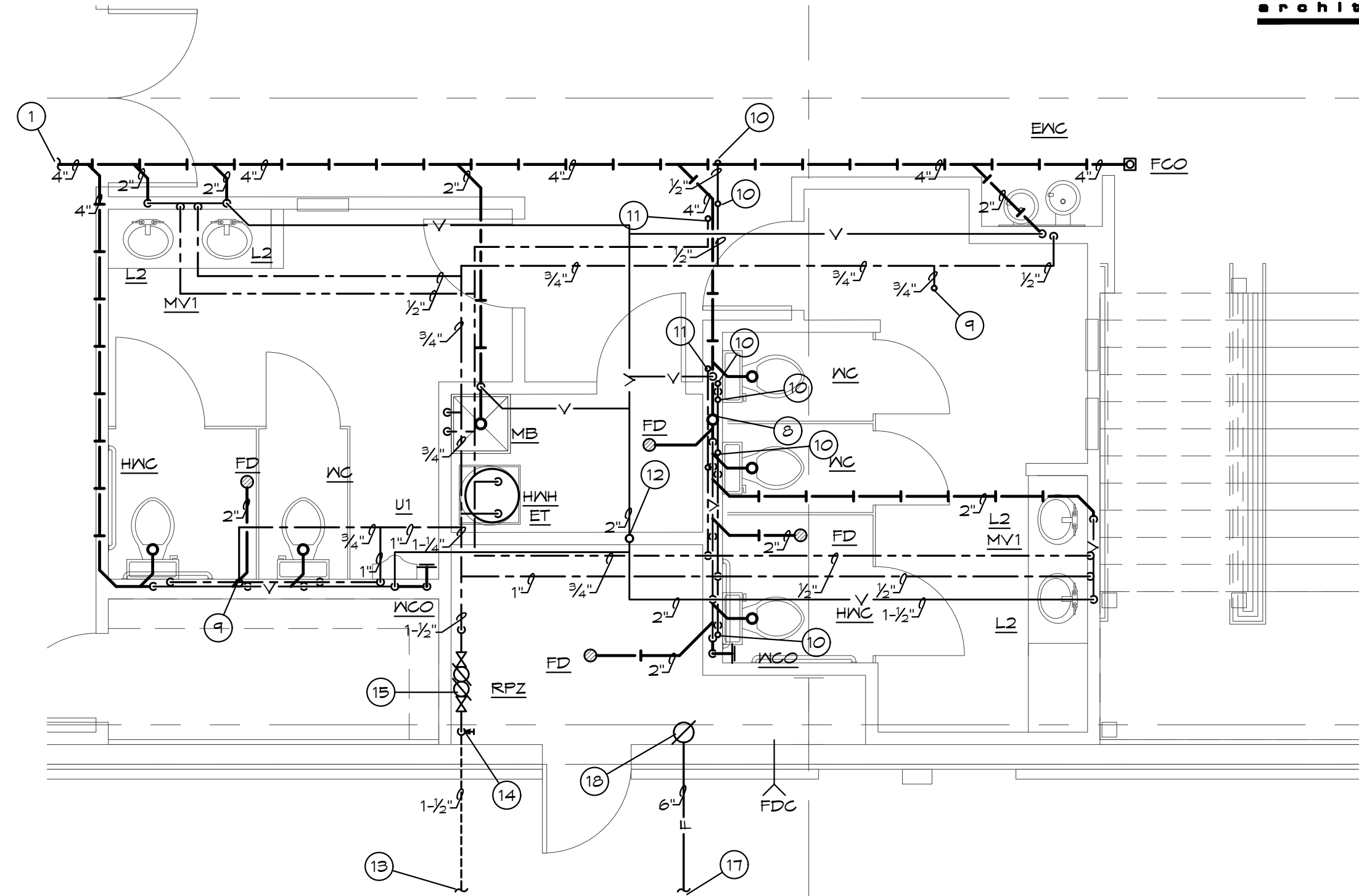
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drawing type
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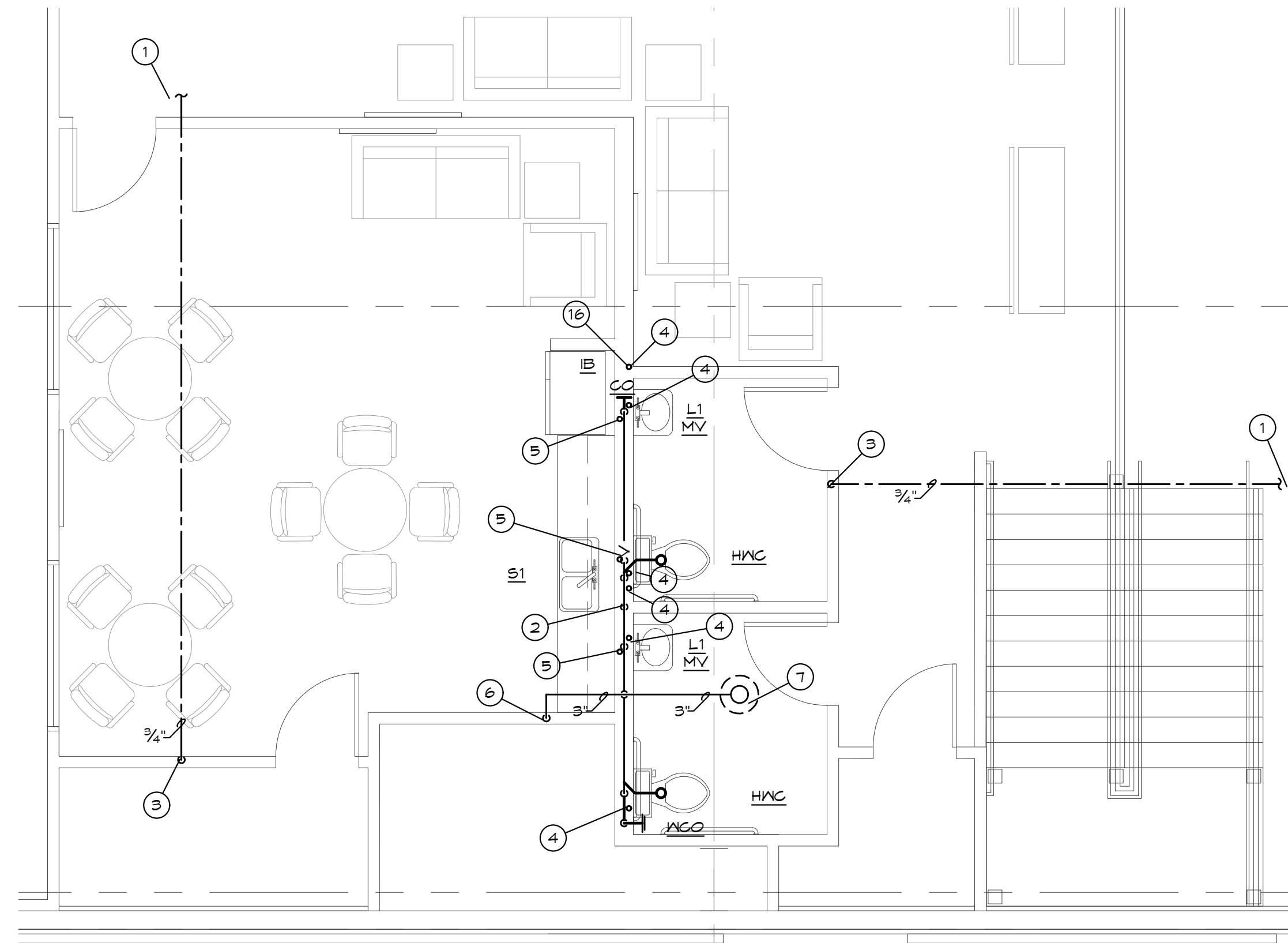
project number
20231

PLUMBING PLAN NOTES:

- 1 REFER TO SHEET P1.0 FOR CONTINUATION OF PIPING.
- 2 4" WASTE PIPE DOWN TO FLOOR BELOW. REFER TO ENLARGED FIRST FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING. PROVIDE CLEANOUT AT BASE OF RISER.
- 3 3/4" CW UP FROM FLOOR BELOW. REFER TO ENLARGED FIRST FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 4 1/2" CW UP FROM FLOOR BELOW. REFER TO ENLARGED FIRST FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 5 1/2" HW UP FROM FLOOR BELOW. REFER TO ENLARGED FIRST FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 6 3" VENT PIPE UP FROM FLOOR BELOW. REFER TO ENLARGED FIRST FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 7 LOCATION OF 3" VTR. VERIFY 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION WEATHERTIGHT.
- 8 4" WASTE PIPE DOWN FROM FLOOR ABOVE. REFER TO ENLARGED 2ND FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING. PROVIDE CLEANOUT AT BASE OF RISER.
- 9 3/4" CW UP TO FLOOR ABOVE. REFER TO ENLARGED 2ND FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 10 1/2" CW UP TO FLOOR ABOVE. REFER TO ENLARGED 2ND FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 11 1/2" HW UP TO FLOOR ABOVE. REFER TO ENLARGED 2ND FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 12 3" VENT PIPE UP TO FLOOR ABOVE. REFER TO ENLARGED 2ND FLOOR PLUMBING PLAN FOR CONTINUATION OF PIPING.
- 13 SEE CIVIL PLAN FOR CONTINUATION OF 1-1/2" DOMESTIC C.W. MAINTAIN MIN 48" COVER.
- 14 ROUTE PIPING ON INTERIOR SIDE OF INSULATION FOR FREEZE PROTECTION.
- 15 PROVIDE 1-1/2" RPZ BACKFLOW PREVENTER AND INSTALL 24" A.F.F. 4 6" FROM WALL. ROUTE DRAIN FROM RPZ BFP TO FLOOR DRAIN WITH AN AIR GAP.
- 16 PROVIDE ICE MAKER BOX WITH VALVE FOR CONNECTION TO REFRIGERATOR BY OTHERS.
- 17 6" FIRE LINE. SEE CIVIL PLANS FOR CONTINUATION. MAINTAIN A MINIMUM 48" BURY FOR FREEZE PROTECTION.
- 18 ROUTE 6" FIRE LINE THRU FOUNDATION UP THRU FLOOR 24" AFF AND CAP FOR FUTURE EXTENSION BY SPRINKLER CONTRACTOR.



ENLARGED PLUMBING 1ST FLOOR PLAN
SCALE: 1/4" = 1'-0"
NORTH



ENLARGED PLUMBING 2ND FLOOR PLAN
SCALE: 1/4" = 1'-0"
NORTH

a new development for

Town Centre Lot 1

520 NE Town Centre Drive

Lee's Summit, Missouri 64064

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drawn by
MA/FS
checked by
EK/DS
revisions



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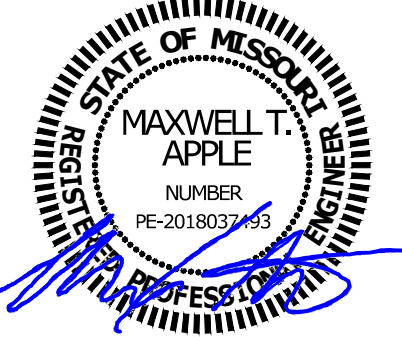
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project number
20231

5/19/2022



a new development for
Town Centre Lot 1
520 NE Town Centre Drive
Lee's Summit, Missouri 64064

date
05.19.22
drawn by
MA/FS
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EK/DS
revisions

sheet number

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drawing type
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project number
20231

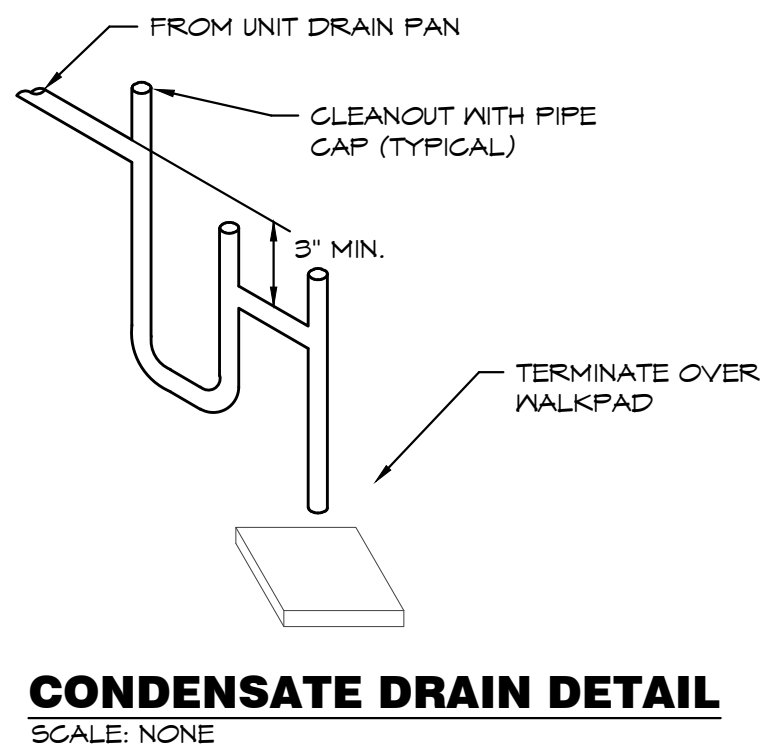
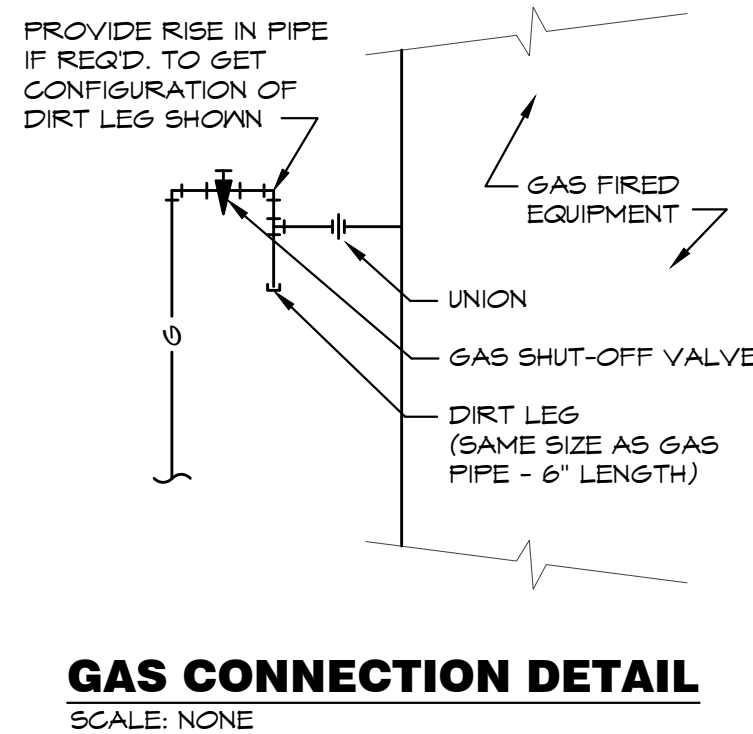
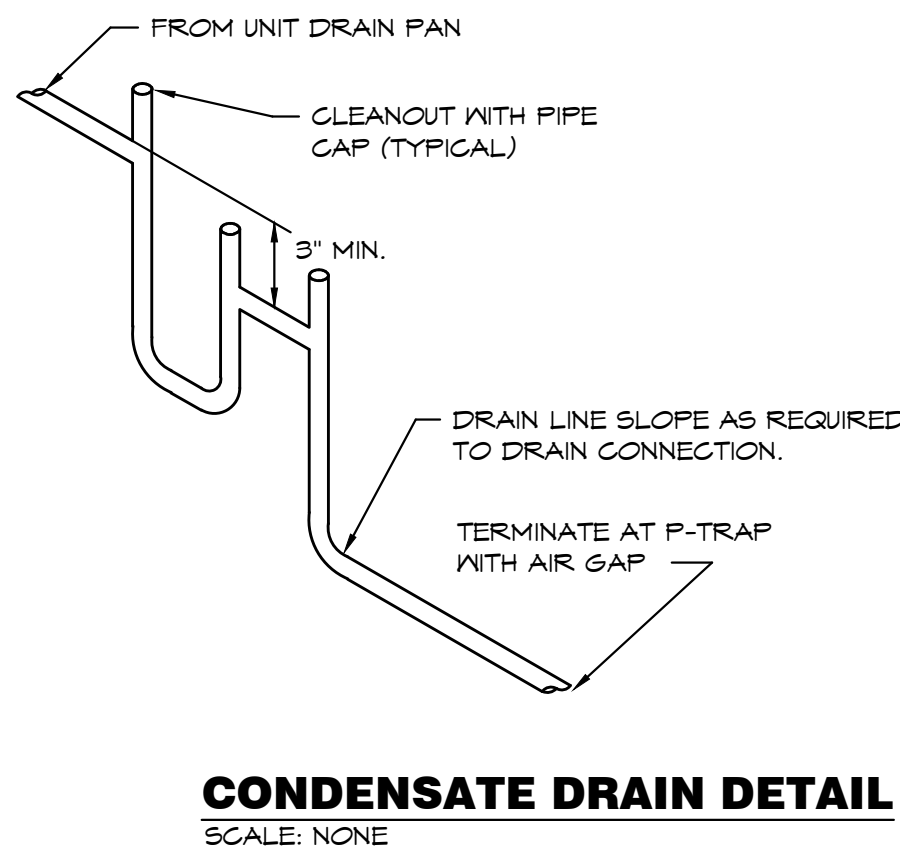
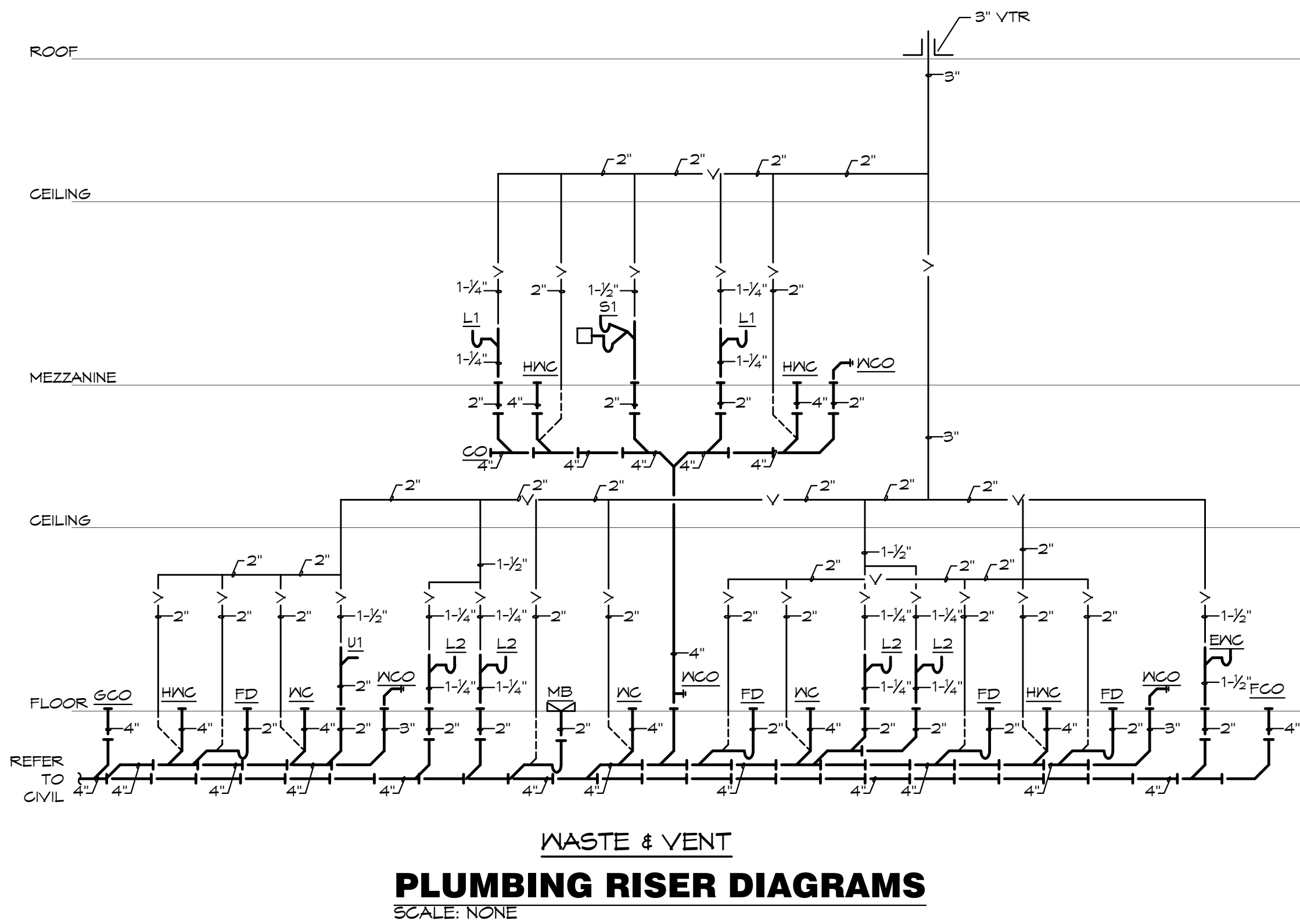
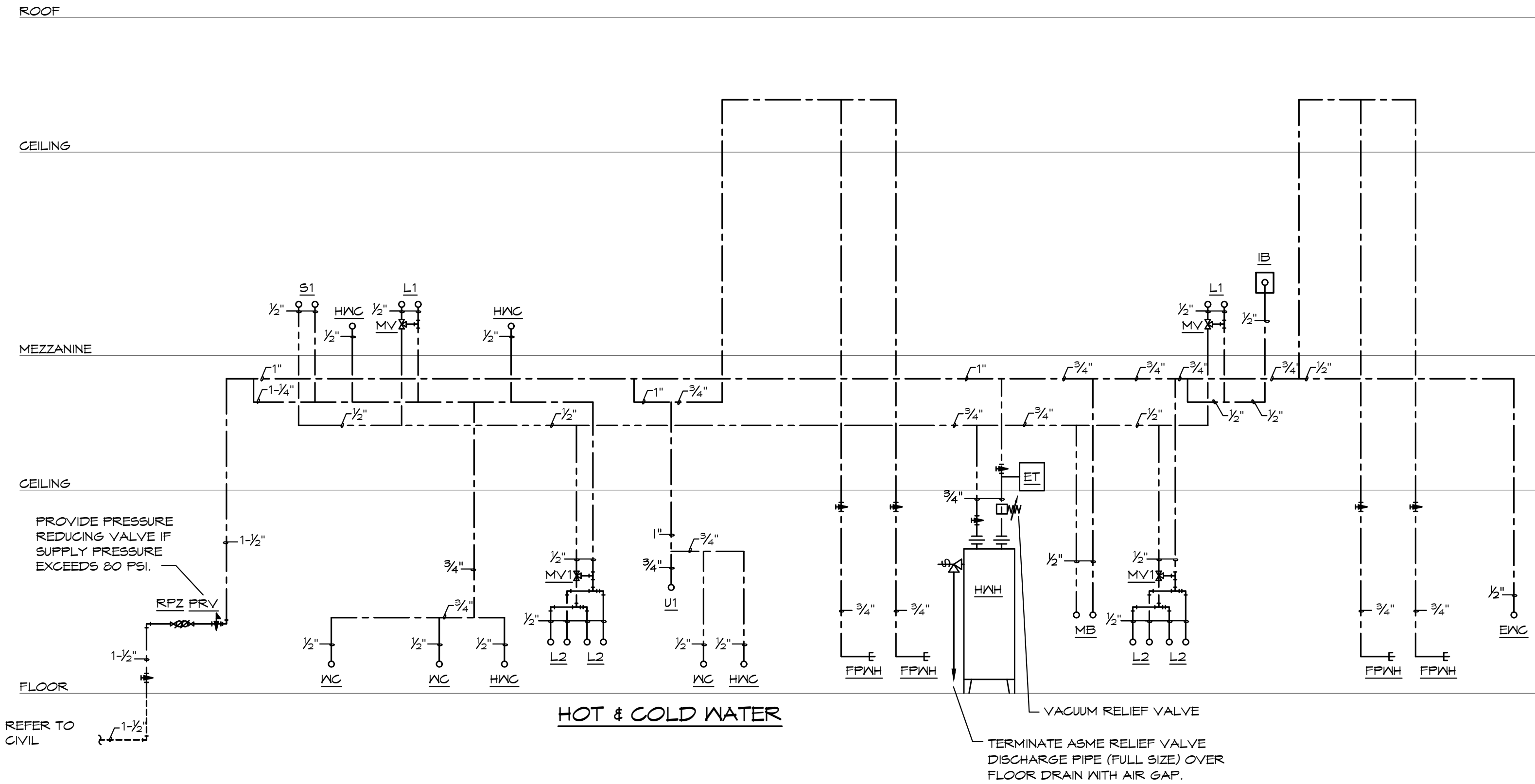
PLUMBING FIXTURE BRANCH PIPING SCHEDULE				
FIXTURE	WASTE	VENT	GA	HA
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	--
URINAL	2"	1-1/2"	3/4"	--
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
FLOOR DRAIN	2"	2"	--	--
MOP BASIN	2"	2"	1/2"	1/2"
ELECTRIC WATER COOLER (BI-LEVEL)	1-1/2"	1-1/2"	1/2"	--

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

PIPE HANGER SCHEDULE		
PIPE MATERIAL	MAXIMUM HANGER SPACING	HANGER ROD DIAMETER
ABS (All sizes)	4'	3/8"
PVC (All Sizes)	4'	3/8"
CPVC, 1 inch and smaller	3'	1/2"
CPVC, 1-1/4 inches and larger	4'	1/2"
Cast Iron (All Sizes)	5'	5/8"
Cast Iron (All Sizes) with 10 foot length of pipe	10'	5/8"
Copper Tube, 1-1/4 inches and smaller	6'	1/2"
Copper Tube, 1-1/2 inches and larger	10'	1/2"
Steel, 3 inches and smaller	12'	1/2"
Steel, 4 inches and larger	12'	5/8"
Pex, 1" and below without support channel	32"	3/8"
Pex, 1-1/4" and above without support channel	48"	3/8"
Pex 3/4" and below with support channel	6'	3/8"
Pex 1" and above with support channel	8'	3/8"

PLUMBING FIXTURE SCHEDULE:

- HWC** HANDICAP WATER CLOSET: TOTO, #CST144EL(R/N, "DRAKE CLOSE COUPLED TOILET", 1.28 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #SC534 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER, HANDLE ON WIDE SIDE OF FIXTURE.
- WC** WATER CLOSET: TOTO, #CST144E(R/G/N, "DRAKE CLOSE COUPLED TOILET", 1.28 GALLON FLUSH, ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #SC534 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER.
- L1** LAVATORY, WALL HUNG: TOTO #LT307,VITREOUS CHINA, INTEGRAL BACK, 20"x 18", FRONT OVERFLOW, DELTA #501 FAUCET WITH SINGLE METAL LEVER, GRID DRAIN WITH 1-1/4" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, CONCEALED ARM FLOOR MOUNTED LAVATORY CARRIER.
- L2** HANDICAP LAVATORY, COUNTERTOP: TOTO, #LT501, VITREOUS CHINA, 20"x 11" OVAL BASIN, DELTA #501 FAUCET WITH SINGLE METAL LEVER HANDLE, OFFSET GRID DRAIN WITH 1-1/4" TAILPIECE, CHROME PLATED P-TRAP(MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- UI** URINAL, WALL HUNG: TOTO, #UT447.01, VITREOUS CHINA, WASH OUT, WALL HUNG URINAL WITH 3/4" TOP SPUD, #TMU11NC-12 FLUSH VALVE, FLOOR MOUNTED FIXTURE SUPPORT. SET RIM HEIGHT PER ARCHITECTURAL DRAWINGS.
- S1** SINK, DOUBLE COMPARTMENT: ELKAY, #LR-3322, TWO 13-1/2"x16"x8" DEEP BOWL, 32-3/8"x21-3/8" CUT-OUT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, CHICAGO FAUCET#1100 FAUCET, SWING SPOUT, AERATOR, WING HANDLES, #LK-35 BASKET STRAINER WITH 1-1/2" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, IN-SINK-ERATOR#EADG8R 5 DISPOSAL, 1/2 HP, 120 VOLT. SINK CUT-OUT IN CASEWORK SHALL BE BY CASEWORK CONTRACTOR.
- MB** MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24"x 24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAUL HOOK, WALL BRACKET WITH 30" HOSE.
- ENC** ELECTRIC WATER COOLER: OASIS, #F68ACSL, BARRIER FREE TWO-STATION WATER COOLER, 8.0 GPH, 50 DEGREES F WATER WITH 90 DEGREES F AIR TEMPERATURE, 120 VOLT, COLOR TO BE SELECTED BY ARCHITECT AFTER AWARD OF CONTRACT, FRONT AND SIDE ANTIMICROBIAL PUSH PADS, ANTIMICROBIAL FLEX BUBBLERS, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED LOOSE KEY ANGLE STOP, FLOOR MOUNTED CARRIER AND GANE APRON.
- FD** FLOOR DRAIN: SIOUX CHIEF, #842, PVC FLOOR DRAIN WITH ADJUSTABLE TOP AND CAST BRASS STRAINER.
- HWH** HOT WATER HEATER: AO SMITH #DEL-40, 40 GALLON STORAGE, 208 VOLT, SINGLE PHASE, (2) 4500 WATT ELEMENT, NON-SIMULTANEOUS, ASME TEMPERATURE AND PRESSURE RELIEF VALVE. SET TEMPERATURE TO 120°F.
- ET** HOT WATER EXPANSION TANK: AMTROL, #ST-8, 3.2 GALLON EXPANSION TANK WITH DIAPHRAGM.
- MV** MIXING VALVE: MATTS, #LFUS6-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESSSTEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F). ASSE 1070 LISTED.
- MV1** MIXING VALVE: MATTS, #LFMMV THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), SOLID MAX HYDRAULIC PRINCIPLE THERMOSTAT, INTEGRAL FILTER WASHERS AND CHECK VALVES ON HOT AND COLD INLETS.(SET TO 110°F) ASSE #1011, #1064, #1070
- RPZ** REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: MATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TWO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS.
- IB** ICE BOX: SIOUX CHIEF #646-1000, ICE BOX WITH 1/2" INLET AND CONNECTION AND 1/4-TURN SHUT OFF VALVE.
- FCO/MCO** VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
WALL: JR SMITH #44T2, OR EQUAL, 24" ABOVE THE FLOOR.
- FPWH** FREEZEPROOF WALL HYDRANT: JR SMITH #5609, 3/4" SIZE, NICKEL-BRONZE FACE, KEY OPERATED, INTEGRAL VACUUM BREAKER.

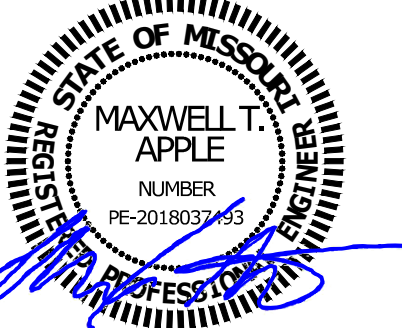


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MISSOURI PE COA #2009003629
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5/19/2022



MECHANICAL GENERAL NOTES:

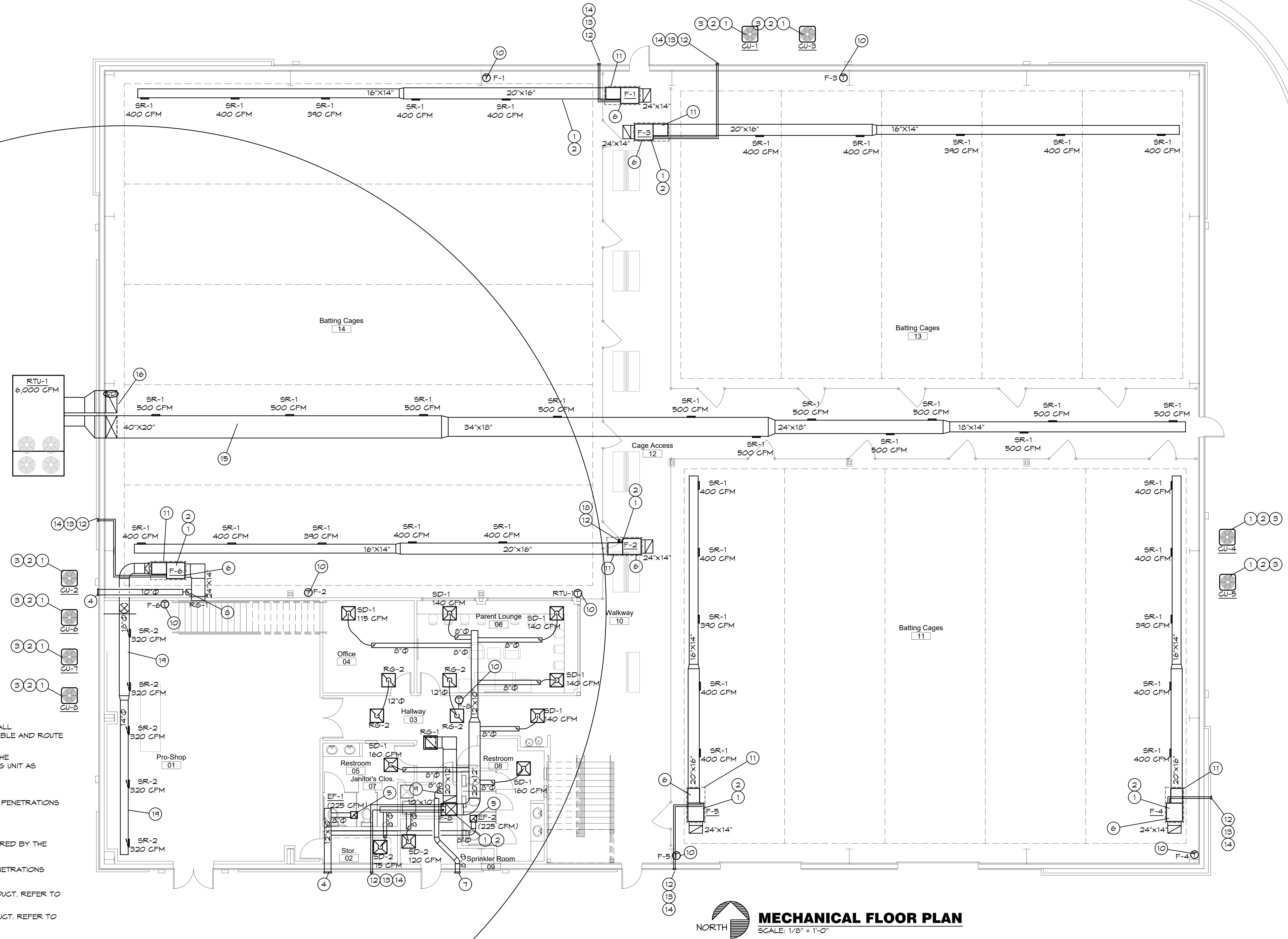
- COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
- THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
- INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
- DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
- PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
- NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
- ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

MECHANICAL SYMBOLS

	NEW SUPPLY DIFFUSER
	NEW RETURN AIR GRILLE
	EXHAUST GRILLE/FAN
	REMOTE TEMPERATURE SENSOR
	THERMOSTAT, MOUNTED AT 48" AFF
	DUCT-MOUNTED SMOKE DETECTOR
	NEW DUCTWORK
	SIZE OF RECTANGULAR DUCT
	SIZE OF ROUND DUCT
	FLEXIBLE DUCTWORK
	FLEXIBLE CONNECTION TO FAN
	FLOOR PLAN NOTE DESIGNATION
	S.A. SUPPLY AIR
	R.A. RETURN AIR
	EXH. EXHAUST AIR
	TRANSITION IN DUCT SIZE
	ELBOW WITH TURNING VANES
	MANUAL VOLUME DAMPER
	MANUAL VOLUME DAMPER
	SUPPLY AIR DUCT UP/DOWN
	RETURN AIR DUCT UP/DOWN
	EXHAUST AIR DUCT UP/DOWN
	CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
	SCHEDULED MECHANICAL EQUIPMENT

MECHANICAL PLAN NOTES:

- REFRIGERANT PIPING THROUGH EXTERIOR WALL AT 18" ABOVE GRADE. SEAL WALL PENETRATION WEATHERTIGHT. ROUTE PIPE UP INSIDE WALL TO AS HIGH AS POSSIBLE AND ROUTE TO UNITS.
- CONNECT REFRIGERANT PIPING TO CONDENSING UNIT & COIL AS REQUIRED BY THE MANUFACTURER. PROVIDE AND INSTALL REFRIGERANT PIPING FOR CONDENSING UNIT AS REQUIRED BY MANUFACTURER.
- PROVIDE PREFABRICATED OR CONCRETE PAD FOR CONDENSING UNITS.
- PROVIDE WALL VENT CAP WITH BACKDRAFT DAMPER FOR EXHAUST FAN. SEAL PENETRATIONS WEATHERTIGHT.
- SUPPORT FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- SUPPORT UNIT FROM STRUCTURE AND PROVIDE VIBRATION ISOLATION AS REQUIRED BY THE MANUFACTURER. PROVIDE ADDITIONAL SUPPORT STEEL AS REQUIRED.
- PROVIDE WALL VENT CAP FOR OUTDOOR INTAKE WITH BIRD SCREEN. SEAL PENETRATIONS WEATHERTIGHT.
- CONNECT 10" Ø OUTDOOR AIR DUCT WITH BALANCING DAMPER TO RETURN AIR DUCT. REFER TO OUTDOOR AIR CALCULATIONS FOR MINIMUM OUTDOOR AIR VOLUME.
- CONNECT 8" Ø OUTDOOR AIR DUCT WITH BALANCING DAMPER TO RETURN AIR DUCT. REFER TO OUTDOOR AIR CALCULATIONS FOR MINIMUM OUTDOOR AIR VOLUME.
- PROVIDE 1-DAY PROGRAMMABLE AUTO/HEAT/COOL THERMOSTAT AT 48" AFF.
- PROVIDE WATERPROOF GALVANIZED SHEET METAL DRAIN PAN UNDER FURNACE & EVAPORATOR COIL. REFER TO PLUMBING PLANS FOR CONDENSATE AND DRAIN PAN PIPING.
- COORDINATE WITH G.C. & METAL BUILDING MANUFACTURER TO SEAL FLUE PENETRATIONS WEATHER TIGHT.
- 3" Ø CPVC FLUE & COMBUSTION AIR INTAKE UP THROUGH WALL TO MANUFACTURER'S VENT TERMINATION AS REQUIRED. OFFSET AS REQUIRED TO MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATIONS WEATHER TIGHT.
- MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
- ROUTE DUCTWORK UP TO AS HIGH AS POSSIBLE.
- TURN R.A. DUCT UP 18" AND INSTALL BIRD SCREEN ON OPEN DUCT AS REQUIRED.
- 3" Ø CPVC FLUE & COMBUSTION AIR INTAKE UP THROUGH ROOF TO MANUFACTURER'S VENT TERMINATION AS REQUIRED. OFFSET AS REQUIRED TO MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATIONS WEATHER TIGHT.
- INSTALL BOTTOM OF DUCT AT 12'-6" AFF.



MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

a new development for
Town Centre Lot 1
520 NE Town Centre Drive
Lee's Summit, Missouri 64064

date
05.19.22
drawn by
MA/FS
checked by
EK/DS
revisions

BC PROJECT #: 22323
MISSOURI PE COA #2009003629

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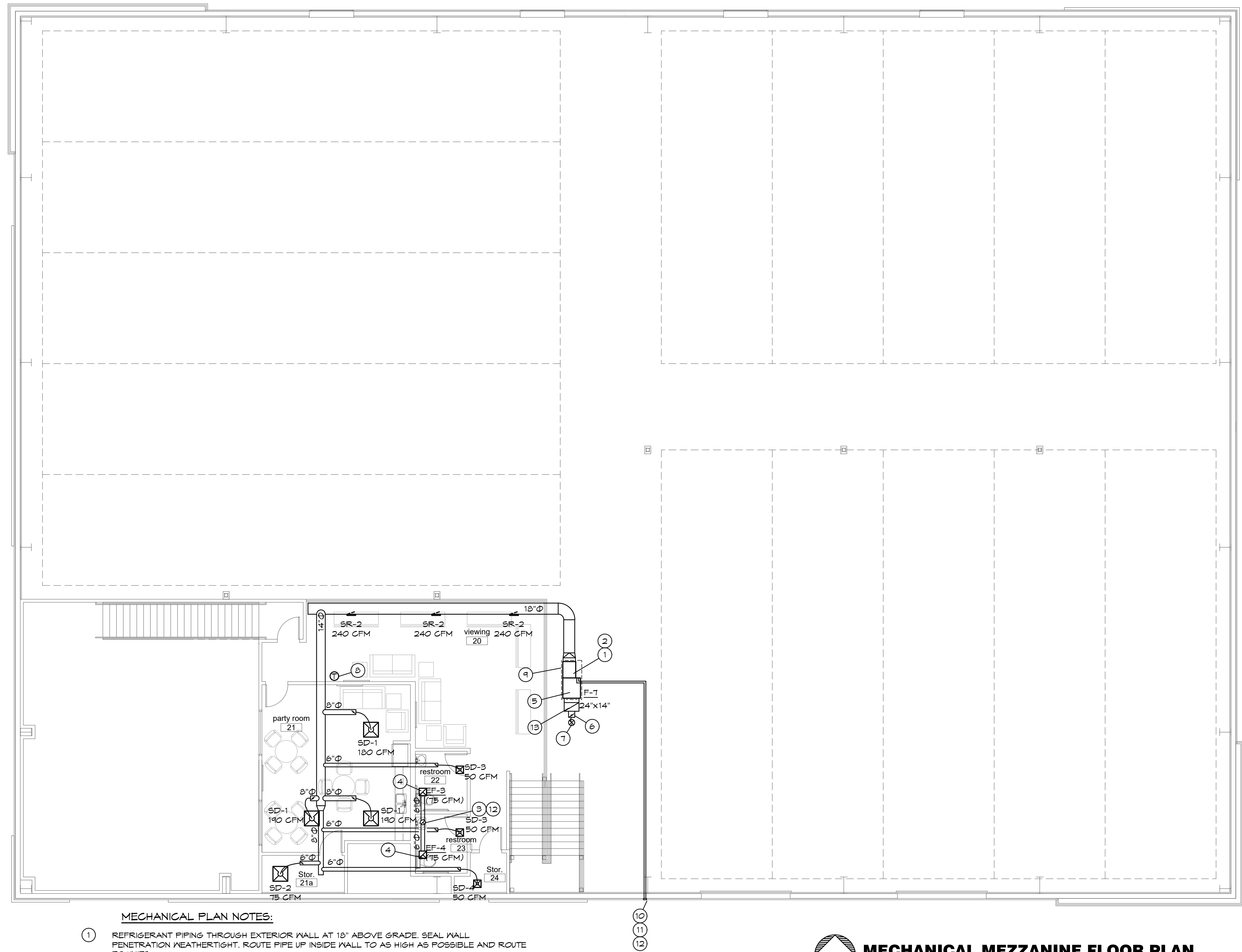
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sheet number

M1.0

drawing type
permit

project number
20231



MECHANICAL PLAN NOTES:

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- MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
- TURN R.A. DUCT UP 18" AND INSTALL BIRD SCREEN ON OPEN DUCT AS REQUIRED.

MECHANICAL MEZZANINE FLOOR PLAN
NORTH SCALE: 1/8" = 1'-0"

BC PROJECT #: 22323
MISSOURI PE COA #2009003629
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5720 Reeder Shawnee, Ks. 66203 (913)262-1772

a new development for
Town Centre Lot 1
520 NE Town Centre Drive
Lee's Summit, Missouri 64064

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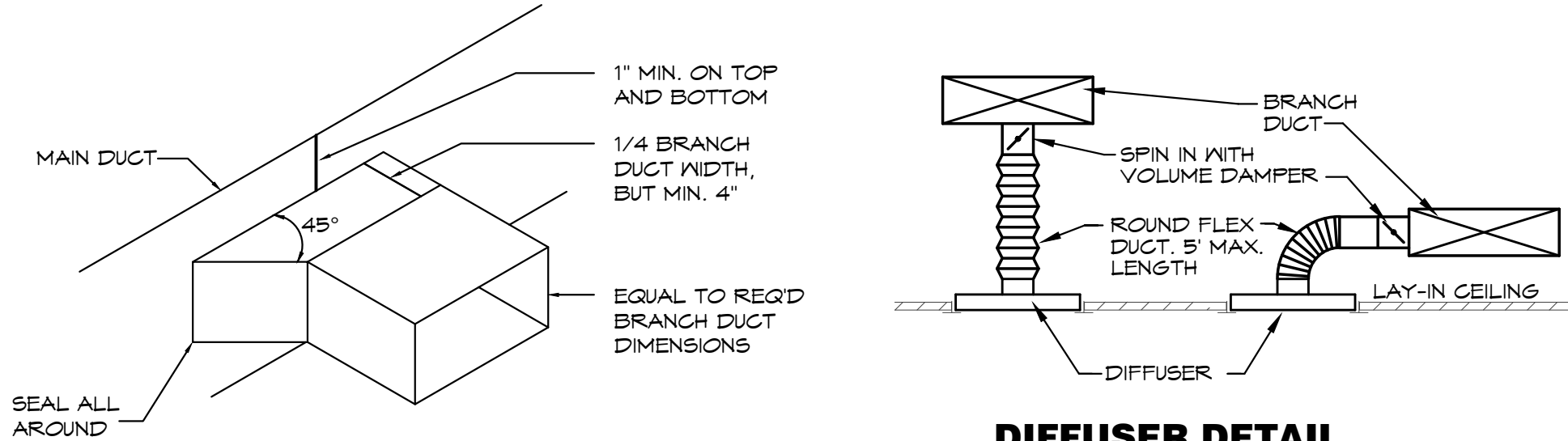
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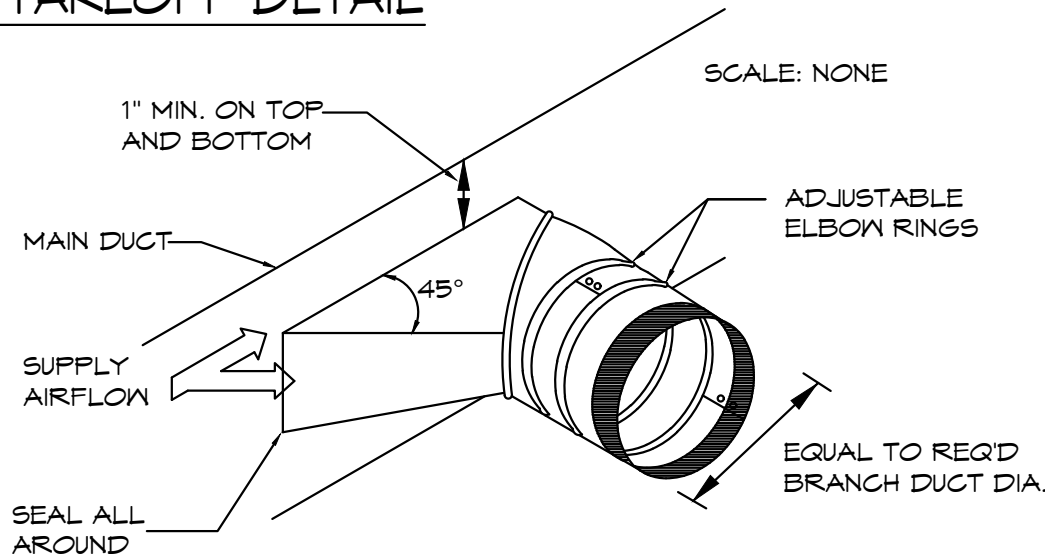
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EXHAUST FAN SCHEDULE									
MARK	MFR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL		FAN TYPE	CONTROLS
						VOLT/Ø/HZ	FWR		
EF-1	COOK	GC-182	225	0.25	1,400	120/1/60	167 W	CEILING EXH.	SWITCH
EF-2									
EF-3		GC-128	75	0.1	750		29 W		
EF-4									

NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), AND WEATHER HEAD.



BRANCH DUCT TAKEOFF DETAIL



BRANCH DUCT TAKEOFF DETAIL
SCALE: NONE

ROOFTOP UNIT SCHEDULE																											
MARK	MFR.	MODEL NO.	NOM. TONS	EVAP. CFM	EXT. STATIC P. IN. WG. (NOTE 2)	COOLING				HOT GAS REHEAT	HEATING (GAS)			ELECTRICAL				UNIT CONTROLS	BLOWER DRIVE TYPE	ECONOMIZER + BAROMETRIC RELIEF		MINIMUM OUTDOOR AIR (CFM) *	SEER /EER	TOTAL WEIGHT (LBS)	NOTES		
						COOLING STAGES	TOTAL BTUH	SENS. BTUH	AMB.		EVAP. EAT DB/WB	BTUH INPUT	BTUH OUTPUT	HEATING STAGES	VOLT/Ø/HZ	BLOWER MOTOR	POWER EXHAUST			MCA (AMPS)	MOCP (AMPS)					TYPE	CONTROLLER
RTU-1	YORK	ZF180N30D2	15	6,000	1.25	2	171,100	133,400	105	80/67	N	300,000	240,000	2	208/3/60	5 HP	N	78	100	DIGITAL	CAV	NONE	NONE	900	- / 10.8	850	1,2,3,4,5,6

NOTES: 1. PROVIDE HINGED ACCESS DOORS, SCROLL COMPRESSORS WITH CRANKCASE HEATER, HIGH PRESSURE SWITCHES, FREEZESTAT, HAIL GUARDS. STANDARD COOLING DOWN TO 30°F. OUTDOOR AIR DAMPER TO FULLY CLOSE W/ FAN SHUTDOWN FOR ALL UNITS.

2. EXTERNAL STATIC PRESSURE LISTED REPRESENTS STATIC PRESSURE REQUIRED FOR DUCTWORK AND DIFFUSERS OUTSIDE THE HVAC UNIT COMPLETELY INDEPENDENT OF ANY PRESSURE DROP THROUGH THE HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO FILTERS, COILS AND ECONOMIZERS. THE FAN AND MOTOR SHALL BE SIZED APPROPRIATELY TO MEET THIS DEFINITION OF EXTERNAL STATIC PRESSURE.

3. PROVIDE COMMERCIAL 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGEOVER TOUCHSCREEN THERMOSTAT WITH OPTIMUM START CONTROLS. OUTDOOR AIR DAMPER IS TO CLOSE DURING UNOCCUPIED HOURS.

4. PROVIDE 18" HIGH PRE-FABRICATED INSULATED ROOF CURB.

5. PROVIDE NEW 2" MERV 8 FILTERS UPON COMPLETION OF CONSTRUCTION.

6. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCP'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.

* OCCUPANCY FOR BATTING CAGES IS 30 PEOPLE. 30'x30 = 900 CFM MINIMUM REQUIRED FOR BATTING CAGE AREA.

DIFFUSER SCHEDULE									
MARK	MFR	MODEL	BORDER TYPE	NECK SIZE	FACE SIZE	FINISH	DAMPER	ACCESSORIES	NOTES
SD-1	TITUS	TMS	3	8"Ø	24"x24"	WHITE	-	-	-
SD-2							OB DAMPER	TRM KIT	-
SD-3				6"Ø	12"x12"		-	-	-
SD-4							OB DAMPER	TRM KIT	-
RG-1		PAR		18"X18"	24"x24"		-	-	-
RG-2				12"Ø	24"x24"		-	-	-
SR-1		300FS		12"X10"	-		OB DAMPER	-	-
SR-2		5300FS		20"X4"	-	ANODIZED	VOLUME DAMPER	-	-

FURNACE SCHEDULE

MARK	MFR	MODEL NO.	CFM	EXT. STATIC P. IN. WG.	HEATING (GAS)		ELECTRICAL		OUTSIDE AIR (CFM)	NOTES
					BTUH INPUT	BTUH OUTPUT	VOLT/Ø/HZ	HP		
F-1	YORK	TM9E100G20MP12	1,990	0.6	100,000	95,000	115/1/60	1	0	1,2,3,4,5
F-2									0	
F-3									0	
F-4									0	
F-5									0	
F-6		TM9E080G16MP12	1,600	0.5	80,000	76,000		5/8	360	1,2,3,4,5,6
F-7									400	
F-8		TM9E060B12MP12	1,200	0.7	60,000	57,000		1/2	175	1,2,3,4,5,7

NOTES: 1. PROVIDE 1" THICK THROWAWAY TYPE FILTER WITH HOLDING FRAME FOR EACH UNIT.

2. PROVIDE EACH UNIT WITH 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGEOVER THERMOSTAT WITH OPTIMUM START CONTROLS.

3. CONDENSING UNITS, COOLING COILS, AND FURNACES SHALL ALL BE OF THE SAME MANUFACTURER.

4. EXTERNAL STATIC PRESSURE LISTED REPRESENTS STATIC PRESSURE REQUIRED FOR DUCTWORK AND DIFFUSERS OUTSIDE THE HVAC UNIT COMPLETELY INDEPENDENT OF ANY PRESSURE DROP THROUGH THE HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO FILTERS AND COILS.

5. PROVIDE GALVANIZED WATER-TIGHT DRAIN PAN AND CONDENSATE FLOAT SWITCH TO DE-ENERGIZE THE FURNACE IF THE DRAIN PAN FILLS WITH WATER.

6. PROVIDE UNIT WITH 10"Ø ROUND CONTROL DAMPER FOR CONTROL OF OUTDOOR AIR SUPPLY. INTERLOCK WITH FURNACE CONTROLS SO THAT DAMPER IS OPEN WHEN FURNACE FAN IS ON, AND IS CLOSED WHEN FURNACE SUPPLY FAN IS NOT IN OPERATION.

7. PROVIDE UNIT WITH 8"Ø ROUND CONTROL DAMPER FOR CONTROL OF OUTDOOR AIR SUPPLY. INTERLOCK WITH FURNACE CONTROLS SO THAT DAMPER IS OPEN WHEN FURNACE FAN IS ON, AND IS CLOSED WHEN FURNACE SUPPLY FAN IS NOT IN OPERATION.

CONDENSING UNIT SCHEDULE

MARK	MFR	MODEL NO.	COOLING			ELECTRICAL			EVAP. COIL MODEL NO.	SEER	NOTES
			TOTAL BTUH	AMB.	EVAP. EAT DB/WB	VOLT/Ø/HZ	MIN. MCA (AMPS)	MIN. MOCP (AMPS)			
CU-1	YORK	TCD60B31S	56,000	45	80/67	208/3/60	21.2	35	CM60C	13.8	1,2,3,4
CU-2											
CU-3											
CU-4											
CU-5											
CU-6		TCD48B31S	47,500				18.4	30	CM48C	14	
CU-7											
CU-8		TCS36B31S	34,600				12.1	20	CM36B		

NOTES: 1. PROVIDE TIME DELAY ON COMPRESSOR RE-START, CRANKCASE HEATER, AND COMPRESSOR LOCK-OUT WITH AMBIENT BELOW 35 °F. PROVIDE INDOOR COIL WITH THERMAL EXPANSION VALVE (TXV).

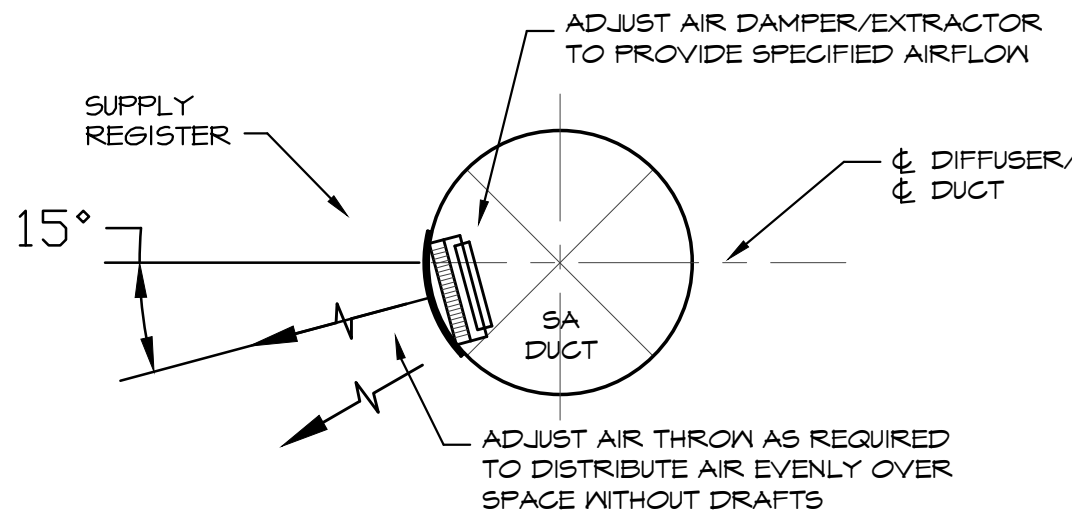
2. MECHANICAL CONTRACTOR SHALL COORDINATE ALL UNIT MOCP'S OF ACTUAL INSTALLED EQUIPMENT WITH ELECTRICAL CONTRACTOR.

3. PROVIDE CONCRETE OR PRE-MAUFACTURED POLYOLEFIN PAD FOR EACH UNIT.

4. PROVIDE HAIL GUARDS FOR EACH UNIT.

OUTDOOR AIR CALCULATIONS

UNIT	Area (sqft)	OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectiveness (Ez)	Zone outdoor airflow (cfm)
F-6	1230	Sales	15	7.5	0.12		286	0.8	357
							Total		357
F-7	1015	Conference rooms	50	5	0.06		315	0.8	393
							Total		393
	336	Conference/meeting	50	5	0.06		104	0.8	130
F-8	188	Office spaces	5	5	0.06		16	0.8	20
	320	Corridors	0	0	0.06		19	0.8	24
							Total		174



SUPPLY REGISTER DETAIL
SCALE: NONE

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:

1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.

2. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.

4. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

5. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.

6. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.

7. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

8. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRICAL COMPONENTS.

2. OPERATION AND MAINTENANCE MANUALS:

1. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.

2. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.

3. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC. CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.

3. MANUFACTURERS:

1. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSIDERED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.

4. TESTING, AND BALANCING:

1. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADS BETWEEN PHASES.

2. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.

3. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.

5. RACEWAYS:

1. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.

2. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.

3. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE, UNDER LOAD AT 264 PSI, OF 75 DEGREES C, AND A TENSILE STRENGTH OF 5,200 PSI. JOINTS SHALL BE FLUSH JOINTS, WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PROVIDED BY THE SAME MANUFACTURER.

4. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".

6. CONDUCTORS:

1. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRES SHALL BE INSTALLED IN CONDUIT, RACEWAYS, OR OTHER PROTECTIVE COVERS SANCTIONED BY CODES.

2. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 AWG, 600 VOLT.

3. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THHN (WET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.

4. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.

5. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 8 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.

6. ALUMINUM SERVICE WIRE MAY BE USED FOR SERVICE ENTRANCE CONDUCTORS AND/OR PANEL FEEDERS ONLY. ALL OTHER WIRING SHALL BE COPPER CONDUCTORS AS HEREBEFORE SPECIFIED.

7. ALUMINUM CONDUCTORS SHALL BE TYPE XHHW-2, ALCAN, "STABLOY" TYPE ALLOY CONDUCTORS UTILIZING AA-8030 ALUMINUM ALLOY. CONDUCTORS SHALL BE UL LISTED.

8. ALL ALUMINUM CONDUCTORS SHALL BE TERMINATED IN CONNECTIONS OR LUGS WHICH ARE DUAL RATED (ALU) OR ALU/AL AND ARE LISTED BY UL FOR USE WITH ALUMINUM OR COPPER CONDUCTORS AND SHALL BE SIZED TO ACCEPT ALUMINUM CONDUCTORS OF THE AMPACITY SPECIFIED.

7. MC CABLE:

1. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (NO ANG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 90°C FOR DRY LOCATIONS, WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 55 THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OF ALUMINUM OR GALVANIZED STEEL.

2. CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1568 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEGS. C FOR DRY LOCATIONS AND 75 DEGS. C FOR WET LOCATIONS.

8. WIRING DEVICES:

1. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.

1) SINGLE POLE: HUBBELL #S1221-X, OR EQUAL.

2) THREE WAY: HUBBELL #S1222-X, OR EQUAL.

3) AS SPECIFIED ON PLANS.

2. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR5925-X, OR EQUAL.

3. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #SF20-XL. DEVICE COVER PLATES SHALL BE AS HEREBEFORE SPECIFIED.

4. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5925-IG, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREBEFORE SPECIFIED.

5. RECEPTACLES OUTSIDE BUILDINGS AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED WEATHER-RESISTANT HUBBELL #SFTF20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMEDIATE PROTECTION AND IMPROVED DRAINAGE METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.

6. VERIFY DEVICES AND DEVICE COVER PLATES COLOR AND STYLE WITH ARCHITECT.

9. BOXES:

1. HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.

2. ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.

10. ELECTRICAL SYMBOLS LIST

ELECTRICAL SPECIFICATIONS (CONTINUED)

10. PANELBOARDS:

1. FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS SHOWN ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED, LABELED, AND SHALL BE UL LISTED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. PANELBOARDS SHALL BE EQUAL TO SQUARE D TYPE NG OR NF WITH BOLT IN TYPE BREAKERS. PANELBOARD LUGS SHALL BE RATED AT 75°C.

2. CIRCUIT BREAKER INTERRUPTING CAPACITIES SHALL MEET OR EXCEED THE AVAILABLE RMS SYMMETRICAL FAULT CURRENTS INDICATED AND AS REQUIRED TO MEET OR EXCEED THE AVAILABLE FAULT CURRENT FROM LOCAL UTILITY.

3. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA 4B-1. CIRCUIT BREAKERS SHALL BE BOLT-ON, GROUP MOUNTED, AMBIENT MAGNETIC, WITH COMMON TRIP, UL RATED TO CARRY 80% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 40°C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE TERMINALS SHALL BE RATED 75 DEGREES C. THE OPERATING MECHANISM SHALL BE TRIP-FREE SO THAT CONTACTS CANNOT BE HELD CLOSED AGAINST ANY ABNORMAL OVERCURRENT OR SHORT CIRCUIT CONDITION.

4. BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.

5. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING SUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL, PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, CYLINDER, TUMBLER TYPE LOCK, DIRECTORY CARD-HOLDER AND QUARTER-TURN ADJUSTABLE TRIM CLAMPS.

6. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZED SOLID ALUMINUM NEUTRAL AND GROUND BUS.

7. BUS BAR BRACING SHALL BE UL LISTED AS INDICATED ON DRAWINGS. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.

8. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED, INCLUDING EXISTING CIRCUITS. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREBEFORE SPECIFIED.

11. DISCONNECTS:

1. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.

2. INDOOR SWITCHES SHALL BE NEMA 1 AND OUTDOOR SWITCHES SHALL BE NEMA 3B, UNLESS INDICATED OTHERWISE.

12. FUSES:

1. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING UL CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.

2. ALL OTHER FUSES SHALL BE UL CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 500% RATINGS. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.

13. LIGHT FIXTURES:

1. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.

2. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.

3. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.

14. SLEEVES:

1. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.

2. INTERIOR PARTITIONS: 16 GAUGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.

3. ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

15. GROUNDING:

1. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.

2. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).

16. REMODELING WORK:

1. DEMOLITION: DISCONNECT, DEMOLISH AND REMOVE ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.

2. EQUIPMENT TO BE SALVAGED:

1) DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.

2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.

3. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.

4. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.

5. PROVIDE ALL ALTERATIONS AND REWORK INDICATED AND/OR REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF ALL EXISTING ELECTRICAL SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.

17. BOXES IN FIRE RATED ASSEMBLIES:

1. OUTLET BOXES THAT DO NOT EXCEED 16 SQUARE INCHES AND INSTALLED IN FIRE RATED WALLS SHALL NOT BE INSTALLED CLOSER THAN 24" HORIZONTAL INCHES TO OTHER OUTLET BOXES.

2. IF BOXES MUST BE INSTALLED WITHIN 24" OF EACH OTHER THAN BOTH OUTLET BOXES SHALL BE PROTECTED WITH LISTED PUTTY PADS, 3M FIRE BARRIER MOLDABLE PUTTY + OR EQUAL.

18. FIRE ALARM SYSTEM:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE DESIGN BUILD ENGINEERED SHOP DRAWINGS OF FIRE ALARM SYSTEM TO BE INSTALLED. PROVIDE DEVICES, CONDUIT, WIRES, CABLE, PROGRAMMING AND TESTING AS DIRECTED BY EQUIPMENT MANUFACTURER AND LOCAL FIRE DEPARTMENT FOR A CODE COMPLIANT FIRE ALARM/DETECTION SYSTEM. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE. SUBMIT ONE LINE DIAGRAM OF SYSTEM WITH SIZES AND BATTERY CALCULATIONS. EQUIPMENT TO BE NEW AND SHALL BE STAMPED, SIGNED, CALIBRATION AND TESTED BY FACTORY CERTIFIED TECHNICIAN. FIRE ALARM DEVICES ARE SHOWN FOR INTENT ONLY FOR PERMITTING PURPOSES. CONTRACTOR IS RESPONSIBLE FOR INCLUDING IN BID/DESIGN ALL NECESSARY DEVICES (ANNUNCIATOR(S), NOTIFICATION APPLIANCE(S), INITIATING DEVICES, AND ADDITIONAL COMPONENTS).

ELECTRICAL SYMBOLS LIST	
CIRCUITING & NOTES	
+46"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
WR	WEATHERPROOF RESISTANT DEVICE
IG	ISOLATED GROUND DEVICE
EM	EMERGENCY BATTERY BACKUP
TR	TAMPER RESISTANT OUTLET
USB	COOPER #TRT156-X OR EQUAL DUPLEX RECEPTACLE WITH DUAL USB CHARGING PORTS. PROVIDE 2-1/8" DEEP BACK BOX.
(TIE)	PARTIAL HOMERUN. REFER TO PLANS FOR ADDITIONAL DEVICES CONNECTED TO THIS CIRCUIT.
X	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
LP	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
12	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE
LIGHTING	
	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
	STRIP FIXTURE WITH TYPE DESIGNATION
	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION
POWER DEVICES	
	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	TVSS SURGE SUPPRESSION RECEPTACLE
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	MOTOR WITH DESIGNATION
	FLOOR BOX
CONTROLS	
S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S3	THREE-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
SD	DIMMER SWITCH, TOP OF BOX AT 48" AFF
SM	MANUAL MOTOR STARTER WITH OVERLOADS
OCCUPANCY SENSORS	
1. DUAL TECHNOLOGY/ULTRASONIC CEILING SENSORS SHALL BE MOUNTED 6' FROM SUPPLY/EXHAUST AIR DIFFUSERS. 2. LOW VOLTAGE CEILING SENSORS SHALL BE PROVIDED WITH 6' SLACK CONDUCTOR COILED AT SENSOR.	
S10	WALL MOUNTED DUAL-TECHNOLOGY OCCUPANCY SENSOR, MATT STOPPER #DW-100, TOP OF BOX AT 48" AFF
	DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSORS, MATTSTOPPER DT-300
	OCCUPANCY SENSOR POWER PACK, MATTSTOPPER BZ-150 OR EQUAL, PROVIDE LOW VOLTAGE WIRING TO OCCUPANCY SENSORS AND MOMENTARY SWITCHES
SMO	MOMENTARY SWITCH, TOP OF BOX AT 48" AFF
COMMUNICATIONS	
	DATA/TELEPHONE OUTLET WITH MINIMUM 3/4" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH FULL STRING
	FLAT SCREEN TELEVISION - PROVIDE AND INSTALL ONE (1) HUBBELL #RR1510X RECESSED TAMPER-RESISTANT DUPLEX RECEPTACLE WITH COVERPLATE AND ONE(1) HUBBELL #HBL260 TWO GANG LARGE CAPACITY WALL BOX (UP TO 2" KNOCKOUT) W/ MUD RING AND COVERPLATE FOR DATA. PROVIDE 2"C WITH FULL STRING TO ABOVE ACCESSIBLE CEILING FOR DATA CABLES. MOUNT BOX AT 7'-6" AFF UNLESS NOTED OTHERWISE (VERIFY)

ELECTRICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.

2. WHERE CONDUIT IS SHOWN UNDER FLOOR, VERIFY IF FLOOR IS STRUCTURAL SLAB OR SLAB ON GRADE. IF STRUCTURAL SLAB, CORE DRILL PENETRATION, AND ROUTE CONDUIT IN SPACE BELOW. IF SLAB ON GRADE, SAW CUT EXISTING FLOOR SLAB AS REQUIRED FOR INSTALLATION OF UNDER FLOOR CONDUIT. NO STRUCTURAL ELEMENTS SHALL BE CORE DRILLED OR SAW CUT, WHEN SAW CUTTING, PATCH FLOOR TO MATCH EXISTING SURFACE AS REQUIRED.

3. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.

4. ALL EXPOSED RACEWAYS SHALL BE EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.

5. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.

6. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

7. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.

8. FIRE ALARM SYSTEM IS SHOWN FOR SCHEMATIC PURPOSES. THE FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR PROVIDING DESIGN AND SHOP DRAWINGS SUBMITTAL TO FIRE MARSHAL FOR APPROVAL AS REQUIRED BY THE FIRE MARSHAL. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES, POWER SUPPLIES, ETC FOR COMPLIANCE WITH CODE.

9. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.

10. PROVIDE LOW VOLTAGE WIRING BETWEEN ALL 0-10V DIMMING DRIVERS CONTROLLED BY 0-10V DIMMERS PER MANUFACTURER'S INSTRUCTIONS WHETHER INDICATED ON PLANS OR NOT.

ELECTRICAL SYMBOLS LIST

FIRE ALARM	
	CEILING MOUNT SMOKE DETECTOR
	DUCT MOUNT SMOKE DETECTOR
	FIRE ALARM PULL STATION, TOP OF BOX AT 48" AFF
	FIRE ALARM HORN/STROBE COMBINATION SIGNAL, CENTERLINE AT 6'-8" AFF
	FIRE ALARM HORN/STROBE COMBINATION SIGNAL, PENDANT MOUNTED
	FIRE ALARM VISUAL STROBE, CENTERLINE AT 6'-8" AFF
	WATER FLOW SWITCH
	TAMPER SWITCH

BC PROJECT #: 22323
MISSOURI PE COA #2009003629

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5720 Reeder Shawnee, Ks. 66203 (913)262-1772

a new development for

Town Centre Lot 1

520 NE Town Centre Drive

Lee's Summit, Missouri 64064

date 05.19.22
drawn by MA/FS
checked by EK/DS
revisions

sheet number

E0

SPECIFICATIONS AND LEGEND

drawing type

permit

project number 20231

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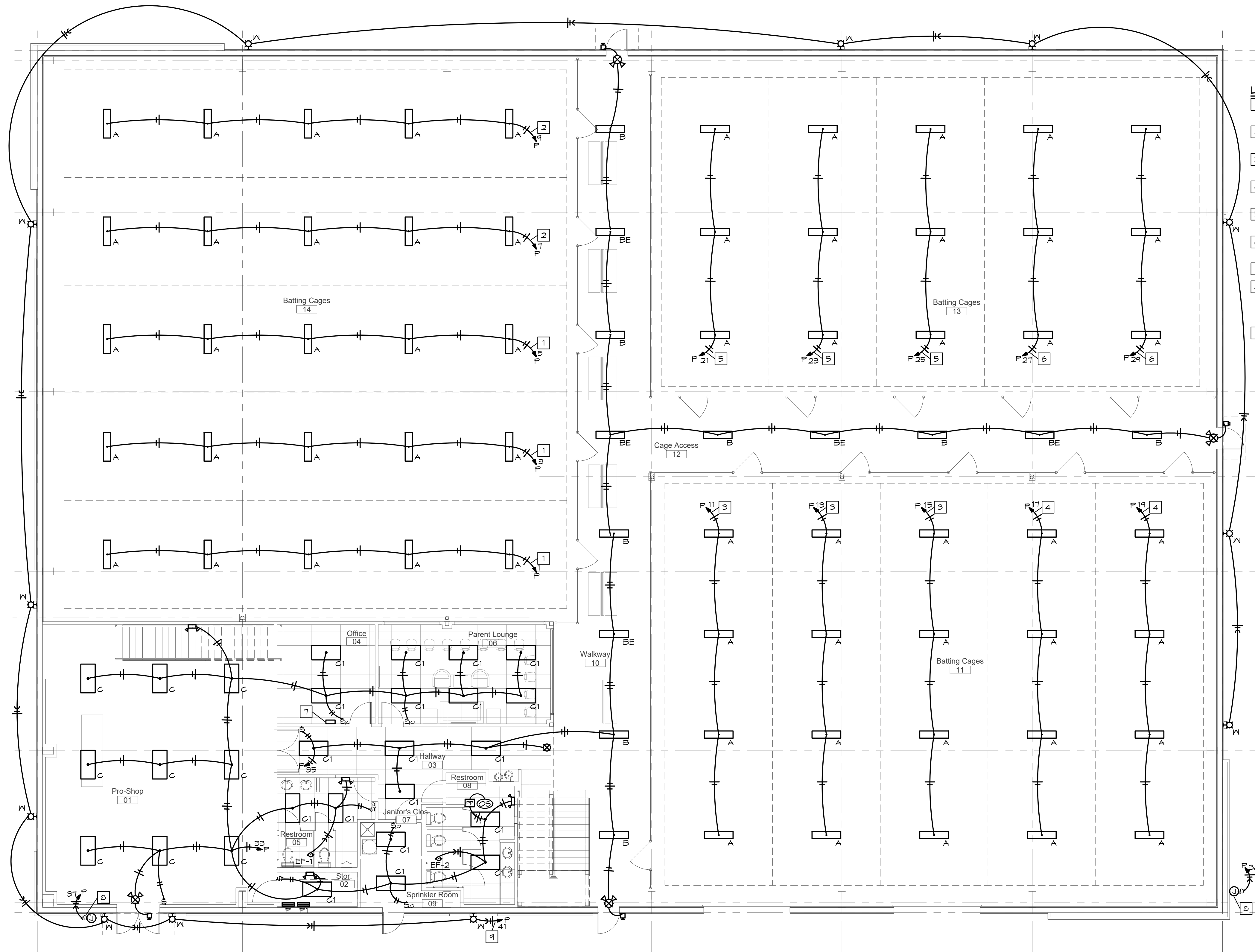
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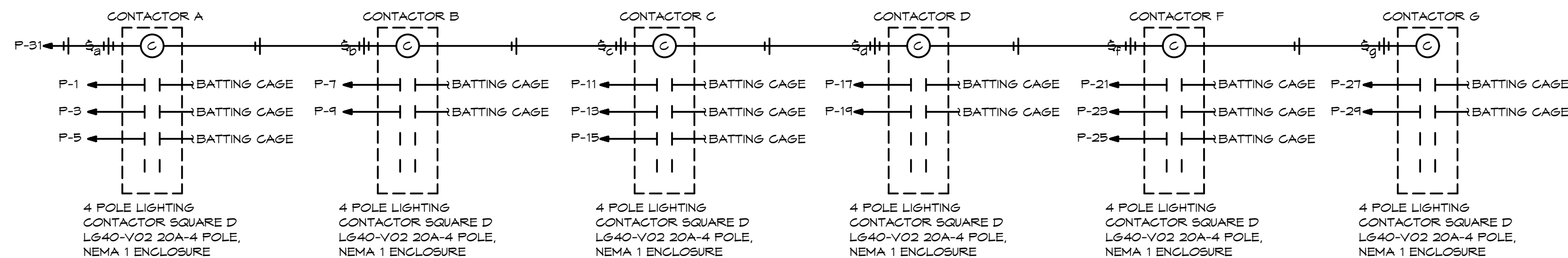
LIGHTING PLAN NOTES:

- 1 ROUTE CIRCUIT THROUGH CONTACTOR A FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 2 ROUTE CIRCUIT THROUGH CONTACTOR B FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 3 ROUTE CIRCUIT THROUGH CONTACTOR C FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 4 ROUTE CIRCUIT THROUGH CONTACTOR D FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 5 ROUTE CIRCUIT THROUGH CONTACTOR F FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 6 ROUTE CIRCUIT THROUGH CONTACTOR G FOR CONTROL OF BATTING CAGE LIGHTS. SEE DETAIL, THIS SHEET.
- 7 VERIFY BATTING CAGE SWITCHBANK LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 8 JUNCTION BOX WITH DISCONNECTING MEANS PER NEC FOR CONNECTION TO BUILDING MOUNTED SIGNAGE. VERIFY EXACT LOCATION AND CONNECT TO SIGN PER MANUFACTURER'S INSTRUCTIONS. ROUTE CIRCUIT THRU TIMECLOCK, SEE DETAIL, THIS SHEET.
- 9 ROUTE THRU EXTERIOR LIGHTING CONTROLS. SEE DETAIL, THIS SHEET.

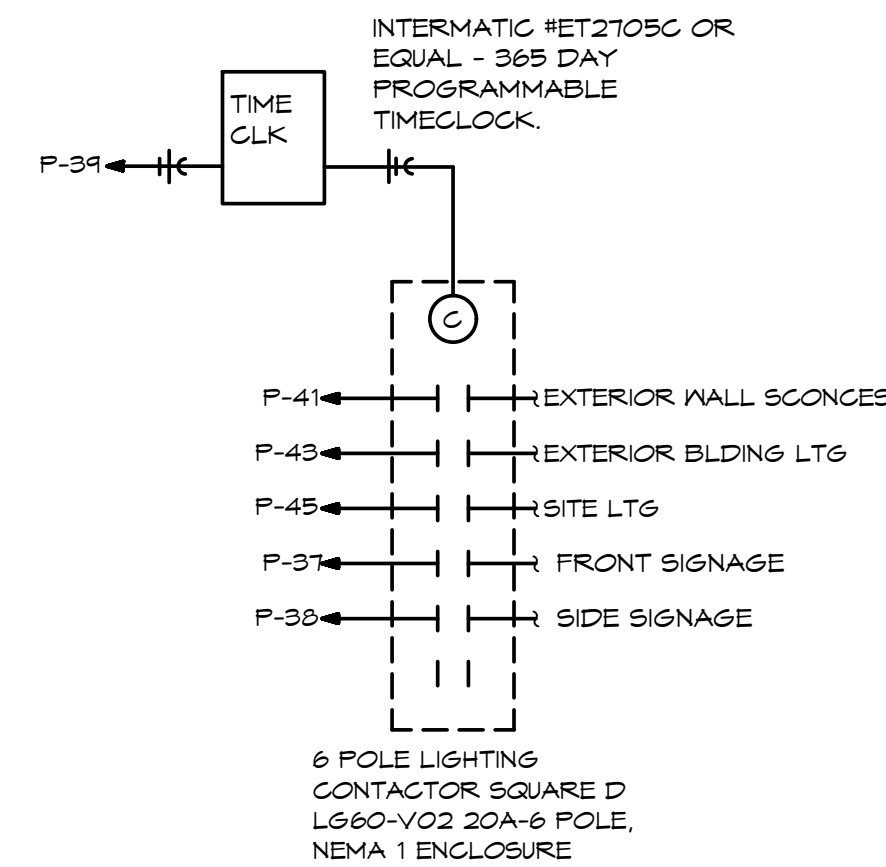


ELECTRICAL LIGHTING PLAN

SCALE: 1/8" = 1'-0"



LIGHTING CONTROL DIAGRAM
SCALE: NONE



EXTERIOR LIGHTING CONTROL DIAGRAM
SCALE: NONE

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MISSOURI PE COA #200903629
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a new development for

Town Centre Lot 1

520 NE Town Centre Drive

Lee's Summit, Missouri 64064

date
05.19.22
drawn by
MA/FS
checked by
EK/DS
revisions

sheet number

E1

LIGHTING PLAN

drawing type
permit

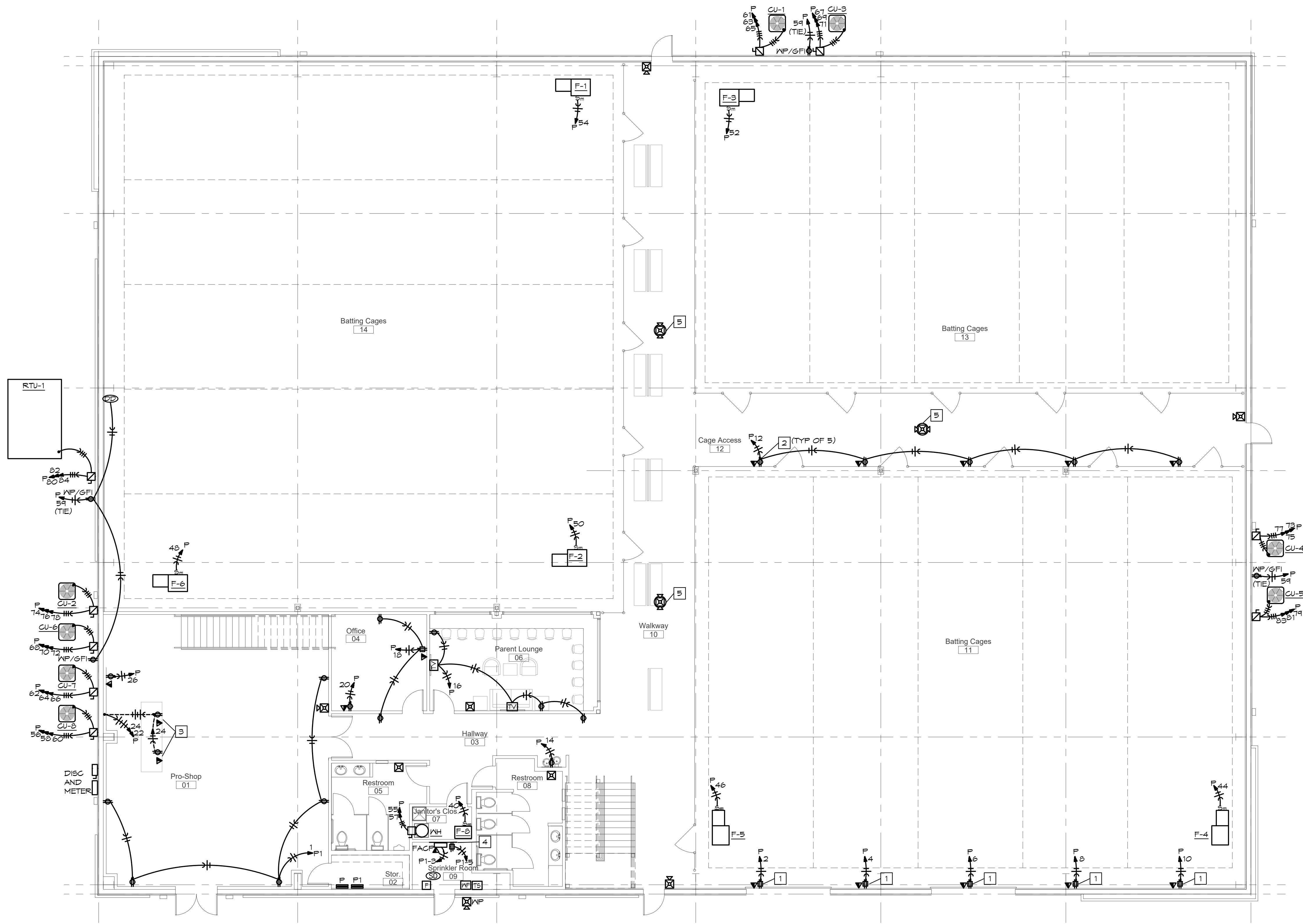
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POWER PLAN NOTES:

1. PROVIDE QUAD RECEPTACLE AND DATA TO EACH PITCHING MACHINE. EACH MACHINE REQUIRES (2) ETHERNET CABLES AND (1) MULTI CABLE WIRE, SUPPLIED BY PITCHING MACHINE COMPANY, IN CONDUIT FROM THE PITCHING MACHINE TO THE CARD OPERATED BOX KIOSK. VERIFY ALL ELECTRICAL SPECIFICATIONS WITH PITCHING MACHINE COMPANY PRIOR TO ROUGH-IN.
2. VERIFY LOCATION OF CARD OPERATED BOX KIOSK WITH OWNER PRIOR TO ROUGH-IN.
3. VERIFY EXACT LOCATION OF ELECTRICAL DEVICES IN MOUNTED IN CASEWORK.
4. VERIFY LOCATION OF 2'X4'X3/4" FIRE RETARDANT FLYWOOD TELEPHONE BACKBOARD WITH GROUND BAR AND #6 CU BOND TO BUILDING ELECTRODE SYSTEM. PROVIDE 4" C TO PROPERTY LINE FOR BUILDING TELEPHONE AND INTERNET SERVICE. TERMINATE AS DIRECTED BY SERVICE PROVIDER. VERIFY ROUTING AND DISTANCE.
5. PENDANT MOUNT FIRE ALARM DEVICE.



ELECTRICAL POWER PLAN

SCALE: 1/8" = 1'-0"

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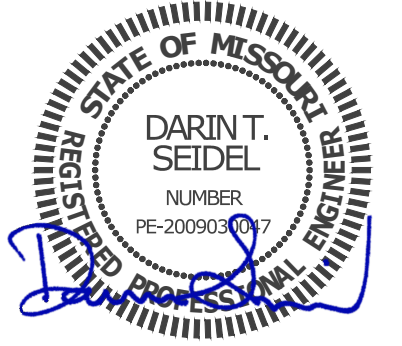
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POWER PLAN

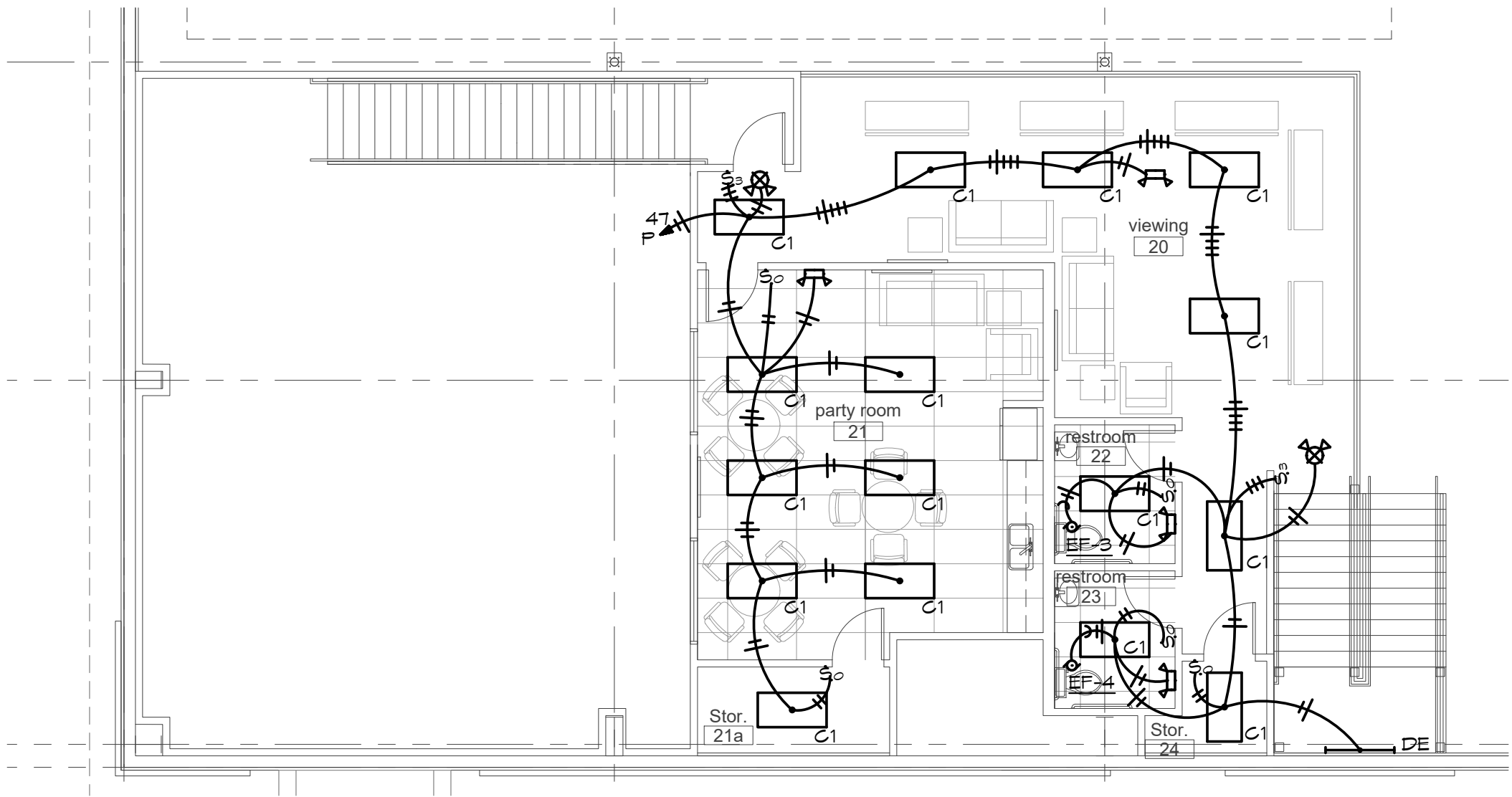
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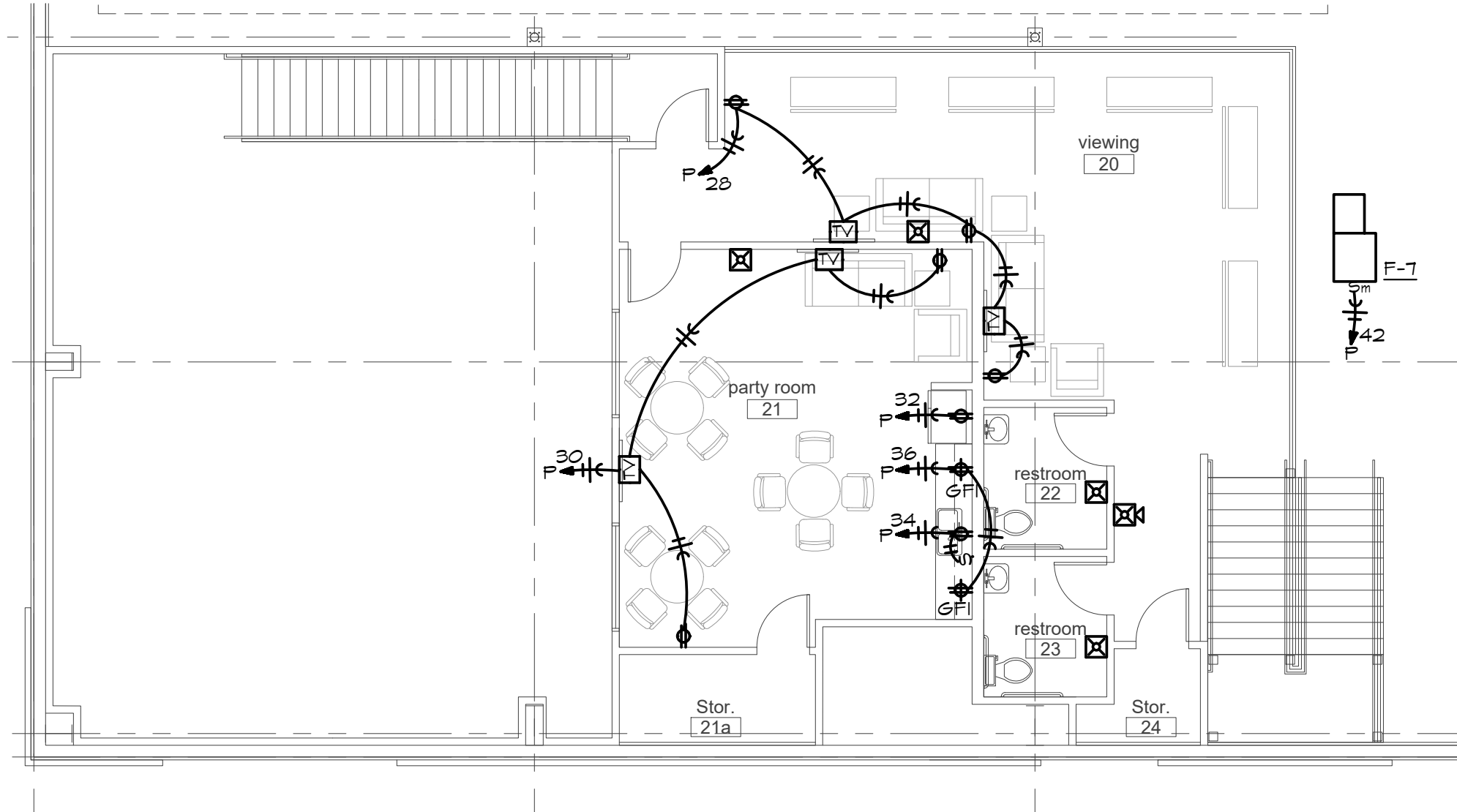
5/19/2022



LIGHT FIXTURE SCHEDULE					
MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION	EQUIVALENT MANUFACTURERS
A	LUX DYNAMICS IK10 SERIES E 3 D A 250 4 U10 CP B XXY X GYM	120 229	LED 36,000LUM 5000K	3 LIGHT BAR 2 CHANNEL LED 36,000 LUMEN, 5,000 KELVIN, 2-POINT Y CABLE MOUNT, VERIFY FINISH COLOR, MOUNT BOTTOM OF FIXTURE AT 22' AFF. ORDER CABLE TO LENGTH REQUIRED	WILLIAMS COLUMBIA OR EQUAL
B	LUX DYNAMICS IK10 SERIES E 1 S A 250 4 U10 CP B XXY X GYM	120 78	LED 11,000LUM 5000K	1 LIGHT BAR 1 CHANNEL LED 11,000 LUMEN, 5,000 KELVIN, 2-POINT Y CABLE MOUNT, VERIFY FINISH COLOR, MOUNT BOTTOM OF FIXTURE AT 22' AFF. ORDER CABLE TO LENGTH REQUIRED	WILLIAMS COLUMBIA OR EQUAL
BE	LUX DYNAMICS IK10 SERIES E 1 S A 250 4 U10 CP B E15 XXY X GYM	120 78	LED 11,000LUM 5000K	1 LIGHT BAR 1 CHANNEL LED 11,000 LUMEN, 5,000 KELVIN, 2-POINT Y CABLE MOUNT WITH EMERGENCY DRIVER, 2,561 LUMEN, VERIFY FINISH COLOR, MOUNT BOTTOM OF FIXTURE AT 22' AFF. ORDER CABLE TO LENGTH REQUIRED	WILLIAMS COLUMBIA OR EQUAL
C	LITHONIA EPANL 2X4 4000LM 80CRI 50K EZT MVOLT	120 39	LED 4000LUM 5000K	LED FLAT PANEL, 4000 LUMEN, 5000 KELVIN, VERIFY MOUNTING REQUIREMENTS AND HEIGHTS	WILLIAMS COLUMBIA OR EQUAL
C1	LITHONIA EPANL 2X4 3000LM 80CRI 50K EZT MVOLT	120 29	LED 3000LUM 5000K	LED FLAT PANEL, 3000 LUMEN, 5000 KELVIN, VERIFY MOUNTING REQUIREMENTS AND HEIGHTS	WILLIAMS COLUMBIA OR EQUAL
DE	LITHONIA GLX L48 4000LM SEF RDL 120 EZ1 40K 80CRI FS1050 FH	120 28	LED 4000LUM 4000K	4' LED STRIP FIXTURE WITH ROUND LENS, 4000 LUMEN, 4000 KELVIN, WALL MOUNTED	WILLIAMS COLUMBIA OR EQUAL
IN	EXISTING EXTERIOR SCONCE	120	LED LUM K	LED SCONCE	
W1	GREE LIGHTING XSPN-B-WM-4ME-AL-40K-UNV	120 31	LED 4270LUM 4000K	WALL MOUNTED LED BUILDING LIGHT WITH TYPE IV MEDIUM THROW OPTIC, VERIFY FINISH COLOR WITH ARCHITECT	
SA	GREE LIGHTING OSQ-M-B-9L-40K7-4M-UNV-NM MOUNT-SQG-ML-B-DA SHIELD-OSQ-BLSMF POLE-SSS-4-11-12-CN-B5-1D-C	120 130	LED 7075LUM 4000K	POLE MOUNTED WITH HOUSE SIDE SHIELD LED AREA LIGHT WITH TYPE IV MEDIUM THROW OPTIC, MOUNT ON 12'X4" SQUARE STEEL POLE WITH 3' CONCRETE BASE, VERIFY FINISH COLOR WITH ARCHITECT	
SB	GREE LIGHTING OSQ-M-B-9L-40K7-5G-UNV-NM MOUNT-SQG-ML-B-DA POLE-SSS-4-11-12-CN-B5-2D10-C	120 120	LED 10250LUM 4000K	POLE MOUNTED LED 180 DEGREE AREA LIGHT WITH TYPE V SQUARE OPTIC, MOUNT ON 12'X4" SQUARE STEEL POLE WITH 3' CONCRETE BASE, VERIFY FINISH COLOR WITH ARCHITECT	
EL	DUAL-LITE EV2	120 1	INCL	EMERGENCY LIGHT WITH TWIN ADJUSTABLE 1 WATT LED HEADS AND BATTERY, MOUNT AT T-8'S, TO CLEAR OBSTACLES, (PROVIDES 1 FC AVG. ON 2T CENTER FIXTURE SPACING)	SURE-LITES LITHONIA OR EQUAL
EX	DUAL-LITE EVE-U-R-N-VR53	120 1	INCL	EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, UNIVERSAL MOUNT, BATTERY BACKUP, WITH VANDAL RESISTANT SHIELD	SURE-LITES LITHONIA OR EQUAL
EX	DUAL-LITE EVC-U-R-N-VR53	120 3	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN LED EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, BATTERY BACKUP, WITH VANDAL RESISTANT SHIELD	SURE-LITES LITHONIA OR EQUAL
EX	DUAL-LITE EVC-U-R-N-D4-VR53 WITH EVO-D-X	120 5	INCL	COMBINATION EMERGENCY/EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, TWIN 6W EMERGENCY LIGHT HEADS, UNIVERSAL MOUNT, HIGH CAPACITY BATTERY BACKUP, VANDAL RESISTANT SHIELD AND REMOTE TWIN HEAD OUTDOOR RATED FIXTURE	SURE-LITES LITHONIA OR EQUAL
EX	LITHONIA AFF-OEL-XX-UVOLT-LTP-SDRT-WT-CN	120 12	LED INCL 4000K	ARCHITECTURAL EXTERIOR LED EMERGENCY LIGHT WITH COLD WEATHER BATTERY, COORDINATE FINISH TO MATCH BUILDING	SURE-LITES LITHONIA OR EQUAL
NOTES:					



ELECTRICAL MEZZANINE LIGHTING PLAN
SCALE: 1/8" = 1'-0"



ELECTRICAL MEZZANINE POWER PLAN
SCALE: 1/8" = 1'-0"

a new development for
Town Centre Lot 1
520 NE Town Centre Drive
Lee's Summit, Missouri 64064

date

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drawn by

MA/FS

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revisions



BC PROJECT #: 22323
MISSOURI PE COA #2009003629

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sheet number

E3

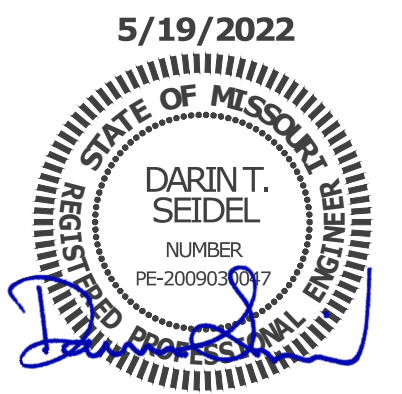
MEZZANINE PLAN

drawing type

permit

project number

20231



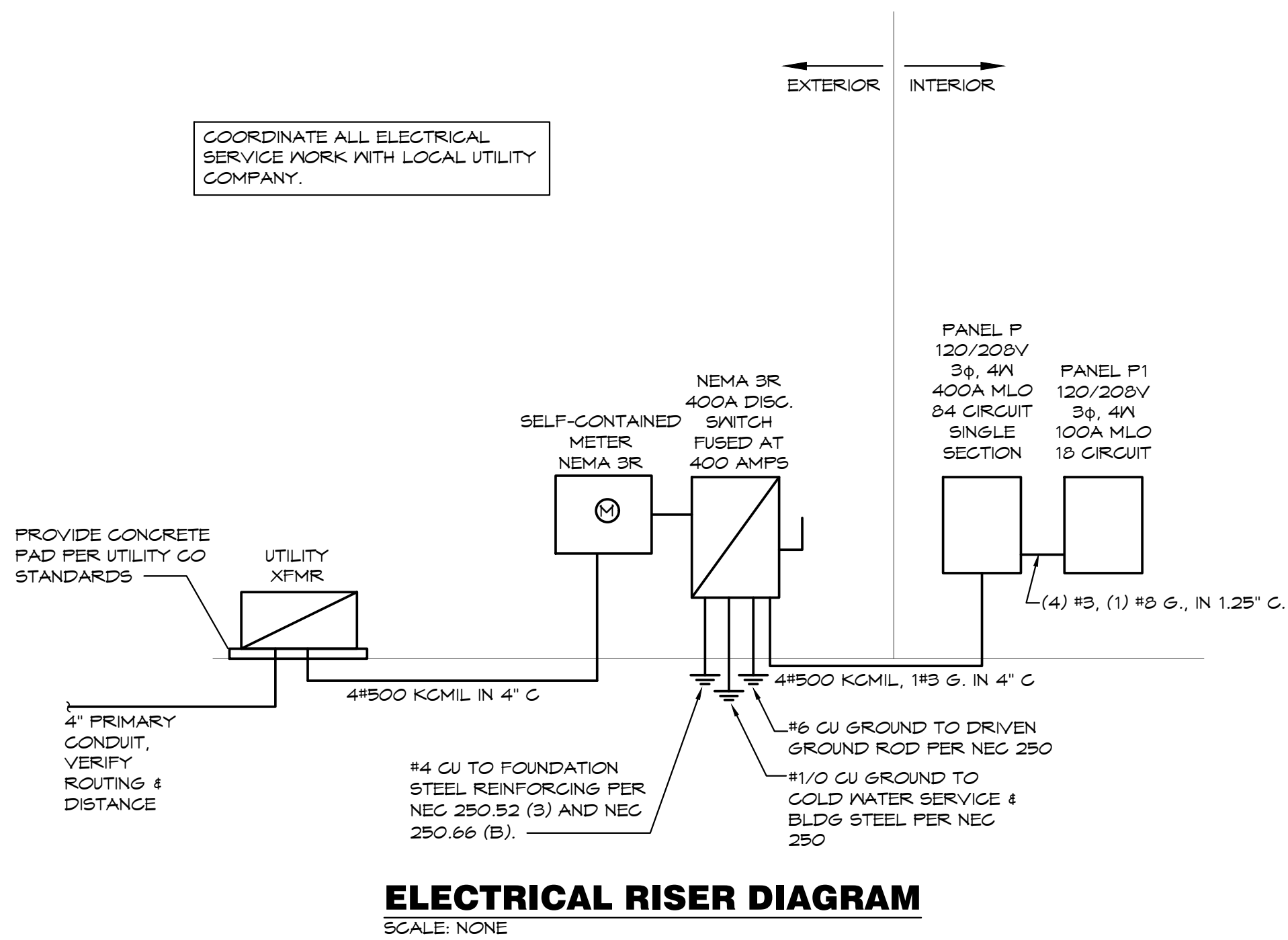
a new development for
Town Centre Lot 1
520 NE Town Centre Drive
Lee's Summit, Missouri 64064

date
05.19.22
drawn by
MA/FS
checked by
EK/DS
revisions

sheet number
E4
RISER DIAGRAM, DETAILS
AND PANEL SCHEDULES
drawing type
permit
project number
20231

PANEL: P		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION:		STORAGE		MOUNTING: SURFACE			
BUS: 400A		MAIN: 400A MLO		IC: 22,000		RMS SYM AMPS						FEEDER: SEE RISER DIAGRAM			
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	BATTING CASE LTG	20	1	12	1,145			360			12	1	20	PITCHING MACHINE	2
3	BATTING CASE LTG	20	1	12		1,145			360		12	1	20	PITCHING MACHINE	4
5	BATTING CASE LTG	20	1	12			1,145			360	12	1	20	PITCHING MACHINE	6
7	BATTING CASE LTG	20	1	12	1,145			360			12	1	20	PITCHING MACHINE	8
9	BATTING CASE LTG	20	1	12		1,145			360		12	1	20	PITCHING MACHINE	10
11	BATTING CASE LTG	20	1	12			916			900	12	1	20	PITCHING MACHINE KIOSKS	12
13	BATTING CASE LTG	20	1	12	916			600			12	1	20	DRINKING FOUNTAIN (GF)	14
15	BATTING CASE LTG	20	1	12		916			900		12	1	20	PARENT LOUSE RCPT	16
17	BATTING CASE LTG	20	1	12			916			720	12	1	20	OFFICE RCPT	18
19	BATTING CASE LTG	20	1	12	916			600			12	1	20	OFFICE COPIER	20
21	BATTING CASE LTG	20	1	12		687			180		12	1	20	PRO-SHOP POS RCPT	22
23	BATTING CASE LTG	20	1	12			687			180	12	1	20	PRO-SHOP POS RCPT	24
25	BATTING CASE LTG	20	1	12	687			600			12	1	20	PRO-SHOP COPIER	26
27	BATTING CASE LTG	20	1	12		687			900		12	1	20	VIEWING RCPT	28
29	BATTING CASE LTG	20	1	12			687			720	12	1	20	PARTY ROOM RCPT	30
31	BC LTG CONTACTORS	20	1	12	200			1,000			12	1	20	PARTY ROOM FRIDGE (GF)	32
33	PRO-SHOP/OFFICE LTG	20	1	12		771			200		12	1	20	PARTY ROOM DISPOSAL (GF)	34
35	HALL/CASE ACCESS LTG	20	1	12			1,130			360	12	1	20	PARTY ROOM COUNTER RCPT	36
37	FRONT SIGNAGE	20	1	12	1,200			1,200			12	1	20	SIDE SIGNAGE	38
39	EXTERIOR TIMECLOCK	20	1	12		200			1,800		12	1	15	F-5	40
41	EXTERIOR WALL SCONCES	20	1	12			480			1,800	12	1	15	F-7	42
43	EXT BUILDING/SITE LTG	20	1	10	873			1,800			12	1	15	F-4	44
45	SITE LTG	20	1	10		760			1,800		12	1	15	F-5	46
47	MEZZANINE LTG	20	1	12			526			1,800	12	1	15	F-6	48
49					720			1,800			12	1	15	F-2	50
51	PANEL P1	100	3	3		360			1,800		12	1	15	F-3	52
53							200			1,800	12	1	15	F-1	54
55	WATER HEATER	30	2	10	2,250			1,452							56
57					2,250			1,452			12	3	20	CU-5	58
59	EXTERIOR CONV RCPT	20	1	12			720			1,452					60
61					2,544			2,208							62
63	CU-1	35	3	Ø		2,544			2,208		10	3	30	CU-7	64
65							2,544			2,208					66
67					2,544			2,208							68
69	CU-3	35	3	Ø		2,544			2,208		10	3	30	CU-6	70
71							2,544			2,208					72
73					2,544			2,544							74
75	CU-4	35	3	Ø		2,544			2,544		Ø	3	35	CU-2	76
77							2,544			2,544					78
79					2,544			9,360							80
81	CU-5	35	3	Ø		2,544			9,360		3	3	100	RTU-1	82
83							2,544			9,360					84
NOTES:					20,228	19,103	17,583	26,092	26,072	26,412	TOTAL CONNECTED LOAD:				135,490 VA
(GF)-GFCI BRKR 5mA					46,320		45,175		43,995		NEG DEMAND LOAD:				126,751 VA
					DEMAND AMPS @ 208 VOLT / 3Ø:										351.84

PANEL: P1				VOLTS: 120/208V			PH: 3Ø		WIRE: 4W		LOCATION:		STORAGE		MOUNTING: SURFACE		
BUS: 125A				MAIN: 100A MLO			IC: 22,000		RMS SYM AMPS						FEEDER: SEE RISER DIAGRAM		
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO		
1	PRO-SHOP CONV RCPT	20	1	12	120							1	20	SPARE	2		
3	PHONEBOARD RCPT	20	1	12		360						1	20	SPARE	4		
5	FACP (HL)	20	1	12			200					1	20	SPARE	6		
7	SPARE	20	1									1	20	SPARE	8		
9	SPARE	20	1									1	20	SPARE	10		
11	SPARE	20	1									1	20	SPARE	12		
13	SPARE	20	1									1	20	SPARE	14		
15	SPARE	20	1									1	20	SPARE	16		
17	SPARE	20	1									1	20	SPARE	18		
NOTES:					120	360	200	0	0	0							
(HL)-HANDLE LOCK					120		360		200		TOTAL CONNECTED LOAD:					1,280 VA	
											NEG DEMAND LOAD:					1,280 VA	
											DEMAND AMPS @ 208 VOLT / 3Ø:					3.55	



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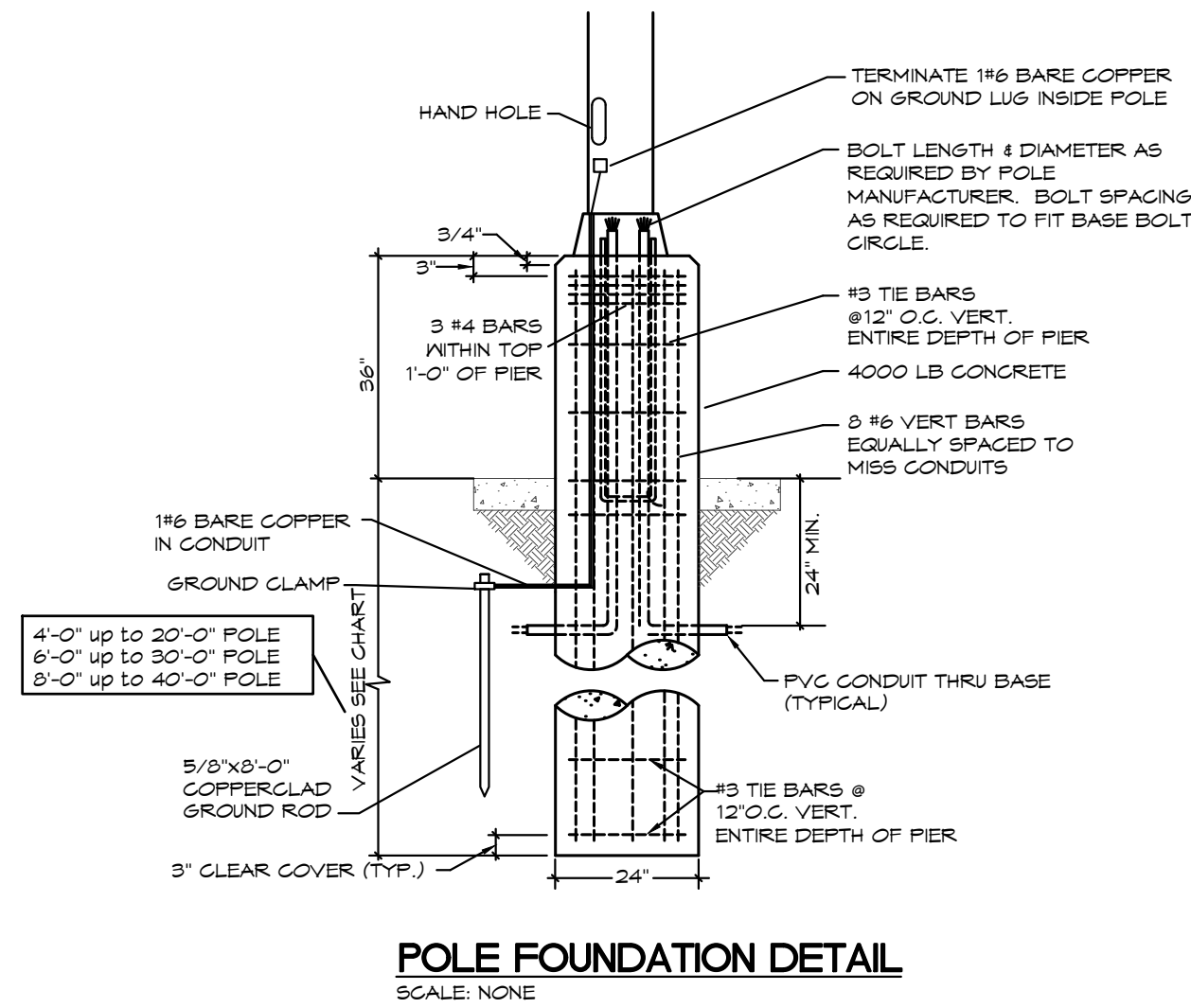
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SITE PLAN NOTES:

- 1 ROUTE THRU EXTERIOR LIGHTING CONTACTOR, SEE DETAIL, SHEET E1.
- 2 PROPOSED LOCATION OF ELECTRICAL SERVICE ENTRANCE GEAR. REFER TO RISER DIAGRAM, SHEET E4 FOR MORE INFORMATION.
- 3 ELECTRICAL PRIMARY CONDUIT AS DIRECTED BY LOCAL UTILITY CO. REFER TO RISER DIAGRAM, SHEET E4 FOR MORE INFORMATION.
- 4 PROPOSED LOCATION OF PAD MOUNTED TRANSFORMER. REFER TO RISER DIAGRAM, SHEET E4 FOR MORE INFORMATION.
- 5 ELECTRICAL SECONDARY FEEDER. REFER TO RISER DIAGRAM, SHEET E4 FOR MORE INFORMATION.
- 6 PHONE DEMARK AND INTERNET PROVIDER. VERIFY LOCATION AND CONDUIT REQUIREMENTS WITH SERVICE PROVIDERS.



 **ELECTRICAL SITE PLAN**
SCALE: 1" = 20'-0"

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