



copyright:

The following documents are the sole property of Davidson Architecture & Engineering, LLC for the specific purpose of construction of said building. These documents are considered confidential and subject to Davidson Architecture & Engineering LLC's copyright protection. Neither receipt nor possession transfers any rights to reproduce these documents or any part thereof. Any re-use of these documents without the express written permission of Davidson Architecture & Engineering, LLC is strictly prohibited and shall confer no liability to Davidson Architecture & Engineering, LLC.

disclaimer:

These documents are accurate to the best of Davidson Architecture & Engineering, LLC's professional knowledge. In the event a discrepancy in the documents is encountered, it is the responsibility of that party to notify Davidson Architecture & Engineering in a timely manner, for corrections and/or explanation of the documents.

project description:

Large rentable storage units suitable for contractor storage and private use - Buildings 6, 7, 11, 12, 16, 17, 18, 19, 20 & 21
R, S, T, U F, G, K, L, P, Q

const. schedule

sitework: fall 2022
building envelope: winter 2022
estimated duration: 6 months

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

Mega Storage Building Number	Building Address ID	Lee's Summit Building Permit Number	Phase
1	A	PRCOM20220956	Phase I
2	B	PRCOM20222136	Phase I
3	C	PRCOM20222137	Phase I
4	D	PRCOM20222138	Phase I
5	E	PRCOM20222146	Phase I
6	F	PRCOM20224909	Phase II
7	G	PRCOM20224985	Phase II
8	H	PRCOM20222153	Phase I
9	I	PRCOM20222152	Phase I
10	J	PRCOM20222147	Phase I
11	K	PRCOM20224986	Phase II
12	L	PRCOM20224987	Phase II
13	M	PRCOM20222154	Phase I
14	N	PRCOM20222155	Phase I
15	O	PRCOM20222156	Phase I
16	P	PRCOM20224993	Phase II
17	Q	PRCOM20224996	Phase II
18	R	PRCOM20224994	Phase II
19	S	PRCOM20224995	Phase II
20	T	PRCOM20224997	Phase II
21	U	PRCOM202274998	Phase II

sheet index:

- A0.0 cover sheet
- C1.0 civil cover sheet
- C1.1 civil notes
- C1.2 site & utility plan
- C2.1 grading plan
- C2.2 erosion control plan - phase I
- C2.3 erosion control plan - phase II
- C2.4 spot elevation plan
- C3.1 existing drainage map
- C3.2 proposed drainage map
- C3.3 storm line 5 & 6 plan & profile
- C3.4 storm line 12 & 13 plan & profile
- C4.1 civil details
- C4.2 civil details
- L1.1 landscape plan
- L1.2 landscape details
- A1.1 architectural site plan
- A3.1 exterior elevations & details
- A3.2 exterior elevations
- E0.1 electrical & lighting specifications
- E1.0 electrical site plan
- E2.0 electrical lighting plan
- E3.0 electrical power plan
- E4.0 electrical schedules & riser diagram

client:

Kevin Henter
Mega Storage USA
577 Villa Ct
West Des Moines, IA 50266
p: 515-250-4051

architect:

Christopher L. Hafner
Davidson Architecture & Engineering
4301 Indian Creek Parkway
Overland Park, Kansas 66207
p: 913.451.9390 f: 913.451.9391

civil engineer:

Paul Miller, PE
Davidson Architecture & Engineering
4301 Indian Creek Parkway
Overland Park, Kansas 66207
p: 913.451.9390 f: 913.451.9391

electrical engineer:

Darin T. Seidel, PE
BC Engineers Incorporated
5720 Reeder Shawnee, KS 66203
p: 913-262-1772

a new development for

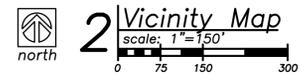
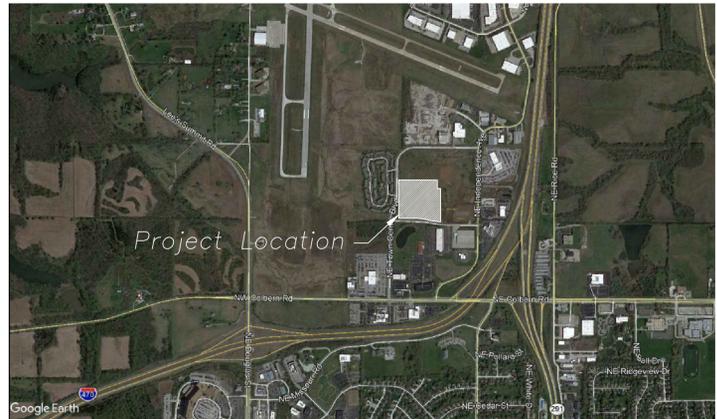
Mega Storage - Phase II

520 NE Town Centre Drive, Lee's Summit, Missouri



A new development for Mega Storage – Town Centre Lot 1 – Phase II

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

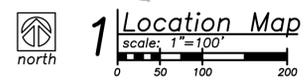
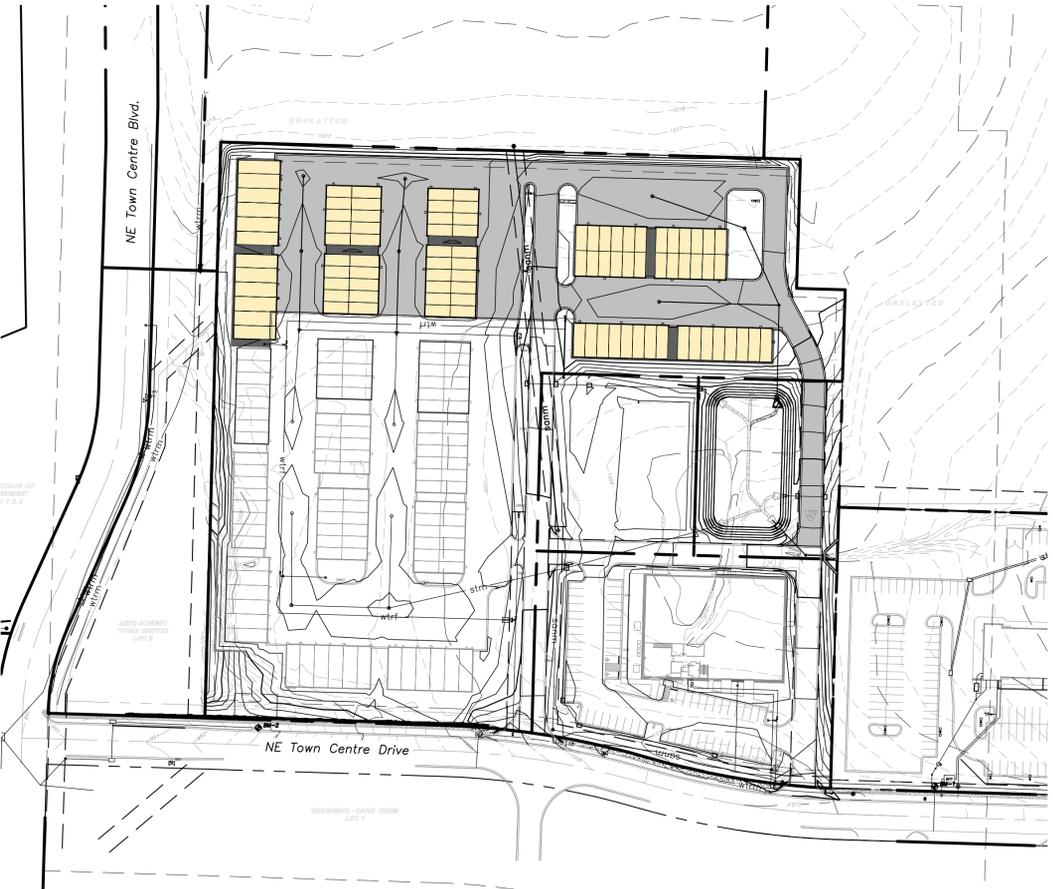
—	existing
- - -	proposed

Linetypes

— sanm	sanitary main
— sans	sanitary service
— 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
— dats	underground cable/phone/data service
—	fence-chainlink
—	fence-wood
—	fence-barbed wire
—	tree/line

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 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.
- 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.
- Contractor shall provide 48-hour notification to the city engineering division to schedule all required inspections.
- 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.

Sheet Index

- C1.0 – Cover
- C1.1 – Notes
- C1.2 – Site & Utility Plan
- C2.1 – Grading Plan
- C2.2 – Phase I Erosion Control Plan
- C2.3 – Phase II Erosion Control Plan
- C2.4 – Spot Elevation Plan
- C3.1 – Existing Drainage Map
- C3.2 – Proposed Drainage Map
- C3.3 – Storm Line 5 & 6 Plan & Profile
- C3.4 – Storm Line 12 & 13 Plan & Profile
- C4.1 – Details
- C4.2 – Details

Civil Engineer:

Davidson Architecture & Engineering, LLC
Mr. Paul A. Miller, P.E.
4301 Indian Creek Pkwy.
Overland Park, KS 66207
Phone: (913) 451-9390
Email: Paul@davidsonae.com

Owner Information

Mega Storage USA
Kevin Henter
577 Villa Court
West Des Moines, Iowa 50266
Phone: (515) 250-4051
Email: khenter@megastorageusa.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.

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.

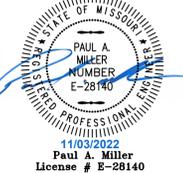
a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date	09.27.2023
drawn by	JMP
checked by	PAM
revisions	
	11.03.2022 01
	03.21.2023 02



4301 Indian Creek Parkway
Overland Park, KS 66207
phone: 813.451.9390
fax: 813.451.9391
www.davidsonae.com

Davidson Architecture
& Engineering, LLC
License # 2010029713



Paul A. Miller
License # E-28140

a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date
09.27.2022
drawn by
JMP
checked by
PAM
revisions

sheet number

C1.1

drawing type
FDP & permit
project number
22220

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.
 - The work associated with and based on these plans, shall be subject to the requirements of, and conform to, the Municipal Code of Lee's Summit, Missouri, and the standards and specifications in current use. The standards, specifications, details, and procedures sub-referenced therein are hereby incorporated by reference.
 - 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.
 - A pre-construction meeting shall be scheduled between the Contractor and Development Services Inspections with a minimum of 48 hours notice. Please contact (816) 969-1200 to schedule this pre-construction meeting.
 - 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 subsil.
- 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 1/2".
- 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.

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.

Fire Protection Notes:

- Plans and specifications, in accordance with NFPA 24, for the private fire line shall be submitted for review and approval prior to installation.
- Underground fire line installation including thrust blocks shall be inspected prior to being backfilled.
- Hydrostatic testing and flushes shall be completed with the fire department as a witness

Utility Legend

	existing
	proposed

Linetypes

	sanm	sanitary main
	sans	sanitary service
	stm	storm sewer (existing)
	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
	datu	underground cable/phone/data service
	b	fence-chainlink
	w	fence-wood
	w	fence-barbed wire
	t	trelline

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

Construction Legend

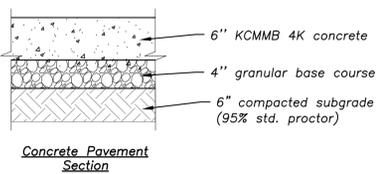
- concrete pavement
- standard curb & gutter
- standard dry curb & gutter
- flat curb & gutter
- gravel
- remove existing curb & pavement

Utility Legend

	sanm	existing sanitary main
	wtrm	existing water main
	stm	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
	stm	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

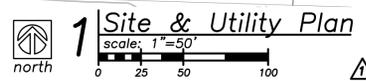
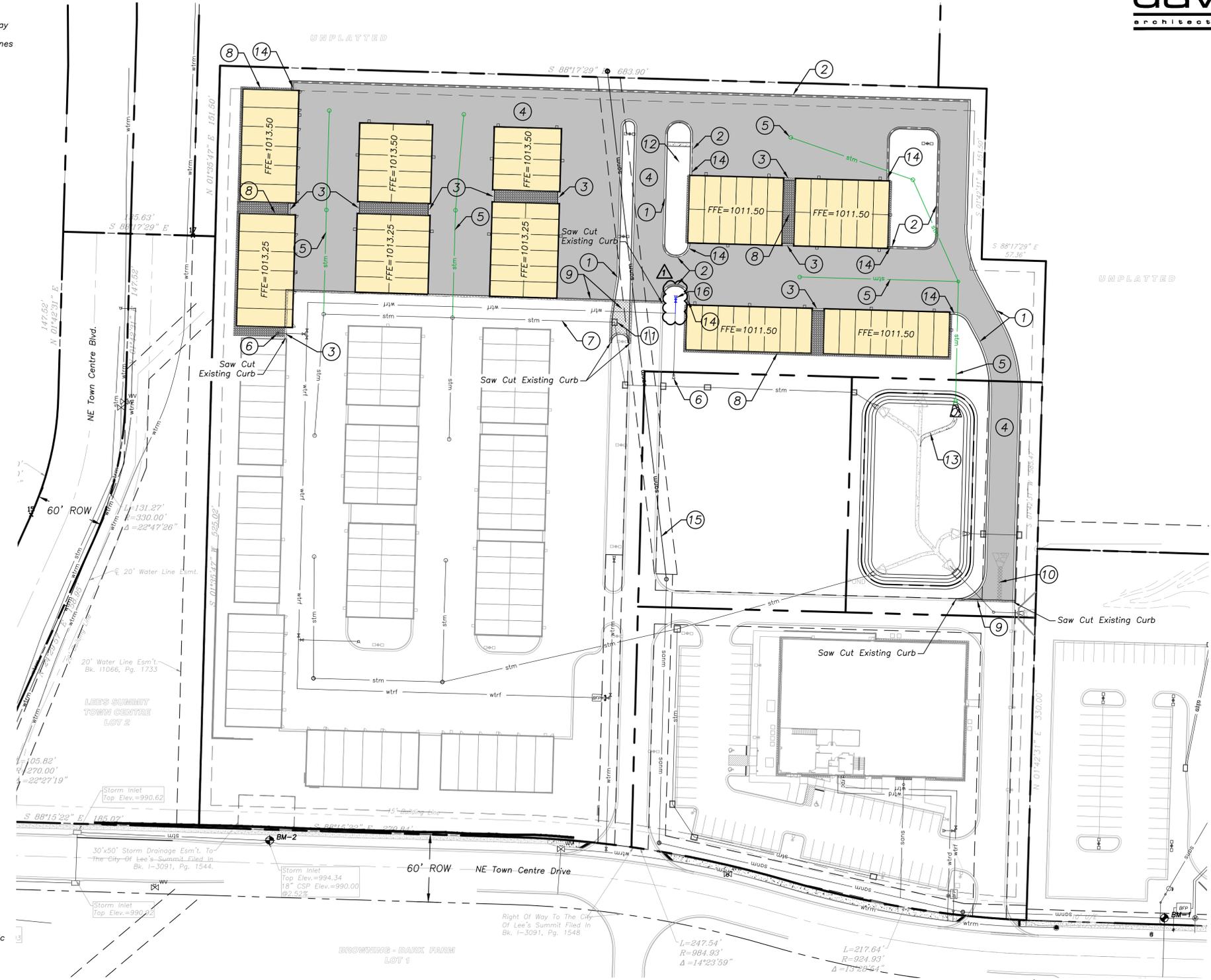
Americans with Disabilities Act (ADA) Notes:

- 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.



Construction Notes:

- Construct type "CG-1" curb & gutter where indicated (see legend).
- Construct type "CG-1 DRY" curb & gutter where indicated (see legend).
- Construct flat curb where indicated (see legend and detail on C4.2).
- Construct concrete pavement where indicated (see legend).
- Install Private Storm Lines; see Sheet C3.2 for details.
- Existing private fire hydrant
- Existing private storm network
- Perimeter stone around buildings, 2" below building slab. Refer to landscape plan.
- Remove existing curb & pavement (see legend).
- Remove existing concrete drainage flume
- Convert Existing Grate Inlet to a Curb Inlet; see Sheet C3.4 for details.
- Install Concrete Drainage Flume; see Sheet C4.2 for details.
- Install Concrete Low Flow Channel; see Sheet C4.2 for details.
- Install Transition Curb; see Sheet C4.2 for details.
- Existing 8" Public Sanitary Main
- Proposed Private Fire Hydrant; remove existing 8" 90' fitting and install 8"x8"x8" tee. Install 8" to 6" reducer and approx. 15 LF of 6" C900 PVC water line, valve box and hydrant assembly. Install bollards as shown on Lee's Summit Standard Detail WAT-4.



a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2023
drawn by JMP
checked by PAM
revisions
11.03.2022 01

sheet number
C1.2
drawing type
Permit
project number
22220

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

Grading Legend

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

Utility Legend

- existing
- proposed

Linetypes

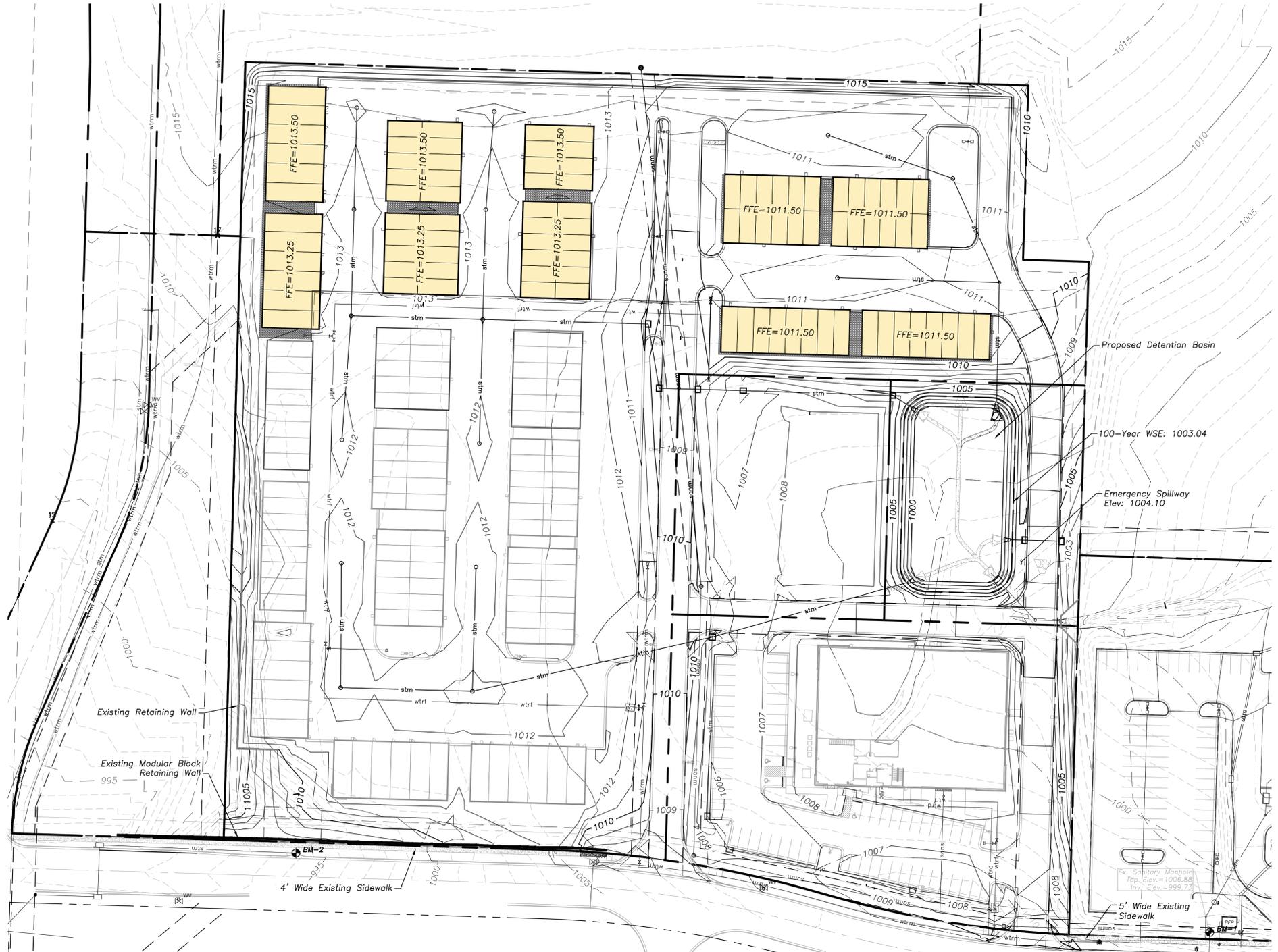
- sanm sanitary main
- sans sanitary service
- ssm storm sewer (existing)
- ssms storm sewer (solid wall, proposed)
- ssmf storm sewer (solid wall, proposed)
- ssm perforated storm sewer (proposed)
- wrm water main
- wtrf water service (fire)
- wtrd water service (domestic)
- wtri water service (irrigation)
- 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 chainlink fence
- fw wood fence
- fbw barbed wire fence
- tr tree line

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"=50'
0 25 50 100

a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2022
drawn by JMP
checked by PAM
revisions



sheet number
C2.1
drawing type
Permit
project number
22220

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

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
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

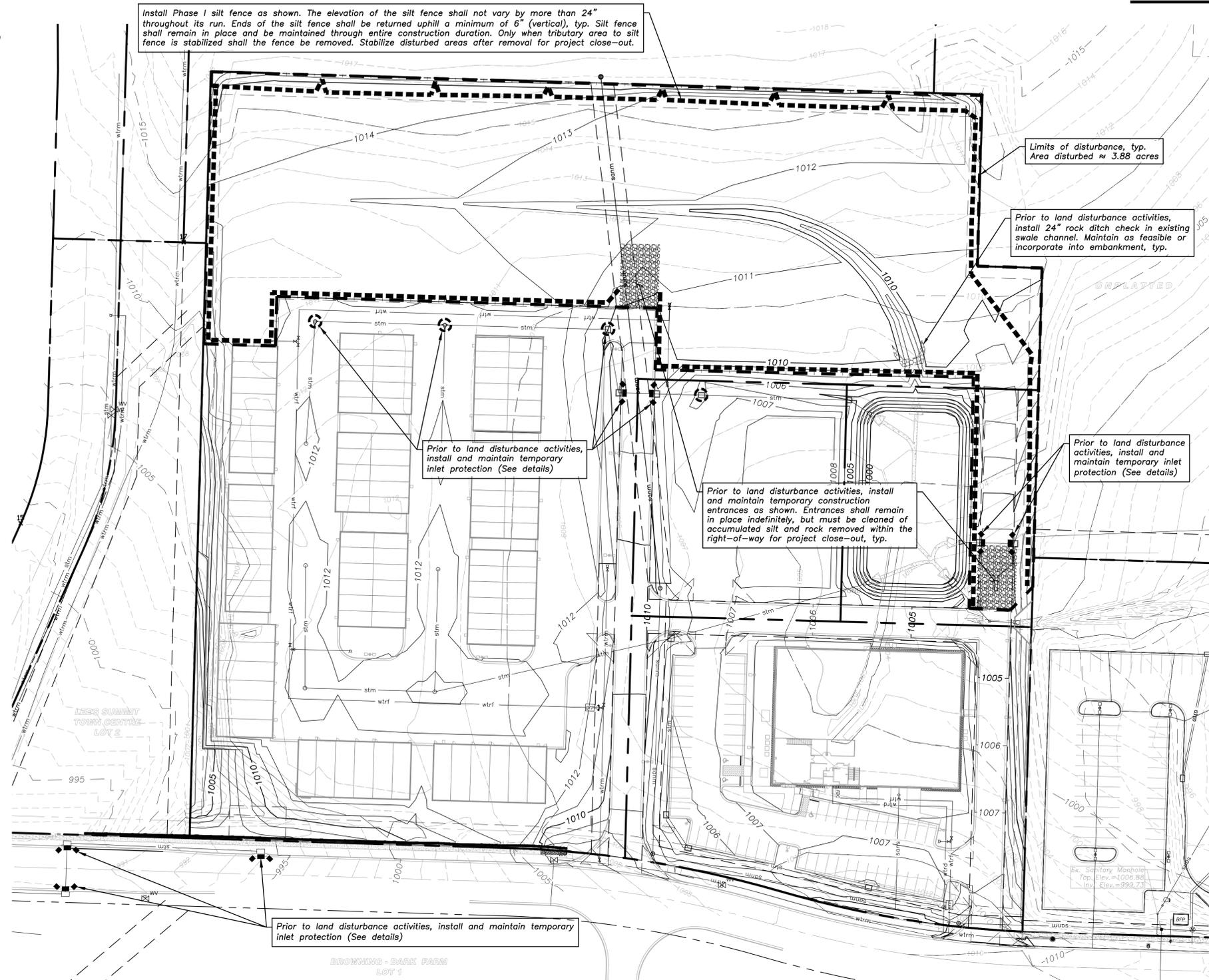
sanitary manhole
service cleanout
force main release valve
rectangular structure
circular structure
fire hydrant
water valve
water meter
backflow preventer
natural gas meter
service transformer (pad mount)
primary switch gear
light pole
cable/phone/data junction box
street light
pedestrian street light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

Erosion Control Legend

Phase I Silt fence
Phase I Inlet protection
limits of disturbance
construction entrance
rock check dam

Property Legend

right of way
property lines
easements
setbacks



1 Phase I: Erosion Control Plan
scale: 1"=50'
0 25 50 100

a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date
09.27.2022
drawn by
JMP
checked by
PAM
revisions

sheet number
C2.2
drawing type
Permit
project number
22220



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

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
- stm (existing) storm sewer (existing)
- stm (solid wall, proposed) storm sewer (solid wall, proposed)
- stm (perforated, proposed) 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
- datas underground cable/phone/data service
- fence-chainlink fence-chainlink
- fence-wood fence-wood
- fence-barbed wire fence-barbed wire
- treeline treeline

Symbols

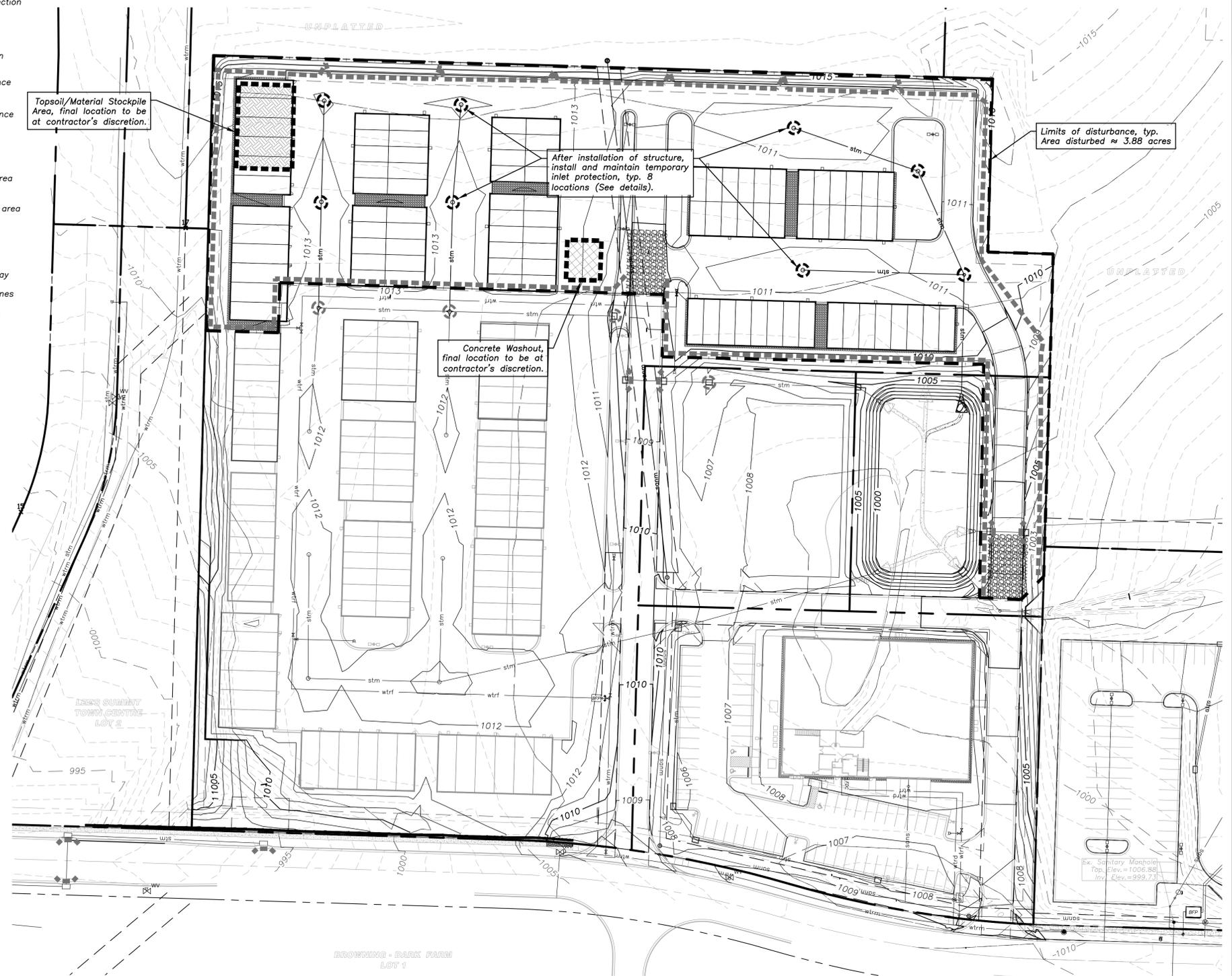
- ⊙ sanitary manhole
- ⊙ service cleanout
- ⊙ force main release valve
- rectangular structure
- circular structure
- ⊕ fire hydrant
- ⊕ water valve
- ⊕ water meter
- ⊕ backflow preventer
- ⊕ natural gas meter
- ⊕ service transformer (pad mount)
- ⊕ primary switch gear
- ⊕ light pole
- ⊕ cable/phone/data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

Erosion Control Legend

- Phase I Silt fence
- Phase II Silt fence
- Phase I Inlet protection
- Phase II 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



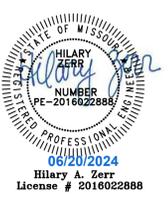
Phase II: Erosion Control Plan
scale: 1"=50'
0 25 50 100

a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2022
drawn by JMP
checked by PAM
revisions

sheet number
C2.3
drawing type Permit
project number 22220

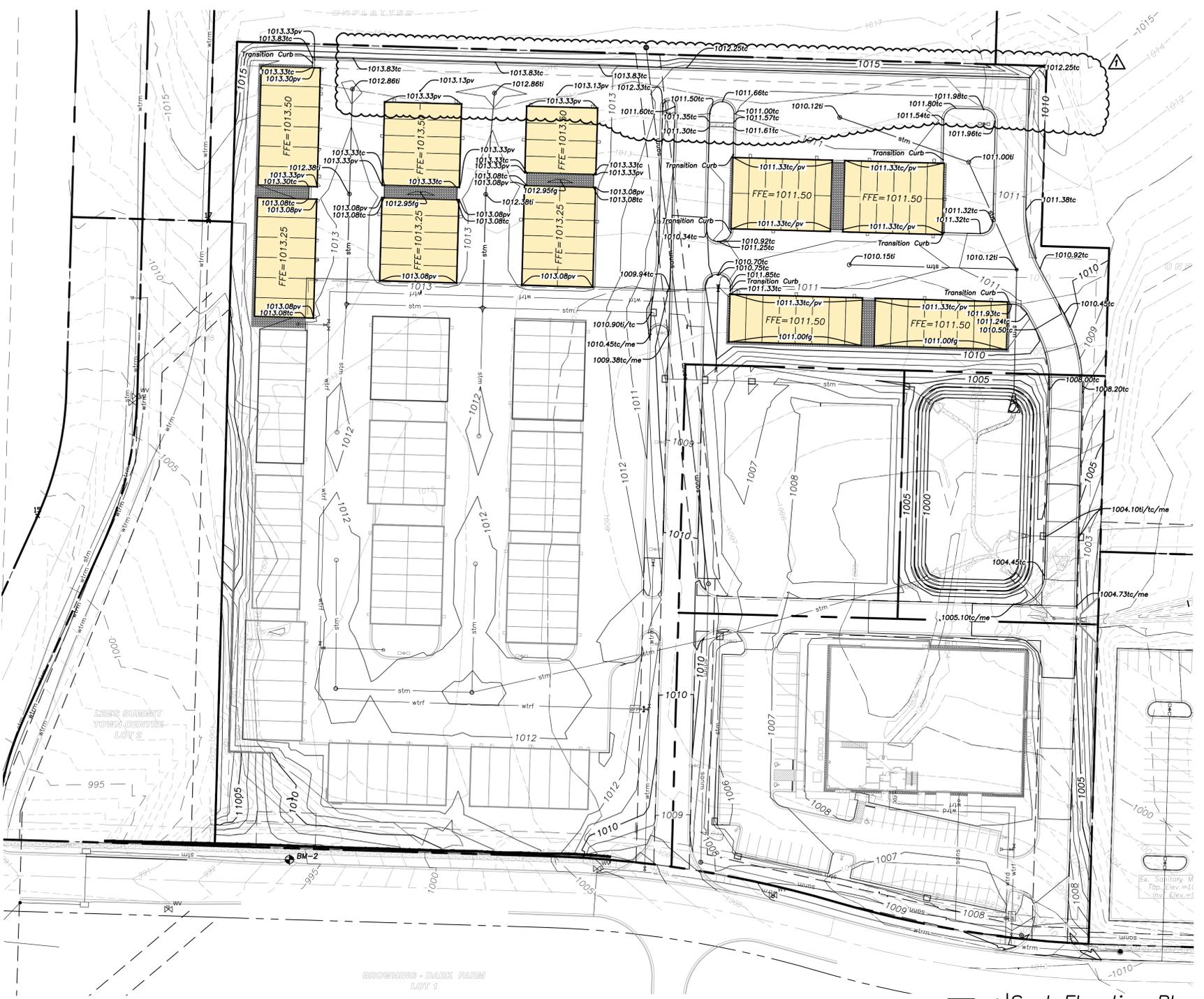




a new development for
Mega Storage - Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2023
drawn by JMP
checked by PAM
revisions
03.21.2023 01

sheet number
C2.4
drawing type Permit
project number 22220



1 Spot Elevation Plan
scale: 1"=50'
north

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

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.

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
- bidg = building
- FFE = finished floor elevation
- ex = existing
- mp = match pavement
- gnd = ground
- ts = top of stair
- bs = bottom of stair

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
- 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
- datu 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

a new development for
Mega Storage - Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date: 09.27.2022
drawn by: JMP
checked by: PAM
revisions:

sheet number
C3.1
drawing type
FDP & permit
project number
22220

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

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

Linetypes

sanm sanitary main
 sans sanitary service
 ssm storm sewer (existing)
 ssp storm sewer (solid wall, proposed)
 stp storm sewer (solid wall, proposed)
 sp storm sewer (perforated, proposed)
 wtm water main
 wtf water service (fire)
 wtd water service (domestic)
 wtr water service (irrigation)

 gasm natural gas main
 gass natural gas service schematic

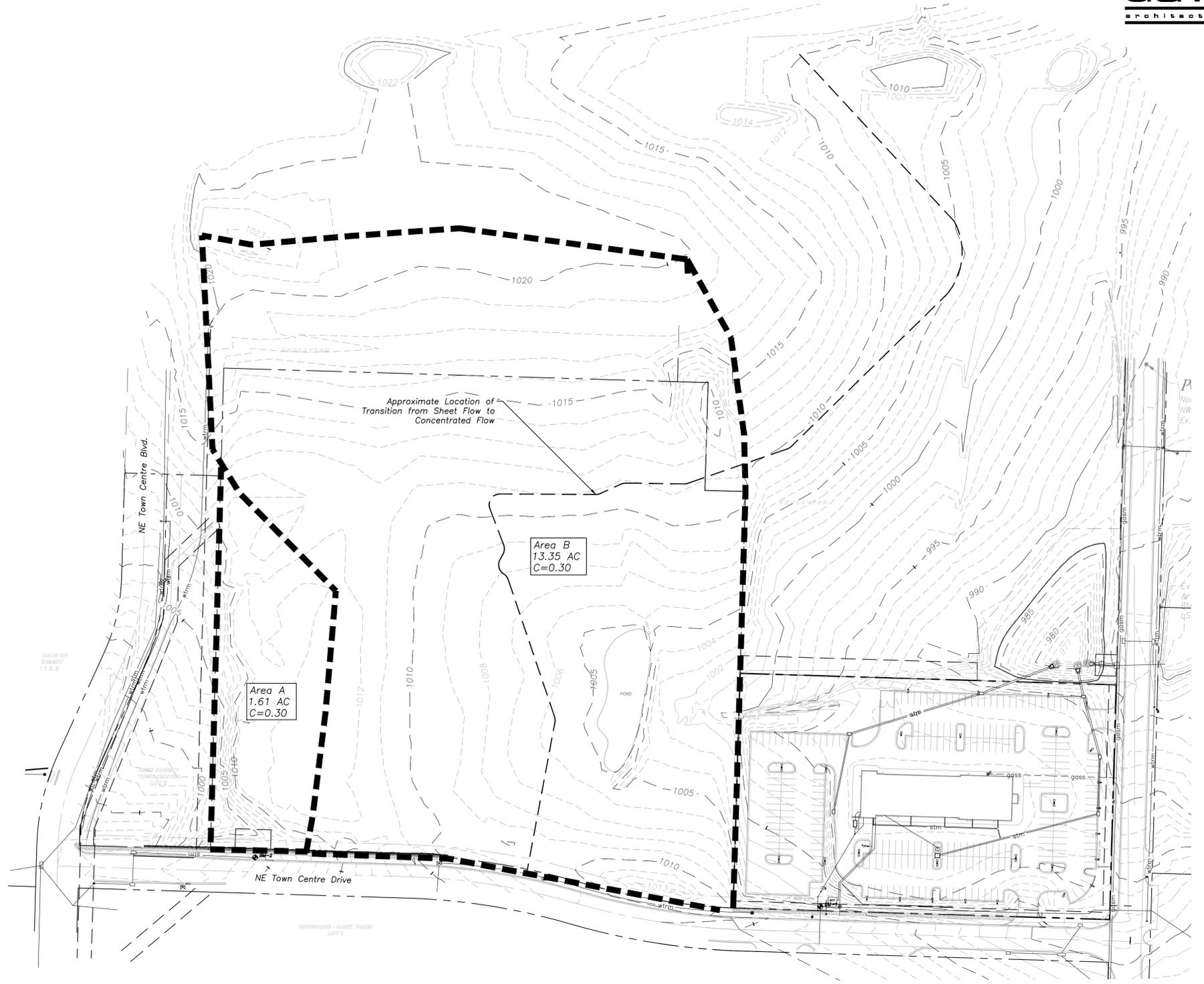
 elpu underground primary electric
 elsu underground secondary electric
 elpo overhead electric

 datu underground cable/phone/data
 datu underground cable/phone/data service

 fence-chainlink
 fence-wood
 fence-barbed wire
 treeline

Symbols

sanitary manhole
 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



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'



a new development for
Mega Storage - Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date: 09.27.2022
drawn by: JMP
checked by: PAM
revisions:

sheet number
C3.2
drawing type: FDP & permit
project number: 22220

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

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

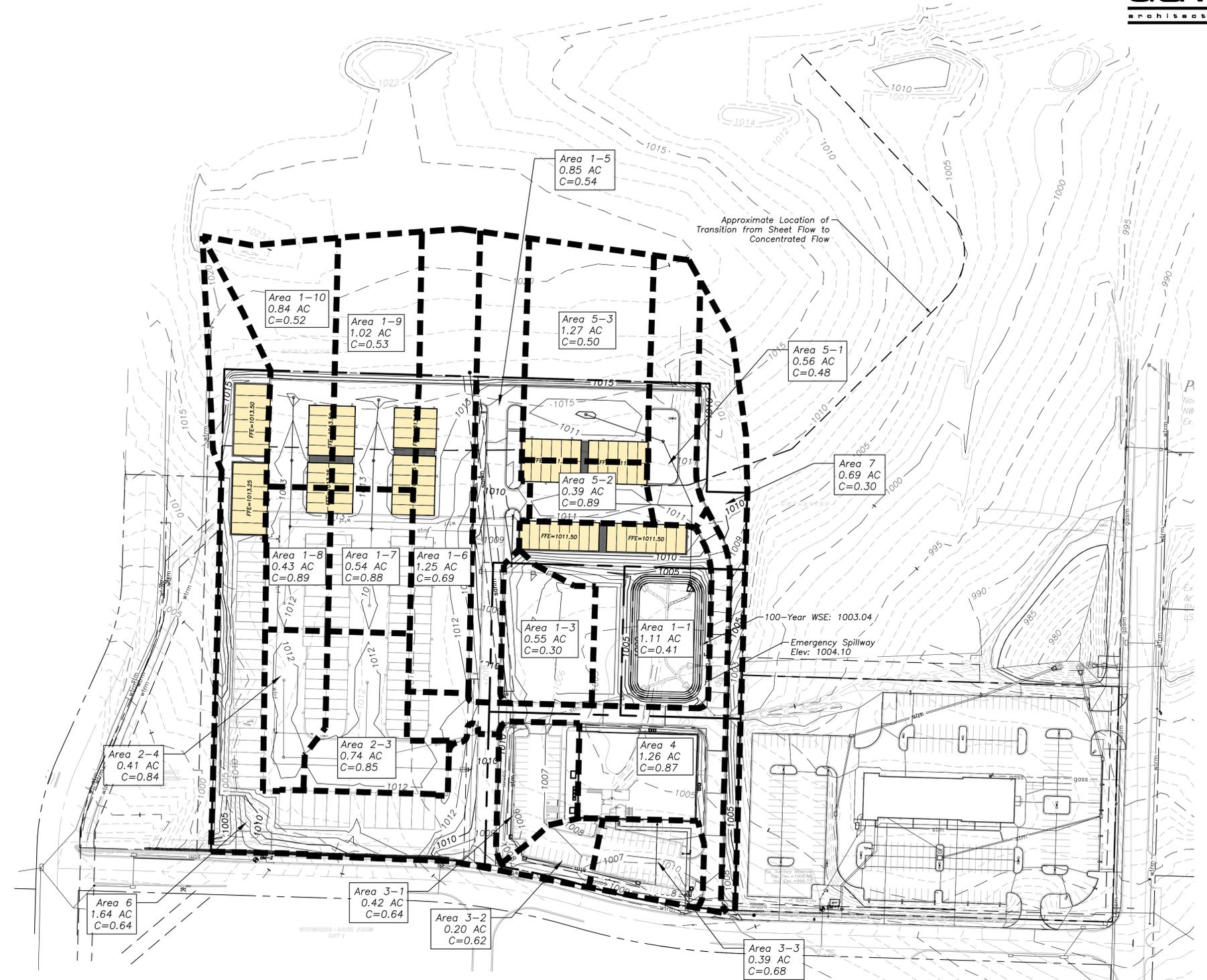
existing
 proposed

Linetypes

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



Post-Construction Impervious Area Calculations

	Square Feet	Acres
Area of Site	505,723	11.61
Impervious Area	350,108	8.04
Pervious Area	155,615	3.57
Q: 10 year	16.24 cfs	
100 year	27.04 cfs	

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



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

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

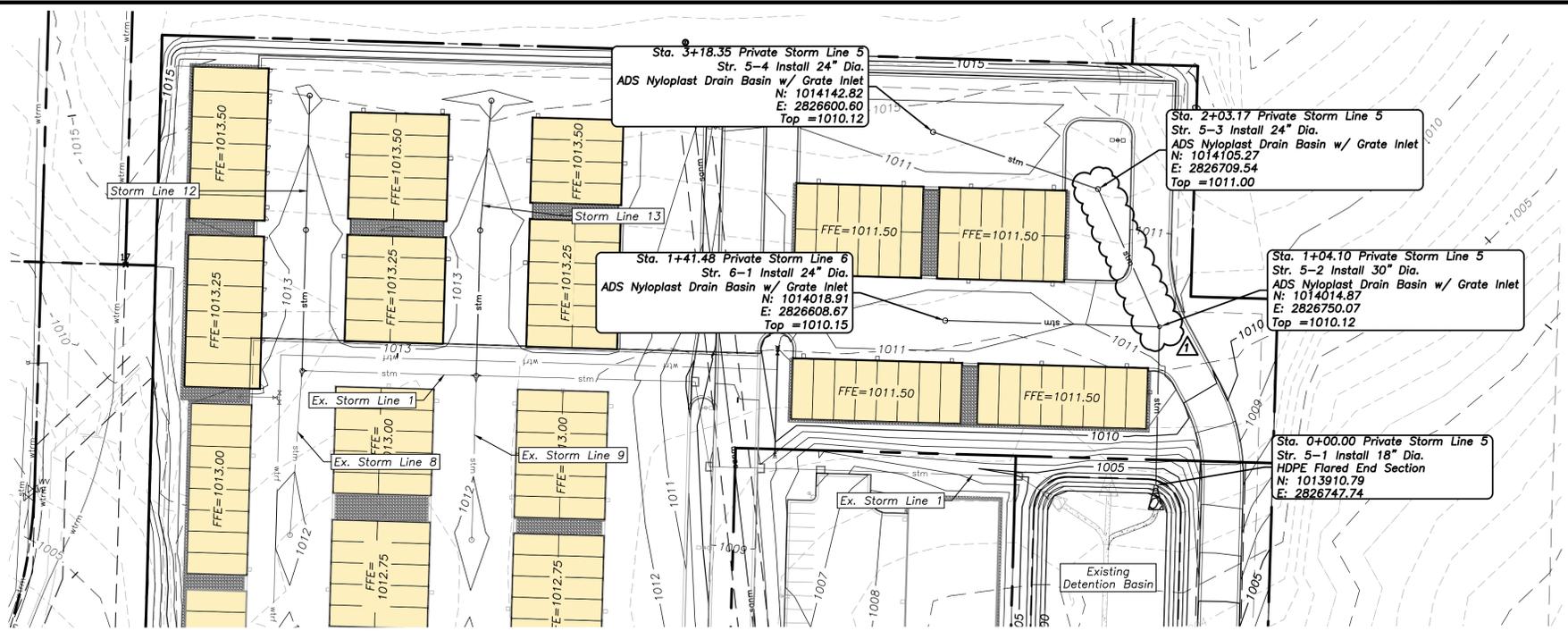
- - - existing
- - - proposed

Linetypes

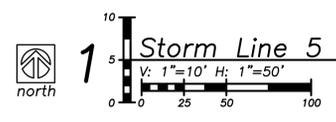
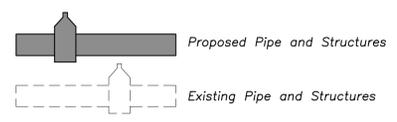
- sanm sanitary main
- sans sanitary service
- ssm storm sewer (existing)
- ssms storm sewer (solid wall, proposed)
- stms storm sewer (solid wall, proposed)
- stms storm sewer (perforated, proposed)
- wrm water main
- wrf water service (fire)
- wrd water service (domestic)
- wri water service (irrigation)
- gasm natural gas main
- gass natural gas service schematic
- elpu underground primary electric
- elsu underground secondary electric
- alpo overhead electric
- datu underground cable/phone/data
- datas underground cable/phone/data service
- fc fence-chainlink
- fw fence-wood
- fb fence-barbed wire
- tr treeline

Symbols

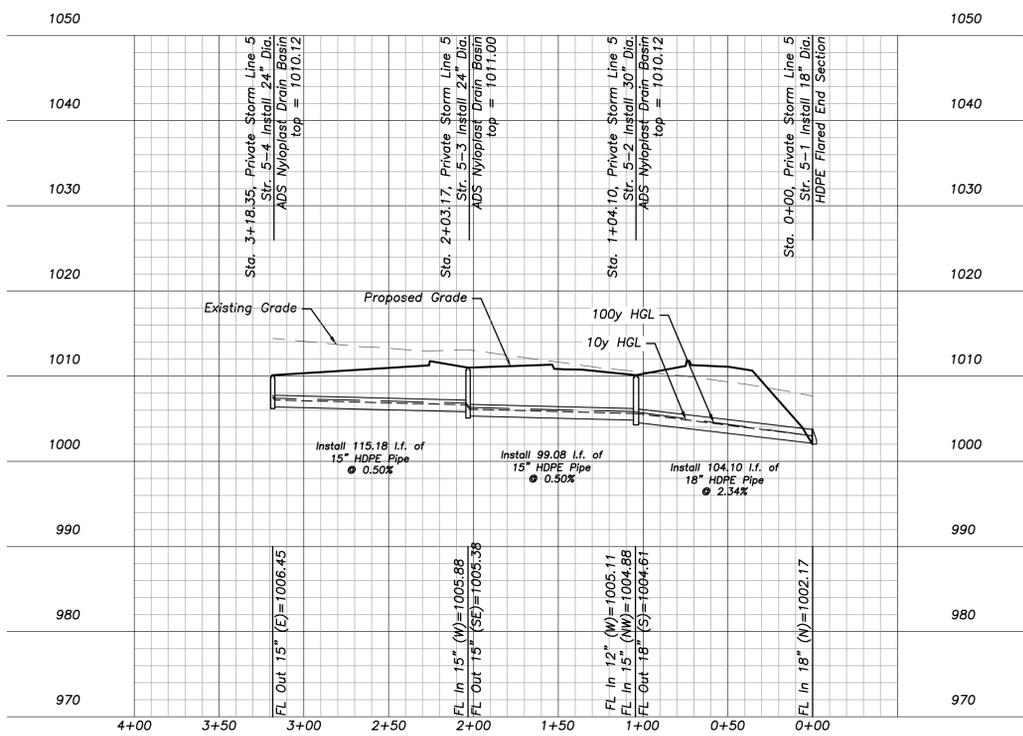
- ⊙ sanitary manhole
- ⊙ service cleanout
- ⊙ force main release valve
- ⊙ rectangular structure
- ⊙ circular structure
- ⊙ fire hydrant
- ⊙ water valve
- ⊙ water meter
- ⊙ backflow preventer
- ⊙ natural gas meter
- ⊙ service transformer (pad mount)
- ⊙ primary switch gear
- ⊙ light pole
- ⊙ cable/phone/data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



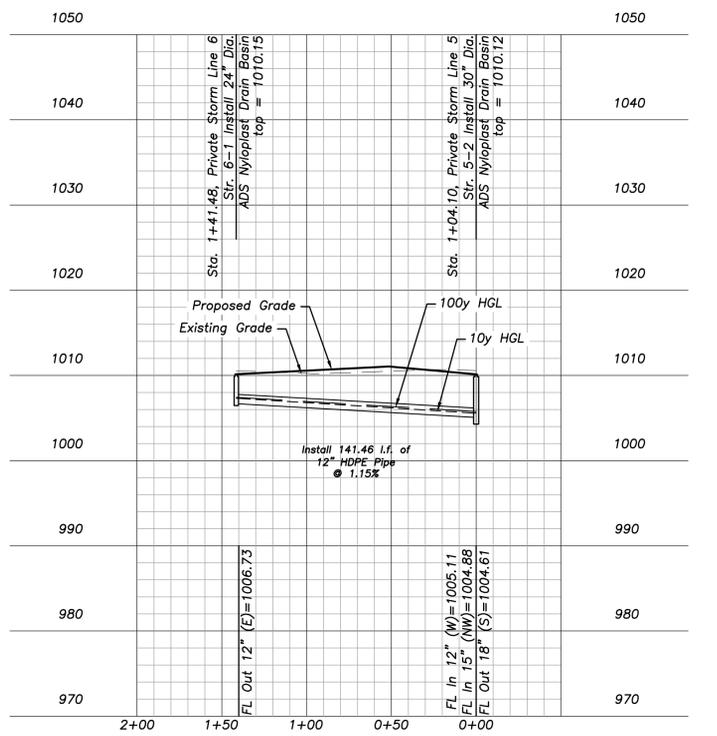
*NOTE:
Curb Inlet Coordinates are for Center Back of Curb
Grate Inlet, Junction Boxes, & Manhole Coordinates are to Center of Structure



Private Storm Line 5



Private Storm Line 6



10-Year Storm Calculations																							
LineNo.	InletID	LineID	DrainageArea	RunoffCoeff	TotalRunoff	CapacityFull	DepthDn	DepthUp	CriticalDepth	EGLUp	EGLDn	HGLDn	HGLUp	InvertDn	InvertUp	LineLength	LineSize	LineSlope	PipeTravel	TotalArea	TotalCA	VelAve	FlowRate
			(ac)	(C)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(in)	(%)	(min)	(ac)	(sq ft)	(ft/s)	(cfs)
1	5-2	5-2 to 5-1	0.56	0.48	6.29	17.42	0.82	0.97**	0.97	1006.41	1003.41	1002.99	1005.58	1002.17	1004.61	104.097	18	2.34	0.49	2.22	1.25	5.79	6.29
2	5-3	5-3 to 5-2	0	0	3.25	4.97	0.74	0.74	0.73	1006.41	1005.91	1005.62	1006.12	1004.88	1005.38	99.077	15	0.5	0.62	1.27	0.64	4.31	3.25
3	5-4	5-4 to 5-3	1.27	0.5	3.31	4.92	0.75	0.75	0.73	1007.49	1006.92	1006.63	1007.2	1005.88	1006.45	115.176	15	0.49	0.71	1.27	0.64	4.3	3.31
4	6-1	6-1 to 5-2	0.39	0.89	1.81	4.13	0.47	0.57**	0.57	1007.54	1005.81	1005.58	1007.3	1005.11	1006.73	141.46	12	1.15	1.02	0.39	0.35	4.45	1.81

100-Year Storm Calculations																							
LineNo.	InletID	LineID	DrainageArea	RunoffCoeff	TotalRunoff	CapacityFull	DepthDn	DepthUp	CriticalDepth	EGLUp	EGLDn	HGLDn	HGLUp	InvertDn	InvertUp	LineLength	LineSize	LineSlope	PipeTravel	TotalArea	TotalCA	VelAve	FlowRate
			(ac)	(C)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(in)	(%)	(min)	(ac)	(sq ft)	(ft/s)	(cfs)
1	5-2	5-2 to 5-1	0.56	0.48	8.92	17.42	0.82	1.15**	1.15	1006.35	1003.57	1002.99	1005.77	1002.17	1004.61	104.097	18	2.34	0.35	2.22	1.25	7.57	8.92
2	5-3	5-3 to 5-2	0	0	4.58	4.97	0.95	0.94	0.87	1006.65	1006.15	1005.83	1006.33	1004.88	1005.38	99.077	15	0.5	0.44	1.27	0.64	4.6	4.58
3	5-4	5-4 to 5-3	1.27	0.5	4.64	4.92	0.96	0.97	0.87	1007.74	1007.17	1006.85	1007.42	1005.88	1006.45	115.176	15	0.49	0.51	1.27	0.64	4.56	4.64
4	6-1	6-1 to 5-2	0.39	0.89	2.53	4.13	0.65	0.68**	0.68	1007.72	1006.07	1005.77	1007.41	1005.11	1006.73	141.46	12	1.15	0.73	0.39	0.35	4.55	2.53

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

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

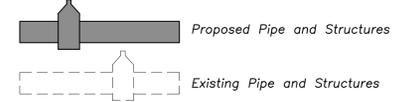
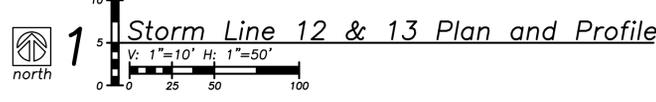
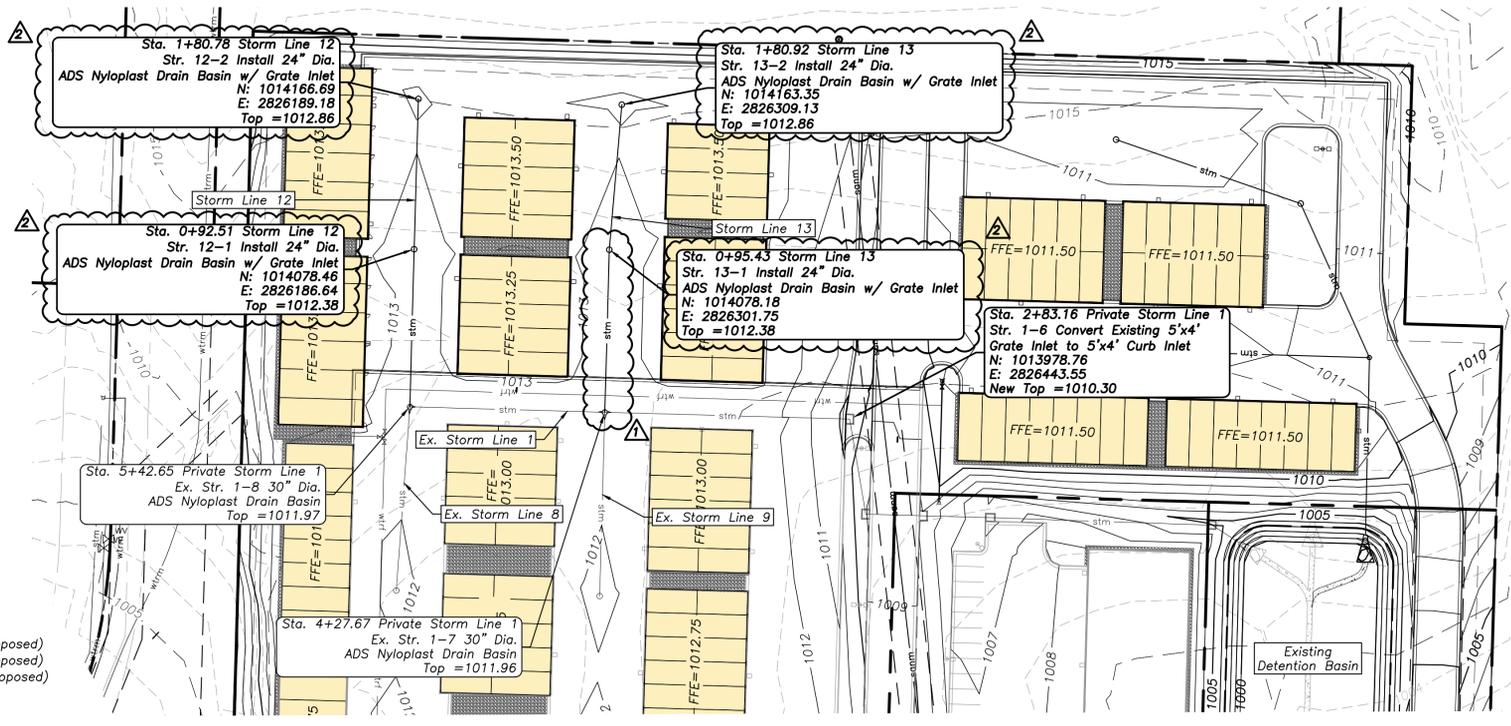
- - - existing
- - - proposed

Linetypes

- sanm sanitary main
- sans sanitary service
- sswm storm sewer (existing)
- sswp storm sewer (solid wall, proposed)
- sswf 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
- alpu underground primary electric
- alsu underground secondary electric
- alpo overhead electric
- datu underground cable/phone/data
- dotsu underground cable/phone/data service
- fence-chainlink
- fence-wood
- fence-barbed wire
- treeline

Symbols

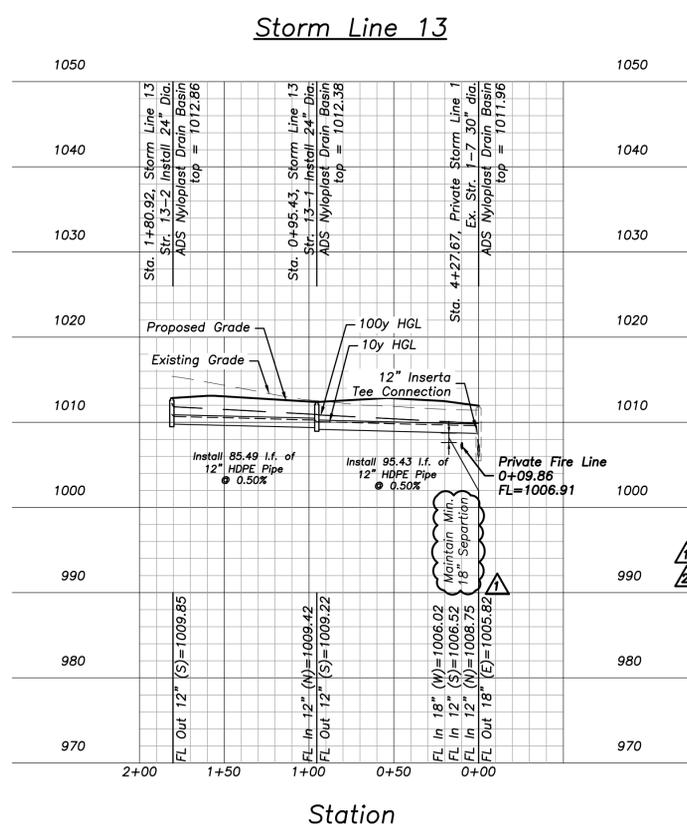
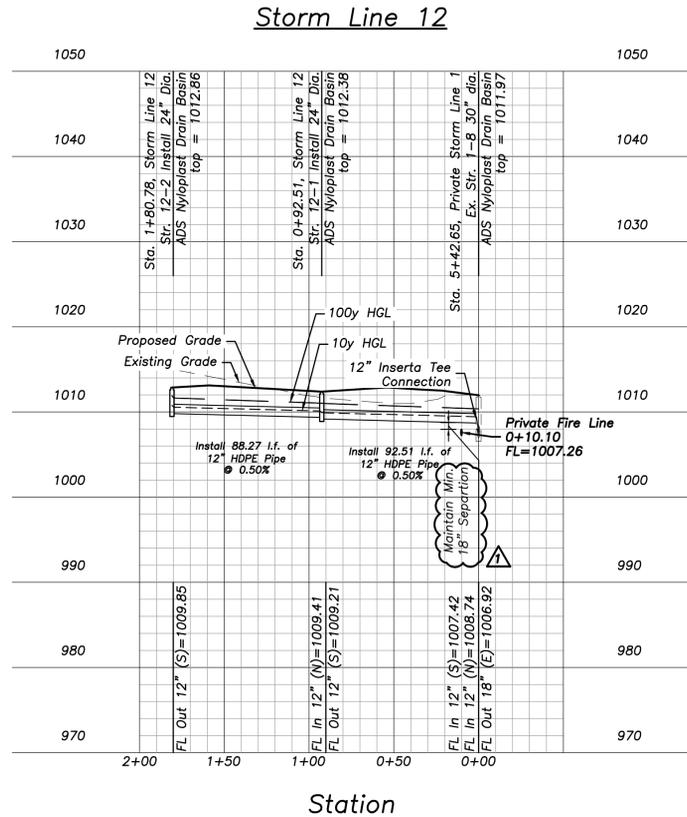
- ⊙ sanitary manhole
- ⊙ service cleanout
- ⊙ force main release valve
- ⊙ rectangular structure
- ⊙ circular structure
- ⊙ fire hydrant
- ⊙ water valve
- ⊙ water meter
- ⊙ backflow preventer
- ⊙ natural gas meter
- ⊙ service transformer (pad mount)
- ⊙ primary switch gear
- ⊙ light pole
- ⊙ cable/phone/data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



***NOTE:**
Curb Inlet Coordinates are for Center Back of Curb
Grate Inlet, Junction Boxes, & Manhole Coordinates are to Center of Structure

10-Year Storm Calculations																											
LineNo.	InletID	LineID	DrainageArea (ac)	RunoffCoeff (C)	TotalRunoff (cfs)	CapacityFull (cfs)	DepthDn (ft)	DepthUp (ft)	CriticalDepth (ft)	EGLUp (ft)	EGLDn (ft)	HGLDn (ft)	HGLUp (ft)	InvertDn (ft)	InvertUp (ft)	LineLength (ft)	LineSize (in)	LineSlope (%)	PipeTravel (min)	TotalArea (ac)	TotalCxA (ft/s)	VelAve (ft/s)	FlowRate (cfs)				
1	1-2	1-2 to 1-1	0	0	15.92	17.24	1.7	1.66	1.44	1003.29	1003.2	1002.71	1002.78	1001.01	1001.12	22.228	24	0.49	0.07	5.48	3.32	5.66	15.92				
2	1-3	1-3 to 1-2	0.55	0.3	16.09	17.4	1.75	1.54	1.44	1004.12	1003.54	1003.07	1003.52	1001.32	1001.98	130.857	24	0.5	0.43	5.48	3.32	5.86	16.09				
3	1-4	1-4 to 1-5	0	0	15.34	22.06	1.43	1.41**	1.41	1004.56	1004.26	1003.61	1003.91	1002.18	1002.5	39.492	24	0.81	0.14	4.93	3.16	6.43	15.34				
4	1-5	1-5 to 1-4	0.85	0.54	15.39	22.23	1.22	1.41**	1.41	1005.04	1004.57	1003.91	1004.38	1002.69	1002.97	34.004	24	0.82	0.12	4.93	3.16	7.06	15.39				
5	1-6	1-6 to 1-5	1.25	0.69	13.22	22.57	1.1	1.31**	1.31	1005.82	1005.14	1004.56	1005.25	1003.46	1003.94	56.578	24	0.85	0.22	4.08	2.7	6.77	13.22				
6	1-7	1-7 to 1-6	0	0	9.1	11.16	1.03	1.17**	1.17	1007.58	1006.05	1005.46	1006.99	1004.43	1005.82	144.508	18	0.96	0.46	2.83	1.84	6.61	9.1				
7	1-8	1-8 to 1-7	0	0	4.15	10.06	0.97	0.78**	0.78	1008.01	1007.3	1006.99	1007.70	1006.02	1006.92	114.98	18	0.78	0.81	1.27	0.82	3.96	4.15				
8	12-1	12-1 to 1-8	0	0	2.24	3.45	0.59	0.64**	0.64	1009.08	1008.29	1008.01	1008.8	1007.42	1008.16	92.48	12	0.8	0.54	0.84	0.44	4.45	2.24				
9	12-2	12-2 to 12-1	0.84	0.52	2.28	2.99	0.65	0.65**	0.64	1009.82	1009.29	1009.01	1009.54	1008.36	1008.89	88.311	12	0.6	0.51	0.84	0.44	4.19	2.28				
10	13-1	13-1 to 1-7	0	0	2.79	3.91	0.62	0.72**	0.72	1008.55	1007.48	1007.14	1008.22	1006.52	1007.5	95.448	12	1.03	0.45	1.02	0.54	5.02	2.79				
11	13-2	13-2 to 13-1	1.02	0.53	2.82	3.9	0.63	0.72**	0.72	1009.63	1008.67	1008.33	1009.29	1007.7	1008.57	85.319	12	1.02	0.4	1.02	0.54	5.03	2.82				

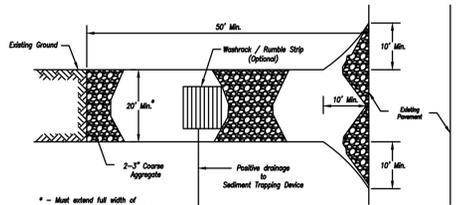
100-Year Storm Calculations																											
LineNo.	InletID	LineID	DrainageArea (ac)	RunoffCoeff (C)	TotalRunoff (cfs)	CapacityFull (cfs)	DepthDn (ft)	DepthUp (ft)	CriticalDepth (ft)	EGLUp (ft)	EGLDn (ft)	HGLDn (ft)	HGLUp (ft)	InvertDn (ft)	InvertUp (ft)	LineLength (ft)	LineSize (in)	LineSlope (%)	PipeTravel (min)	TotalArea (ac)	TotalCxA (ft/s)	VelAve (ft/s)	FlowRate (cfs)				
1	1-2	1-2 to 1-1	0	0	22.94	17.24	1.7	1.93	1.7	1003.9	1003.72	1002.71	1003.05	1001.01	1001.12	22.228	24	0.49	0.05	5.48	3.32	7.72	22.94				
2	1-3	1-3 to 1-2	0.55	0.3	23.11	17.4	2	2	1.71	1005.54	1004.37	1003.53	1004.7	1001.32	1001.98	130.857	24	0.5	0.3	5.48	3.32	7.36	23.11				
3	1-4	1-4 to 1-5	0	0	22.01	22.06	2	2	1.67	1005.91	1005.59	1004.82	1005.14	1002.18	1002.5	39.492	24	0.81	0.1	4.93	3.16	7.01	22.01				
4	1-5	1-5 to 1-4	0.85	0.54	22.05	22.23	2	2	1.68	1006.3	1006.02	1005.26	1005.53	1002.69	1002.97	34.004	24	0.82	0.08	4.93	3.16	7.02	22.05				
5	1-6	1-6 to 1-5	1.25	0.69	18.92	22.57	2	2	1.56	1007.18	1006.85	1006.28	1006.62	1003.46	1003.94	56.578	24	0.85	0.16	4.08	2.7	6.02	18.92				
6	1-7	1-7 to 1-6	0	0	12.97	11.16	1.5	1.5	1.35	1009.89	1008.01	1007.17	1009.05	1004.43	1005.82	144.508	18	0.96	0.33	2.83	1.84	7.34	12.97				
7	1-8	1-8 to 1-7	0	0	5.87	10.06	1.5	1.5	0.93	1010.37	1010.06	1009.89	1010.2	1006.02	1006.92	114.98	18	0.78	0.58	1.27	0.82	3.32	5.87				
8	12-1	12-1 to 1-8	0	0	3.16	3.45	1	1	0.76	1011.24	1010.62	1010.37	1010.99	1007.42	1008.16	92.48	12	0.8	0.38	0.84	0.44	4.02	3.16				
9	12-2	12-2 to 12-1	0.84	0.52	3.19	2.99	1	1	0.76	1011.89	1011.28	1011.03	1011.63	1008.36	1008.89	88.311	12	0.6	0.36	0.84	0.44	4.06	3.19				
10	13-1	13-1 to 1-7	0	0	3.92	3.91	1	1	0.84	1011.26	1010.28	1009.89	1010.88	1006.52	1007.5	95.448	12	1.03	0.32	1.02	0.54	4.99	3.92				
11	13-2	13-2 to 13-1	1.02	0.53	3.95	3.9	1	1	0.84	1012.22	1011.33	1010.93	1011.83	1007.7	1008.57	85.319	12	1.02	0.28	1.02	0.54	5.03	3.95				



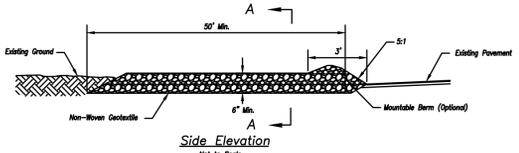
a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2023
drawn by JMP
checked by PAM
revisions
11.03.2022 01
03.21.2023 02

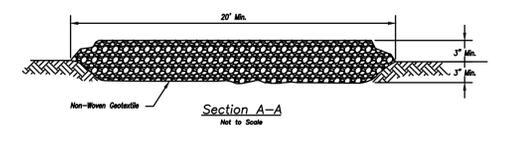
sheet number
C3.4
drawing type Permit
project number 22220



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

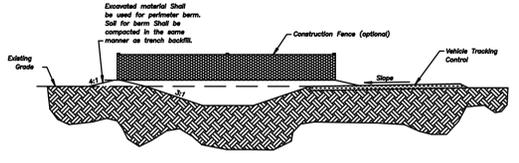
- Notes for Concrete Washout:**
- Concrete washout areas shall be installed prior to any concrete placement on site.
 - Concrete washout areas shall include a flat substrate pit sized according to the amount of concrete to be placed on site. The slope leading out of the substrate pit shall be 3:1. The vehicle tracking post shall be placed towards the concrete washout area.
 - Vehicle tracking control is required at the access point to all concrete washout areas.
 - Slope 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 trucks and pump rigs.
 - A one-piece impervious liner may be required along the bottom and sides of the substrate pit in sandy or gravelly soils.

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

CONSTRUCTION ENTRANCE

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

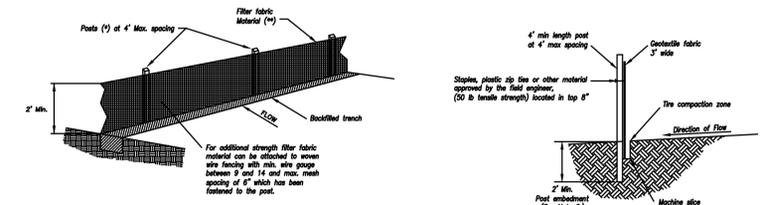
- Maintenance for Construction Entrance:**
- Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.



CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METRO CHAPTER
STANDARD DRAWING NUMBER ESC-01 ADOPTED: 10/24/2016
CONSTRUCTION ENTRANCE AND 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.



SILT FENCE DETAILS
Not to Scale

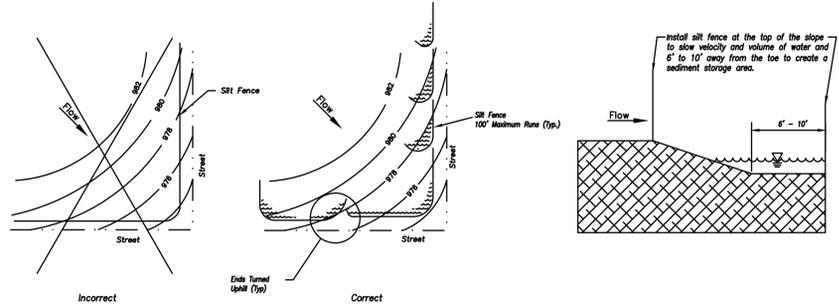


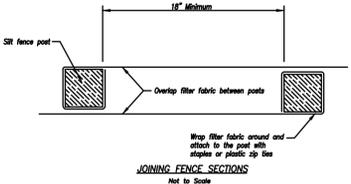
Figure A

SILT FENCE LAYOUT
Not to Scale

- Notes:**
- In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
 - 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).
 - Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
 - Attach fabric to upstream side of post.
 - Install posts a minimum of 2' into the ground.
 - Tranching will only be allowed for small or difficult installation, where sloping machine cannot be reasonably used.

Maintenance:

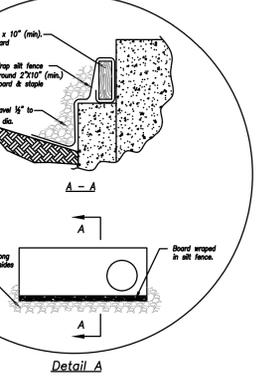
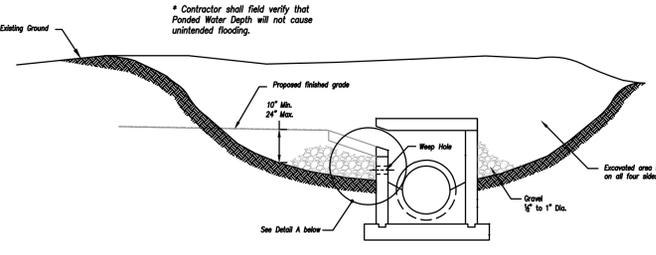
- Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
- Repair as necessary to maintain function and structure.



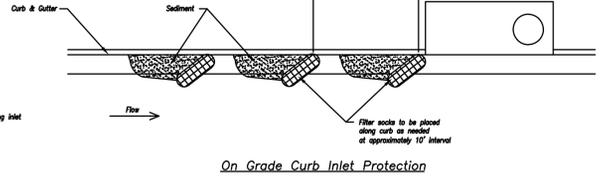
JOINING FENCE SECTIONS
Not to Scale

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METRO CHAPTER
STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016
SILT FENCE

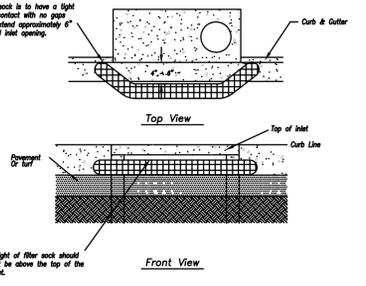
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.



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



On Grade Curb Inlet Protection



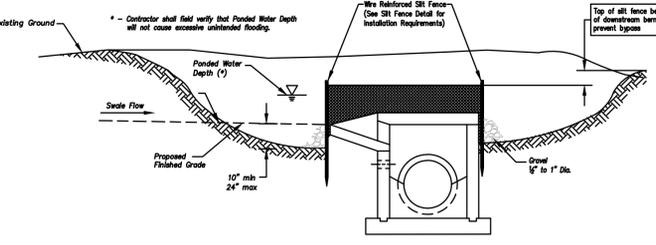
Sump Inlet Sediment Filter

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

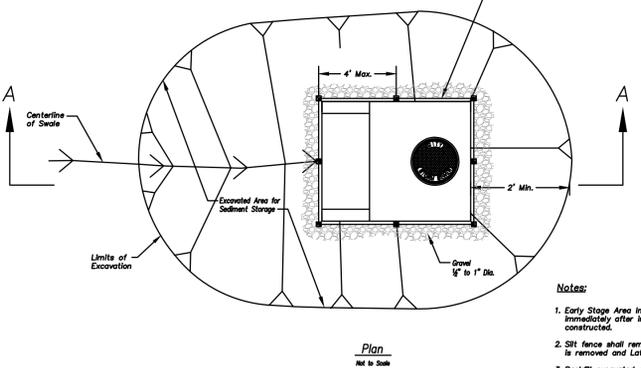
- Notes:**
- Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2' x 10' (min.) board supported in all fence. Structures shall have excavated storage areas on all four sides to allow settling of sediment (Early Stage Curb Inlet).
 - When inlet is completed and curb poured, filter socks or approved equal shall be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
 - Contractor to field verify ponding water shall not create a traffic hazard.
- Maintenance:**
- Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
 - Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
 - Repair or replace as necessary to maintain function and integrity of installation.

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METRO CHAPTER
STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016
CURB INLET PROTECTION

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

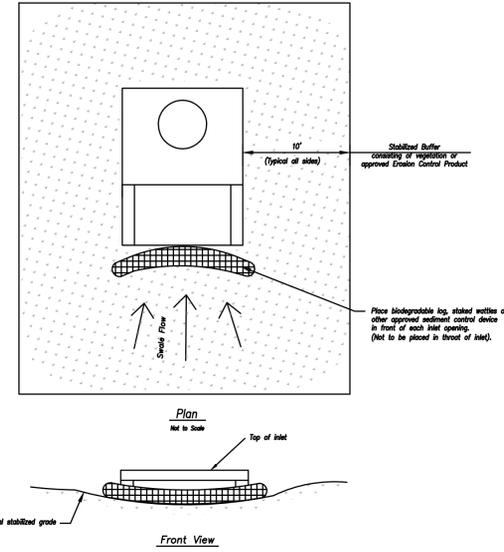


Section A-A
Not to Scale



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

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

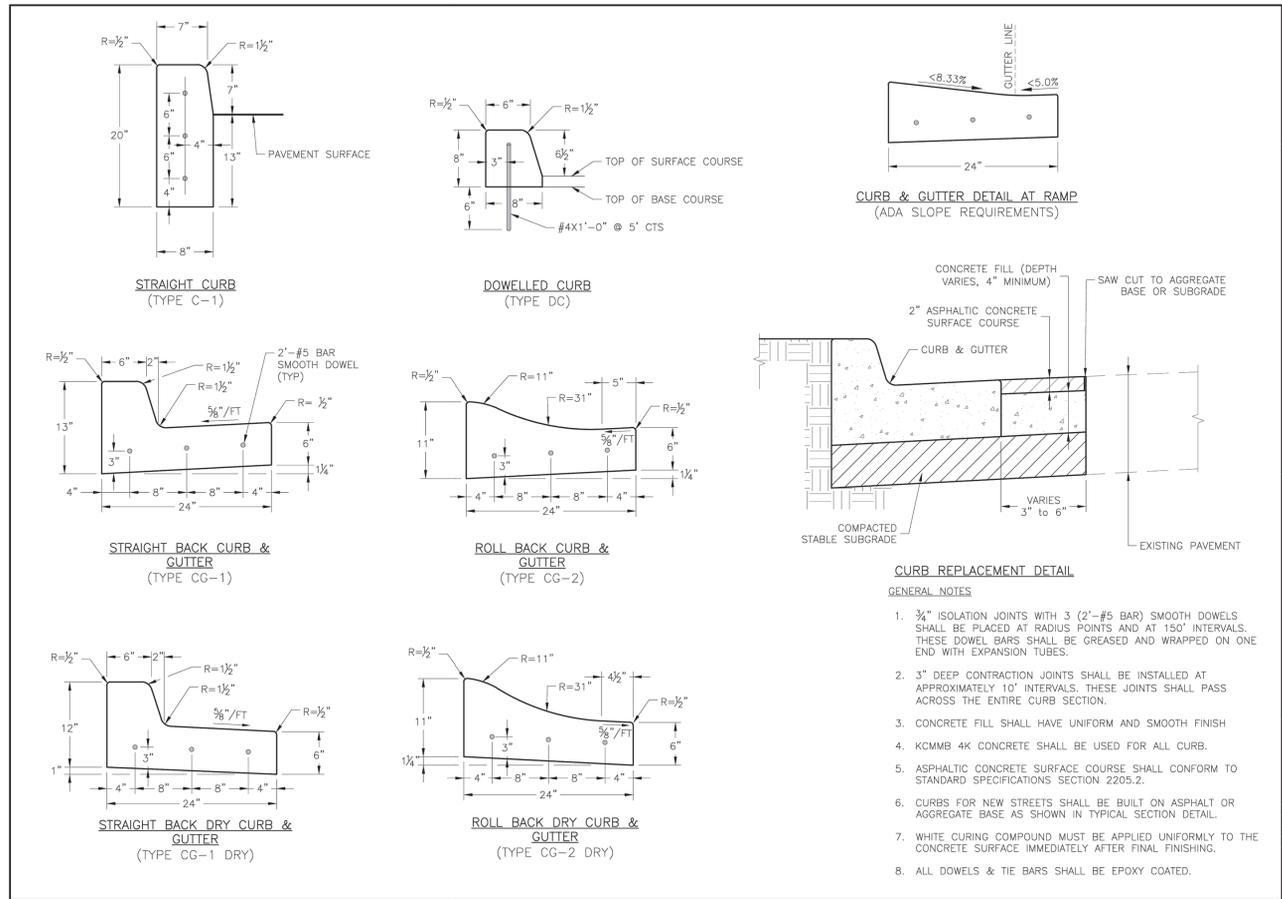


LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

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

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METRO CHAPTER
STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016
AREA INLET AND JUNCTION BOX PROTECTION

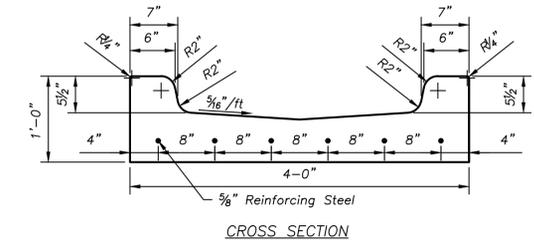
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.



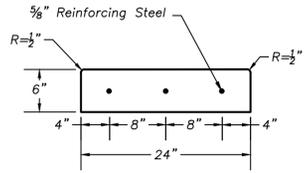
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64083

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

GEN-4

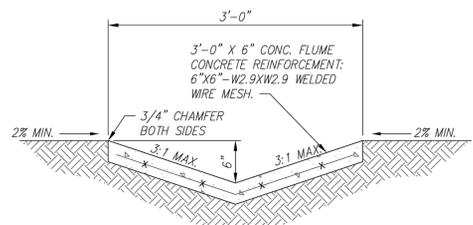
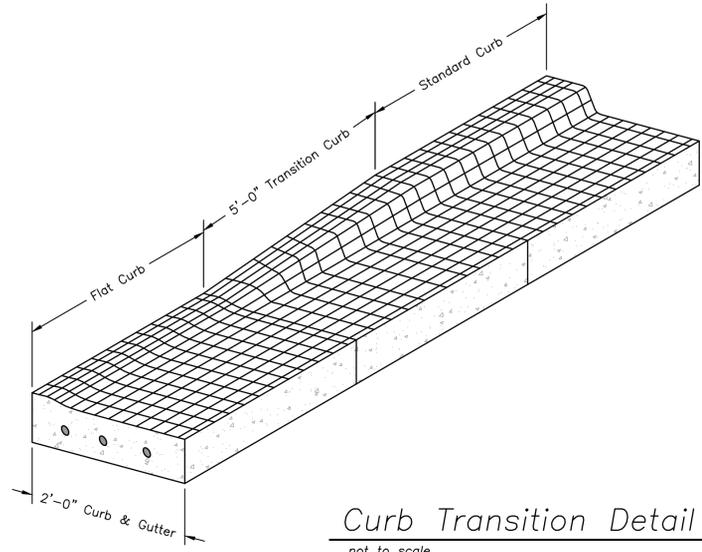


Concrete Drainage Flume Detail
not to scale



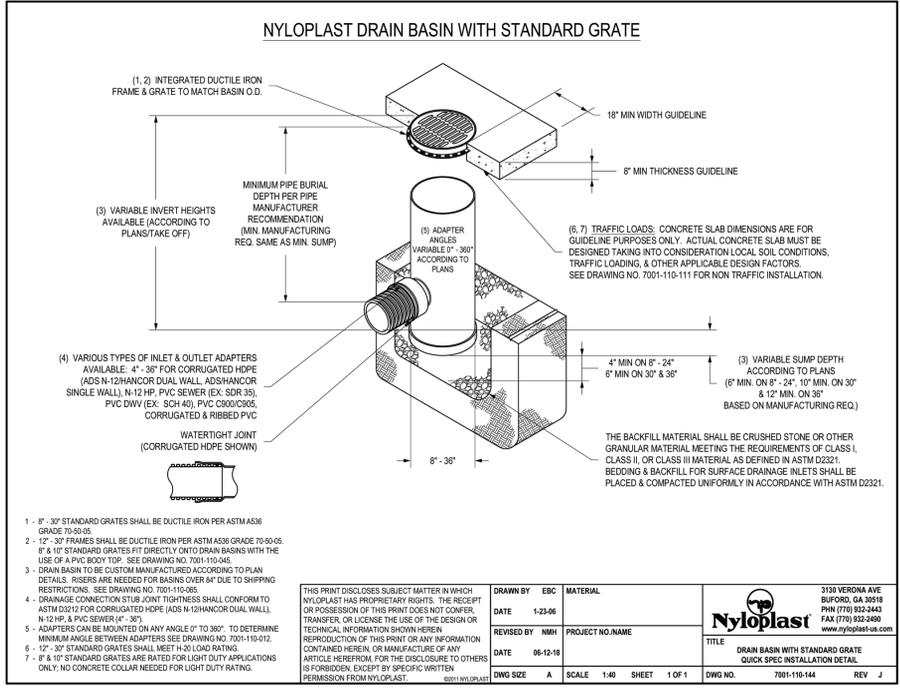
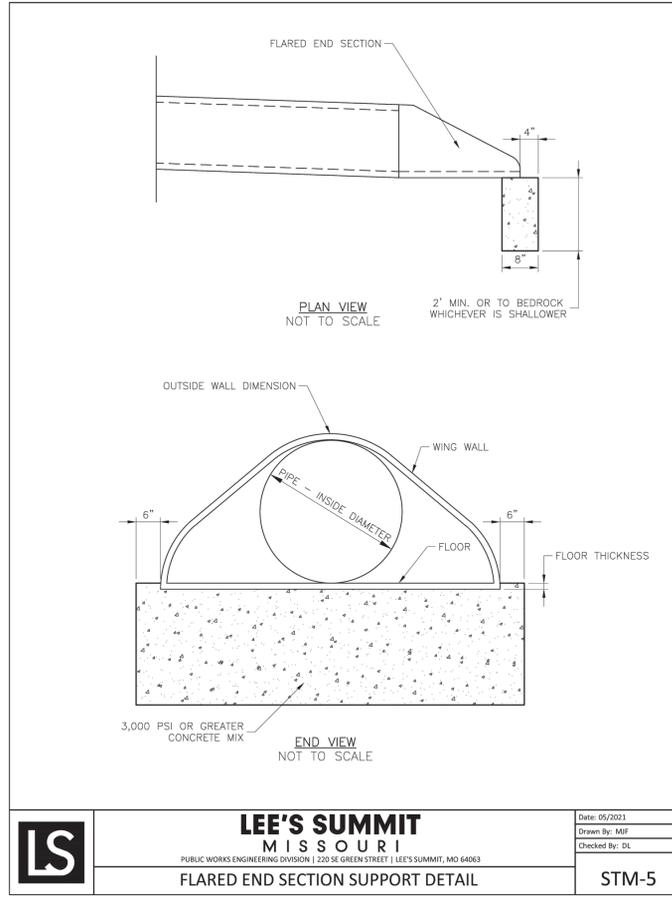
Flat Curb Detail
not to scale

- GENERAL NOTES**
- 3/4" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
 - 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
 - CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
 - KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
 - ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
 - CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
 - WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
 - ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.



Low Flow Concrete Channel Detail
not to scale

NOTE:
CONCRETE SHALL BE KCMMAK (MIN)





Tree and Shrub Planting List						
	ITEM	QTY.	COMMON NAME	BOTANICAL NAME	SIZE & CONDIT.	max growth size
SHADE TREES	OGM	10	OCTOBER GLORY MAPLE	ACER RUBRUM 'OCTOBER GLORY'	3" CAL.	height 40-50', spread 35'
	RM	15	RED MAPLE	ACER RUBRUM 'RED SUNSET'	3" CAL.	height 40-50', spread 30-35'
	SL	14	SKYLINE LOCUST	GLEDTISIA TRICANTHOS INERMIS 'SKYCOLE'	3" CAL.	height 35'-45', spread 25'-35'
EVGN TREES	BC	-	BALD CYPRUS	TAXODIUM DISTICHUM VAR. DISTICHUM	8" tall min.	height 50-70', spread 20-45'
	RC	-	RED CEDAR	JUNIPERUS VIRGINIANA	8" tall min.	height 30'-65', spread 8'-25'
	SP	-	SHORTLEAF PINE	PINUS ECHINATA	8" tall min.	height 50'-60', spread 20'-35'
TOTAL		39				
EG. SHRUB / DEC. SHRUB	FS	35	FRAGRANT SUMAC	RHUS AROMATICA	3-5 GALLON	height 2-6', spread 6-10'
	WH	15	WILD HYDRANGEA	HYDRANGEA ARBORESCENS	3-5 GALLON	height 2-4', spread 3-5'
	IH	-	INKBERRY HOLLY	ILEX GLABRA 'COMPACTA'	5 GALLON	height 3-14', spread 4-6'
	SB	40	DENSE YEW	TAXUS x MEDIA DENSIFORMIS	5 GALLON	height 3-4', spread 4-6'
TOTAL		90				
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 JULITFLORIUM AND PERENE DOMESTIC) 20% KENTUCKY BLUEGRASS, 70% FINELEAF 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 COMPLETE LANDSCAPING SPECIFICATIONS AND DETAILS

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

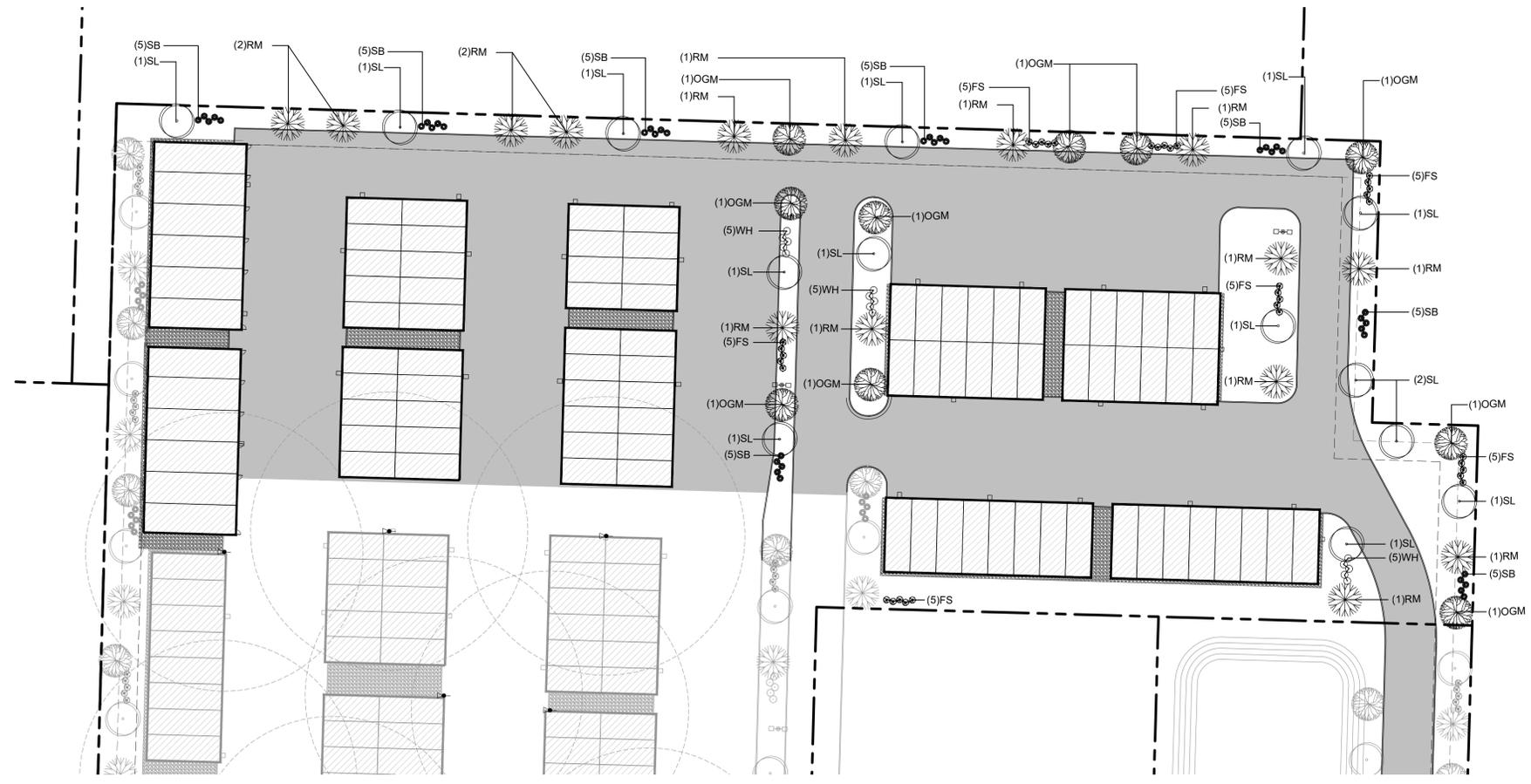
Buffer Requirements:
PI/CP-2: Medium, 70% semi-opaque screening
Shade Trees 1 per 1,000 sq. ft.
Ornamental Trees 1 per 500 sq. ft.
Evergreen Trees 1 per 300 sq. ft.
Shrubs 1 per 200 sq. ft.

PI/PI: N/A

Mega Storage Site - Phase I & II		Required	Provided	Mega Storage Site - Phase I		Required	Provided	Mega Storage Site - Phase II		Required	Provided
Parking Lot Screening: N/A				Parking Lot Screening: N/A				Parking Lot Screening: N/A			
Street Frontage: N/A				Street Frontage: N/A				Street Frontage: N/A			
Open Yard Areas: = 348,356-107,895 = 240,461 sq. ft.				Open Yard Areas: = 186,363-54,970 = 131,393 sq. ft.				Open Yard Areas: = 186,363-54,970 = 131,393 sq. ft.			
Trees: 240,461/5000 = 48		48	50	Trees: 131,393/5000 = 26		26	40	Trees: 131,393/5000 = 26		26	40
Shade = 33		33	33	Shade = 23		23	23	Shade = 10		10	10
Evergreen = 17		17	17	Evergreen = 17		17	17	Evergreen = 0		0	0
Shrubs: 240,461/5000x2 = 96		96	72	Shrubs: 131,393/5000x2 = 53		53	60	Shrubs: 131,393/5000x2 = 46		46	12
Buffers: PI/PI - N/A				Buffers: PI/PI - N/A				Buffers: PI/PI - N/A			
East Lot Line: PI/Future PI 316'			9	East Lot Line: PI/Future PI 316'			9	East Lot Line: PI/Future PI 316'			9
*excluded phase II area			20	*excluded phase II area			20	*excluded phase II area			20
North Lot Line: PI/Future PI 683'			20	North Lot Line: PI/Future PI 683'			20	North Lot Line: PI/Future PI 683'			20
*excluded phase II area			37	*excluded phase II area			37	*excluded phase II area			37
West Lot Line: PI/Future PI 656'			21	West Lot Line: PI/Future PI 656'			21	West Lot Line: PI/Future PI 656'			0
*excluded phase II area			50	*excluded phase II area			50	*excluded phase II area			0
South Lot Line: Street Frontage - See Above				South Lot Line: Street Frontage - See Above				South Lot Line: Street Frontage - See Above			
Total Shade		62	95	Total Shade		38	56	Total Shade		24	39
Total Ornamental		0	0	Total Ornamental		0	0	Total Ornamental		0	0
Total Evergreen		0	17	Total Evergreen		0	17	Total Evergreen		0	0
Total Shrubs		131	212	Total Shrubs		85	133	Total Shrubs		46	69

LANDSCAPING NOTES

- Landscaping 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.
- 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.



a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

drawn by DAE
checked by DAE
revisions

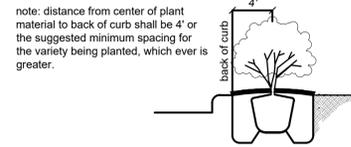
sheet number
L1.1

drawing type
project number
22220

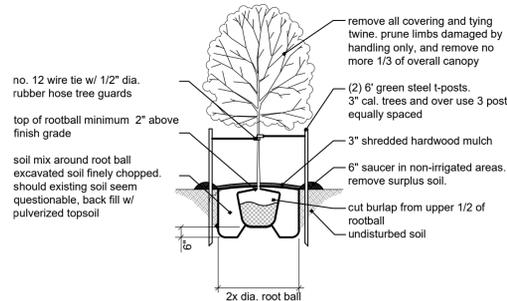
1 Landscape Plan - Phase II
scale: 1" = 40'-0"
north

general landscaping notes

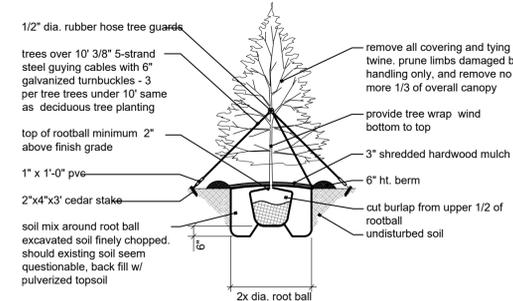
- A. Acceptable Plant Material:**
- A.1. The following are the minimum plant sizes and conditions to be used in satisfying the requirements of this division. Acceptable plant materials for landscaping, buffers and tree replacement shall be as approved by the City of Lee's Summit:
 - A.1.1. Medium shrubs, 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.



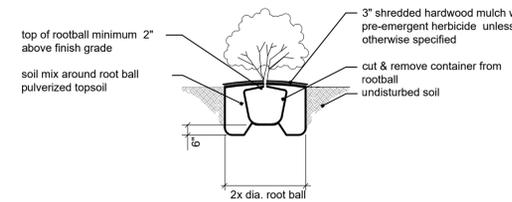
3 back of curb detail
scale: 1" = 50'-0"



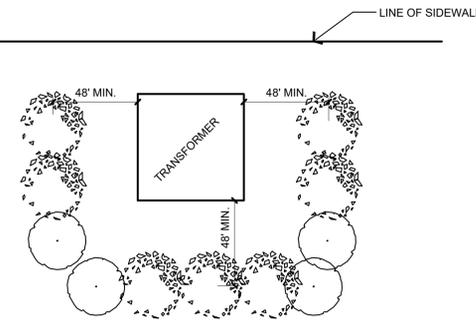
6 deciduous tree planting detail
scale: 1" = 50'-0"



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



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



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



project synopsis

Municipality: Lee's Summit, Missouri

Applicable Building Codes & Ordinances: 2018 International Building Code (IBC), 2018 International Plumbing Code (IPC), 2018 International Mechanical Code (IMC), 2018 International Fuel Gas Code (IFGC), 2018 International Fire Code (IFC), 2017 National Electrical Code (NEC), ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities, Lee's Summit Unified Development Ordinance (UDO)

Project Address: 520 NE Town Centre Drive, Lee's Summit, Missouri 64064

Project Description: Construction of storage units sized for contractor and private use - phase I of 2 phases

Property Owner: WHD Management LLC, PO Box 1059, Lee's Summit, MO 64063

Existing Zoning: PI - Planned Industrial

Existing Land Use: Undeveloped
Proposed Land Use: Storage

Building Setbacks: Street 20 ft, Side Yard 10 ft, Rear Yard 20 ft

Landscaping Setbacks: Street Frontage 20 ft

Height Requirements: N/A

Number of Dwelling Units: N/A

Special Conditions Met: Special use permit issued for storage use

Adjacent Zoning (within 185'): CP-2, RP-4

Adjacent Land Use (within 185'): Commercial, Undeveloped, Residential, Government

Assumed Building Occupancy: Mega Storage Site: Limited Indoor Recreation - Batting Cages, Warehouse with Small Office

Site Area

Mega Storage Site	348,356 sq. ft.	7.98 ac.
Phase I	186,363 sq. ft.	
Phase 2	161,993 sq. ft.	

Building Area

Mega Storage Site Total (phase I&II)	94,965 sq. ft.
Phase II Building Area	46,405 sq. ft.
Building A	5,000 sq. ft.
Building B	5,000 sq. ft.
Building C	5,000 sq. ft.
Building D	4,480 sq. ft.
Building E	4,480 sq. ft.
Building F	5,000 sq. ft.
Building G	5,000 sq. ft.
Building H	4,995 sq. ft.
Building I	4,550 sq. ft.
Building J	4,550 sq. ft.
Building K	4,550 sq. ft.
Building L	4,550 sq. ft.
Building M	4,995 sq. ft.
Building N	4,995 sq. ft.
Building O	4,995 sq. ft.
Building P	4,995 sq. ft.
Building Q	3,360 sq. ft.
Building R	4,995 sq. ft.
Building S	4,995 sq. ft.
Building T	4,480 sq. ft.
Building U	4,480 sq. ft.

Floor Area Ratio - Maximum 1.0

Mega Storage Site (phase I&II)	94,965	/	348,356	=	0.27
--------------------------------	--------	---	---------	---	------

Pervious/Impervious Areas

	pervious	%	impervious	%
Mega Storage Site Total (phase I&II)	74,396 sq. ft.	21%	273,960 sq. ft.	79%
phase I	47,378 sq. ft.	25%	138,985 sq. ft.	75%
phase II	27,018 sq. ft.	17%	134,975 sq. ft.	83%

Parking
Mega Storage Site: Warehouse Storage Facility
+ provided loading and unloading areas for parking as needed
0 required

Storage Matrix

Phase	Units	Count
Phase I	Buildings A, B & C Unit A - 850 sq. ft. (50x17)	12
	Buildings A, B & C Unit B - 800 sq. ft. (50-16)	6
	Buildings D,E Unit D - 560 sq. ft. (40x14)	16
	Buildings I,J Unit E - 850 sq. ft. (35x14)	10
	Buildings H,I,J,M,N,O Unit F - 800 sq. ft. (30-14)	58
	Total Storage Units	102
Phase II	Buildings F,G Unit A - 850 sq. ft. (50x17)	8
	Buildings F,G Unit B - 800 sq. ft. (50-16)	4
	Buildings T,U Unit D - 560 sq. ft. (40x14)	16
	Buildings K,L Unit E - 490 sq. ft. (35x14)	10
	Buildings K,L,P,Q,R,S Unit F - 420 sq. ft. (30x14)	44
	Total Storage Units	82
Phase I & II combined	Unit A - 850 sq. ft. (50x17)	20
	Unit B - 800 sq. ft. (50-16)	10
	Unit D - 560 sq. ft. (40x14)	32
	Unit E - 490 sq. ft. (35x14)	20
	Unit F - 420 sq. ft. (30x14)	102
	Total Proposed	184

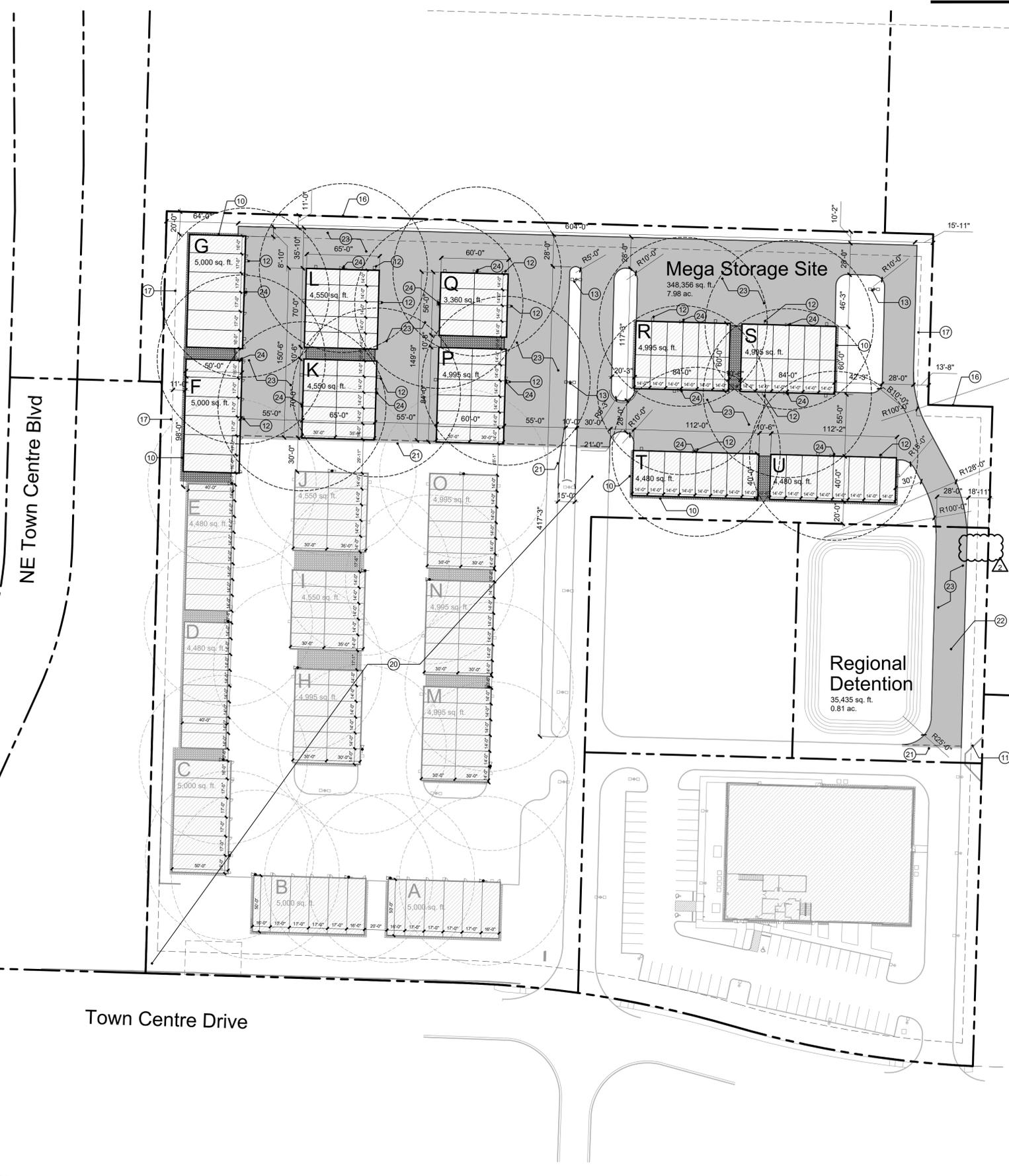
Building Construction Type: IIB
Minimum Fire Separation Distance: ≥ 10'-0"

general notes

- All construction shall conform to the standards and specifications of Lee's Summit, Missouri.
- The general contractor shall contact all utility companies prior to the start of construction and verify the location and depth of any utilities that may be encountered during construction.
- The contractor shall field verify exist. surface & subsurface ground conditions prior to start of construction.
- Slopes shall maintain a maximum 3:1 slope.
- The contractor shall be responsible for obtaining all required permits, paying all fees, and otherwise complying with all applicable regulations governing the project.
- Place silt fence per civil for erosion control.
- Provide a temporary gravel access drive to prevent mud from being deposited onto the adjacent road.
- Prior to installing any structure on a public storm sewer, the contractor shall submit shop drawings for the structure(s). Installation shall not occur until drawings have been approved by public works.
- Prior to installing, constructing, or performing any work on the public storm sewer line (including connecting private drainage to the storm system) contact the city for inspection of the work. Contact must be made at least 48 hours prior to the start of work.
- Connections to the public storm sewer between structures will not be permitted.
- All exterior utility services shall be painted to match the primary building color.
- Signage shall comply with Lee's Summit Signage Ordinance.
- The property owner's association shall have ownership and maintenance responsibilities for the common area tract.
- Reference electrical plans for ground mounted equipment.

plan notes

- Not used.
- Furnish and install strip of clean rock at perimeter of building for drainage and maintenance if required by the geotechnical report.
- Location of block retaining wall; reference civil drawings.
- Furnish and install UDO compliant building mounted area light.
- Furnish and install UDO compliant pole mounted area light; maximum top of pole height to be 18'-0".
- Not used.
- Not used.
- Property line.
- Building setback line.
- Not used.
- Not used.
- Phase I Mega Storage (reference separately permitted and issued FDP and construction documents).
- Demo pavement as required for new paving section.
- Furnish access drive adjacent to storm water detention for fire department access.
- New paving per civil plans.
- Furnish and install exterior fire extinguishers and cabinets (white or black cabinets).



a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date
drawn by DAE
checked by DAE
revisions
11.03.2022 1
06.20.2024 2

sheet number
A1.1
drawing type
project number
22220

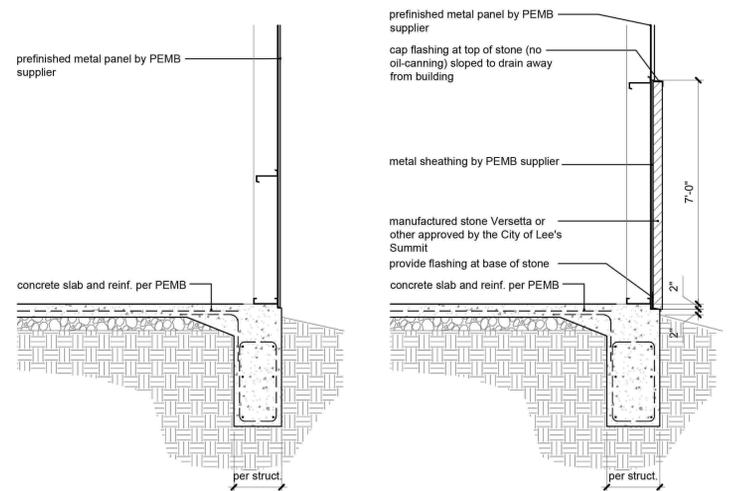
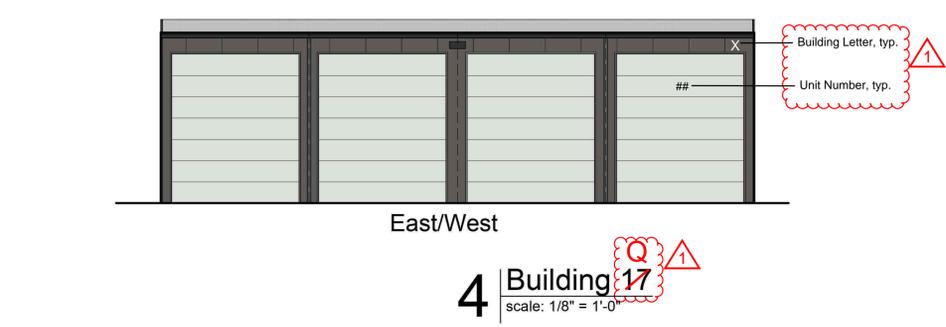
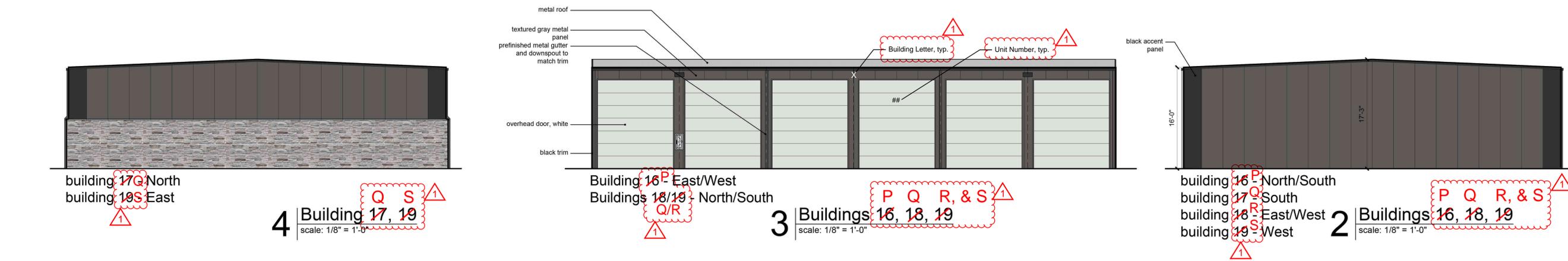
1 Site Plan
scale: 1" = 50'-0" north



a new development for
Mega Storage - Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2022
drawn by DAE
checked by DAE
revisions 11.03.2022

sheet number
A3.1
drawing type FDP & permit
project number 22220



General Notes:

- All construction shall conform to the standards and specifications of the city of Shawnee, Kansas.
- All exterior utility service equipment shall be painted to match the primary building color.
- All existing conditions per survey provided by owner.
- Refer to site dimension plan for all dimensions.
- Reference landscaping plan for required plantings.
- The contractor shall be responsible for obtaining all required permits, paying all fees, and otherwise complying with all applicable regulations governing the project.
- Provide a temporary gravel access drive to prevent mud from being deposited onto the adjacent road.
- Reference PEMB drawings for framing, roofing and door jamb details.

Provide a minimum of 6" vinyl lettering in contrasting colors on the exterior of all buildings, and at each storage unit. Final addressing requirements and lettering size per the fire marshal.

Material List:

- Metal: Metal 1: Embossed Gray metal panel (per PEMB supplier)
Metal 2: Embossed Black metal panel (per PEMB supplier)
- Gutter: Black (per PEMB supplier)
Downspout: Gray (per PEMB supplier)
- Flashing: Gray color to match panels
- Trim: Black color to match panels
- Caulk: Color to match adjacent material
- Roofing: Metal Roof, color Galvalume (silver)
- Manufactured Stone: Versetta Stone color 'Mission Point' or city approved substitute
- Overhead Doors: White (per PEMB supplier)
- Man Doors: White to match metal panel (per PEMB supplier)

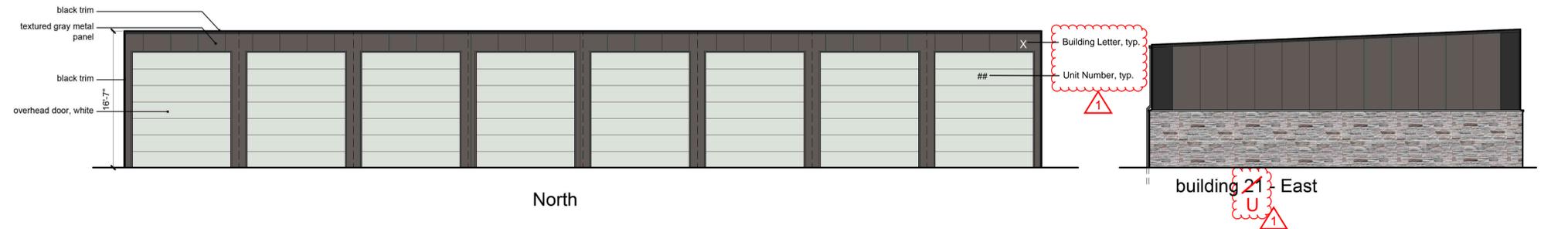


Building 12 - North

East/West

Building 11 - North/South
Building 12 - South

1 Building 11 & 12
scale: 1/8" = 1'-0"



North

building 21 - East



South

building 20 - East/ mirr. West
building 21 - mirr. West

2 Buildings 20 & 21
scale: 1/8" = 1'-0"

General Notes:

- All construction shall conform to the standards and specifications of the city of Shawnee, Kansas.
- All exterior utility service equipment shall be painted to match the primary building color.
- All existing conditions per survey provided by owner.
- Refer to site dimension plan for all dimensions.
- Reference landscaping plan for required plantings.
- The contractor shall be responsible for obtaining all required permits, paying all fees, and otherwise complying with all applicable regulations governing the project.
- Provide a temporary gravel access drive to prevent mud from being deposited onto the adjacent road.
- Reference PEMB drawings for framing, roofing and door jamb details.

Provide a minimum of 6" vinyl lettering in contrasting colors on the exterior of all buildings, and at each storage unit. Final addressing requirements and lettering size per the fire marshal.

Material List:

- Metal:
 - Metal 1: Embossed Gray metal panel (per PEMB supplier)
 - Metal 2: Embossed Black metal panel (per PEMB supplier)
- Gutter: Black (per PEMB supplier)
- Downspout: Gray (per PEMB supplier)
- Flashing: Gray color to match panels
- Trim: Black color to match panels
- Caulk: Color to match adjacent material
- Roofing: Metal Roof, color Galvalume (silver)
- Manufactured Stone: Versetta Stone color 'Mission Point' or city approved substitute
- Overhead Doors: White (per PEMB supplier)
- Man Doors: White to match metal panel (per PEMB supplier)

a new development for
Mega Storage -Town Centre Lot 1 - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.27.2022
drawn by DAE
checked by DAE
revisions 11.03.2022

sheet number
A3.2
drawing type FDP & permit
project number 22220

ELECTRICAL SPECIFICATIONS

- GENERAL PROVISIONS:
 - PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.
 - OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.
 - 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.
 - ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
 - DURING CONSTRUCTION ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR GAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERINGS SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
 - 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.
 - CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
 - CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRICAL COMPONENTS.
- OPERATION AND MAINTENANCE MANUALS:
 - 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.
 - ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.
 - ALL LITERATURE LISTED ABOVE AND ALL PARTS LISTINGS WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NUMBER, ARCHITECT, ENGINEER, CONTRACTORS, ETC. CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.
- MANUFACTURERS:
 - MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED 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.
- TESTING AND BALANCING:
 - ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.
 - POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.
 - ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.
- RACEWAYS:
 - CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCHED 40 SET FITTINGS.
 - CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.
 - UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE UNDER LOAD AT 264 PSI, OF 70 DEGREES C, AND A TENSILE STRENGTH OF 3,200 PSI. JOINTS SHALL BE FLUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DE (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PRODUCED BY THE SAME MANUFACTURER.
 - FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".
- CONDUCTORS:
 - WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, RACEWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.
 - CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 AWG, 600 VOLT.
 - NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THHN (NET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.
 - NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THHN (NET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.
 - SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (NET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.
 - 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.
 - ALUMINUM CONDUCTORS SHALL BE TYPE XHHW-2, ALCAN, "STABILLOY" TYPE ALLOY CONDUCTORS UTILIZING "AA-8030" ALUMINUM ALLOY. CONDUCTORS SHALL BE UL LISTED.
 - ALL ALUMINUM CONDUCTORS SHALL BE TERMINATED IN CONNECTIONS OR LUGS WHICH ARE DUAL RATED (AL/CU OR AL/AL) AND ARE LISTED BY UL FOR USE WITH ALUMINUM OR COPPER CONDUCTORS AND SHALL BE SIZED TO ACCEPT ALUMINUM CONDUCTORS OF THE AMPLACITY SPECIFIED.
- MC CABLE:
 - MC CABLE SHALL CONSIST OF INTERLOCK ARMORED GABLE MADE OF THREE OR FOUR TYPE THIN SOLID (16 AWG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 40°C FOR DRY LOCATIONS, WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83. 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.
 - CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1564 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEG. C FOR DRY LOCATIONS AND 75 DEG. C FOR WET LOCATIONS.
- WIRING DEVICES:
 - WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.
 - SINGLE POLE: HUBBELL #G81221-X, OR EQUAL.
 - THREE WAY: HUBBELL #G81223-X, OR EQUAL.
 - AS SPECIFIED ON PLANS.
 - RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #GR592-X, OR EQUAL.
 - GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREBEFORE SPECIFIED.
 - ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #GR59236, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREBEFORE SPECIFIED.
 - RECEPTACLES OUTSIDE BUILDING AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED WEATHER-RESISTANT HUBBELL #GFTR20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC WPD1000ND OR WPD1000NDH DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER PROOF RATED WHILE IN USE.
 - VERIFY DEVICES AND DEVICE COVERPLATES COLOR AND STYLE WITH ARCHITECT.
- BOXES:
 - HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.
 - ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.

ELECTRICAL SPECIFICATIONS (CONTINUED)

- PANELBOARDS:
 - FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS SHOWN ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED BY UL AND SO LABELED, AND SHALL BE FULLY RATED 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.
 - 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.
 - CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-LL. 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.
 - BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.
 - PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER 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.
 - 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.
 - BUS BAR BRACING SHALL BE UL LISTED AS INDICATED ON DRAWINGS. ADDITIONAL BRACINGS SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.
 - 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.
- LIGHT FIXTURES:
 - 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.
 - 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.
 - ALL FIXTURES SHALL CARRY UL AND ETL LABELS.
- SLEEVES:
 - PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.
 - INTERIOR PARTITIONS: 16 GAUGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND GULK AT EACH END WITH FIRE RESISTANT SEALANT.
 - 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.
- GROUNDS:
 - 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.
 - BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).

ELECTRICAL SYMBOLS LIST	
CIRCUITING & NOTES	
146"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
(TIE)	PARTIAL HOMERUN. REFER TO PLANS FOR ADDITIONAL DEVICES CONNECTED TO THIS CIRCUIT.
[X]	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
2 LP	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
[Symbol]	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
[Symbol]	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
[Symbol]	CONDUIT ROUTED UNDER FLOOR/GRADE
LIGHTING	
[Symbol]	EMERGENCY TWIN HEAD LIGHT FIXTURE
[Symbol]	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
[Symbol]	STRIP FIXTURE WITH TYPE DESIGNATION
[Symbol]	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
[Symbol]	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
[Symbol]	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
[Symbol]	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION
POWER DEVICES & CONTROLS	
[Symbol]	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
[Symbol]	PANEL BOARD, TOP OF BOX 6'-0" AFF
[Symbol]	JUNCTION BOX
[Symbol]	WALL MOUNTED DUAL-TECHNOLOGY OCCUPANCY SENSOR, WATT STOPPER #DX-100, TOP OF BOX AT 48" AFF
COMMUNICATIONS	
[Symbol]	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
[Symbol]	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)
[Symbol]	PHOTOCELL MOUNTED ON NORTH SIDE OF BUILDING BELOW ROOF LINE.

ELECTRICAL 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.
- IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
- ALL EXPOSED RACEWAYS SHALL BE EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
- EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
- 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.

LIGHT FIXTURE SCHEDULE

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION	EQUIVALENT MANUFACTURERS
A	COOPER CLG8175	120 40-60	LED 5500-8000 LUM 4000K	SURFACE MOUNTED CANOPY LIGHT	WILLIAMS LITHONIA OR EQUAL
B	GREE OSQ-M-B-4L-40K1-5G-UL-NM-BK IVOSQ-ML-B-DA-BK	208 120	LED 9000 LUM 4000K	POLE MOUNTED DUAL LED FIXTURE MOUNTED AT 22' ABOVE GRADE (20 FOOT POLE AND 2 FOOT BASE) DIRECT ARM MOUNT (TO BE ORDERED SEPARATELY)	WILLIAMS LITHONIA OR EQUAL
C	GREE XSPN-B-WM-3ME-4L-40K	120 31	LED 4270 LUM 4000K	WALL MOUNTED LED FIXTURE MOUNTED AT 15' ABOVE GRADE	WILLIAMS LITHONIA OR EQUAL
NOTES:					

4301 Indian Creek Parkway
 Overland Park, KS 66207
 phone: 813.451.9360
 fax: 813.451.9361
 www.davidsonae.com



a new development for
Mega Storage - Phase II
 520 NE Town Centre Drive
 Lee's Summit, Missouri

date 09.9.2022
 drawn by
 checked by
 revisions

BC PROJECT #: 22155
 MISSOURI PE COA #2009003629

This drawing has been prepared by the Engineer, or under his supervision. This drawing is provided as an instrument of service by the Designer/Engineer and is intended for use on the project only. Pursuant to the Architectural Works Copyright Protection Act of 1990, all drawings, specifications, lists and designs, including the overall form, arrangement and composition of spaces and elements according herein, constitute the original, copyrighted work of the Designer/Engineer. Any reproduction, use, or disclosure of information contained herein without prior written consent of the Engineer is strictly prohibited. © 2022 BC Engineers, Inc.



5720 Reeder Shawnee, KS 66203 (913)262-1772

sheet number
E0.1
 drawing type permit
 project number 22155

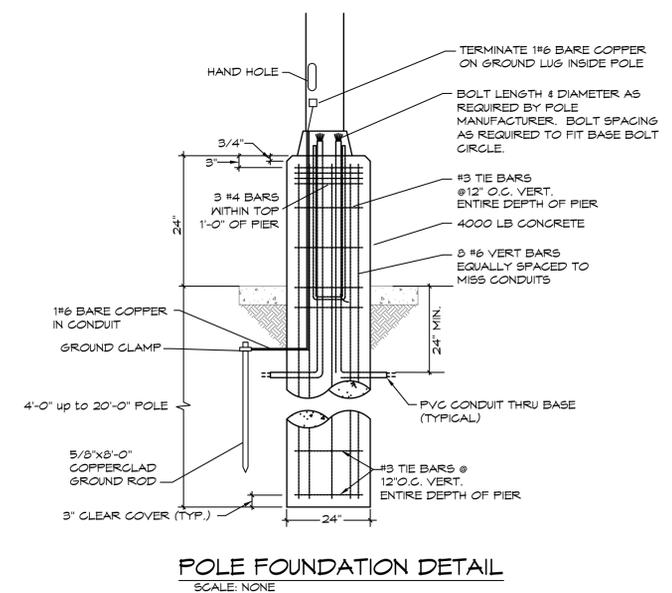
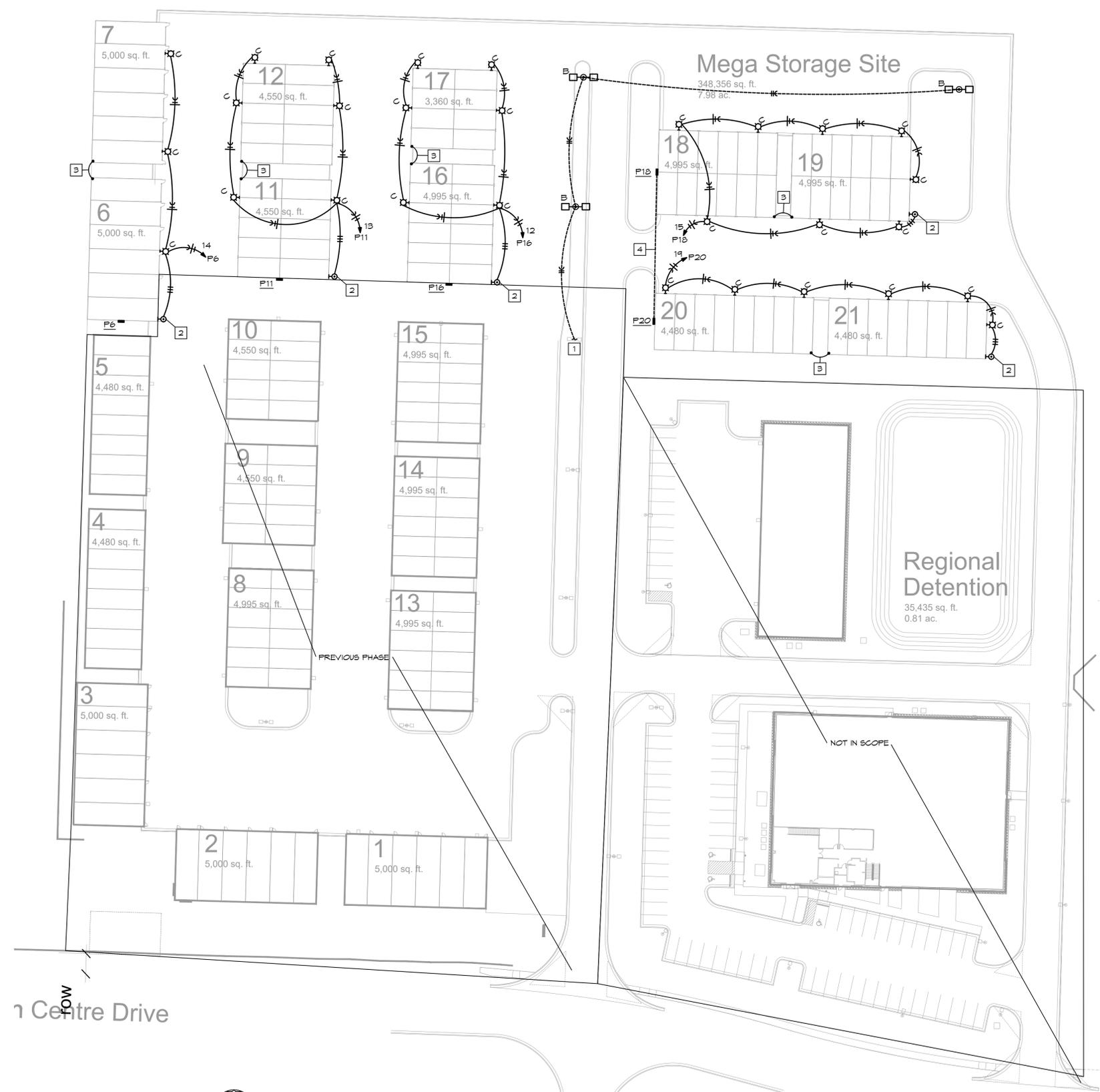


a new development for
Mega Storage - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date: 09.9.2022
drawn by:
checked by:
revisions:

sheet number:
E1.0
drawing type:
permit
project number:
22155

- SITE PLAN NOTES:**
- 1 EXTEND AND CONNECT TO EXISTING LIGHTING CIRCUIT WITH 2#6, 1#8& IN 1".
 - 2 PHOTOCELL LIKE INTERMATIC 1#EK42365 OR EQUAL MOUNTED ON SOUTH EAST SIDE OF BUILDING BELOW ROOF LINE.
 - 3 ROUTE 2" C WITH PULL STRING BETWEEN BUILDINGS TO BE USED FOR SECURITY CAMERA CABLING.
 - 4 UNDERGROUND CONDUIT FOR PANEL FEEDER, SEE RISER DIAGRAM.

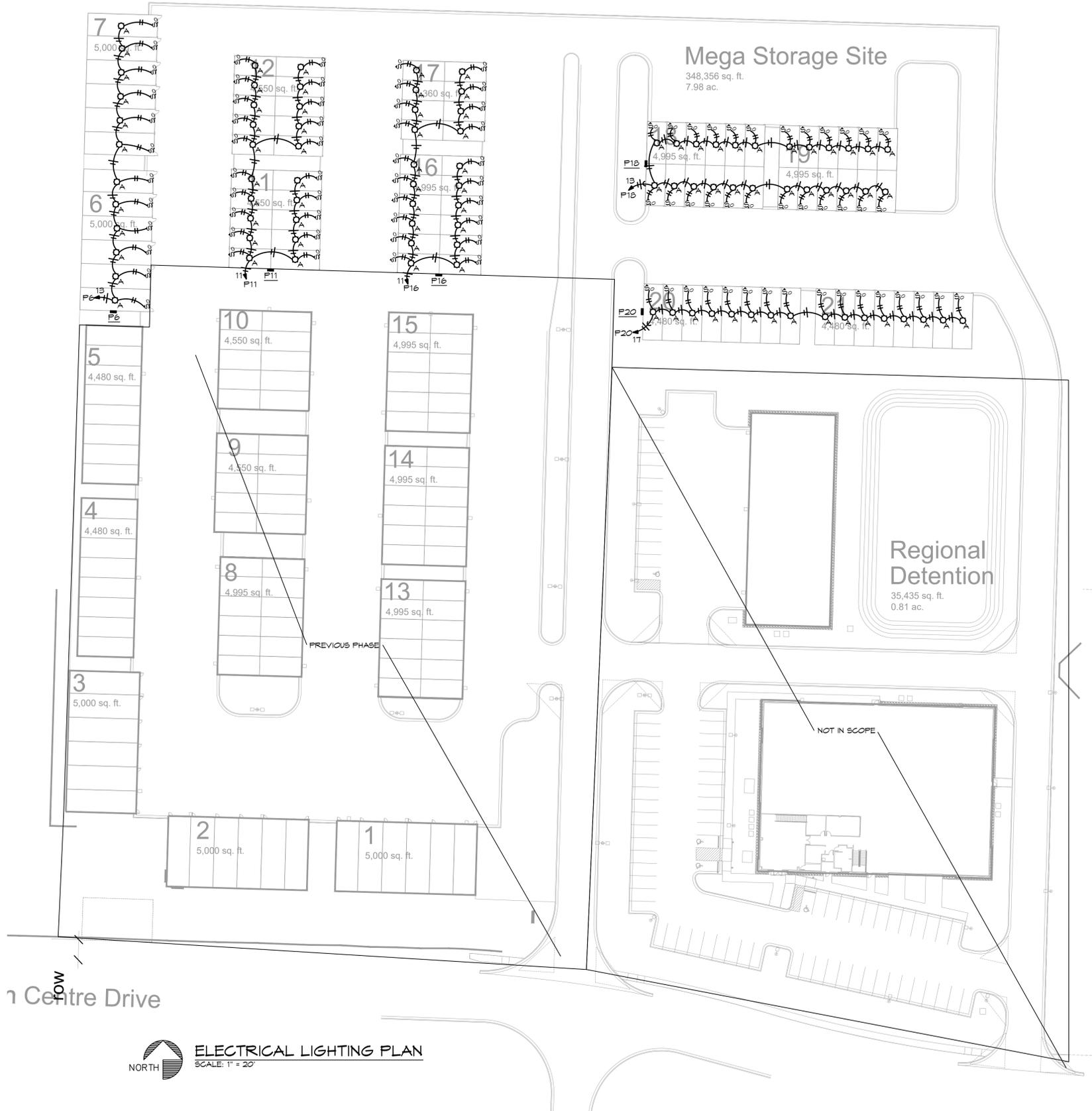


ELECTRICAL SITE PLAN
SCALE: 1" = 20'
NORTH

BC PROJECT #: 22155
MISSOURI PE COA #2009003629

This drawing has been prepared by the Engineer, or under his supervision. This drawing is provided as an instrument of service by the Designer/Engineer and is intended for use on the project only. Pursuant to the Architectural Works Copyright Protection Act of 1990, all drawings, specifications, ideas and designs, including the overall form, arrangement and composition of space and elements appearing herein, constitute the original, copyrighted work of the Designer/Engineer. Any reproduction, use, or disclosure of information contained herein without prior written consent of the Engineer is strictly prohibited. © 2022 BC Engineers, Inc.

BC ENGINEERS INCORPORATED
5720 Reeder Shawnee, KS 66203 (913)262-1772



Centre Drive

ELECTRICAL LIGHTING PLAN
SCALE: 1" = 20'

BC PROJECT #: 22155
MISSOURI PE COA #2009003629
This drawing has been prepared by the Engineer, or under his supervision. This drawing is provided as an instrument of service to the Client and is intended for use on the project only. Pursuant to the Architectural Works Copyright Protection Act of 1990, all drawings, specifications, ideas and designs, including the overall form, arrangement and composition of spaces and elements appearing herein, constitute the original, copyrighted work of the Designer/Engineer. Any reproduction, use, or disclosure of information contained herein without prior written consent of the Engineer is strictly prohibited. © 2022 BC Engineers, Inc.

BC ENGINEERS INCORPORATED

5720 Reeder Shawnee, KS 66203 (913)262-1772

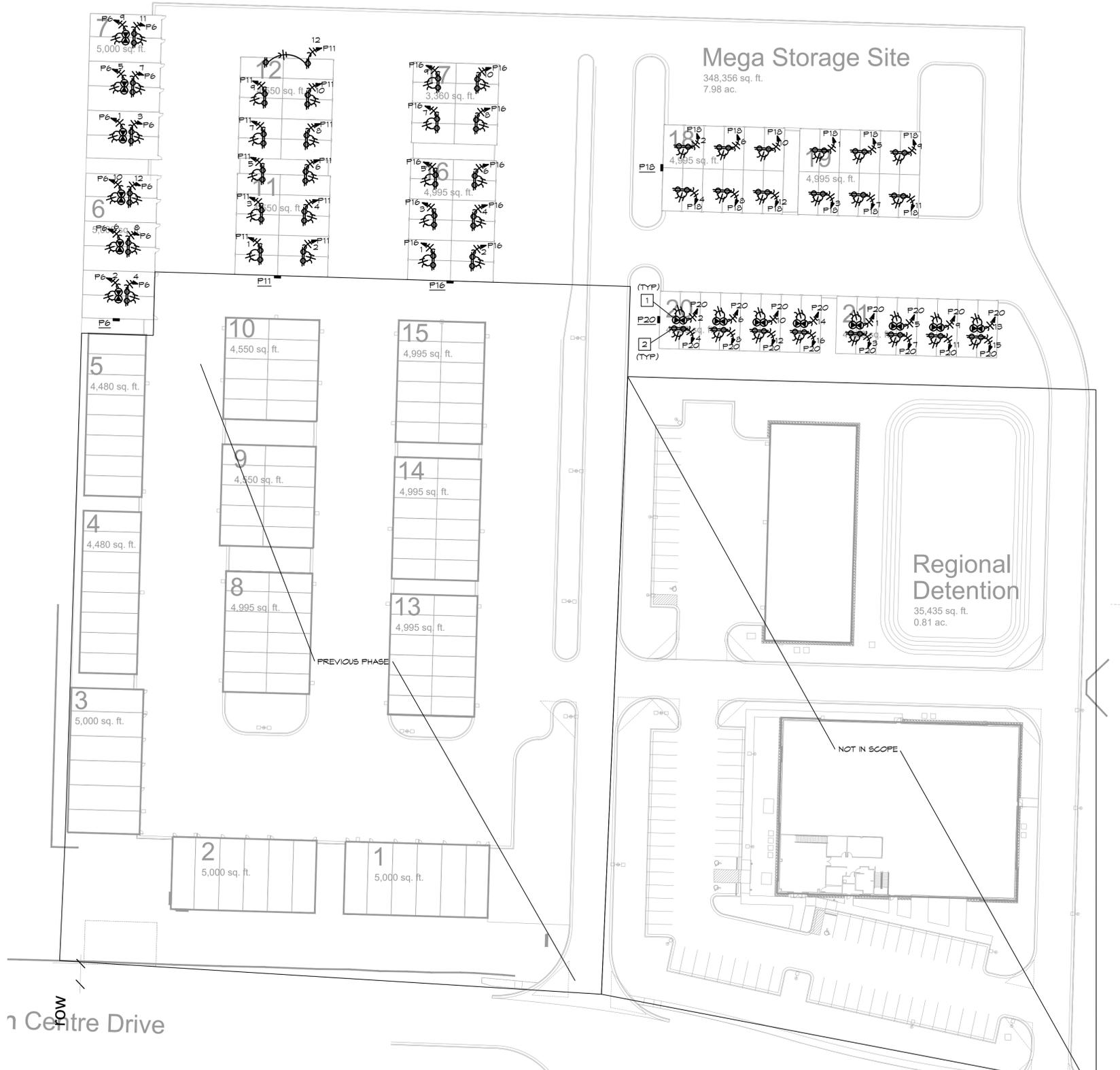
a new development for
Mega Storage - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date: 09.9.2022
drawn by:
checked by:
revisions:

sheet number
E2.0
drawing type
permit
project number
22155



- POWER PLAN NOTES:**
- 1 NEMA TT-30R RV RECEPTACLE (TYPICAL). MOUNT AT 48" AFF.
 - 2 NEMA 5-20 GFCI RECEPTACLE (TYPICAL). MOUNT AT 48" AFF.



ELECTRICAL POWER PLAN
SCALE: 1" = 20'
NORTH

BC PROJECT #: 22155
MISSOURI PE COA #200903629

This drawing has been prepared by the Engineer, or under his supervision. This drawing is provided as an instrument of service by the Designer-Engineer and is intended for use on the project only. Pursuant to the Architectural Works Copyright Protection Act of 1990, all drawings, specifications, lists and designs, including the overall form, arrangement and composition of copies and elements appearing herein, constitute the original, copyrighted work of the Designer-Engineer. Any reproduction, use, or disclosure of information contained herein without prior written consent of the Engineer is strictly prohibited. © 2022 BC Engineers, Inc.



5720 Reeder Shawnee, KS 66203 (913)262-1772

a new development for
Mega Storage - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date 09.9.2022
drawn by
checked by
revisions

sheet number
E3.0
drawing type
permit
project number
22155



PANEL: P20		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P20		MOUNTING: SURFACE							
BUS: 100A		MAIN: 100A MCB		IC: 10,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM							
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO		
1	RV RECEPTACLE	30	1	10	1,500			1,500			10	1	30	RV RECEPTACLE	2		
3	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	4		
5	RV RECEPTACLE	30	1	10			1,500			1,500	10	1	30	RV RECEPTACLE	6		
7	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	8		
9	RV RECEPTACLE	30	1	10		1,500			1,500		10	1	30	RV RECEPTACLE	10		
11	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	12		
13	RV RECEPTACLE	30	1	10	1,500			1,500			10	1	30	RV RECEPTACLE	14		
15	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	16		
17	INTERIOR LIGHTING	20	1	12			960				1	20		SPARE	18		
19	EXTERIOR LIGHTING	20	1	12	186			2,880							20		
21	SPARE	20	1						1,680				8	3	40	PANEL P18	22
23	SPARE	20	1							1,440							24

NOTES: NEMA 3R ENCLOSURE

TOTAL CONNECTED LOAD:	22,034 VA
NEG DEMAND LOAD:	18,143 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	50.36 A

PANEL: P11		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P11		MOUNTING: SURFACE					
BUS: 100A		MAIN: 40A MCB		IC: 10,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM					
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	2
3	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	4
5	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	6
7	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	8
9	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	10
11	INTERIOR LIGHTING	20	1	12			1,200			360	12	1	20	CONV RECEPTACLE	12
13	EXTERIOR LIGHTING	20	1	12	186						1	20		SPARE	14
15	SPARE	20	1								1	20		SPARE	16
17	SPARE	20	1								1	20		SPARE	18

NOTES: NEMA 3R ENCLOSURE

TOTAL CONNECTED LOAD:	5,346 VA
NEG DEMAND LOAD:	5,643 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	15.80 A

EXIST PANEL: MDP		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P3		MOUNTING: SURFACE							
BUS: 400A		MAIN: 400A MCB		IC: 22,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM							
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO		
1	[EX]				14,975			6,720						[EX]	2		
3	P3	100	3	3		7,200			2,160		3	3	100	P2	4		
5							11,785								6		
7	[EX]				6,047			6,101						[EX]	8		
9	P8	100	3	3		3,600			3,600		3	3	100	P15	10		
11							3,120								12		
13	SITE LIGHTING	20	2	6	900			1,200			10	1	20	MONUMENT SIGN [EX]	14		
15	[EX]					900					1	20		SPARE	16		
17	SPARE	20	1								1	20		SPARE	18		
19	SPARE	20	1												20		
21	SPARE	20	1										3	3	100	P20	22
23	SPARE	20	1													24	

NOTES: NEMA 3R ENCLOSURE

TOTAL CONNECTED LOAD:	95,311 VA
NEG DEMAND LOAD:	79,304 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	220.13 A

PANEL: P18		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P18		MOUNTING: SURFACE					
BUS: 100A		MAIN: 40A MCB		IC: 10,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM					
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	2
3	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	4
5	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	6
7	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	8
9	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	10
11	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	12
13	INTERIOR LIGHTING	20	1	12	1,440						1	20		SPARE	14
15	EXTERIOR LIGHTING	20	1	12		240					1	20		SPARE	16
17	SPARE	20	1								1	20		SPARE	18

NOTES: NEMA 3R ENCLOSURE

TOTAL CONNECTED LOAD:	6,008 VA
NEG DEMAND LOAD:	6,430 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	17.85 A

PANEL: P16		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P16		MOUNTING: SURFACE					
BUS: 100A		MAIN: 40A MCB		IC: 10,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM					
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	2
3	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	4
5	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	6
7	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	8
9	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	10
11	INTERIOR LIGHTING	20	1	12			1,200			186	12	1	20	EXTERIOR LIGHTING	12

NOTES: NEMA 3R ENCLOSURE

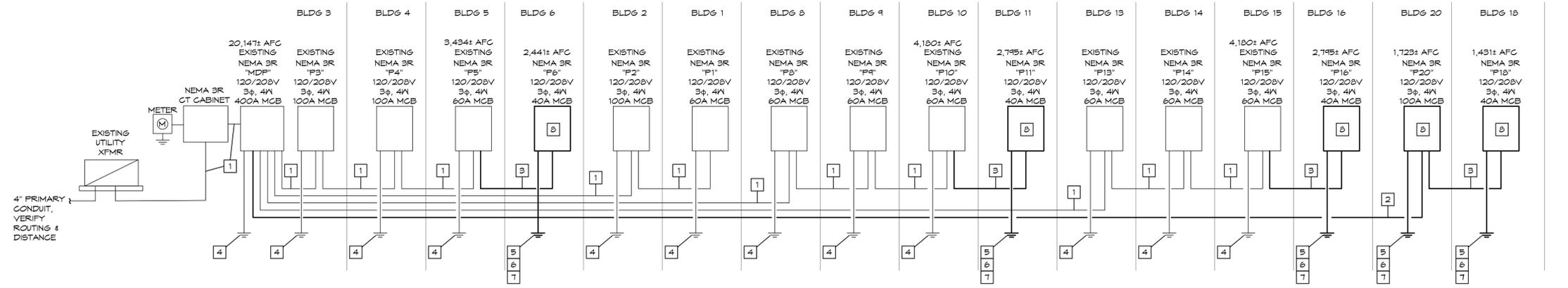
TOTAL CONNECTED LOAD:	4,926 VA
NEG DEMAND LOAD:	5,333 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	14.80 A

PANEL: P6		VOLTS: 120/208V		PH: 3Ø		WIRE: 4W		LOCATION: BUILDING P6		MOUNTING: SURFACE					
BUS: 100A		MAIN: 40A MCB		IC: 10,000		RMS SYM AMPS		FEEDER: SEE RISER DIAGRAM		SEE RISER DIAGRAM					
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	RV RECEPTACLE	30	1	10	1,500			1,500			10	1	30	RV RECEPTACLE	2
3	CONV RECEPTACLE	20	1	12		360			360		12	1	20	CONV RECEPTACLE	4
5	RV RECEPTACLE	30	1	10			1,500			1,500	10	1	30	RV RECEPTACLE	6
7	CONV RECEPTACLE	20	1	12	360			360			12	1	20	CONV RECEPTACLE	8
9	RV RECEPTACLE	30	1	10		1,500			1,500		10	1	30	RV RECEPTACLE	10
11	CONV RECEPTACLE	20	1	12			360			360	12	1	20	CONV RECEPTACLE	12
13	INTERIOR LIGHTING	20	1	12	720			93			12	1	20	EXTERIOR LIGHTING	14
15	SPARE	20	1								1	20		SPARE	16
17	SPARE	20	1								1	20		SPARE	18

NOTES: NEMA 3R ENCLOSURE

TOTAL CONNECTED LOAD:	11,975 VA
NEG DEMAND LOAD:	11,596 VA
DEMAND AMPS @ 208 VOLT / 3Ø:	32.11 A

- RISER NOTES**
- EXISTING FEEDER.
 - (4) #3 AWG, 1#Ø6, 2" COPPER OR (4) #1 AWG, 1#Ø6, 2" ALUMINUM.
 - (4) #4 AWG, 1#Ø6, 2" COPPER OR (4) #4 AWG, 1#Ø6, 2" ALUMINUM.
 - EXISTING GROUND
 - #4 CU TO FOUNDATION STEEL REINFORCING PER NEC 250.52 (3) AND NEC 250.66 (B).
 - #6 CU GROUND TO DRIVEN GROUND ROD PER NEC 250.
 - #4 TO BLDG STEEL PER NEC 250.
 - ISOLATE NEUTRAL AND GROUND BUS AT REMOTE BLDG PANEL PER NEC 250.



ELECTRICAL RISER DIAGRAM
SCALE: NONE

BC PROJECT #: 22155
MISSOURI PE COA #200903629

This drawing has been prepared by the Engineer, or under his supervision. This drawing is provided as an instrument of service to the Client and is intended for use on the project only. Pursuant to the Architectural Works Copyright Protection Act of 1990, all drawings, specifications, ideas and designs, including the overall form, arrangement and composition of spaces and elements, including herein, constitute the original, copyright work of the Designer/Engineer. Any reproduction, use, or disclosure of information contained herein without prior written consent of the Designer/Engineer is prohibited. © 2022 BC Engineers, Inc.



5720 Reeder Shawnee, KS 66203 (913)262-1772

a new development for
Mega Storage - Phase II
520 NE Town Centre Drive
Lee's Summit, Missouri

date: 09.9.2022
drawn by:
checked by:
revisions:

sheet number:
E4.0
drawing type:
permit
project number:
22155