### LEGAL DESCRIPTION:

All that part of the Northwest Quarter of Section 34, Township 47 North, Range 33 West, in the City of Kansas City, Jackson County, Kansas, being more particularly described as follows:

Commencing at the Northwest corner of the Northwest Quarter of said Section 34; thence S 3°21'37" W, along the West line of the Northwest Quarter of said Section 34, a distance of 240.00 feet; thence S 86°30'06" E, a distance of 72.06 feet to a point on the South right—of—way line of 150 Highway, as now established, said point also being the point of beginning; thence S 86°24'28" E, along the South right-of-way line of said 150 Highway, a distance of 352.95 feet; thence S 3°21'37" W, a distance of 1024.36 feet; thence N 86°30'06" W, a distance of 405.00 feet to a point on the Easterly right—of—way line of Prospect Avenue, as now established; thence along the Easterly right-of-way line of said Prospect Avenue, for the following three (3) courses; thence N 3°21'37" E, a distance of 772.86 feet; thence S 86°38'23" E, a distance of 19.38 feet; thence N 3°21'28" E, a distance of 240.57 feet to a point on the Southerly right—of—way line of said 150 Highway; thence along the Southerly right—of—way line of said 150 Highway, for the following two (2) courses; thence S 84°04'25" E, a distance of 0.65 feet; thence N 73°45'15" E, a distance of 34.01 feet to the point of beginning, containing 9.4106 acres, more or less, of unplatted land.

 $AREA = \pm 9.41 ACRES$ 

## DEMOLITION KEY NOTES:

- REMOVE EXISTING WIRE FENCE (TYP).
- REMOVE EXISTING ASPHALT PAVEMENT AND GRAVEL SUB BASE TO THE NATURAL SOIL ELEVATION.
- REMOVE EXISTING CONCRETE PAVEMENT AND GRAVEL SUB BASE TO THE NATURAL SOIL ELEVATION.
- REMOVE EXISTING GRAVEL DRIVE TO THE NATURAL SOIL ELEVATION.
- REMOVE ALL PRE-EXISTING STRUCTURES, FOUNDATIONS, FOOTINGS, PIERS, WATER WELLS, SEPTIC TANKS, LATERAL LINES, BURIED DEBRIS, MISCELLANEOUS CONCRETE, ETC. WHICH MAY BE ENCOUNTERED DURING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL DISPOSE OF THESE MATERIALS IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES.

SHADED AREAS INDICATE MAIN STRUCTURES AND OUTBUILDINGS TO BE DEMOLISHED. IN ADDITION TO SHADED DEMOLITION AREAS, ALL MISCELLANEOUS CONCRETE, STONE STRUCTURES, OUTBUILDINGS, PRIVATE SIDEWALKS, RETAINING WALLS, SIGNS, PATIOS, FOUNDATION WALLS AND FOOTINGS ASSOCIATED WITH THE STRUCTURES SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE PLANS. TYPICAL LOCATION.

THE CONTRACTOR SHALL BE REQUIRED TO BACKFILL ALL EXCAVATIONS/DEPRESSIONS CREATED BY THE REMOVAL OF STRUCTURES, FOUNDATIONS, FOOTINGS, PAVING, SEPTIC TANKS, WELLS, PIPES, TREE ROOTS, DEBRIS AND UTILITY STRUCTURES, ETC. ALL EXCAVATIONS SHALL BE BACKFILLED TO EXISTING GROUND ELEVATIONS ON ALL SIDES OF THE

- REMOVE ALL GROUND VEGETATION, TREES, SHRUBS, BRUSH AND DEBRIS SPECIFICALLY SHOWN TO BE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF CLEARED ITEMS.
- REMOVE EXISTING 15" CMP, END SECTIONS, AND RIPRAP.
- RELOCATE EXISTING WATER METER ONTO PROPERTY. COORDINATE ALL WORK WITH KCMO WATER SERVICE DEPARTMENT.

	<u>LEGEND</u>
——PL —— ——LL —— ——R/W——	PROPERTY LINE LOT LINE RIGHT-OF-WAY
*********	REMOVE EXISTING CURB & GUTTER
	EXISTING BUILDING TO BE REMOVED
	EXISTING ASPHALT PAVEMENT TO BE REMOVED
	EXISTING CONCRETE PAVEMENT/SIDEWALK TO BE REMOVED
	EXISTING GRAVEL TO BE REMOVED
	EXISTING TREE TO REMAIN
	REMOVE TREE
——— вт———	EXISTING BURIED TELEPHONE
	EXISTING CABLE TELEVISION LINE
——— FO ———	EXISTING FIBER OPTIC LINE
w	EXISTING WATER LINE
G	EXISTING GAS LINE
———ВЕ———	EXISTING BURIED ELECTRIC
OHP	EXISTING OVERHEAD POWER LINE
ss	EXISTING SANITARY SEWER
	EXISTING STORM SEWER

EXISTING FIRE HYDRANT

EXISTING LIGHT POLE

—x——x——x—— EXISTING CHAIN LINK FENCE

**DEMOLITION NOTES:** 

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.

2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
 CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.

<b>\</b>		
3		
0'	SCALE: 1"=50'	10

PHELPS ENGINEERING, IN 1270 N. Winchester Olathe, Kansas 66061 (913) 393-1155 ATION

PLANNING ENGINEERING IMPLEMENTATION

YARD MISSOURI

SOTCHA COVERED STORAGE YARI AS CITY, JACKSON COUNTY, MIS ADDRESS: 14707 PROSPECT AV

Date

7–31–21

REVISED PER STAFF COMMENTS

9–16–21

REVISED PER STAFF COMMENTS

SNH I

10–20–21

REVISED PER STAFF COMMENTS

SNH II

10–20–21

PROJECT NO. :

DATE: 06/20/2021

CHECKED: DAF APP

CERTIFICATE OF AUT

KANSAS

LAND SURVEYING —

CERTIFICATE OF AUT

MISSOURI

MISSOURI

MISSOURI

LAND SURVEYING —

CERTIFICATE OF AUT

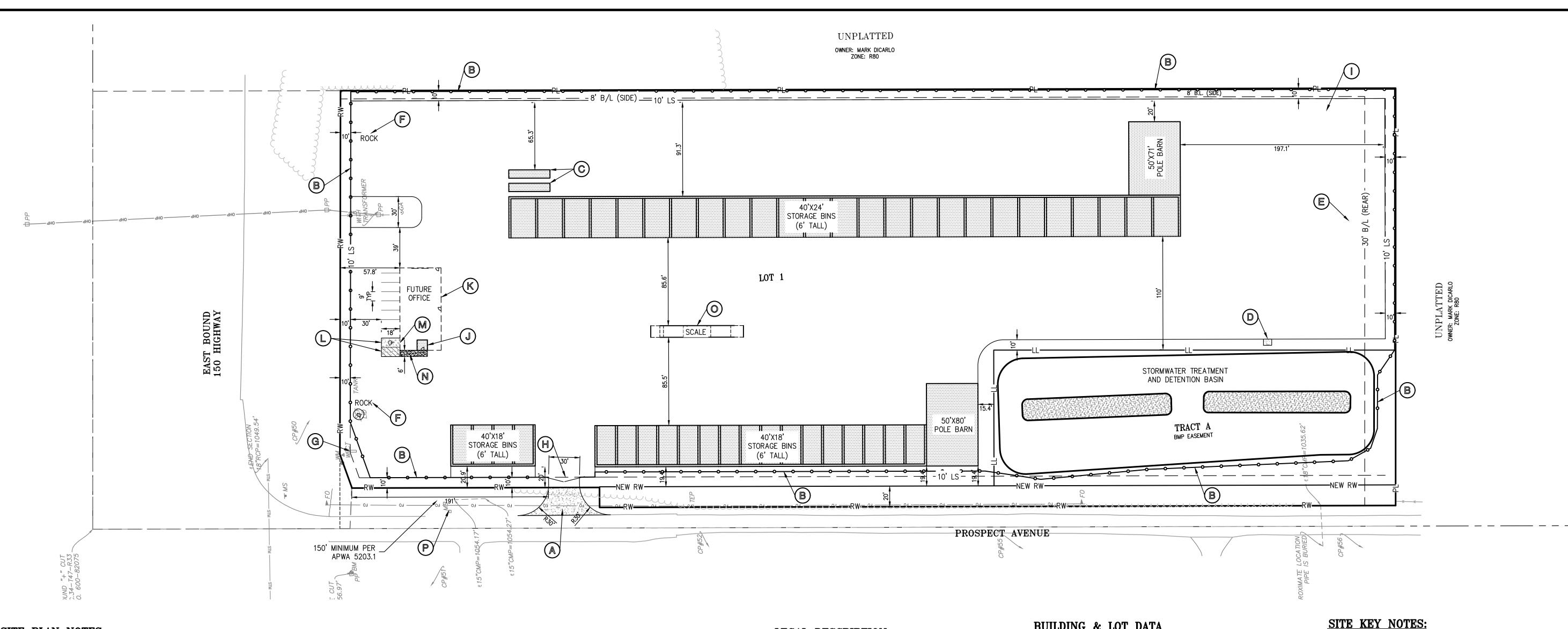
CERTIFICATE OF AUT

MISSOURI

MISSOURI

LAND SURVEYING—200-220

CO



### SITE PLAN NOTES:

construction. Notify the engineer of any discrepancies.

1. All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference: A) City ordinances & O.S.H.A. Regulations.

B) The City of Kansas City, Missouri Technical Specifications and Municipal Code. C) APWA Standard Specifications and Design Criteria, latest edition. D) Project Specific Specifications.

2. The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.

3. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Kansas City, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for

4. The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub-contractors constructing the work.

5. The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.

6. Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such.

7. All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.

8. The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.

9. The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of

10. SAFETY NOTICE TO CONTRACTOR: In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.

11. <u>WARRANTY/DISCLAIMER:</u> The designs represented in these plans are in accordance with established practices of civil engineering for the design functions and uses intended by the owner at this time. However, neither the Engineer nor its personnel can or do warrant these designs or plans as constructed except in the specific cases where the Engineer observes the physical construction on a continual basis at the site.

12. No work is to be allowed within the public right-of-way or easements without a right of way work permit.

13. All paving construction and earthwork grading/compaction shall conform to the requirements of the geotechnical engineering report prepared

14. Within forty-eight hours prior to any asphalt or concrete paving, the subgrade shall be proof rolled with a fully loaded tandem wheeled dump truck and observed by the on—site geotechnical engineer. Areas of the subgrade with excessive rutting and or pumping shall be re—worked or removed in accordance with the project specifications. Flyash or granular material may be added by the contractor to stabilize the subgrade. See project specifications.

15. All curb shall be sloped for positive drainage. Contractor shall use "dry curb and gutter" as needed in localized paved areas that drain away from the curb and gutter. See paving details.

16. The Contractor is responsible for the protection all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Kansas, at the contractor's

17. 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. 18. The contractor is responsible for providing berms, silt fences, straw bales, or other means to prevent eroded materials from reaching the

public right-of-way and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt or mud and restore the right-of-way or adjacent property to original or better condition.

19. All disturbed areas are to receive topsoil, sod and water until a healthy stand of grass is established. See the landscaping plans for requirements. Re-seeding shall be required (see project specifications).

20. The contractor shall sod all disturbed areas within the public street right-of-way.

21. Contractor shall refer to the architectural building plans for exact locations and dimensions of vestibules, slope paving, sidewalks, exit porches, truck docks, precise building dimensions and exact building utility entrance locations. All dimensions are to outside wall of building(s). 22. Refer to building plans for site lighting electrical plan.

23. Contractor to remove existing trees and vegetation, as necessary, for site construction unless specifically noted to remain.

24. Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

### SITE DIMENSION NOTES:

1. BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS. 2. ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FORM BACK OF CURB TO BACK OF

### PAVEMENT MARKING AND SIGNAGE NOTES:

1. PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.

2. HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT)

3. TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". 4. STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE

"MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE

ENGINEER GRADE REFLECTIVE. 5. TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT

LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS

VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.

UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR

LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN

THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL

FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

### ESTIMATED SCHEDULE

Know what's below.

Call before you dig.

SHALL BE APPLIED.

Commencement of Construction Date: October 2021 Completion of Construction Date: May 2022

### LEGAL DESCRIPTION:

All that part of the Northwest Quarter of Section 34, Township 47 North, Range 33 West, in the City of Kansas City, Jackson County, Kansas, being more particularly described as follows:

Commencing at the Northwest corner of the Northwest Quarter of said Section 34; thence S 3°21'37"W, along the West line of the Northwest Quarter of said Section 34, a distance of 240.00 feet; thence S 86°30'06" E, a distance of 72.06 feet to a point on the South right-of-way line of 150 Highway, as now established, said point also being the point of beginning; thence S 86°24'28" E, along the South right-of-way line of said 150 Highway, a distance of 352.95 feet; thence S 3'21'37" W, a distance of 1024.36 feet; thence N 86'30'06" W, a distance of 405.00 feet to a point on the Easterly right-of-way line of Prospect Avenue, as now established; thence along the Easterly right—of—way line of said Prospect Avenue, for the following three (3) courses; thence N 3°21'37" E. a distance of 772.86 feet; thence S 86°38'23" E, a distance of 19.38 feet; thence N 3°21'28" E, a distance of 240.57 feet to a point on the Southerly right-of-way line of said 150 Highway; thence along the Southerly right—of—way line of said 150 Highway, for the following two (2) courses; thence S 84°04'25" E, a distance of 0.65 feet; thence N 73°45'15" E, a distance of 34.01 feet to the point of beginning, containing 9.4106 acres, more or less, of unplatted

 $AREA = \pm 9.41 ACRES$ 

### **BUILDING & LOT DATA**

Site Area	9.41 Ac.
Existing Zoning / Proposed Zoning	R−80 / M−1
Building Data	
Proposed Building	
No. of Stories	1 Story
Building S.F.	100 S.F.
Building Footprint	100 S.F.
FAR / Building Coverage	0.0002
Future Building	
No. of Stories	1 Story
Building S.F.	2,400 S.F.
Building Footprint	2,400 S.F.
FAR / Building Coverage	0.0059
Impervious Area	2.41 Ac. (26%)
Open Space	7.00 Ac. (74%)

### PARKING SUMMARY

Parking Required:	
Proposed Building	
Retail Sales (2.5 / 1,000 S.F.)	1 Spaces
Future Building	
Retail Sales (2.5 / 1,000 S.F.)	6 Spaces
Parking Provided	
Standard Parking Provided	5 Spaces
Accessible Parking Spaces Provided	1 Spaces
Total Provided Parking	6 Spaces

### IFCFND

<u>LEGEND</u>	
——PL——	PROPERTY LINE
- -R/W- $-$	RIGHT-OF-WAY
	2' CURB & GUTTER
	6" CURB
<u>B/L</u>	BUILDING SETBACK LINE
<u> </u>	PARKING SETBACK LINE
<u> </u>	LANDSCAPE SETBACK LINE
	ASPHALT MILLINGS
	PROPOSED BUILDING
.4 4	CONCRETE PAVEMENT

CONCRETE SIDEWALK

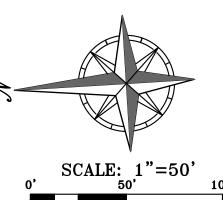
PARKING SPACES

6' CEDAR PRIVACY FENCE

PHELPS ENGINEERING, INC. 1270 N. WINCHESTER OLATHE, KS, 66061 CONTACT: JUDD CLAUSSEN EMAIL: jclaussen@phelpsengineering.com

### **DEVELOPER:**

GOTCHA COVERED, LLC 11400 E, MO-159 KANSAS CITY, MO 64149 CONTACT: SHELLY LITTLE



## PREPARED BY:

CONSTRUCT CONCRETE COMMERCIAL ENTRANCE PER KCMO STANDARD DRAWING D-2 (TYPE VI ENTRANCE).

OUTDOOR STORAGE CONTAINER LOCATION (2 TOTAL).

(E) TOPSOIL PROCESSING AND TOPSOIL PULVERIZER LOCATION.

FUTURE 40'X80' BUILDING (HALF OFFICE, HALF EQUIPMENT STORAGE W/ 24 HOUR SECURITY OFFICE)

RELOCATE EXISTING MAILBOX (COORDINATE WITH LOCAL POST OFFICE).

INSTALL ACCESSIBLE PAVEMENT MARKINGS AND CONCRETE WHEEL

(F) BOULDERS AND ROCK EDGING STORAGE LOCATION.

(G) PROPOSED BUSINESS SIGN LOCATION.

( ) EDGING STORAGE ON 20'X4' PALLETS.

PROPOSED 10'X10' BUILDING.

INSTALL ACCESSIBLE PAVEMENT M STOPS PER ADA SPECIFICATIONS.

(M) INSTALL VAN ACCESSIBLE PARKING SIGN.

(N) INSTALL PRIVATE CONCRETE SIDEWALK.

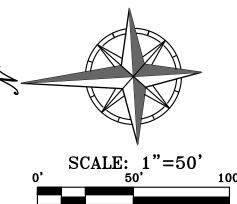
(O) INSTALL SCALE.

 $(\mathbb{H})$  install 2–20' swing gates at entrance.

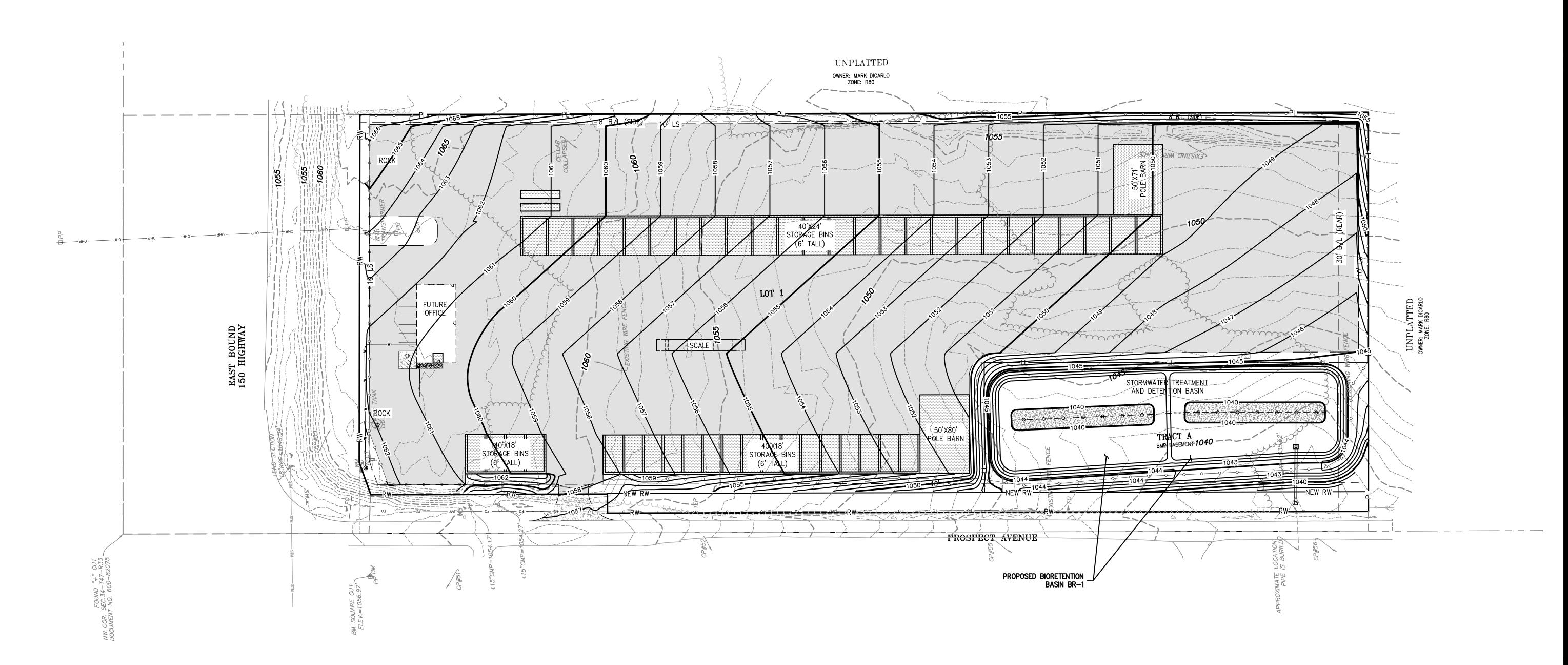
(D) 400 GALLON DIESEL FUEL BARREL LOCATION.

INSATLL 6' CEDAR PRIVACY FENCE (TYP, RE: LANDSCAPE PLAN FOR SCREENING REQUIREMENTS).

EMAIL: slittle1030@yahoo.com



**SHEET** 



### **SITE GRADING NOTES:**

- CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted, proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub—base thicknesses.
- If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and
- CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
- TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and stockpiled at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities.

  Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ITL.
- 5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.
- 6. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative. PROOFROLLING: Subsequent to completion of stripping and over—excavation, all building and pavement areas to receive engineered fill should be systematically proof—rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof—rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over—excavated and replaced with controlled structural fill.
- - A) GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications. B) SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
  - C) FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five, feet building and pavement construction should not commence until so authorized by the on—site geotechnical engineer to allow for consolidation. D) BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper 24 inches of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a
  - E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (0") (lease lift magnitudes). inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.
  - F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
- All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.
- 10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.
- 11. CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
- 12. RESTORATION: All disturbed areas not in building or pavements shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.

maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete requirements.

- 13. UTILITIES: The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is 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. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed
- 14. LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

## **LEGEND**

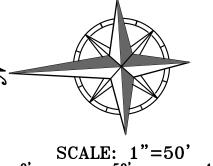
PL — PL — — — — — — — — — — — — — — — —	PROPERTY LINE LOT LINE RIGHT-OF-WAY	
	2' CURB & GUTTER EXISTING CONTOURS	
	PROPOSED CONTOURS	
XXX.XX TW	PROPOSED SPOT ELEVATION  LG LIP OF GUTTER  TC TOP OF CURB  SW SIDEWALK  ME MATCH EXISTING  HP HIGH POINT  LP LOW POINT  P TOP OF PAVEMENT  TE TOP OF STRUCTURE  GR GROUND ELEVATION  BS BOTTOM OF STEPS  TS TOP OF STEPS  BW BOTTOM OF WALL  TW TOP OF WALL	

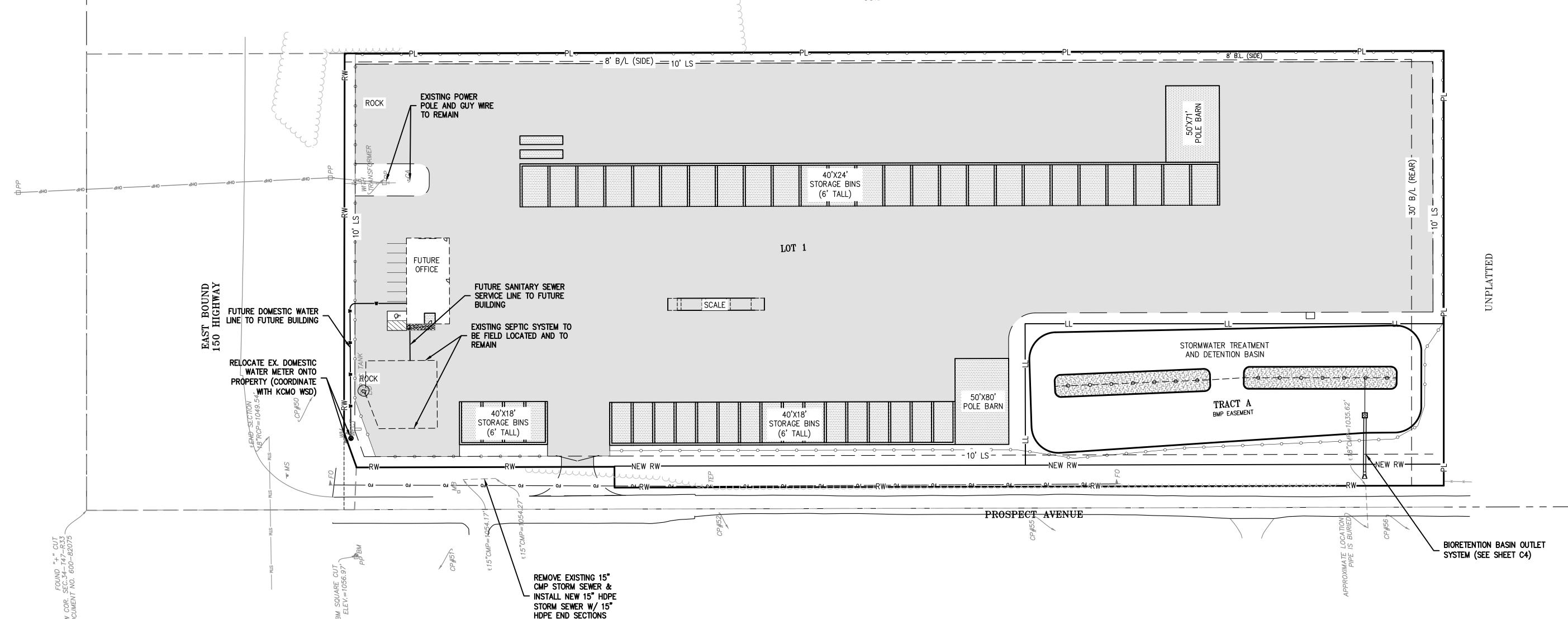
EXISTING STORM SEWER PROPOSED STORM PIPE PROPOSED WET CURB & GUTTER PROPOSED DRY CURB & GUTTER PROPOSED RETAINING WALL

### Earthwork Summary Gotcha Covered, KCMO 6/20/2021

Raw Excavation	12,616 Cu. Yds.	
In Place Compaction (+15%)	-17,399 Cu. Yds.	
Gravel / Building Adjustment	11,293 Cu. Yds.	(assume 12" of additional excavation)
On Site Net	6,510 Cu. Yds.	

\* EARTHWORK COMPUTATIONS BY PHELPS ENGINEERING, INC. ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE VERIFIED BY CONTRACTORS BY THEIR CHOSEN METHOD PRIOR TO PLACING BID. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. 15% WAS ADDED INTO RAW FILL QUANTITY TO ACCOUNT FOR SHRINKAGE.





### UTILITY NOTES:

- 1. The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is 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. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- 2. The construction of storm sewers on this project shall conform to the requirements of the City's Technical Specifications and Design Criteria.
- 3. The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- 4. It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non—paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- 5. Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.
- 6. The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- 7. The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to
- 8. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- 9. By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- 10. The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie—in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- 11. All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
- 12. Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- 13. Water lines shall be as follows (unless otherwise shown on plans):
- Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following: 1. Seamless Copper Tubing: Type "K" soft copper, ASTM B88. 2. Fittings: Wrought copper (95\_5 Tin Antimony solder joint), ASME B 16.22.
- 14. Minimum trench width shall be 2 feet.
- 15. Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to City's specifications for commercial services.
- 16. All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of
- pipe to outside edge of pipe) of the water line above the sewer line is required. 17. Sanitary conflicts will be resolved prior to permit issuance.
- 18. All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- 19. All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- 20. Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- 21. When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- 22. Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

### **UTILITY COMPANIES:** SPIRE ENERGY

(816) 472-3434 CITY OF KANSAS CITY (816) 513-2627 BEVERLY PASSANTINO PUBLIC WORKS DEPARTMENT 7500 E. 35TH TERRACE 414 E. 12TH STREET KANSAS CITY, MO. 64129 KANSAS CITY, MO. 64106 EMAIL: beverly.passantino@spireenergy.com CITY OF KANSAS CITY (GENERAL NUMBER) (816) 513-1313 (816) 420-4721 CARLA HASKINS (WATER) (816) 513-2133 MELISSA FELTES EMAIL: carla.haskins@kcmo.org 8325 N. PLATTE PURCHASE DRIVE AMY BUNNELL (LAND DEVELOPMENT DIVISION) (816) 513-2552 EMAIL: amy.bunnell@kcmo.org

KANSAS CITY, MO. 64118 E-MAIL: Melissa.Feltes@kcpl.com

JILL SCHROEDER

9556 N. MCGEE COURT

EMAIL: jb0311@att.com

KANSAS CITY, MO 64155

(816) 734-8700

TIME WARNER CABLE 15 NW BARRY ROAD

(816) 358-8833

KANSAS CITY, MO. 64155

4800 E. 63RD STREET

KANSAS CITY, MO. 64130

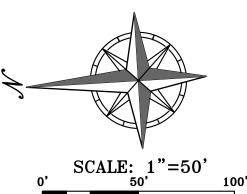
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL

FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

### Know what's below. Call before you dig.

### **LEGEND**

——PL——	PROPERTY LINE		
- $-$ LL $ -$	LOT LINE		
- -R/W- $-$	RIGHT-OF-WAY		
CATV	EXISTING CABLE TELEVISION LINE		
——— FO ———	EXISTING FIBER OPTIC LINE		
G	EXISTING GAS LINE		
———ВЕ———	EXISTING BURIED ELECTRIC LINE		
	EXISTING OVERHEAD POWER LINE		
OHT	EXISTING OVERHEAD TELEPHONE LINE		
ss	EXISTING SANITARY SEWER LINE		
24"HDPE	EXISTING STORM SEWER LINE (& SIZE)		
——— ВТ———	EXISTING BURIED TELEPHONE LINE		
	EXISTING WATER LINE (& SIZE)		
CATV	PROPOSED CABLE TELEVISION LINE		
—— FO ——	PROPOSED FIBER OPTIC LINE		
—— G ——	PROPOSED GAS LINE		
——BE——	PROPOSED BURIED ELECTRIC LINE		
—— ss ——	PROPOSED SANITARY SEWER LINE		
	PROPOSED OVERHEAD POWER LINE		
	PROPOSED STORM SEWER LINE (& SIZE)		
—— вт——	PROPOSED BURIED TELEPHONE LINE		
<b>———w</b> —6"—	PROPOSED WATER LINE (& SIZE)		
— — —ST— -6"—	PROPOSED ROOF DRAIN (& SIZE)		



### NOTICE TO CONTRACTOR:

- 1. THE BMP SYSTEM AS SHOWN IS REQUIRED TO BE CERTIFIED BY THE ENGINEER PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR INSPECTIONS OF BMP AT THE FOLLOWING INTERMEDIATE STAGES OF CONSTRUCTION:
  - a. COMPLETION OF BASIN EXCAVATION, PRIOR TO UNDERDRAIN INSTALLATION.
  - COMPLETION OF UNDERDRAIN, STONE, AND GEOTEXTILE FABRIC. INSTALLATION OF BSM MATERIAL PRIOR TO MULCHING AND PLANTING. d. FINAL COMPLETION.
- 2. ALL BIORETENTION BASIN UNDERDRAINS SHALL BE DESIGNED IN ACCORDANCE TO APWA BMP MANUAL SECTION 8.4.5.2 AS FOLLOWS:

  - a. THE PIPE SHALL HAVE PERFORATIONS BETWEEN 0.25 AND 0.375 INCHES IN DIAMETER, SPACED AT 6 INCHES ON CENTER WITH A MINIMUM OF 4 HOLES PER FOR.
    b. THE PIPES SHALL BE SPACED 20 FT ON CENTER.
  - c. THE PIPES SHALL MAINTAIN A MINIMUM SLOPE OF 0.5%.

### BIORETENTION BASIN BR-1 PARAMETERS

8.0 Acres Treatment Area

80% % Impervious to Basin 0.70 Ac.—Ft. Water Quality Volume

2.5 Ft. Bioretention Soil Mix Depth

1.50 Ft./Day Coefficient of Permeability for Bioretention Soil Mix

1.00 Ft. Maximum Ponding Depth

3 Days Time Required for Water Quality Volume to filter

through Bioretention Soil Mix

5,673 Sq. Ft. Minimum Required Filter Bed Area 30,634 Sq. Ft. Minimum Required Ponding Area

### 100-YEAR OVERFLOW

100-Year Inflow  $Q_{100} = 89.74$  CFS  $100-Year\ WSE = 1042.54$ 

Emergency Spillway Elevation = 1043.10' Emergency Spillway Width = 130'

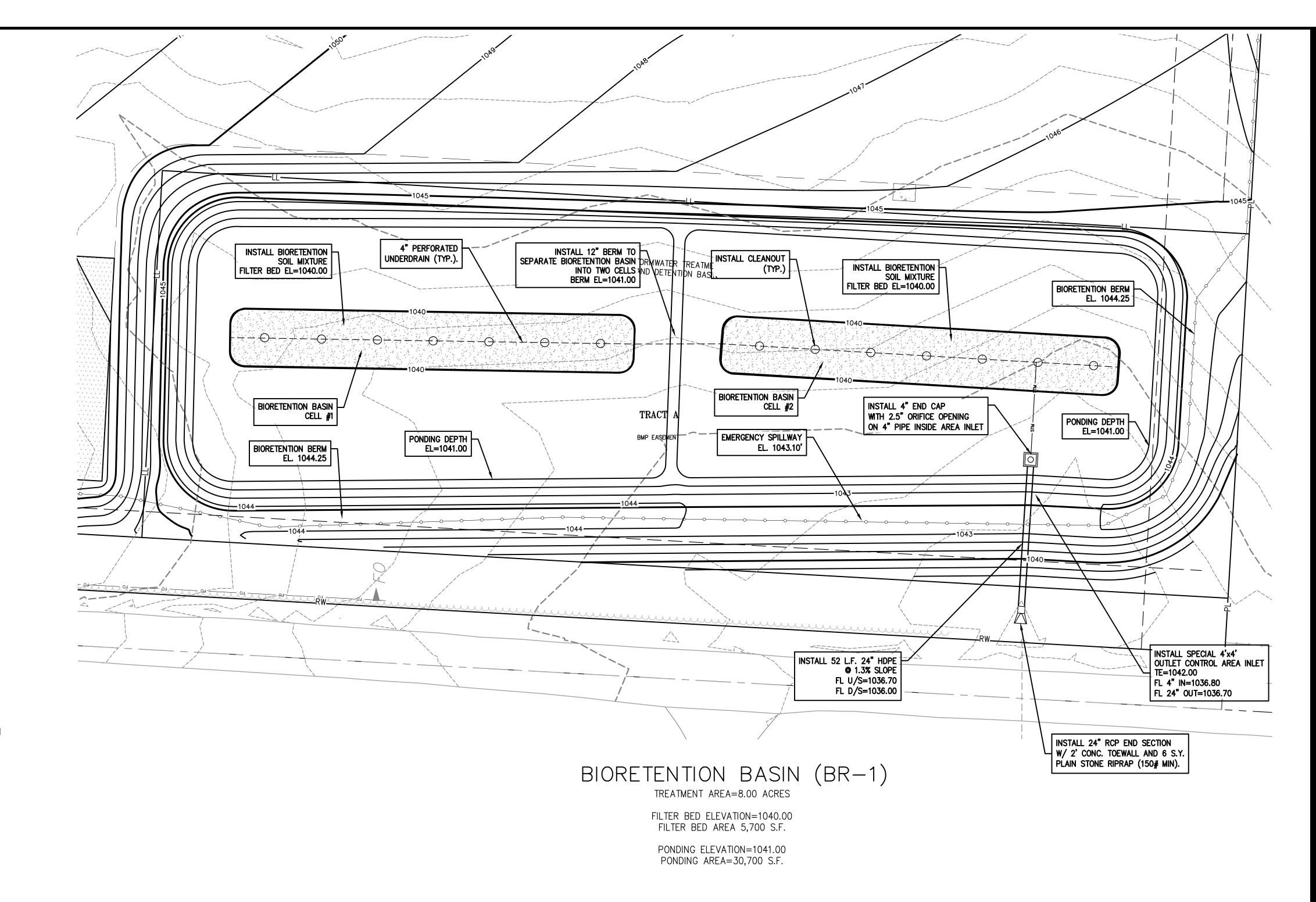
100-Year Emergency Spillway Flow Depth, H = 0.36' (1043.46')  $Q = CLH^{1.5}$  89.74 =  $(3.1)(130)(H)^{1.5}$ 

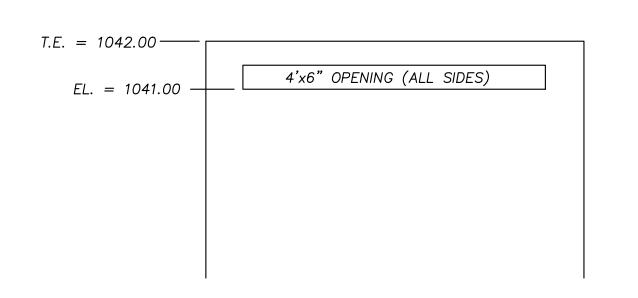
Bioretention Basin Berm Elevation = 1044.50'

### Bioretention Basin Maintenance and Inspections

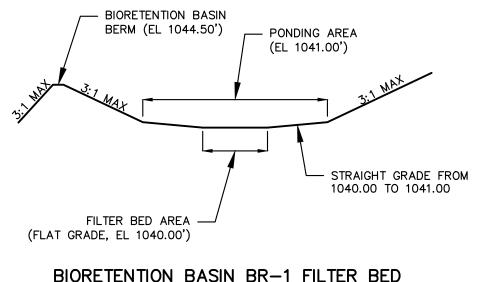
Bioretention basins shall be inspected regularly and maintained when necessary to ensure that the basin is functioning properly. The following is a list of periodic inspections and maintenance actions that should be taken to upkeep the bioretention basin.

- The bioretention basin shall be inspected biannually for erosion.
- Biannually the basin shall be inspected for locations of bare soil. Random bare spots may be corrected with spot mulching. Where there are significant amounts of bare soil, old mulch remaining shall be removed and disposed of properly before new mulch
- The vegetation shall be inspected annually. Any dead or diseased vegetation shall be removed
- If the vegetation is stressed, the soil shall be inspected for contamination. If the soil is contaminated, then full or partial replacement of the planting zone is required.
- If treatment of vegetation is necessary, chemicals used shall be low—toxic and used
- to the least amount necessary.
- Once to twice per year an application of an alkaline product, such as limestone, shall be applied to the basin to counteract soil acidity resulting from slightly acidic precipitation. Before making the application, the soil should be tested for the pH level to determine how much alkaline product to add.
- The outlet structure shall be inspected annually that it is functioning properly. Any obstructions to the overflow shall be removed.
- Any trash or sediment shall be removed as necessary.
- The basin shall be aerated periodically.
- Any voluntary non desired vegetation shall be removed periodically (weeding).

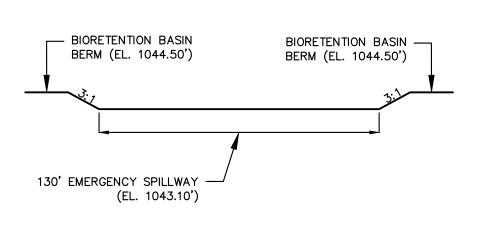




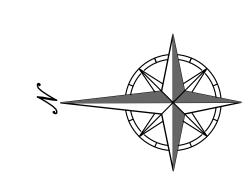
SPECIAL 4'x4' OUTLET CONTROL AREA INLET ALL SIDES



BIORETENTION BASIN BR-1 FILTER BED AND PONDING AREA TYPICAL SECTION



BIORETENTION BASIN BR-1 EMERGENCY SPILLWAY TYPICAL SECTION



TENTION

OVERED STC

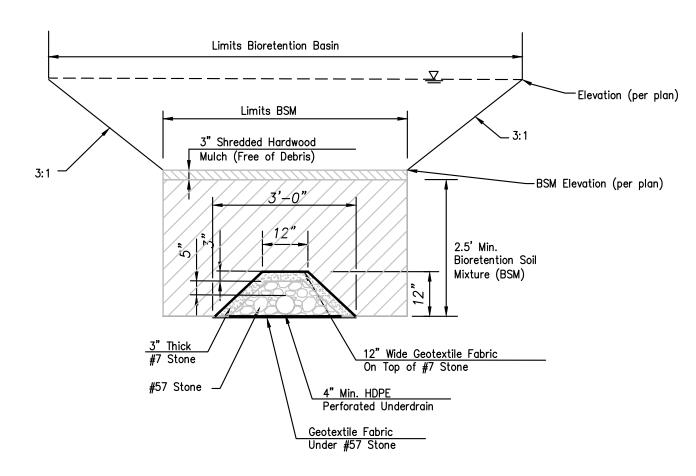
SHEET

**SHEET** 

Outlet Structure Ponding Depth (1.0 Feet) 3" Shredded Hardwood

Mulch (Free of Debris) With Netting Elevation (per plan) 4" HDPE Perforated Underdrain (Min. Slope 0.5%)

BIORETENTION BASIN TYPICAL SECTION 1 NOT TO SCALE



### **BIORETENTION BASIN TYPICAL SECTION**

### Bioretention Basin Materials:

A. Bioretention Soil Mixture: The Bioretention Soil Mixture (BSM) is a mixture of planting soil, compost, and sand consisting of the following:

Composition By Volume Planting Soil Organic Compost

B. Planting Soil: The USDA textural classification of the Planting Soil for the BSM shall be LOAMY SAND OR SANDY LOAM. The Planting Soil shall be the best available on site material or furnished. Additionally, the Planting Soil shall be tested and meet the following criteria or as approved by the Engineer:

Item	Percent By	Weight Test Me
Sand $(2.0 - 0.050 \text{ mm})$	50 -85%	AASHTO 1
Silt (0.050 -0.002 mm)	0 -50%	AASHTO 1
Clay (less than 0.002 mm)	2 -5%	AASHTO T88
Organic Matter	3 –10%	AASHTO T194

The textural analysis for the Planting Soil shall be as follows:

ASTM E11 Sieve Size Minimum Percent Passing By Weight No. 4

At least 45 days prior to the start of construction of bioretention facilities, the Contractor shall submit the source and testing results of the Planting Soil for the BSM to the Engineer for approval. No time extensions will be granted should the proposed Planting Soil fail to meet the minimum requirements stated above. Once a stockpile of the Planting Soil has been sampled, no material shall be added to the stockpile.

C. Organic Compost: Compost is a homogeneous and friable mixture of partially decomposed organic matter, with or without soil, resulting from composting, which is a managed process of bio—oxidation of a solid heterogeneous organic substrate including a thermophilic phase. Compost is deemed acceptable if it meets 2 of the following requirements:

C/N ratio <= 25;</li>

2. Oxygen uptake rate <= 150 mg 02/kg volatile solids per hour; and

3. Compost must not contain more than 1 percent foreign matter. Foreign matter is defined as: "Any matter over a 2 mm dimension that results from human intervention and having organic or inorganic constituents such as metal, glass and synthetic polymers (e.g. plastic and rubber) that may be present in the compost but excluding mineral soils, woody material and rocks."

4. Foreign matter less than 1 percent by weight must not exceed 12.5 mm in any dimension.

D. The Bioretention Soil Mixture (BSM) shall be a uniform mix, free of plant residue, stones, stumps, roots or other similar objects larger than two inches excluding mulch. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.

1. The Bioretention Soil Mixture shall be tested and meet the following criteria: 5.5 -7.5 Corrected pH Minimum 32 ppm Magnesium Phosphorus (Phosphate - P205) not to exceed 60 ppm plant available phosphorus Potassium (K20) Minimum 78 ppm Not to exceed 500 ppm Soluble Salts

\*Use authorized soil test procedures

2. Should the pH fall outside of the acceptable range, it may be modified with lime (to raise) or ammonium sulfate (to lower). The lime or ammonium sulfate must be mixed uniformly into the BSM prior to use in

3. Should the BSM not meet the minimum requirement for magnesium, it may be modified with magnesium sulfate. Likewise, should the BSM not meet the minimum requirement for potassium, it may be modified with potash. Magnesium sulfate and potash must be mixed uniformly into the BSM prior to use in bioretention facilities.

4. Planting soil and/or BSM that fails to meet the minimum requirements shall be replaced at the Contractor's expense. Mixing of the corrective additives to the BSM is incidental and shall be at the Contractor's expense.

5. Mixing of the BSM to a homogeneous consistency shall be done to the satisfaction of the Engineer. Upon approval of all requirements and testing above, the BSM shall be stockpiled, and no material shall be added to the BSM in the stockpile or during transport to the bioretention facility.

## E. Other Materials

Specification No. 57 Aggregate ASTM D448 No. 7 Aggregate 4—inch HDPE Plastic Pipe Underdrain ASTM D448 AASHTO M252 Geotextile Fabric AASHTO M288 Mulch, 2x Shredded Hardwood Bark See below See below. ASTM C25 Ammonium Sulfate See below. Magnesium Sulfate See below. See below.

1. Shredded Hardwood Mulch: Shredded hardwood mulch shall be aged a minimum of 6 months and consist of the bark and wood (50/50) from hardwood trees which has been milled and screened to a maximum 4 in. particle size and provide a uniform texture free from sawdust, clay, soil, foreign materials, and any artificially introduced chemical compounds that would be detrimental to plant or

2. Aggregate: No. 7 and No. 57 Aggregate shall be double—washed to reduce suspended solids and potential for clogging. The aggregate shall be placed as shown in the Contract Drawings. 3. Water: Water used in the planting, establishing, or caring for vegetation shall be free from any

4. Lime: Lime shall contain not less than 85 percent calcium and magnesium carbonates. Dolomitic (magnesium) lime shall contain at least 10 percent magnesium as magnesium oxide and 85 percent calcium and magnesium carbonates. Lime shall conform to the following gradation:

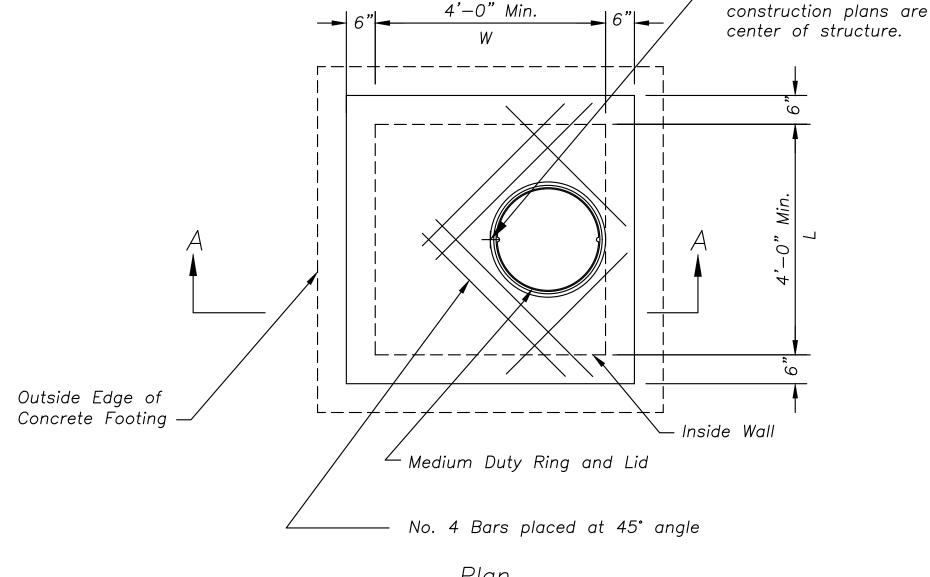
5. Ammonium Sulfate: Ammonium sulfate shall be a constituent of an approved horticultural product produced as a fertilizer for supplying nitrogen and as a soil acidifier.

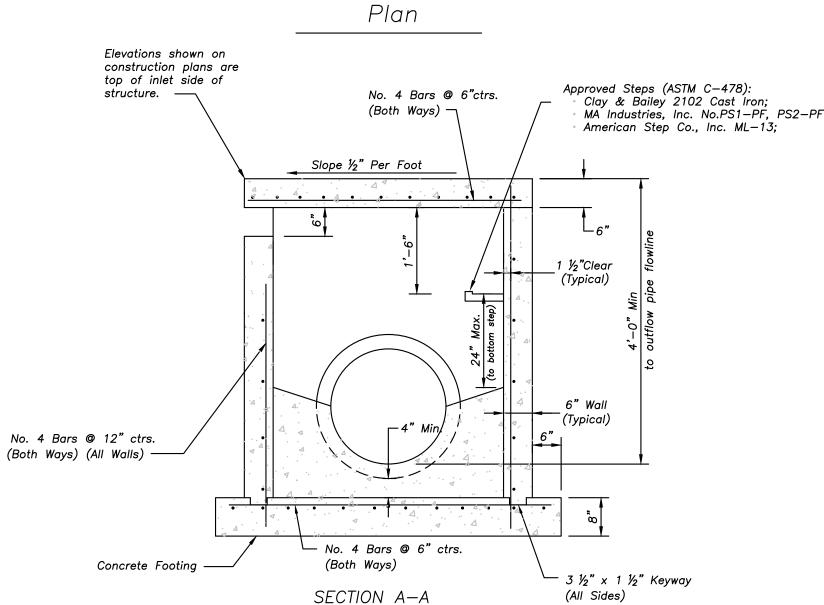
6. Magnesium Sulfate: Magnesium sulfate shall be a constituent of an approved horticultural product produced as a fertilizer.

7. Potash: Potash (potassium

ASTM D4972

substance that is injurious to plant life.





# OUTLET CONTROL DETAIL

### Outlet Control Structure Notes

- 1. All storm sewer structures shall be pre-cast or poured in place. If pre—cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.
- 2. Pre-cast shop drawings are to be approved by the City Engineer for publicly financed or administered projects. Pre-cast shop drawings for privately financed projects are to be submitted to the Engineering Services Division of the Planning and Development Services Department.
- 3. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.
- 4. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less then or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

- 5. Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board, and shall meet the requirements of the **Lenexa** Municipal Code.
- 6. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition, except as modified in the **Lenexa** Municipal Code.
- to provide smooth flow. 8. Bevel all exposed edges with  $\frac{3}{4}$ " triangular molding.

## Reinforcing Steel

- 9. Reinforcing steel shall be new billet, minimum Grade 60 as per ASTM A615, and shall be bent cold.
- 10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of  $+/-\frac{1}{2}$  shall be permitted.
- 11. All lap splices not shown shall be a minimum of 40 bar diameters in length.

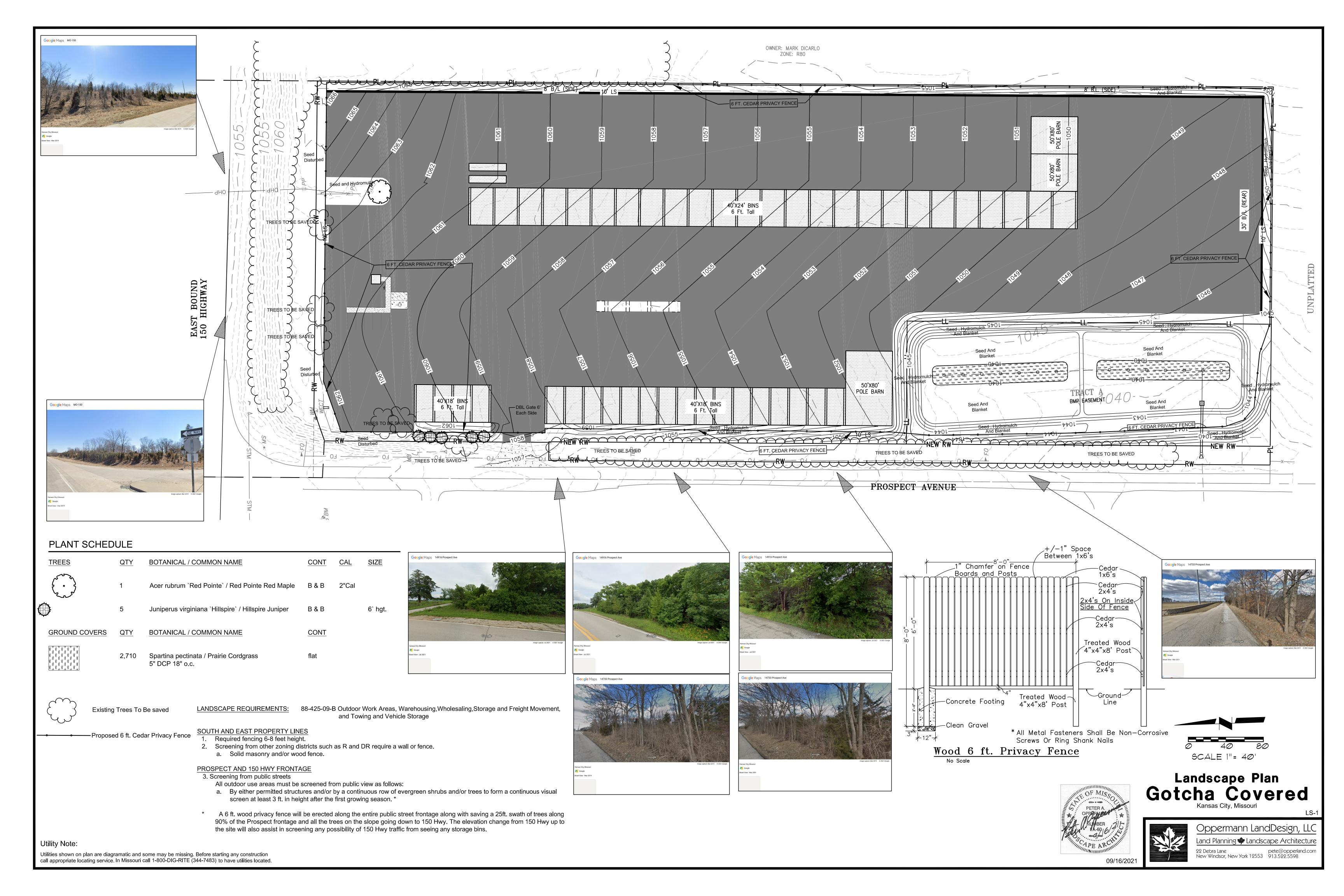
12. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'-0" maximum spacing.

Locations shown on

13. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

### Construction

- 7. Inlet floors shall be shaped with non-reinforced concrete inverts 14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
  - 15. Pipe connections to pre-cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the
  - 16. Material selection and compaction requirements for backfill around structures shall be as specified in the Manual of Infrastructure Standards, as promulgated by the City Engineer.





12'H Loafing Shed Example

### Specifications

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Product Type	Loafing Sheds	Foundation Type	Posts
Entry Style	Eave	Post Spacing	9 foot
Post Type	6"x6" CCA Treated	Overall Width	24 foot
Overall Length	54 foot	Sidewall Height	12 foot
Square Footage	1296 square foot	Exterior Wall Framing	Post Frame
Roof Framing Type	Truss	Rafter/Truss Spacing	9 foot
Roof Pitch	Dual Slope	Roofing Type	Pro-Rib Steel
Eave Overhang Size	None inch	Gable Overhang Size	None inch
Siding Type	Pro-Rib Steel	Includes	Materials Include Framing, 9' OC Posts and Trusses, Steel, Trim, and Code-Exempt Mini-Print
Return Policy	Regular Return (view Return Policy)		

