LEGEN	ND:	
A/E	- ACCESS EASEMENT	
BC	- BACK OF CURB	
B/B	- BACK TO BACK	
BM	- BENCHMARK	
BL or B.L.	- BUILDING LINE	1
CO	- CLEANOUT	2
TJB	- TELEPHONE JUNCTION BOX	
C&G	- CURB AND GUTTER	
D/E	- DRAINAGE EASEMENT	
E/E	- ELECTRICAL EASEMENT	NW
EL	- ELEVATION	
FL	- FLOW LINE	
G/E	- GAS LINE EASEMENT	
HDPE	- HIGH-DENSITY POLYETHYLENE	Ń
L/E	- LANDSCAPE EASEMENT	
MOLE	MINIMUM SERVICEABLE FLOOR	
NOFE	ELEVATION	
PVC	- POLYVINYL CHLORIDE	
P/L	- PROPERTY LINE	
PUB/E	- PUBLIC EASEMENT	
RCP	- REINFORCED CONCRETE PIPE	
ROW or R/W	- RIGHT-OF-WAY	
S/E	- SANITARY SEWER EASEMENT	
SL	- SERVICE LINE	
S/W	- SIDEWALK	
TE	- TOP ELEVATION	
U/E	- UTILITY EASEMENT	
WSE	- WATER SURFACE ELEVATION	UTILITY
W/E		
	ASPHALT PAVEMENT - EXISTING	MISSOUR
	」 ]	
	ASPHALT PAVEMENT - PROPOSED	600 NF Colbe
Δ. Δ.	CONCRETE PAVEMENT - EXISTING	Lee's Summit
Δ.		(816) 607-218
	ASPHALT PAVEMENT - EXISTING	
	]	MISSOUR
		3025 SE Clov
	CONCRETE SIDEWALK - PROPOSED	Lee's Summit
		(816) 399-963
	CURB & GUTTER	brent.jones@
		KANGAG
	CURB & GUTTER - EXISTING	COMPAN
~~~~~		COMPAN Bon Dojarnott
	<ul> <li>EXISTING LOT AND R/W LINES</li> </ul>	1300 SE Ham
	<ul> <li>EXISTING PLAT LINES</li> </ul>	Lee's Summit
—— P/L ——	<ul> <li>PROPERTY LINES</li> </ul>	Office: (816) 3
ROW	- RIGHT-OF-WAY	Cell: (816) 81
	- SANITARY SEWER MAIN	ron.dejamette
	- SANITARY SEWER MAIN - EXIST.	CITY OF I
STO	- STORM SEWER	Dena Mezger
	STORM SEWER - EXISTING	220 SE Greer
CATV <sub>X</sub>	- CABLE TV - EXISTING	Lee's Summit
— FOC <sub>X</sub> —	FIBER OPTIC CABLE - EXISTING	(816) 969-180
— T <sub>x</sub> —	- TELEPHONE LINE - EXIST.	ΑΤ&Τ
E <sub>x</sub>	- ELECTRIC LINE - EXISTING	Mark Manion
— OHP <sub>X</sub> —	- OVERHEAD POWER LINE - EXIST.	500 E. 8th Str
UGE <sub>X</sub>	- UNDERGROUND ELECTRIC - EX.	Kansas City, I
— G <sub>X</sub> —	- GAS LINE - EXISTING	(816) 275-234
	- WATERLINE - EXISTING	COMCAS
		Barbara Brow
		3400 W. Duno
0		Blue Springs,
$\bigcirc$		(816) 795-225
		Mark Schouff
		220 SE Green
		Lee's Summit
		(816) 969-190
U		

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Image: NW1/4       Image: PROJECT LOCATION PROJECTI LOCATION PROJECT
LOCATION MAP SCALE 1" = 2000'
UTILITY CONTACTS:
MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) Steve Holloway 600 NE Colbern Road Lee's Summit, MO 64086 (816) 607-2186
MISSOURI GAS ENERGY (MGE) Brent Jones 3025 SE Clover Drive Lee's Summit, MO 64082 (816) 399-9633 brent.jones@spireenergy.com
KANSAS CITY POWER & LIGHT COMPANY (KCP&L) Ron Dejarnette 1300 SE Hamblin Road Lee's Summit, MO 64081 Office: (816) 347-4316 Cell: (816) 810-5234 ron.dejarnette@kcpl.com
CITY OF LEES SUMMIT PUBLIC WORKS Dena Mezger 220 SE Green Street Lee's Summit, MO 64063 (816) 969-1800
AT&T Mark Manion or Marty Loper 500 E. 8th Street, Room 370 Kansas City, MO 64106 (816) 275-2341 or (816) 275-1550
COMCAST CABLE Barbara Brown 3400 W. Duncan Road Blue Springs, MO 64015 (816) 795-2255
PUBLIC WATER SUPPLY DISTRICT Mark Schaufler 220 SE Green Street Lee's Summit, MO 64063

# FINAL DEVELOPMENT PLANS FOR **OAKVIEW CLIMATE CONTROLLED STORAGE**

# **GENERAL NOTES**

- ADOPTED BY ORDINANCE 5813.

- PRIOR TO CONSTRUCTION.
- ENGINEER FOR APPROVAL

- CONTRACTOR, OR AS DIRECTED BY THE OWNER.
- EXCAVATION
- 13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.

- ANY LAND DISTURBANCE.
- LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

# GRADING/EARTHWORK NOTES:

- RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED.
- FORM TO THE OWNER AND PROJECT ENGINEER.





# IN THE CITY OF LEE'S SUMMIT JACKSON COUNTY, MISSOURI

ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS

ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE

MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.

THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-800-DIG-RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. 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. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN

THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.

CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE

11. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK

12. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.

14. SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED. SHALL BE FREE FROM MUCK AND MUD AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON. IN ALL CASES WHERE SUBSOIL IS MUCKY OR WORKS INTO MUD OR MUCK DURING

SUCH OPERATIONS, A SEAL COURSE OF EITHER CONCRETE OR ROCK SHALL BE PLACED BELOW SUBGRADE TO PROVIDE A FIRM BASE FOR WORKING AND FOR PLACING THE FLOOR SLAB. THE CONTRACTOR SHALL CONTACT PUBLIC WORKS INSPECTIONS AT: 816-969-1800 TO OBTAIN A PUBLIC

WORKS CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE. 16. THE CONTRACTOR SHALL CONTACT THE CITY'S EROSION CONTROL SPECIALIST AT: 816-969-1800 PRIOR TO

17. THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT. 18. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION).

19. ALL SANITARY SEWER LATERALS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH, TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES. TRENCH CHECK SHALL BE

1. REFER TO GEOTECHNICAL REPORT FOR ALL COMPACTION REQUIREMENTS AND ASPHALT AND CONCRETE RECOMMENDED THICKNESS AND SUBGRADE TREATMENTS.

2. RECOMMEND A GEOTECHNICAL ENGINEER REVIEW ALL EARTHWORK ACTIVITY TO MAKE SURE

3. PRIOR TO PLACEMENT OF PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN 4. ALL UTILITY INSTALLATIONS UNDER PAVED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS

OF THE GEOTECHNICAL ENGINEER AND THE GEOTECHNICAL REPORT. 5. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF LENEXA TECHNICAL SPECIFICATIONS.

6. EXISTING TOPOGRAPHY SHOWN AS ESTABLISHED FROM AERIAL PHOTOGRAMMETRY AND FIELD, SPOT CHECKED BY SCHLAGEL AND ASSOICATES, P.A., CONTRACTOR TO FIELD VERIFY ELEVATIONS. NO ADDITIONAL MONEY WILL BE PAID FOR HAUL-IN OR HAUL-OFF MATERIAL.

# EARTHWORK:

- IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER OBSERVE AND DOCUMENT ALL EARTHWORK ACTIVITIES.
- CONTOURS HAVE BEEN SHOWN AT 1-FOOT OR 2-FOOT INTERVALS, AS INDICATED. GRADING SHALL CONSIST OF COMPLETING THE EARTHWORK REQUIRED TO BRING THE PHYSICAL GROUND ELEVATIONS OF THE EXISTING SITE TO THE FINISHED GRADE (OR SUB-GRADE) ELEVATIONS PROVIDED ON THE PLANS AS SPOT GRADES. CONTOURS OR OTHERS MEANS AS INDICATED ON THE PLANS.

THE EXISTING SITE TOPOGRAPHY DEPICTED ON THE PLANS BY CONTOURING HAS BEEN ESTABLISHED BY AERIAL PHOTOGRAPHY AND FIELD VERIFIED BY G.P.S. OBSERVATION NEAR JULY 18TH. 2016. THE CONTOUR ELEVATIONS PROVIDED MAY NOT BE EXACT GROUND ELEVATIONS, BUT RATHER INTERPRETATIONS OF SUCH. ACCURACY SHALL BE CONSIDERED TO BE SUCH THAT NOT MORE THAN 10 PERCENT OF SPOT ELEVATION CHECKS SHALL BE IN ERROR BY MORE THAN ONE-HALF THE CONTOUR INTERVAL PROVIDED, AS DEFINED BY THE NATIONAL MAP ACCURACY STANDARDS. ANY QUANTITIES PROVIDED FOR EARTHWORK VOLUMES ARE ESTABLISHED USING THIS TOPOGRAPHY CONTOUR ACCURACY, AND THEREFORE THE INHERENT ACCURACY OF ANY EARTHWORK QUANTITY IS ASSUMED FROM THE TOPOGRAPHY ACCURACY. PROPOSED CONTOURS ARE TO APPROXIMATE FINISHED GRADE.

- UNLESS OTHERWISE NOTED, PAYMENT FOR EARTHWORK SHALL INCLUDE BACKFILLING OF THE CURB AND - 5. GUTTER, SIDEWALK AND FURTHER MANIPULATION OF UTILITY TRENCH SPOILS. THE SITE SHALL BE LEFT IN A MOWABLE CONDITION AND POSITIVE DRAINAGE MAINTAINED THROUGHOUT.
- UNLESS OTHERWISE NOTED, ALL EARTHWORK IS CONSIDERED UNCLASSIFIED. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ROCK OR SHALE EXCAVATION, UNLESS SPECIFICALLY STATED OTHERWISE
- PRIOR TO EARTHWORK ACTIVITIES, PRE-DISTURBANCE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IN PLACE PER THE STORM WATER POLLUTION PREVENTION PLAN AND/OR THE EROSION AND SEDIMENT CONTROL PLAN PREPARED FOR THIS SITE.
- ALL TOPSOIL SHALL BE STRIPPED FROM ALL AREAS TO BE GRADED AND STOCKPILED ADJACENT TO THE SITE AT AN AREA SPECIFIED BY THE PROJECT OWNER OR HIS APPOINTED REPRESENTATIVE. VEGETATION TRASH, TREES, BRUSH, TREE ROOTS AND LIMBS, ROCK FRAGMENTS GREATER THEN 6-INCHES AND OTHER DELETERIOUS MATERIALS SHALL BE REMOVED AND PROPERLY DISPOSED OF OFFSITE OR AS DIRECTED B THE OWNER OR HIS APPOINTED REPRESENTATIVE.
- UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT, ALL FILLS SHALL BE PLACED IN MAXIMUM 6-INCH LIFTS AND COMPACTED TO 95-PERCENT OF MAXIMUM DENSITY AS DEFINED USING A STANDARD PROCTOR TEST (AASHTO T99/ASTM 698)
- 10. SUBGRADE FOR PAVEMENTS SHALL BE PROOF-ROLLED PRIOR TO PAVING OPERATIONS UTILIZING A FULLY LOADED TANDEM AXLE DUMP TRUCK. ALL AREAS EXHIBITING EXCESSIVE PUMPING AND HEAVING SHALL BE REMOVED, FILLED AND COMPACTED WITH SUITABLE MATERIALS AND RETESTED UNTIL ACCEPTABLE RESULTS ARE ACHIEVED AND FINAL APPROVAL HAS BEEN OBTAINED FROM THE GEOTECHNICAL ENGINEER.
- SUBGRADE FOR BUILDING PAD SHALL INCLUDE A MINIMUM OF 18-INCHES OF LOW VOLUME CHANGE (LVC) 11 MATERIAL, OR AS IDENTIFIED IN THE SITE SPECIFIC GEOTECHNICAL REPORT. 12. FILL MATERIALS SHALL BE PER GEOTECHNICAL REPORT AND SHALL NOT INCLUDE ORGANIC MATTER, DEBRIS
- OR TOPSOIL. ALL FILLS PLACED ON SLOPES GREATER THAN 6:1 SHALL BE BENCHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REDISTRIBUTING THE TOPSOIL OVER PROPOSED TURF AND
- LANDSCAPED AREAS TO A MINIMUM DEPTH OF 6-INCHES BELOW FINAL GRADE. 14. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. UNLESS NOTED OTHERWISE THE FOLLOWING GRADES SHALL APPLY:
- A. TURF AREAS 2.5% MINIMUM, 4H:1V MAXIMUM B. PAVED AREAS – 1.2% MINIMUM, 5% MAXIMUM
- 15. A.D.A. PARKING STALLS SHALL NOT BE SLOPED GREATER THEN 2% IN ANY DIRECTION AND CONSTRUCTED PER A.D.A. REQUIREMENTS.
- 16. ALL DISTURBED AREAS SHALL BE FERTILIZED. SEEDED AND MULCHED IMMEDIATELY AFTER EARTHWORK ACTIVITIES HAVE CEASED. SEEDING SHALL BE PER THE EROSION AND SEDIMENT CONTROL PLAN AND/OR LANDSCAPE PLAN, IF NOT SPECIFIED SEEDING SHALL BE PER APWA SECTION 2400, LATEST EDITION, UNLESS OTHERWISE NOTED, SEEDING SHALL BE SUBSIDIARY TO THE CONTRACT PRICE FOR EARTHWORK AND GRADING ACTIVITIES.
- 17. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED. 18. UNDERDRAINS ARE RECOMMENDED FOR ALL PAVED AREAS ADJACENT TO IRRIGATED TURF AND LANDSCAPED BEDS.
- 19. CONTRACTOR SHALL ADHERE TO THE REPORTING REQUIREMENTS OUTLINED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AND KEPT CLEAN OF SILT AND DEBRIS AND IN GOOD WORKING ORDER, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS REQUIRED.

# UTILITIES:

- EXISTING UTILITIES HAVE BEEN SHOWN TO THE GREATEST EXTENT POSSIBLE BASED UPON INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES AND FIELD LOCATING UTILITIES PRIOR TO CONSTRUCTION AND IDENTIFYING ANY POTENTIAL CONFLICTS. ALL CONFLICTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY REQUIRED UTILITY RELOCATIONS. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. CONTRACTOR SHALL VERIFY FLOW-LINES AND STRUCTURE TOPS PRIOR TO CONSTRUCTION, AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES. PROVIDE SHOP DRAWINGS FOR ALL PRECAST AND MANUFACTURED UTILITY STRUCTURES FOR REVIEW BY THE ENGINEER PRIOR TO CONSTRUCTION OF THE STRUCTURES.
- 4. UTILITY SEPARATION: WATERLINES SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL SEPARATION FROM ALL SANITARY AND STORM SEWER LINES. IF MINIMUM SEPARATIONS CAN NOT BE OBTAINED, CONCRETE ENCASEMENT OF THE SANITARY OR STORM SEWER LINE SHALL BE REQUIRED 10 FEET IN EACH DIRECTION OF THE CONFLICT.
- 5. PAYMENT FOR TRENCHING, BACKFILLING, PIPE EMBEDMENT, FLOWABLE FILL, BACKFILL MATERIALS, CLEAN UP, SEEDING, SODDING AND ANY OTHER ITEMS NECESSARY FOR THE CONSTRUCTION OF THE UTILITY LINE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE UTILITY INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING RESPECTIVE UTILITY COMPANIES 48-HOURS IN 6. ADVANCE FOR THE INSPECTION OF ANY PROPOSED UTILITY MAIN EXTENSION OR SERVICE LINE OR SERVICE CONNECTION TO ANY EXISTING MAIN.
- TRENCH SPOILS SHALL BE NEATLY PLACED ONSITE ADJACENT TO THE TRENCH, AND COMPACTED TO PREVENT SATURATION AND EXCESS SEDIMENT RUNOFF. UNSUITABLE MATERIALS, EXCESS ROCK AND SHALE, ASPHALT, CONCRETE, TREES, BRUSH ETC. SHALL BE PROPERLY DISPOSED OF OFFSITE. MATERIALS MAY BE WASTED ONSITE AT THE DIRECTION OF THE OWNER OR HIS APPOINTED REPRESENTATIVE.

### NOTE:

TRENCH CHECKS TO BE INSTALL ON ALL SANITARY SEWER SERVICE LINES IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.

Sheet List Table					
Sheet Number	Sheet Title				
C0.0	COVER SHEET				
C1.0	GENERAL LAYOUT PLAN				
C2.0	GRADING PLAN				
C3.0	EROSION CONTROL PLAN				
C3.1	EROSION CONTROL DETAILS				
C3.2	EROSION CONTROL DETAILS				
C4.0	UTILITY PLAN				
C4.1	UTILITY DETAILS				
C5.0	CURB AND PAVEMENT DETAILS				
C5.1	SITE DETAILS				
L1.0	LANDSCAPE PLAN				
	L2.0LANDSCAPE DETAILS				
L2.1	LANDSCAPE DETAILS				
IR1.0	IRRIGATION DESIGN STANDARDS				

# PREPARED AND SUBMITTED BY:

SCHLAGEL & ASSOCIATES, P.A.

# OWNER/DEVELOPER:

OAK VIEW LEES SUMMIT LLC JONATHAN BUCHANAN 201 HAWKS RIDGE TRAIL COLLEYVILLE, TX 76034 p 214-460-8442

JBUCHANAN@OAKVIEWCP.COM

SCHLAGEL & ASSOCIATES, P.A.	Engineers• Planners • Surveyors • Landscape Architects 14920 West 107th Street • Lenexa, Kansas 66215	(913) 492-5158 • Fax: (913) 492-8400 WWW.SCHLAGELASSOCIATES.COM	Missouri State Certificates of Authority #E2002003800-F #LAC2001005237 #LS2002008859-F
OAKVIEW CLIMATE CONTROLLED STORAGE		NE DOUGLAS ROAD & NW VICTORIA DRIVE	LEE'S SUMMIT, MISSOURI
DRAWN BY:     REVISION DATE     DESCRIPTION       DGF/JTS     1     2       CHECKED BY:     2		DATE PREPARED: <u>5</u> 9-11-18 6 3	H PROJ. NUMBER: 17-135 0 17-135 0
SHEET			

OF



LEGEND:					
A/E -	ACCESS EASEMENT				
BM -	BENCHMARK				
BL or B.L					
CO -	CLEANOUT				
TJB -	TELEPHONE JUNCTION BOX				
D/E -	DRAINAGE EASEMENT				
E/E -	ELECTRICAL EASEMENT				
FL -	FLOW LINE				
G/E -	GAS LINE EASEMENT				
HDPE -	HIGH-DENSITY POLYETHYLENE				
PVC -	POLYVINYL CHLORIDE				
P/L -	PROPERTY LINE				
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RCP -	REINFORCED CONCRETE PIPE				
ROW or R/W -	RIGHT-OF-WAY				
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SL -	SERVICE LINE				
SS/E -	STORM SEWER EASEMENT				
U/E -	UTILITY EASEMENT				
W/E -	WATERLINE EASEMENT				
	CURB & GUTTER				
	CURB & GUTTER - EXISTING				
	EXISTING LOT AND R/W LINES				
	EXISTING PLAT LINES				
——— P/L ———	PROPERTY LINES				
ROW	RIGHT-OF-WAY				
	SANITARY SEWER MAIN				
	SANITARY SEWER MAIN - EXIST.				
STO	STORM SEWER				
	STORM SEWER - EXISTING				
CATV <sub>X</sub>	CABLE TV - EXISTING				
—— FOC <sub>X</sub> ——	FIBER OPTIC CABLE - EXISTING				
——— T <sub>X</sub> ———	TELEPHONE LINE - EXIST.				
——— E <sub>X</sub> ———	ELECTRIC LINE - EXISTING				
——————————————————————————————————————	OVERHEAD POWER LINE - EXIST.				
——— UGE <sub>X</sub> ———	UNDERGROUND ELECTRIC - EX.				
G <sub>X</sub>	GAS LINE - EXISTING				
	WATERLINE - EXISTING				
*	LIGHT - EXISTING				
	EXISTING MANHOLE				
õ	CLEANOUT				
0	EXISTING SANITARY MANHOLE				
	PROPOSED SANITARY MANHOLE				
AI	EXISTING AREA INLET				
	EXISTING CURB INLET				
GI	EXISTING GRATE INLET				
JB	EXISTING JUNCTION BOX				
4'	UUNUKETE SIDEWALK				
<u>a                                      </u>	CONCRETE DRIVE				

## **OVERALL LEGAL DESCRIPTION**

ALL OF LOT 2, MINOR PLAT ADDITION LOTS 1 & 2, A REPLAT OF LOT 1, LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI IN SECTION 31, TOWNSHOP 48, AND RANGE 31.

### **GENERAL NOTES:**

- ADJACENT PROPERTY LINES ARE BASED ON RECORDED PLATS.
- PRIOR TO BEGINNING WORK.
- THIS INFORMATION. STREET OR THOROUGHFARE DEDICATED TO PUBLIC USE.
- THE PLAT.
- RIGHT-OF-WAY.
- ORDINANCES, AND DESIGN STANDARDS.
- CG-1 CURB AS REQUIRED BY CODE.
- 10. ALL DRIVE AISLES, DRIVEWAYS, AND STREETS ARE DIMENSIONED FROM BACK OF CURB TO BACK OF CURB ON THIS PLAN.
- SITE THERE ARE NO KNOWN WELLS ON THE SITE. CONSTRUCTION MANUAL SECTION 5200.

## SITE DATA

EXISTING ZONING		ΡI
CLIMATE CONTROLLED STORAGE		
LOT 1 AREA	2.16 ACRES (94,089.60 S.F.)	
TOTAL BUILDING AREA	110,598 S.F.	
BUILDING FOOTPRINT AREA	36,908.51 S.F.	
PAVEMENT AREA	12,480.28 S.F.	
TOTAL IMPERVIOUS AREA	49,388.79 S.F.	
FLOOR AREA RATIO	1.18 FAR	
PARKING DATA		

	PAF
LOT 1	8 S

0" 6	4 CONCRETE SIDEWALK
	8" CONCRETE DRIVE
_	TYPE "B" - CURB & GUTTER
	TYPE "B" - CURB & GUTTER - DRY

**EXISTING CURB & GUTTER** 



1. BOUNDARY IS BASED ON THE FINAL PLATS OF LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, LOT 1 and POLYTAINERS ADDITION LOTS 1 & 2. The bases of bearing (N89°56'58"W) is based on the North line of the NE 1/4, Sec. 31-48N-31W as shown on the final plats of LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, LOT 1 and POLYTAINERS ADDITION LOTS 1 & 2.

EXISTING ROAD, SIDEWALK, AND SITE IMPROVEMENTS AND UTILITY INFORMATION IS FROM ALTA SURVEY PREPARED BY McLaughlin Mueller, Inc. PROVIDED BY AND USED WITH APPROVAL OF THE OWNER. SCHLAGEL AND ASSOCIATES HAS NOT FIELD VERIFIED THIS INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND UTILITY LOCATIONS

4. TOPOGRAPHY FROM ALTA SURVEY PREPARED BY McLaughlin Mueller, Inc. PROVIDED BY AND USED WITH APPROVAL OF THE OWNER. SCHLAGEL AND ASSOCIATES HAS NOT FIELD VERIFIED

5. AN EASEMENT OR LICENSE WILL GRANTED TO THE CITY OF LEE'S SUMMIT, MISSOURI TO LOCATE, CONSTRUCT AND MAINTAIN, OR TO AUTHORIZE THE LOCATION, CONSTRUCTION AND MAINTENANCE OF SIDEWALKS, POLES, WIRES, ANCHORS, CONDUITS AND OR STRUCTURES FOR, PEDESTRIAN ACCESS, GAS, SANITARY SEWER, STORM SEWER, SURFACE DRAINAGE CHANNEL, ELECTRICITY, TELEPHONE, CABLE TELEVISION, OR ANY OTHER NECESSARY PUBLIC UTILITY OR SERVICES, ANY OR ALL OF THEM, UPON, OVER, OR UNDER THOSE AREAS OUTLINED OR DESIGNATED UPON THIS PLAT AS "UTILITY EASEMENT" OR "U/E" OR WITHIN ANY

6. THE USE OF ALL TRACTS, LOTS, UNITS AND PROPERTIES IN THIS SUBDIVISION SHALL HEREAFTER BE SUBJECT TO THE COVENANTS AND RESTRICTIONS, WHICH INSTRUMENTS ARE TO BE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF JACKSON COUNTY, MISSOURI, AS PROVIDED ABOVE, AND WHICH WILL BECOME A PART OF THE DEDICATION OF

7. BUILDING LINES (BL) OR SETBACK LINES WILL ESTABLISHED AS SHOWN ON THE PLAT AND NO BUILDING OR PORTION THEREOF SHALL BE CONSTRUCTED BETWEEN THIS LINE AND STREET

8. ALL CONSTRUCTION MUST COMPLY WITH THE MOST RECENT ADOPTED CITY CODE,

9. ALL ROADWAYS, PRIVATE DRIVES, PARKING DRIVE AISLES, AND PARKING LOTS SHALL HAVE

11. ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE ADA REQUIREMENTS.

12. BASED ON THE GEOLOGIC DATA ON MISSOURI DEPARTMENT OF NATURAL RESOURCES WEB 13. PARKING LOT DESIGN MUST MEET THE UDO ARTICLE 12 REQUIREMENTS AND THE PRIVATE

DRIVE MUST MEET PUBLIC STREET DESIGN STANDARDS PER THE DESIGN AND

PARKING REQUIRED

SPACES (PER FACILTY & 1 PER EMPLOYEE MAX SHIFT)

PARKING PROPOSED 14 SPACES



SECTION 31-48-31 LOCATION MAP

SCALE 1" = 2000'





### FLOOD NOTE:

FOND INC.

According to the Flood Insurance Rate Map of FEMA panel 409 of 625 for map number 20095C0409G dated January 20, 2017 and panel 417 of 625 for map number 29095C0417G dated January 20, 2017, the project lies outside of any identified FEMA floodplain.

## **OWNER/DEVELOPER:**

UNIVERSITY OF MASSACHUSETTS

**DEVELOPER**:

1 BEACON STREET 32ND FLOOR BOSTON, MA 02108

OAK VIEW LEES SUMMIT LLC 201 HAWKS RIDGE TRAIL COLLEYVILLE, TX 76034 p 214-460-8442







**ACCESSIBLE PARKING GRADING DETAIL** 

3.

5.

# **GENERAL GRADING/EARTHWORK NOTES:**

- All earthwork shall conform to the Geotechnical Report prepared for this specific project. It is recommended that a Geotechnical Engineer observe and document all earthwork activities.
- Contours have been shown at 1-foot or 2-foot intervals, as indicated. Grading shall consist of completing the earthwork required to bring the physical ground elevations of the existing site to the finished grade (or sub-grade) elevations provided on the plans as spot grades, contours or others means as indicated on the plans.
- The existing site topography depicted on the plans by contouring has been established by field verified prepared by Schlagel and Associates, P.A. The contour elevations provided may not be exact ground elevations, but rather interpretations of such. Accuracy shall be considered to be such that not more than 10 percent of spot elevation checks shall be in error by more than one-half the contour interval provided, as defined by the National Map Accuracy Standards. Any quantities provided for earthwork volumes are
- established using this topography contour accuracy, and therefore the inherent accuracy of any earthwork quantity is assumed from the topography accuracy. Proposed contours are to approximate finished grade.
- Unless otherwise noted, payment for earthwork shall include backfilling of the curb and gutter, sidewalk and further manipulation of utility trench spoils. The site shall be left in a mowable condition and positive drainage maintained throughout.
- Unless otherwise noted, all earthwork is considered Unclassified. No additional compensation will be provided for rock or shale excavation, unless specifically stated otherwise. 7
- Prior to earthwork activities, pre-disturbance erosion and sediment control devices shall be in place per the Storm Water Pollution Prevention plan and/or the Erosion and Sediment Control Plan prepared for this site. All topsoil shall be stripped from all areas to be graded and stockpiled adjacent
- 8. to the site at an area specified by the project owner or his appointed representative. Vegetation, trash, trees, brush, tree roots and limbs, rock fragments greater then 6-inches and other deleterious materials shall be removed and properly disposed of offsite or as directed by the owner or his appointed representative.
- Unless otherwise specified in the Geotechnical Report, all fills shall be placed in maximum 6-inch lifts and compacted to 95-percent of maximum density as defined using a modified proctor test.
- Subgrade for pavements shall be proof-rolled prior to paving operations 10. utilizing a fully loaded tandem axle dump truck. All areas exhibiting excessive pumping and heaving shall be removed, filled and compacted with suitable
- materials and retested until acceptable results are achieved and final approval has been obtained from the Geotechnical Engineer. 11. Subgrade for building pads shall include a minimum of 18-inches of Low Volume Change (LVC) material, or as identified in the site specific
- Geotechnical Report. 12. Fill materials shall be per Geotechnical Report and shall not include organic matter, debris or topsoil. All fills placed on slopes greater than 6:1 shall be benched.
- 13. The Contractor shall be responsible for redistributing the topsoil over proposed turf and landscaped areas to a minimum depth of 6-inches below final grade. 14. All areas shall be graded for positive drainage. Unless noted otherwise the following grades shall apply:
- a. Turf Areas 2.5% Minimum, 4H:1V Maximum b. Paved Areas – 1.2% Minimum, 5% Maximum
- 15. A.D.A. parking stalls shall not be sloped greater then 2% in any direction and constructed per A.D.A. requirements. 16. All disturbed areas shall be fertilized, seeded and mulched immediately after
- earthwork activities have ceased. Seeding shall be per the Erosion and Sediment Control Plan and/or Landscape Plan. If not specified seeding shall be per APWA Section 2400, latest edition. Unless otherwise noted, seeding shall be subsidiary to the contract price for earthwork and grading activities. All disturbed areas in the right-of-way shall be sodded, per city requirements. 17
- 18 Underdrains are recommended for all paved areas adjacent to irrigated turf and landscaped beds. Contractor shall adhere to the reporting requirements outlined in the Storm 19.
- Water Pollution Prevention Plan (SWPPP) prepared for this project. Erosion and Sediment control devices shall be properly maintained and kept clean of silt and debris and in good working order. Additional erosion and sediment control measures shall be installed as required. 20. RECOMMEND A GEOTECHNICAL ENGINEER REVIEW ALL EARTHWORK
- ACTIVITY TO MAKE SURE RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED.
- 21. PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN FORM TO THE OWNER AND PROJECT ENGINEER.
- 22. ALL UTILITY INSTALLATIONS UNDER PAVED AREAS MUST BE COMPACTED AS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND/OR GEOTECHNICAL REPORT
- 23. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
- 24. EXISTING TOPOGRAPHY SHOWN AS ESTABLISHED FROM BASE SURVEY PREPARED BY R.L. BUFORD & ASSOCIATES LLC - VERIFY GRADES PRIOR TO COMMENCEMENT OF GRADING AND CONSTRUCTION ACTIVITIES. NO ADDITIONAL MONEY WILL BE PAID FOR HAUL-IN OR HAUL-OFF OF MATERIAL.
- 25. ALL ROCK, CONCRETE, ASPHALT, TREE, BRUSH, ETC. TO BE REMOVED AS A PART OF THE PROJECT CONSTRUCTION SHALL BE DISPOSED OF BY THE GRADING CONTRACTOR AND SHALL BE A SUBSIDIARY OBLIGATION OF THE CONTRACT. THE GRADING CONTRACTOR IS ALSO RESPONSIBLE FOR ALL GRADING ON THE SITE INCLUDING THE MANIPULATION OF THE EXCESS DIRT MATERIAL THAT WAS LEFT ALONG THE SEWER TRENCHES. THE COST FOR THIS WORK WILL BE INCLUDED IN THE LUMP SUM FEE FOR GRADING.
- 26. ENTIRE PROJECT SHALL BE LEFT IN A MOWABLE CONDITION. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED AS PER PROJECT REQUIREMENTS. ALL DISTURBED AREAS WITHIN THE PUBLIC STREET RIGHT-OF-WAY SHALL BE SODDED IN COMPLIANCE WITH THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS AND MUNICIPAL CODE.
- 27. THE CONTRACTOR SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM BUILDINGS AND SIDEWALKS AT ALL TIMES.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL 28. PROPERTY CORNERS. ANY PROPERTY CORNERS DISTURBED OR DAMAGED BY GRADING ACTIVITIES SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
- RETAINING WALL DESIGN IS BY THE CONTRCTOR, WALL SUPPLIER, 29. OR OWNER CONSULTANT. SCHLAGEL & ASSOCIATES, P.A. IS NOT RESPONSIBLE FOR THE RETAINING WALL DESIGN. BOTTOM OF WALL FINISH GRADE (BFG) IS AT EXISTING GRADE. BOTTOM OF WALL TO BE DETERMINED BY WALL DESIGNER. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR THE WALL.

# **OWNER/DEVELOPER:**

OAK VIEW LEES SUMMIT LLC 201 HAWKS RIDGE TRAIL COLLEYVILLE, TX 76034 OF p 214-460-8442

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According to the Flood Insurance Rate Map of FEMA panel 409 of 625 for map number 20095C0409G dated January 20, 2017 and panel 417 of 625 for map number 29095C0417G dated January 20, 2017, the project lies outside of any identified FEMA floodplain.





- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL 1. EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING TREES 2. ON THE SITE.
- THE DRAINAGE FEATURE THROUGH THE MIDDLE OF THE 3. SITE IS A PROTECTED AREA. NO CONSTRUCTION EQUIPMENT OR ACTIVITY IS ALLOWED IN THESE AREAS UNLESS A SPECIFIC PERMIT/PERMISSION FROM THE
- GOVERNING AUTHORITY HAS BEEN OBTAINED. A SWPPP HAS BEEN PREPARED FOR THIS PROJECT AND IS 4 INCORPORATED INTO THIS EROSION CONTROL PLAN BY REFERENCE. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE SWPPP IMPLEMENTATION AND REPORTING REQUIREMENTS.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES 5. SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART.
- ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY 6. THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE INEFFECTIVE OR PROBLEMATIC AREAS
- ARE NOTED IN THE FIELD. SOIL STABILIZATION OF DISTURBED AREAS SHALL BE 7. COMPLETED AFTER PERIODS OF INACTIVITY IN CONSTRUCTION OF GREATER THAN 7 DAYS. INITIAL STABILIZATION MUST BE COMPLETED WITHIN 21 DAYS.
- ALL SILT FENCE AND EROSION CONTROL MEASURES THAT 8. ARE PLACED PRIOR TO LAND DISTURBANCE WILL BE MAINTAINED BY THE GENERAL CONTRACTOR AND ALL CONTRACTORS ON SITE.
- AREAS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE 9. ESTABLISHED IMMEDIATELY AFTER THE CONSTRUCTION IN THAT AREA IS COMPLETE.
- 10. ALL PUBLIC STREETS SHALL BE KEPT CLEAN PER THE SWPPP AND CITY REQUIREMENTS.

EROSION AND SEDIMENT CONTROL GENERAL NOTES

- 1. ALL WORK IN PUBLIC EASEMENTS AND RIGHT-OF-WAY AND ALL EROS UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KAN GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS (THE
- 2. THE CONTRACTOR SHALL MAINTAIN INSTALLED EROSION AND SEDI SENSITIVE AREA SUCH AS A NATURAL STREAM CORRIDOR, AREAS
- 3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND
- SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, THE CONT 4. CONCRETE WASH OR RINSEWATER FROM CONCRETE MIXING EQUIP
- OR STORM INLET. ONE OR MORE LOCATIONS FOR CONCRETE WAS CAN SOLIDIFY IN PLACE AND EXCESS WATER EVAPORATED OR INF CHEMICALS OR MATERIALS CAPABLE OF CAUSING POLLUTION MAY
- LOCATED OUTSIDE OF DRAINAGEWAYS OR AREAS SUBJECT TO FLO ACTIONS TAKEN TO CONTAIN THEM. 6. THE PERMITTEE SHALL, UPON INITIATION OF CONSTRUCTION
- AND A ROUTINE MONITORING FREQUENCY OF EITHER 14 DAY INSPECTED BASED ON AN ESTABLISHED REGULAR SCHEDULI THANKSGIVING, BY THE END OF THE NEXT DAY FOLLOWING
- STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY C PROTECTED FROM EROSION BY STABILIZING THE AREA WITH AFTER SOIL DISTURBING ACTIVITIES CEASE.
- UNLESS OTHERWISE NOTED IN THE PLANS. ALL SEEDING MUST CO EDITION, AS AMENDED BY THE MOST CURRENT SPECIAL PROVISION
- 9. CONTRACTOR SHALL HAVE A COPY OF THE STORM WATER POLLUT THE INDICATED EROSION CONTROL MEASURES SHALL BE ADDED AN
- 10. GOOD HOUSEKEEPING, INCLUDING SPILL RESPONSE SHALL BE PER
- 11. THE CONTRACTOR SHALL INSPECT EROSION CONTROL DEVICES EV ADDITIONAL EROSION CONTROL DEVICES AS NEEDED, AS SOON AS
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ERO EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE 70

### SITE SPECIFIC NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION. THERE ARE NO WETLANDS, NATURAL OR ARTIFICIAL WATER STORAGE DETENTION AREAS IN THE PROJECT AREA.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART. ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE
- INEFFECTIVE OR PROBLEMATIC AREAS ARE NOTED IN THE FIELD. SOIL STABILIZATION OF DISTURBED AREAS SHALL BE COMPLETED IMMEDIATELY AFTER AREAS ARE BROUGHT TO FINAL ESTABLISH GRADES. STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRAD EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORAR CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AF SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING
- MATERIAL. INITIAL STABLIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES CEASE. ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN. SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING CONTRACTOR.
- AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE. ALL DOWNSLOPE SEDIMENT CONTROL DEVICES SHALL STAY IN-PLACE UNTIL AFTER THE UPSTREAM DRAINAGE AREAS IS STABILIZE
- AND VEGETATIVE COVER IS ESTABLISHED. STEEP SLOPE PROTECTION SHALL BE PLACED ON EMBANKMENT AREAS AT THE WEST/NORTHWEST AREAS OF THE SITE AS 10.
- IMMEDIATELY AS POSSIBLE UPON COMPLETION OF THE GRADING IN THOSE AREAS. 11. ANY DISTURBED AREAS EFFECTED BY THE FINAL REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE RESTORED IN COMPLIANCE WITH THE FINAL STABILIZATION PLAN AND SIMILAR TO ADJACENT RESTORED AREAS (I.E. SODDED AREAS SHOULD BE RESODDED, SEEDED/MULCHED AREAS SHALL BE RE-SEEDE/MULCHED).
- 12. ANY TEMPORARY CONTRACTOR STAGING AREAS ESTABLISHED DURING CONSTRUCTION ACTIVITIES SHALL BE REMOVED UPON COMPLETION OF THE PROJECT, AFTER THE FINAL LANDSCAING/STABILIZATION PROCEDURES AND SHALL BE STABILIZED IN COMPLIANCE WITH ADJACENT RESTORED AREAS PRIOR TO THE FINAL ISSUANCE OF THE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
- 13. ALL TURF AREAS (SOD OR SEED) SHALL HAVE 4" MINIMUM DEPTH TOP SOIL PLACED OVER AREAS IMMEDIATELY PRIOR TO INSTALLA OF GROUND COVER MATERIAL

	EROSION AND SEDIMENT CONTROL STAGING CHART						
	trregem	BMP PLAN REF. NO	BMP DESCRIPTION	REMOVE AFTER STAGE			
		1	CONSTRUCTION ENTRANCE & STAGING AREA	D	MAINTAIN, REPAIR OR NOTE 12 CONCERNING AND STAGING AREAS)		
	A - PRIOR TO LAND DISTURBANCE	2	CONCRETE WASHOUT AREA	D	MAINTAIN, REPAIR OR		
		3	SILT FENCE (PRIOR TO LAND DISTURBANCE)	E	PLACE WHERE INDICA NECESSARY AND REM HAVE SUFFICIENT GRO		
		4	EXISTING INLET PROTECTION (GRAVEL FILTER BAGS / GRAVEL SEDIMENT TRAP)	E	PLACE WHERE INDICA NECESSARY AND REM HAVE SUFFICIENT GRO		
	B - GRADING	5	SILT FENCE (DURING CONSTRUCTION)	E	PLACE WHERE INDICA NECESSARY AND REM HAVE SUFFICIENT GRO		
	C - UTILITY / STORM SEWER CONSTRUCTION	6	INLET PROTECTION (SILT FENCE)	D/E	PLACE SILT FENCE ARC STRUCTURES / YARD A TO TOPS BEING PLACE BELOW.		
		7	INLET PROTECTION (GRAVEL FILTER BAGS)	D/E	BOARDS SHALL BE PLA FROM THE TIME SILT F THAT THE CURB / THRO FILTER BAGS AT THE C IMMEDIATELY AFTER T		
		9	SEED		ALL DISTURBED AREAS INACTIVITY - ALL RIGHTUPON COMPLETION OF		
PHASE	E - FINAL SITE STABILIZATION	10	SEEDED AREA WITH MULCH COVER OR SEED WITH EROSION CONTROL MATTING		ALL DISTURBED AREAS EMBANKMENT AREAS INSTALLED WITH SEED CONTROL MATTING FL W/MULCH COVER PER		

OSION CONTROL WORK MUST COMPLY WITH THE LATES' NSAS. IF ANY OF THE GENERAL NOTES CONFLICT WITH T IE UG), THE UG'S STANDARDS SHALL OVERRIDE. IMENT CONTROL DEVICES IN A MANNER THAT PRESERVE OF THE SITE INTENDED TO BE LEFT UNDISTURBED, A STO O SEDIMENT CONTROL FOR THE DURATION OF A PROJEC ITRACTOR SHALL INSTALL ADDITIONAL OR ALTERNATE M PMENT, TOOLS AND/OR READY-MIX TRUCKS, TOOLS, ETC H OUT WILL BE DESIGNATED ON SITE, SUCH THAT DISCH ILTRATED INTO THE GROUND. ONLY BE STORED ONSITE IN THEIR ORIGINAL CONTAINE DODING. LOCKS AND OTHER MEANS TO PREVENT OR REI N ACTIVITIES, DETERMINE AN INITIAL ROUTINE INSP YS OR A DIFFERENT MONITORING FREQUENCY EST LE (NOT EXCEEDING 14 DAYS) AND, WITH THE EXCE A RAIN EVENT WHICH RESULTS IN A RAINFALL TOT. BE INITIATED IMMEDIATELY WHENEVER ANY CLEAF EASED ON ANY PORTION OF THE SITE AND WILL NO H MULCH OR OTHER SIMILARLY EFFECTIVE SOIL ST NFORM TO THE KANSAS DEPARTMENT OF TRANSPORTA' NS.	I EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR ROADS AND SEWERS, OF THE THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR ROADS AND SEWERS, OF THE UNIFIED STHEIR EFFECTIVENESS FOR PREVENTING SEDIMENT FROM LEAVING THE SITE OR ENTERING A DRM SEWER, OR AN ON-SITE DRAINAGE CHANNEL. T. IF THE ENGINEER DETERMINES THAT THE BMPS IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND EASURES THAT PROVIDE EFFECTIVE CONTROL. 2. MAY NOT BE DISCHARGED INTO OR BE ALLOWED TO RUN DIRECTLY INTO ANY EXISTING WATER BODY ARGES DURING CONCRETE WASHOUT WILL BE CONTAINED IN A SMALL AREA WHERE WASTE CONCRETE 3. MATERIALS STORED OUTSIDE MUST BE IN CLOSED AND SEALED WATER-PROOF CONTAINERS AND DUCE VANDALISM SHALL BE USED. SPILLS WILL BE REPORTED AS REQUIRED BY LAW AND IMMEDIATE *ECTION MONITORING PERIOD BASED ON THE START DATE OF CONSTRUCTION ACTIVITIES FABLISHED IN THE SWP2 PLAN THAT DOES NOT EXCEED 14 DAYS. THE SITE SHALL BE PTION OF SATURDAYS, SUNDAYS, ESTABLISHED FEDERAL HOLIDAYS AND THE DAY AFTER AL OF 0.5 INCHES OR GREATER. 3. RING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY DT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PTION OF SATURDAYS, ESTABLISHED FEDERAL HOLIDAYS AND THE DAY AFTER AL OF 0.5 INCHES OR GREATER. 3. NO, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY DT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE ABILIZING MATERIAL. INITIAL STABLIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS TION (KDOT) STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, CURRENT E AT ALL TIMES THROUGHOUT CONSTRUCTION ACTIVITIES AND INSPECTION LOGS AND CHANGES TO	SCHLAGEL & ASSOCIATES, P.A. BCRIERS Planners • Surveyors • Landscape Architects 14920 West 107th Street • Lenexa, Kansas 66215 (913) 492-5158 • Fax: (913) 492-8400 WWW.SCHLAGELASSOCIATES.COM Missouri State Certificates of Authority #E2002003800-F #LAC2001005237 #LS200208859-F
RFORMED IN ACCORDANCE WITH THE KANSAS CITY CHAI VERY 7 DAYS AND WITHIN 24 HOURS OF A STORM EVENT S PRACTICABLE, AFTER INSPECTION. DSION CONTROL DEVICES AND REMOVING SEDIMENT UN 0% ESTABLISHED VEGETATION IS MET, OR THE DURATIO	TER OF THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATIONS, SECTION 2150. OF .5 INCHES OR MORE. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT, AND ADD FIL A MINIMUM OF 70% OF PERMANENT VEGETATION HAS BECOME STABILIZED AND ESTABLISHED. N OF THE PROJECT, WHICHEVER IS THE LATER DATE.	MINARY
TOTAL DISTURB	<u>ED AREA = 1.83 AC.</u>	PRELIN
	LEGEND	
TEMP. ENTRA	CONSTRUCTION ANCE AND	
ED DING, 211 Y	SILT FENCE (DURING CONSTRUCTION)	Шш
REAS CONC AREA	RETE WASHOUTX CONSTRUCTION FENCE	AG AG
E	LIMITS OF DISTURBANCE	NO RO
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Ξ	PROPOSED CONTOURS	
	GRAVEL FILTER FOR STORM SEWER	
TION	STRUCTURES ONLY	
	REF. NO.	ATE CON EVELOPN ROAD & N SUMMIT,
Γ	<b>GRADING LEGEND:</b>	
NOTES:	• EXX.XX EXTG. SPOT ELEVATION	
R REPLACE AS NECESSARY. (SEE NG REMOVAL OF CONT. ENTRANCE	XX.XX PROPOSED TOP OF CURB ELEV.	
S)	AX.AAOR LIP OF CURB OR SPOT ELEVATIONF.F.E.FINISHED FLOOR ELEVATION	
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CATED. REPAIR OR REPLACE AS MOVE ONLY WHEN GRADED AREAS		z
CATED, REPAIR OR REPLACE AS EMOVE ONLY WHEN GRADED AREAS	LEGEND	
ROUND COVER ESTABLISHED ROUND ALL STORM SEWER DAREA STORM STRUCTURES PRIOR CED. REMOVE & REPLACE WITH #9	BFGBOTTOM OF WALL FINISH GRADE ELEVATIONBWBOTTOM OF WALLTWTOP OF WALL ELEVATIONPPAVEMENT ELEVATIONPFOR OF OURD ELEVATION	D
LACED IN FRONT OF INLET OPENING FENCE IS REMOVED UNTIL SUCH TIME ROAT IS POURED. PLACE GRAVEL OPENING OF ALL CURB INLETS THE INLET THROATS ARE POURED	TC TOP OF CORB ELEVATION	REVISION DATE
AS AFTER 14 DAYS OF CONSTRUCTION		WN BY: F/JTS E/JTS EPARED 1-18 UMBER: 135
AS WITHIN 14 DAYS OF INACTIVITY -		DRAV DGF J. 9-1. D 9-1. N PROJ. N
ED AND COMPOST MULCH OR EROSION FLATTER SLOPES SHALL BE INSTALLED R TABLE 3 OF CITY/COUNTY STNDS.		EROSION CONTROL PLAN
	OWNER/DEVELOPER:	SHEET
	OAK VIEW LEES SUMMIT LLC JONATHAN BUCHANAN 201 HAWKS RIDGE TRAIL COLLEYVILLE, TX 76034	C3 0

40' SCALE: 1" = 40' p 214-460-8442

JBUCHANAN@OAKVIEWCP.COM

OF



d. STREET CONSTRUCTION e. SITE CLEANUP & STABILIZATION

PERMIT SET

![](_page_5_Figure_0.jpeg)

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

3. PROJECT PHASING

a. SANITARY CONSTRUCTION

b. STORM SEWER CONSTRUCTION

c. MASS GRADING d. STREET CONSTRUCTION

e. SITE CLEANUP & STABILIZATION

MULCHED WITH EROSION CONTROL BLANKETS INSTALLED.

6. STOCKPILES OF TOPSOIL TO BE LOCATED IN AREAS WHERE EROSION WILL NOT LEAVE SITE OR ENTER STORM SEWER.

OF

PERMIT SET

![](_page_6_Figure_0.jpeg)

### OVERALL LEGAL DESCRIPTION

ALL OF LOT 2, MINOR PLAT ADDITION LOTS 1 & 2, A REPLAT OF LOT 1, LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI IN SECTION 31, TOWNSHOP 48, AND RANGE 31.

1. BOUNDARY IS BASED ON THE FINAL PLATS OF LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, LOT 1 and POLYTAINERS ADDITION LOTS 1 & 2. The bases of bearing (N89°56'58"W) is based on the North line of the NE 1/4, Sec. 31-48N-31W as shown on the final plats of LEE'S SUMMIT NORTH INDUSTRIAL PARK, FIRST PLAT, LOT 1 and POLYTAINERS ADDITION LOTS 1 & 2. ADJACENT PROPERTY LINES ARE BASED ON RECORDED PLATS. EXISTING ROAD, SIDEWALK, AND SITE IMPROVEMENTS AND UTILITY INFORMATION IS FROM ALTA SURVEY PREPARED BY McLaughlin Mueller, Inc. PROVIDED BY AND USED WITH APPROVAL OF THE OWNER. SCHLAGEL AND

ASSOCIATES HAS NOT FIELD VERIFIED THIS INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK. 4. TOPOGRAPHY FROM ALTA SURVEY PREPARED BY McLaughlin Mueller, Inc.

PROVIDED BY AND USED WITH APPROVAL OF THE OWNER. SCHLAGEL AND ASSOCIATES HAS NOT FIELD VERIFIED THIS INFORMATION. 5. AN EASEMENT OR LICENSE WILL GRANTED TO THE CITY OF LEE'S SUMMIT

MISSOURI TO LOCATE, CONSTRUCT AND MAINTAIN, OR TO AUTHORIZE THE LOCATION, CONSTRUCTION AND MAINTENANCE OF SIDEWALKS, POLES, WIRES, ANCHORS, CONDUITS AND OR STRUCTURES FOR, PEDESTRIAN ACCESS, GAS, SANITARY SEWER, STORM SEWER, SURFACE DRAINAGE CHANNEL, ELECTRICITY, TELEPHONE, CABLE TELEVISION, OR ANY OTHER NECESSARY PUBLIC UTILITY OR SERVICES, ANY OR ALL OF THEM, UPON, OVER, OR UNDER THOSE AREAS OUTLINED OR DESIGNATED UPON THIS PLAT AS "UTILITY EASEMENT" OR "U/E" OR WITHIN ANY STREET OR THOROUGHFARE DEDICATED TO PUBLIC USE.

6. THE USE OF ALL TRACTS, LOTS, UNITS AND PROPERTIES IN THIS SUBDIVISION SHALL HEREAFTER BE SUBJECT TO THE COVENANTS AND RESTRICTIONS, WHICH INSTRUMENTS ARE TO BE RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF JACKSON COUNTY, MISSOURI, AS PROVIDED ABOVE, AND WHICH WILL BECOME A PART OF THE DEDICATION

7. BUILDING LINES (BL) OR SETBACK LINES WILL ESTABLISHED AS SHOWN ON THE PLAT AND NO BUILDING OR PORTION THEREOF SHALL BE CONSTRUCTED BETWEEN THIS LINE AND STREET RIGHT-OF-WAY.

8. ALL CONSTRUCTION MUST COMPLY WITH THE MOST RECENT ADOPTED CITY CODE, ORDINANCES, AND DESIGN STANDARDS. 9. ALL ROADWAYS, PRIVATE DRIVES, PARKING DRIVE AISLES, AND PARKING

LOTS SHALL HAVE CG-1 CURB AS REQUIRED BY CODE. 10. ALL DRIVE AISLES, DRIVEWAYS, AND STREETS ARE DIMENSIONED FROM

BACK OF CURB TO BACK OF CURB ON THIS PLAN. 11. ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE ADA REQUIREMENTS. 12. BASED ON THE GEOLOGIC DATA ON MISSOURI DEPARTMENT OF NATURAL RESOURCES WEB SITE THERE ARE NO KNOWN WELLS ON THE SITE. 13. PARKING LOT DESIGN MUST MEET THE UDO ARTICLE 12 REQUIREMENTS AND THE PRIVATE DRIVE MUST MEET PUBLIC STREET DESIGN STANDARDS

![](_page_6_Figure_14.jpeg)

FOND INC.

BOSTON, MA 02108

According to the Flood Insurance Rate Map of FEMA panel 409 of 625 for map number 20095C0409G dated January 20, 2017 and panel 417 of 625 for map number 29095C0417G dated January 20, 2017, the project lies outside of any identified FEMA floodplain.

# **OWNER/DEVELOPER:**

UNIVERSITY OF MASSACHUSETTS

1 BEACON STREET 32ND FLOOR

# **DEVELOPER:**

OAK VIEW LEES SUMMIT LLC 201 HAWKS RIDGE TRAIL COLLEYVILLE, TX 76034 p 214-460-8442

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![](_page_6_Picture_22.jpeg)

![](_page_7_Figure_0.jpeg)

![](_page_7_Figure_1.jpeg)

![](_page_7_Figure_3.jpeg)

8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES. 9 LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL. 10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

![](_page_7_Picture_5.jpeg)

### LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SERVICE CONNECTION/METER WELL

			14320 WEST TO UT SUFEET & LETIEXA, MAIISAS 002 13 (913) 492-5158 • Fax: (913) 492-8400			
	FINAL DEVELOPMENT PLANS					
ISION DATE DESCRIPTION						
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Date: 02/13	
Drawn By: JN	
Checked By: DL	
FILE: WAT-11	
Rev: 1/14	
Rev:	

![](_page_8_Figure_0.jpeg)

![](_page_9_Figure_0.jpeg)

![](_page_9_Figure_2.jpeg)

![](_page_10_Figure_0.jpeg)

MODIFICATIONS REQUESTED:

## 55 EA. • JCSP SHRUBS ——— BSW 11 EA. Buxus sinica var. i 14 EA. ⊙ −VCK Viburnum carlesii '

EVERGREEN TREES

- QPG - UXF

— ZSM

8 EA.

6 EA.

18 EA.

SHADE TREES

1. REDUCE THE CALIPER OF THE SHADE TREES FROM 3 INCHES TO 2.5 INCHES.

2. REDUCE THE HEIGHT OF THE EVERGREEN TREES FROM 8 FEET TO 5 FEET.

3. REDUCE THE CALIPER OF THE ORNAMENTAL TREES FROM 3" TO 2".

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![](_page_10_Picture_84.jpeg)

- 1. UTILITY INFORMATION SHOWN IS DESIGNED LOCATION OR LOCATIONS BASED ON UTILITY LOCATES. AS BUILT LOCATIONS MAY VARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO COMMENCING LANDSCAPE INSTALLATION. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS OR OBSTRUCTIONS.
- 2. QUANTITIES INDICATED ON THE PLAN ARE FOR CONVENIENCE ONLY. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES PRIOR TO PLANTING. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. THE PLAN QUANTITIES AND NUMBER OF SYMBOLS SHALL SUPERSEDED QUANTITIES IN THE SCHEDULE 3. ALL PLANT MATERIAL SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT STANDARDS(EXCEPT SIZE
- MODIFICATIONS ALLOWED BY THE PLAN APPROVAL) AND ANSI A60.1 THE AMERICAN STANDARD FOR NURSERY STOCK. 4. ALL PLANTS SHALL MEET THE SIZE REQUIREMENTS OF THE LEE'S SUMMIT ORDINANCE EXCEPT AS
- ALLOWED BY MODIFICATION AS PART OF THIS PLAN APPROVAL. ALL TREES SHALL BE CALLIPERED AND UNDERSIZED TREES SHALL BE REJECTED. 5. ALL SHRUBS TO BE UTILIZED FOR SCREENING SHALL BE 24" HEIGHT AT TIME OF PLANTING.
- 6. ALL PLANTING BEDS CONTAINING SHRUBS, GROUND COVER, PERENNIALS, ANNUALS SHALL BE IN A PLANTING BED WITH 3" MIN. DEPTH OF MULCH AND A "V-CUT" EDGE.
- 7. ALL TREES SHALL HAVE A MIN. 3 FT. DIA. AREA THAT HAS 3" MIN. DEPTH OF WOOD MULCH. 8. ALL TURF AREAS SHALL BE SODDED UNLESS INDICATED ON THE PLANS.
- 9. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN SHALL REQUIRE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT AND THE CITY OF LEE'S SUMMIT, PRIOR TO INSTALLATION.
- 10. THE LANDSCAPE ARCHITECT AND OWNER SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING OPERATIONS.
- 11. INSTALLATION AND MAINTENANCE OF LANDSCAPING SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT
- STANDARDS 12. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A MINIMUM CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT OF 1 FT. FOR PERENNIALS AND GROUNDCOVER AND 1.5 FT. FOR SHRUBS. A 2 FT. CLEARANCE(4 FEET FROM BACK OF CURB TO THE CENTER OF SHRUB)FOR CAR OVERHANG IS REQUIRED AT ALL PARKING ISLANDS AND PERIMETERS.
- 13. AFTER COMPLETE INSTALLATION OF ALL PLANT MATERIAL AND SOD THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT THAT THE WORK IS COMPLETE AND READY FOR REVIEW. THE LANDSCAPE ARCHITECT SHALL REVIEW THE LANDSCAPE INSTALLATION TO DETERMINE COMPLIANCE WITH THE APPROVED PLANS. WHEN THE LANDSCAPE INSTALLATION MEETS THE REQUIREMENTS OF THE APPROVED PLAN, THE LANDSCAPE ARCHITECT SHALL PROVIDE A SIGNED AND SEALED LETTER TO THE CITY STATING THAT ALL LANDSCAPE PLANTINGS HAVE BEEN INSTALLED PER THE APPROVED PLAN.
- 14. ALL EXTERIOR GROUND OR BUILDING MOUNTED EQUIPMENT (MECHANICAL, ELECTRICAL AND/OR TELEPHONE CABINETS), TRANSFORMERS, AIR CONDITIONING UNITS, ETC. SHALL BE SCREENED FROM PUBLIC VIEW BY INSTALLING FIVE SEA GREEN JUNIPERS EVENLY SPACED AROUND THE PERIMETER. FINAL LOCATION OF ANY EQUIPMENT SHALL BE DETERMINED AND VERIFIED WITH THE FINAL DESIGN AND PERMITTING OF THE PROJECT.
- 15. ALL ROOFTOP EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW WITH AN ARCHITECTURAL TREATMENT COMPATIBLE WITH THE BUILDING AND INTEGRAL TO THE OVERALL APPEARANCE OF THE BUILDING.

Quercus palustris Green Pillar	Green Pillar Oak	2.5" Cal.	B&B
Ulmus x Frontier	Frontier Elm	2.5" Cal.	B&B
Zelkova serrata 'Musashino'	Musashino Columnar Zelkova	2.5" Cal.	B&B
Juniperus chinensis 'Spartan'	Spartan Juniper	6' ht.	B&B
Buxus sinica var. insularis 'Wintergreen' fka a microphylla var.	Wintergreen Boxwood	5 gal.	Cont.
Viburnum carlesii 'Korean Spice'	Koreanspice Viburnum	5 gal.	Cont.

![](_page_10_Figure_99.jpeg)

![](_page_10_Figure_100.jpeg)

![](_page_11_Figure_0.jpeg)

![](_page_11_Figure_3.jpeg)

# TYP. DECIDUOUS PLANTING & GUYING

- INSTALL TREE PER TYP. DECIDUOUS TREE AND GUYING DETAIL

- PLANT TREE 2" HIGHER THAN THE HIGHEST CURB ELEVATION. THE TRUNK FLARE SHALL BE VISIBLE ABOVE THE GROUND.

TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT PLACE BACKFILL ON TOP OF ROOT BALL.

CUT & REMOVE BURLAP FROM TOP 1/3 OF BALL IF TREE IS DELIVERED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN A MINIMUM OF 4 PLACES AND FOLD DWON SO THAT THE BASKET IS A MINIMUM OF 12" BELOW THE TRUNK FLARE.

TREES STAKING METHOD TO BE DETERMINED BY CONTRACTOR. ANY TREES NOT PLUMB AT FINAL INSPECTION WILL BE REQUIRED TO BE RETURNED TO PLUMB BEFORE APPROVED. STAKES SHALL BE REMOVED NO LATER THAN ONE YEAR AFTER

- UNEXCAVATED OR TAMPED FIRM BASE FOR SETTING ROOTBALL

- 3" MIN. SPECIFIED MULCH. DO NOT PLACE MULCH AGAINST TREE TRUNK - SPECIFIED BACKFILL MIXTURE FOR FULL DEPTH OF ROOTBALL

SPECIFIED BACKFILL MIXTURE TO BE PLACED IN THE ENTIRE ISLAND CROWN GRADE IN CENTER. SLOPE TO DRAIN TOWARD CURB CONTRACTOR TO REMOVE ALL DEBRIS, CONCRETE SLAG/WASTE,

- EXISTING UNDISTURBED SUBSOIL

# meet all State and Federal regulations and be certified to be disease and insect free.

2. Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant.

- 3. All trees shall be nursery-grown. the following:

- over watering as indicated by wilted, shriveled, or dead leaves. or otherwise injured branches.
  - shall form a balanced crown appropriate for the cultivar/species.

  - c.) The attachment of the largest branches (scaffold branches) shall be free of included bark.
  - e.) The attachment of scaffold branches shall be free of included bark.
- the tree and can split easy.
- branches should be less than half the diameter of the adjacent trunk (less than one-third is preferred).
- Codominant trunks (trunks of similar size) will not be accepted.
- should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
- end of the warranty period.
- 16. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the
- Acceptance details and the following:
- 18. The roots shall be reasonably free of scrapes, broken or split wood. produce a high quality root system are not considered injuries.
- growth shall be appropriate for the species.
- 21.Plants with structural roots on only one side of the trunk (J roots) shall be rejected.
- 23. The root system shall be free of stem girdling roots over the root collar or kinked roots from nursery production practices.
- 25. At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.

24.Plant Grower Certification: The final plant grower shall be responsible to have determined that the plants have been root pruned at each step in the plant production process to remove stem girdling roots and kinked roots, or that the previous production system used practices that produce a root system throughout the root ball that meets these specifications. Regardless of the work of previous growers, the plant's root system shall be modified at the final production stage, if needed, to produce the required plant root quality. The final grower shall certify in writing that all plants are reasonably free of stem girdling and kinked roots as defined in this specification, and that the tree has been grown and harvested to produce a plant that meets these specifications.

22. The root collar shall be within the upper 1 inch of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball. Any excess soil shall be removed from the root ball so that the root flare is visible as indicated in the "Planting Depth Detail". The root collar shall be visible above the mulch layer.

20.A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and

19. The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting from root pruning used to

17. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root

15. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line.

14. Central Leader: Trees shall have a single(one), relatively straight central leader and tapered trunk, free of co-dominant stems and vigorous, upright branches that compete with the central leader. Preferably, the central leader should not have been headed. However, in cases where the original leader has been removed, an upright branch at least ½ (one-half) the diameter of the original leader just below the pruning point shall be present. All trees are assumed to have one central leader trees unless a different form is specified in the plant list or drawings. If the central leader is broken or damaged during delivery or installation the tree shall be rejected and removed from the site. If the central leader dies wihin the warranty period the tree shall be replaced at the

13. Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch, particularly for trees less than 1 inch in caliper. These branches

11. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury). 12. Evergreen tree trunk: Evergreen trees shall have a single trunck that isstraight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).

inches of the ground and be along the full length of the trunk. Trees which are not symmetrical or that have an "open area" will be rejected. For structural integrity on evergreen trees, all side

10. Evergreen branch structure: The branch pattern should dense, symmetrical and the branch stems should be evenly spaced completely around the trunk. The branches shall extend to within 12

9. Branch structure: The better quality, large-maturing shade trees (lower extreme left) have all branches less than about two-thirds the trunk diameter. Poor quality shade trees (lower left center) have larger upright branches. Trees such as crape myrtle and other small-maturing trees can have several trunks. Trees with extensive defects in branches such as cracks and included bark (lower right) represent lesser quality than trees free of these potential problems. Included bark can be seen between the two arrows below. Branches with bark inclusions are weakly attached to

d.) Branches shall be distributed radially around and vertically along the trunk, forming a generally symmetrical crown typical for the species.

b.) Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch union.

a.) Main branches shall be distributed along the central leader not clustered together. Potential main branches shall be evenly spaced and have appropriate space between them. They

8. Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted,

5. Crown: The form and density of the crown shall be typical for a young specimen of the species or cultivar pruned to a central and dominant leader. 6. Crown specifications do not apply to plants that have been specifically trained in the nursery as topiary, espalier, multi-stem, clump, or unique selections such as contorted or weeping cultivars. 7. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or

4. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. Tree quality above the soil line shall comply with

1. All trees shall comply with State and Federal regulations. Trees should be obtained from local sources but must meet the quality quidelines herein. Trees transported from out of the region shall

SCHLAGEL & ASSOCIATES, P.A.	Engineers• Planners•Surveyors•Landscape Architects 14920 West 107th Street • Lenexa, Kansas 66215	(913) 492-5158 Fax: (913) 492-8400 WWW.SCHLAGELASSOCIATES.COM	Missouri State Certificates of Authority #E2002003800-F #LAC2001005237 #LS2002008859-F				
Dar Lands MO#1	DANIEL G. FOSTER NUMBER LA-2001001877 Daniel G. Foster Landscape Architect MO# LA-2001001877						
OAKVIEW CLIMATE CONTROLLED STORAGE		NE DOUGLAS ROAD & NW VICTORIA DRIVE	LEE'S SUMMIT, MISSOURI				
DRAWN BY: REVISION DATE DESCRIPTION DGF/JTS A CHECKED BY: A		DAIE PREPAREU: 9-11-18 6 SCA	PROJ. NUMBER:         A           17-135         0				
SHEET	EVIEW	/BID PI	LANS				

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![](_page_12_Picture_3.jpeg)

![](_page_12_Figure_5.jpeg)

![](_page_12_Figure_6.jpeg)

- CLEANLY PRUNE ONLY DAMAGED, DISEASED,

AND/OR WEAK BRANCHES

![](_page_12_Figure_7.jpeg)

PLAN REVIEW/BID PLANS

![](_page_12_Figure_8.jpeg)

![](_page_12_Figure_9.jpeg)

# TYP. SHRUB BED IN LAWN DETAIL

NO SCALE

![](_page_13_Figure_0.jpeg)

IRRIGATION NOTES:

- METHOD OF DELIVERY FOR THE IRRIGATION SYSTEM IS DESIGN/BUILD.
   QUANTITIES PROVIDED ON THE PLANS ARE FOR GENERAL REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND COMPLETING ON TAKE OFFS FOR BIDS.
- 3. FINAL IRRIGATION DESIGN SHALL BE DONE BY COMPETENT DESIGN/BUILD IRRIGATION CONTRACTOR AND/OR LANDSCAPE CONTRACTOR THAT HAVE PROVEN EXPERIENCE WITH SIMILAR PROJECTS. DRAWINGS ARE TO BE APPROVED BEFORE ANY CONSTRUCTION IS INITIATED. THE CONTRACTOR IS TO KEEP DETAILED CONSTRUCTION DRAWINGS AND PROVIDE ACCURATE AND LEGIBLE (AS-BUILT) DRAWINGS FOR ALL PHASES OF THE PROJECT. ALL IRRIGATION WORK IS TO BE COORDINATED AND SCHEDULED IN COOPERATION WITH ALL OTHER CONTRACTORS. ANY DIFFICULTIES, COST CHANGES, OR DAMAGES DUE TO LACK OF COOPERATION OR COMMUNICATION ARE THE RESPONSIBILITY OF THE CONTRACTOR, IRRIGATION CONTRACTOR AND/OR LANDSCAPE CONTRACTORS.
- 4. THE LANDSCAPE/IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE AND AVAILABLE FLOW PRIOR TO CONSTRUCTION. IF DEFICIENCIES ARE NOTED THAT WILL HINDER THE SYSTEM 'S PERFORMANCE, NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION TO CORRECT DEFICIENCIES.
- 5. ALL LANDSCAPED AREAS SHALL HAVE AN AUTOMATIC UNDERGROUND SPRINKLER SYSTEM WHICH INSURES COMPLETE COVERAGE AND PROPERLY ZONED FOR REQUIRED WATER USES. EACH HYDRO-ZONE IS TO BE IRRIGATED WITH SEPARATE INDIVIDUAL STATIONS.
- SLEEVING SHALL BE INSTALLED AT ALL ROADS, DRIVES, WALKS, AND UTILITY CROSSINGS USING SCHEDULE 40 PVC. SLEEVES SHALL EXTEND 12" BEYOND SURFACE CROSSED.
- PLANTER BEDS AND LAWN AREAS ARE TO HAVE SEPARATE HYDRO-ZONES.
   MAIN LINES SHALL BE A MINIMUM DEPTH OF 36 ". LATERAL LINES SHALL BE A MINIMUM DEPTH OF 12".
- 9. PROPER BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED PER ALL LOCAL, COUNTY, AND STATE REGULATIONS AND CODES WHEN CONNECTING TO A PUBLIC WATER SOURCE.
- POP-UP SPRINKLER HEADS SHALL HAVE A MINIMUM RISER HEIGHT OF 4" IN LAWN AREAS AND 12" IN PLANTER AREAS.
   ANNUALS, PERENNIALS, AND GROUND COVERS, SHALL HAVE A POP-UP SPRAY
- ANNUALS, PERENNIALS, AND GROUND COVERS, SHALL HAVE A POP-UP SPRAY SYSTEM USING MIN. 12" POP-UPS. CONTRACTOR CAN UTILIZE SUBSURFACE DRIP IRRIGATION IN PLANTER BED AREAS.
   12 ELECTRONIC WATER DISTRIBUTION/TIMING CONTROL LEDS ARE TO BE
- 12. ELECTRONIC WATER DISTRIBUTION/TIMING CONTROLLERS ARE TO BE PROVIDED. MINIMUM CONTROLLER REQUIREMENTS ARE AS FOLLOWS: -PRECISE INDIVIDUAL STATION TIMING -RUN TIME CAPABILITIES FOR EXTREMES IN PRECIPITATION RATES -SUFFICIENT MULTIPLE CYCLES TO AVOID WATER RUN-OFF -POWER FAILURE BACKUP FOR ALL PROGRAMMED INDIVIDUAL VALVED WATERING STATIONS WILL BE DESIGNED AND INSTALLED TO PROVIDE WATER TO RESPECTIVE HYDRO-ZONES
- THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PROVIDE 100% HEAD-TO-HEAD COVERAGE SQUARE OR TRIANGULAR SPACING AS APPROPRIATE.
- 14. SPRINKLER HEADS SHALL BE ADJUSTED TO ELIMINATE OVERSPRAY ON ADJACENT IMPERVIOUS SURFACES SUCH AS SIDEWALKS, DRIVEWAYS, PATIO, FENCES, BUILDINGS, AND PARKING AREAS.
- 15. PROVIDE MINIMUM (1) QUICK COUPLER VAL VIE PER EACH (6) AUTOMATIC VALVE ZONES. APPROVE LOCATIONS WITH OWNER.

![](_page_13_Picture_17.jpeg)

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