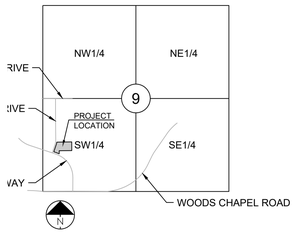
FINAL DEVELOPMENT PLANS
FOR
LAKEWOOD BUSINESS PARK - LOT 35

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

LEGEND:

A/E	-	ACCESS EASEMENT
BC	-	BACK OF CURB
B/B	-	BACK TO BACK
BM	-	BENCHMARK
BL or B.L.	-	BUILDING LINE
CO	-	CLEANOUT
TJB	-	TELEPHONE JUNCTION BOX
C&G	-	CURB AND GUTTER
D/E	-	DRAINAGE EASEMENT
E/E	-	ELECTRICAL EASEMENT
EL	-	ELEVATION
FL	-	FLOW LINE
G/E	-	GAS LINE EASEMENT
HDPE	-	HIGH-DENSITY POLYETHYLENE
L/E	-	LANDSCAPE EASEMENT
MSFE	-	MINIMUM SERVICEABLE FLOOR 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
W/E	-	WATERLINE EASEMENT

ASPHALT PAVEMENT - EXISTING
ASPHALT PAVEMENT - PROPOSED
CONCRETE PAVEMENT - EXISTING
ASPHALT PAVEMENT - EXISTING
CONCRETE SIDEWALK - EXISTING
CONCRETE SIDEWALK - PROPOSED
CURB & GUTTER
CURB & GUTTER - EXISTING
TREELINE
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 — CABLE TV - EXISTING
FOC — FIBER OPTIC CABLE - EXISTING
T — TELEPHONE LINE - EXIST.
E — ELECTRIC LINE - EXISTING
OHP — OVERHEAD POWER LINE - EXIST.
UGE — UNDERGROUND ELECTRIC - EX.
G — GAS LINE - EXISTING
W — WATERLINE - EXISTING
LIGHT - EXISTING
EXISTING MANHOLE
CO — CLEANOUT
EXISTING SANITARY MANHOLE
PROPOSED SANITARY MANHOLE
AI — EXISTING AREA INLET
CI — EXISTING CURB INLET
GI — EXISTING GRATE INLET
JB — EXISTING JUNCTION BOX
D — EXISTING STORM MANHOLE



SECTION 9-48-31

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

EVERGY (formerly KCP&L)
Gary Jones
Gary.Jones@evergy.com

CITY OF LEES SUMMIT PUBLIC WORKS
Michael Park
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
(816) 969-1900

GENERAL NOTES:

1. ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
4. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
5. 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 PRIOR TO CONSTRUCTION.
6. 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.
7. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
8. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
9. 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.
10. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
11. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
12. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
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.
15. 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 ANY LAND DISTURBANCE.
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 LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

GRADING/EARTHWORK NOTES:

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 RECOMMENDATIONS IN GEOTECHNICAL REPORT ARE FOLLOWED.
3. PRIOR TO PLACEMENT OF PAVEMENT, GEOTECHNICAL ENGINEER MUST APPROVE SUBGRADE IN WRITTEN FORM TO THE OWNER AND PROJECT ENGINEER.
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:

1. IT IS RECOMMENDED THAT A GEOTECHNICAL ENGINEER OBSERVE AND DOCUMENT ALL EARTHWORK ACTIVITIES.
2. 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.
3. 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.
4. PROPOSED CONTOURS ARE TO APPROXIMATE FINISHED GRADE.
5. 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.
6. 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.
8. 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 BY THE OWNER OR HIS APPOINTED REPRESENTATIVE.
9. 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.
11. SUBGRADE FOR BUILDING PAD 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.
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:

1. 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.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING RESPECTIVE UTILITY COMPANIES 48-HOURS IN ADVANCE FOR THE INSPECTION OF ANY PROPOSED UTILITY MAIN EXTENSION OR SERVICE LINE OR SERVICE CONNECTION TO ANY EXISTING MAIN.
7. 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:
1. TRENCH CHECKS TO BE INSTALL ON ALL SANITARY SEWER SERVICE LINES IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.
2. THERE ARE NO OIL OR GAS WELLS LOCATED WITHIN THIS PROJECT SITE.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

MISSOURI ONE CALL SYSTEM

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	SITE PLAN
C2.0	GRADING PLAN
C2.1	INTERSECTION DTAILS
C3.0	EROSION CONTROL PLAN
C3.1	EROSION CONTOL DETAILS
C4.0	STORM SEWER PLAN & PROFILE
C5.0	DETENTION BASIN PLAN & PROFILE
C6.0	UTILITY PLAN
C7.0	SITE DETAILS
C7.1	SITE DETAILS
C7.2	SITE DETAILS
C7.3	SITE DETAILS
L1.0	LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
L2.1	LANDSCAPE DETAILS

APPROVED BY:

CITY ENGINEER — DATE
APPROVED FOR ONE YEAR FROM THIS DATE

OWNER/DEVELOPER:

LAKEWOOD SELF-STORAGE, LLC
JUSTIN BEAL OR MICHAEL VANBURSKIRK
1220 WASHINGTON, SUITE 300
KANSAS CITY, MO 64105
P: (816) 268-4241
E: JBEAL@NGZIMMER.COM

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
www.schlagel-associates.com
Missouri State Certificate of Authority
#E2002000380-F #LA2001005237 #LS2002000859-F
PREPARED BY:
JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER
8-26-21
SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	
9	
10	

DRAWN BY: RPM
CHECKED BY: JTS
DATE PREPARED: 06/25/2021
PROJ. NUMBER: 20-261

COVER SHEET

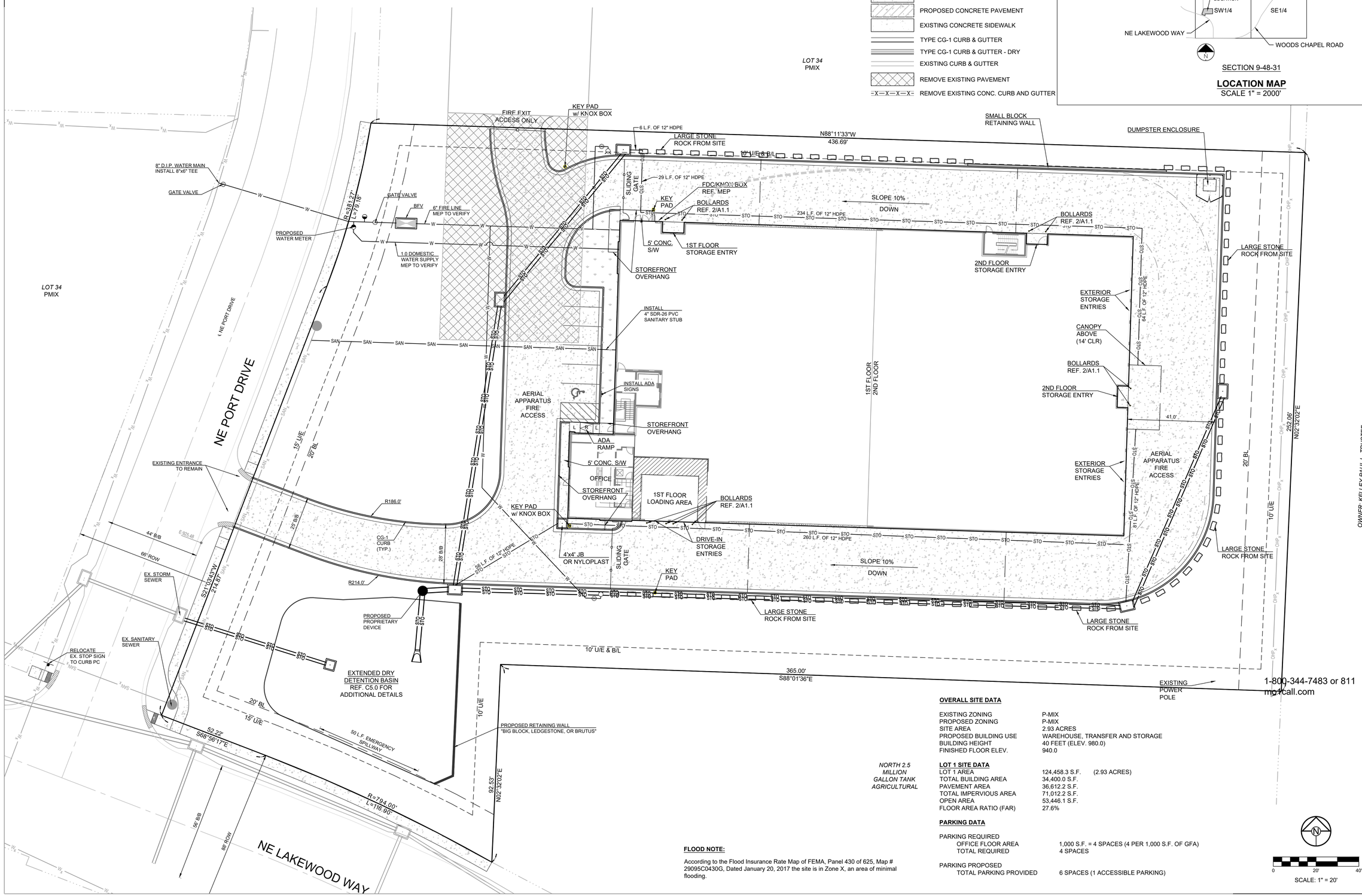
SHEET
C0.0

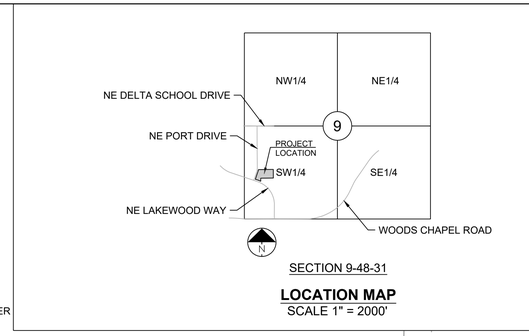
PROPERTY DESCRIPTION:

LOT 35 OF LAKEWOOD BUSINESS PARK, LOTS 33A, AND 34–36.

PAVEMENT LEGEND:

- PROPOSED ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- EXISTING CONCRETE SIDEWALK
- TYPE CG-1 CURB & GUTTER
- TYPE CG-1 CURB & GUTTER - DRY
- EXISTING CURB & GUTTER
- REMOVE EXISTING PAVEMENT
- REMOVE EXISTING CONC. CURB AND GUTTER





SECTION 9-48-31

LOCATION MAP

SCALE 1" = 2000'

OVERALL SITE DATA

EXISTING ZONING	P-MIX
PROPOSED ZONING	P-MIX
SITE AREA	2.93 ACRES
PROPOSED BUILDING USE	WAREHOUSE, TRANSFER AND STORAGE
BUILDING HEIGHT	40 FEET (ELEV. 980.0)
FINISHED FLOOR ELEV.	940.0

LOT 1 SITE DATA

LOT 1 AREA	124,458.3 S.F.	(2.93 ACRES)
TOTAL BUILDING AREA	34,400.0 S.F.	
PAVEMENT AREA	36,612.2 S.F.	
TOTAL IMPERVIOUS AREA	71,012.2 S.F.	
OPEN AREA	53,446.1 S.F.	
FLOOR AREA RATIO (FAR)	27.6%	

PARKING DATA

PARKING REQUIRED

OFFICE FLOOR AREA	1,000 S.F. = 4 SPACES (4 PER 1,000 S.F. OF GFA)
TOTAL REQUIRED	4 SPACES

PARKING PROPOSED

TOTAL PARKING PROVIDED	6 SPACES (1 ACCESSIBLE PARKING)

FLOOD NOTE:

According to the Flood Insurance Rate Map of FEMA, Panel 430 of 625, Map # 29095C0430G, Dated January 20, 2017 the site is in Zone X, an area of minimal flooding.

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
www.SCHLAGELASSOCIATES.COM
Missouri State Certificate of Authority #E2000200380-F #LA2000105237 #LS2000208859-F

PREPARED BY:

JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

OWNER: KELLEY PAUL L. TRUSTEE
ADDRESS: 1204 NE WOODS CHAPEL RD.

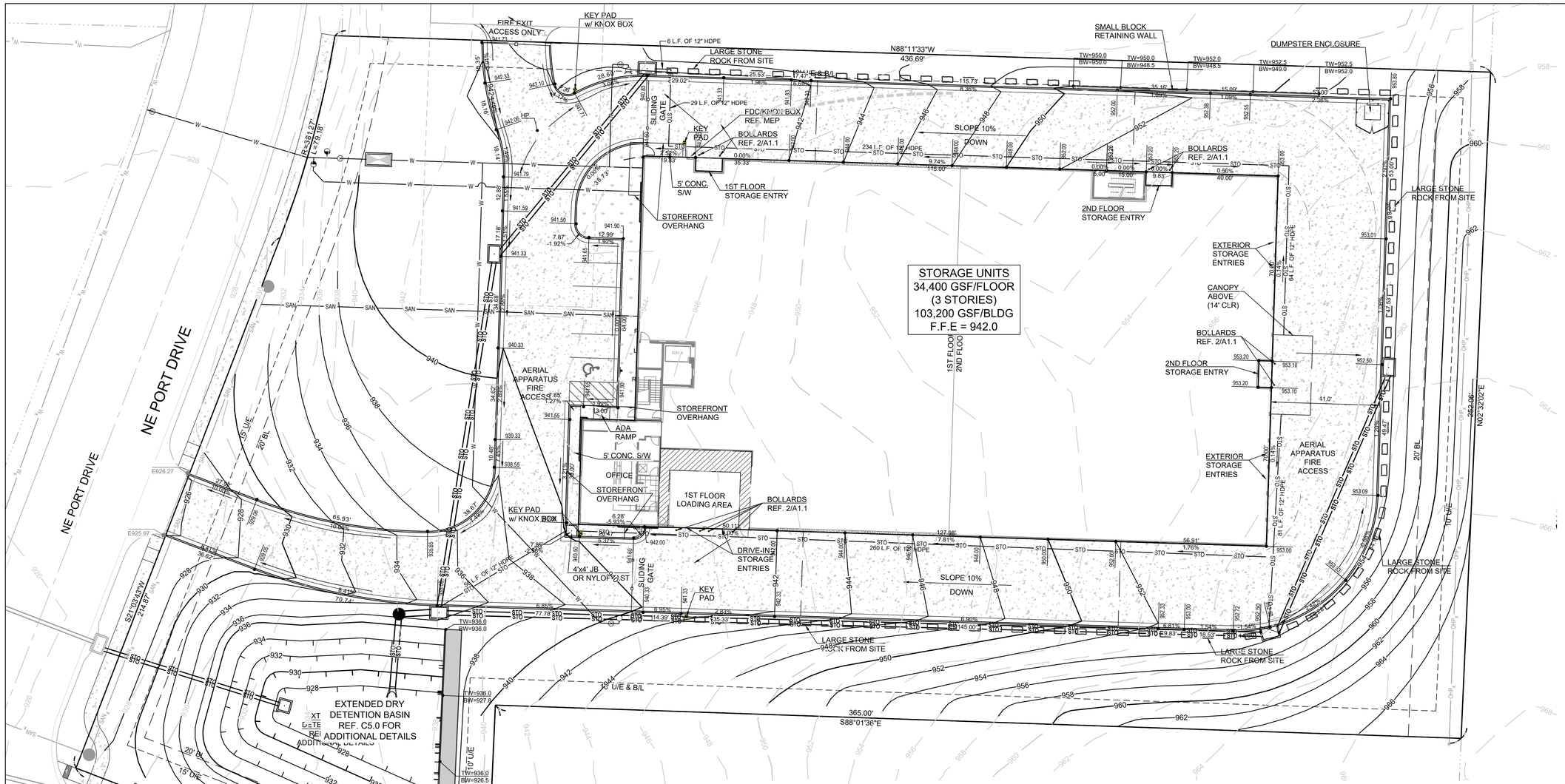
LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/26/2021	City Comments
3		
4		
5		
6		
7		
8		
9		

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

SITE PLAN

SHEET C1.0



GRADING LEGEND:

EXX.XX	EXTG. SPOT ELEVATION
XX.XX	PROPOSED TOP OF CURB ELEV.
XX.XX	TOE OF CURB OR SPOT ELEVATION
XX.XX / XX.XX	PROPOSED TOP OF CURB ELEVATION W/ TOE OF CURB ELEVATION
F.F.E.	FINISHED FLOOR ELEVATION
1023	EXISTING CONTOUR
1023	PROPOSED CONTOUR

* - ALL SIDEWALKS TO BE INSTALLED WITH A 2.0% MAXIMUM CROSS SLOPE.

LEGEND

BFG	BOTTOM OF WALL FINISH GRADE ELEVATION
BW	BOTTOM OF WALL
TW	TOP OF WALL ELEVATION
P	PAVEMENT ELEVATION
TC	TOP OF CURB ELEVATION

PAVEMENT LEGEND:

- PROPOSED ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- EXISTING CONCRETE SIDEWALK
- TYPE CG-1 CURB & GUTTER
- TYPE CG-1 CURB & GUTTER - DRY
- EXISTING CURB & GUTTER
- REMOVE EXISTING PAVEMENT
- REMOVE EXISTING CONC. CURB AND GUTTER

MISSOURI ONE CALL SYSTEM

1-800-344-7483 or 811
mo1call.com

NOTES:

1. BOUNDARY INFORMATION, SITE AREA INFORMATION, ADJACENT PROPERTY LINES AND UTILITY INFORMATION IS FROM ALTA SURVEY PREPARED BY SUMMIT SURVEY COMPANY PROVIDED BY AND USED WITH APPROVAL OF THE OWNER.
2. TOPOGRAPHY FROM ALTA SURVEY PREPARED BY SUMMIT SURVEY PROVIDED BY AND USED WITH APPROVAL OF THE OWNER.
3. AN EASEMENT OR LICENSE 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.
4. 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 THE PLAT.
5. BUILDING LINES (BL) OR SETBACK LINES ESTABLISHED AS SHOWN ON THE PLAT AND NO BUILDING OR PORTION THEREOF SHALL BE CONSTRUCTED BETWEEN THIS LINE AND STREET RIGHT-OF-WAY.
6. ALL CONSTRUCTION MUST COMPLY WITH THE MOST RECENT ADOPTED CITY CODE, ORDINANCES, AND DESIGN STANDARDS.
7. ALL PARKING LOTS SHALL HAVE CG-1 CURB AS REQUIRED BY CODE.
8. ALL DRIVE AISLES, DRIVEWAYS, AND STREETS ARE DIMENSIONED FROM BACK OF CURB TO BACK OF CURB ON THIS PLAN.
9. ALL ACCESSIBLE PARKING SHALL COMPLY WITH THE ADA REQUIREMENTS.
10. BASED ON THE GEOLOGIC DATA ON MISSOURI DEPARTMENT OF NATURAL RESOURCES WEB SITE THERE ARE NO KNOWN WELLS ON THE SITE.
11. ALL ISSUES PERTAINING TO LIFE SAFETY AND PROPERTY PROTECTION FROM THE HAZARDS OF FIRE, EXPLOSION OR DANGEROUS CONDITIONS IN NEW AND EXISTING BUILDINGS, STRUCTURES AND PREMISES, AND TO THE SAFETY TO FIRE FIGHTERS AND EMERGENCY RESPONDERS DURING EMERGENCY OPERATIONS, SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL FIRE CODE AND LOCAL AMENDMENTS.
12. IFC 903.3.7- FIRE DEPARTMENT CONNECTIONS. THE LOCATION OF FIRE DEPARTMENT CONNECTIONS SHALL BE APPROVED BY THE FIRE CODE OFFICIAL. CONNECTIONS SHALL BE A 4 INCH STORZ TYPE FITTING AND LOCATED WITHIN 100 FEET OF A FIRE HYDRANT, OR AS APPROVED BY THE CODE OFFICIAL.
13. IFC 507.5.1- WHERE A PORTION OF THE FACILITY OR BUILDING HEREAFTER CONSTRUCTED OR MOVED INTO OR WITHIN THE JURISDICTION IS MORE THAN 300 FEET FROM A HYDRANT ON A FIRE APPARATUS ACCESS ROAD, AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE FACILITY OR BUILDING, ON-SITE FIRE HYDRANTS AND MAINS SHALL BE PROVIDED WHERE REQUIRED BY THE FIRE CODE OFFICIAL.
14. IFC 503.2.3 -FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS AND SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES.
15. IFC 506.1 -WHERE ACCESS TO OR WITHIN A STRUCTURE OR AN AREA IS RESTRICTED BECAUSE OF SECURED OPENINGS OR WHERE IMMEDIATE ACCESS IS NECESSARY FOR LIFE-SAVING OR FIRE-FIGHTING PURPOSES, THE FIRE CODE OFFICIAL IS AUTHORIZED TO REQUIRE A KEY BOX TO BE INSTALLED IN AN APPROVED LOCATION. THE KEY BOX SHALL BE OF AN APPROVED TYPE LISTED IN ACCORDANCE WITH UL
16. 1037, AND SHALL CONTAIN KEYS TO GAIN NECESSARY ACCESS AS REQUIRED BY THE FIRE CODE OFFICIAL.506.1.1 LOCKS.AN APPROVED LOCK SHALL BE INSTALLED ON GATES OR SIMILAR BARRIERS WHEN REQUIRED BY THE FIRE CODE OFFICIAL. A KNOX PADLOCK WILL BE PROVIDED ON THE GATE AND A KNOX BOX ON THE BUILDING.
17. PLEASE NOTE THAT PARKING LOT DESIGN MUST MEET THE UDO ARTICLE 12 REQUIREMENTS AND THE PRIVATE DRIVE MUST MEET PUBLIC STREET DESIGN STANDARDS PER THE DESIGN AND CONSTRUCTION MANUAL SECTION 5200.
18. SANITARY SEWER MAIN AND EASEMENTS FOR LOT 35 WILL BE PROVIDED IN THE FUTURE WHEN THE LOT IS DEVELOPED.

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Kansas Certificate of Authority #LA2001005237 #LS2002000855-F
Missouri State Certificates of Authority
#E2002000380-F #LAC2001005237 #LS2002000855-F

PREPARED BY:

JEFFREY T. SKIDMORE
LICENSED
16516
KANSAS
8-26-21
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

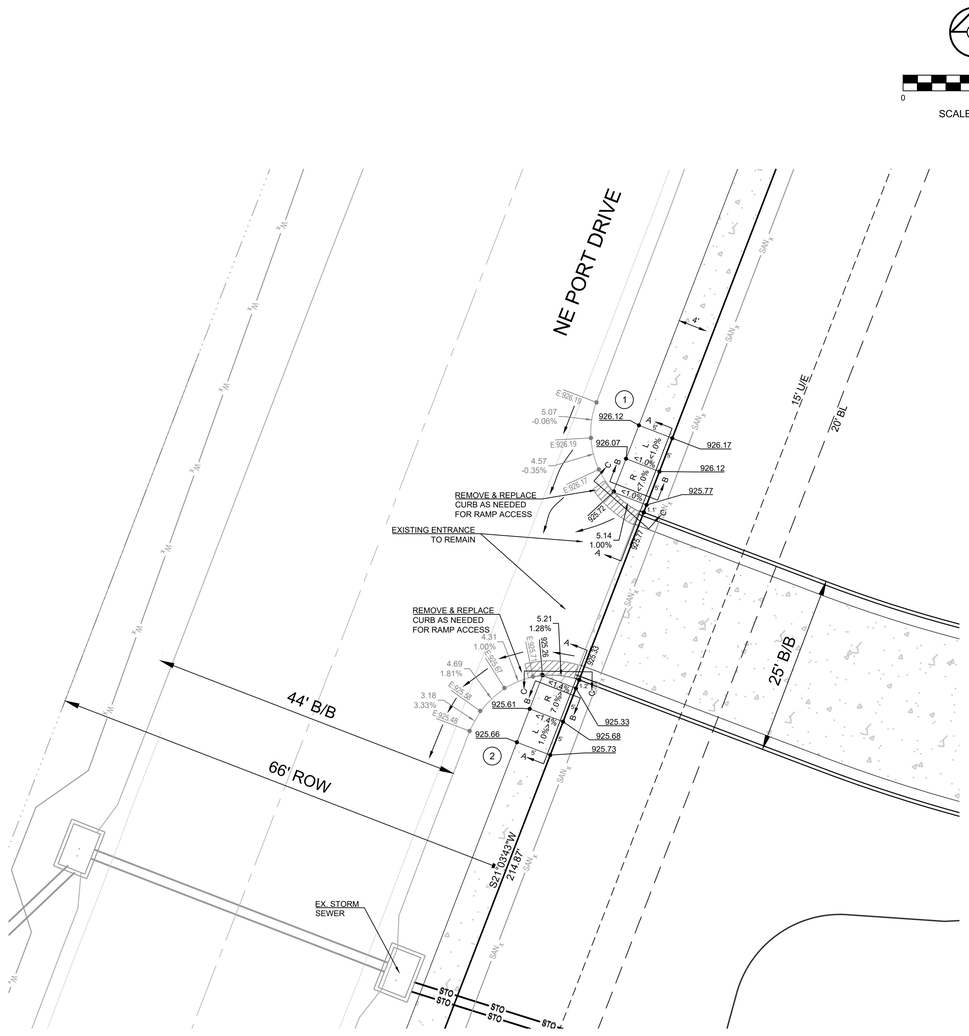
REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/26/2021	City Comments
3		
4		
5		
6		
7		

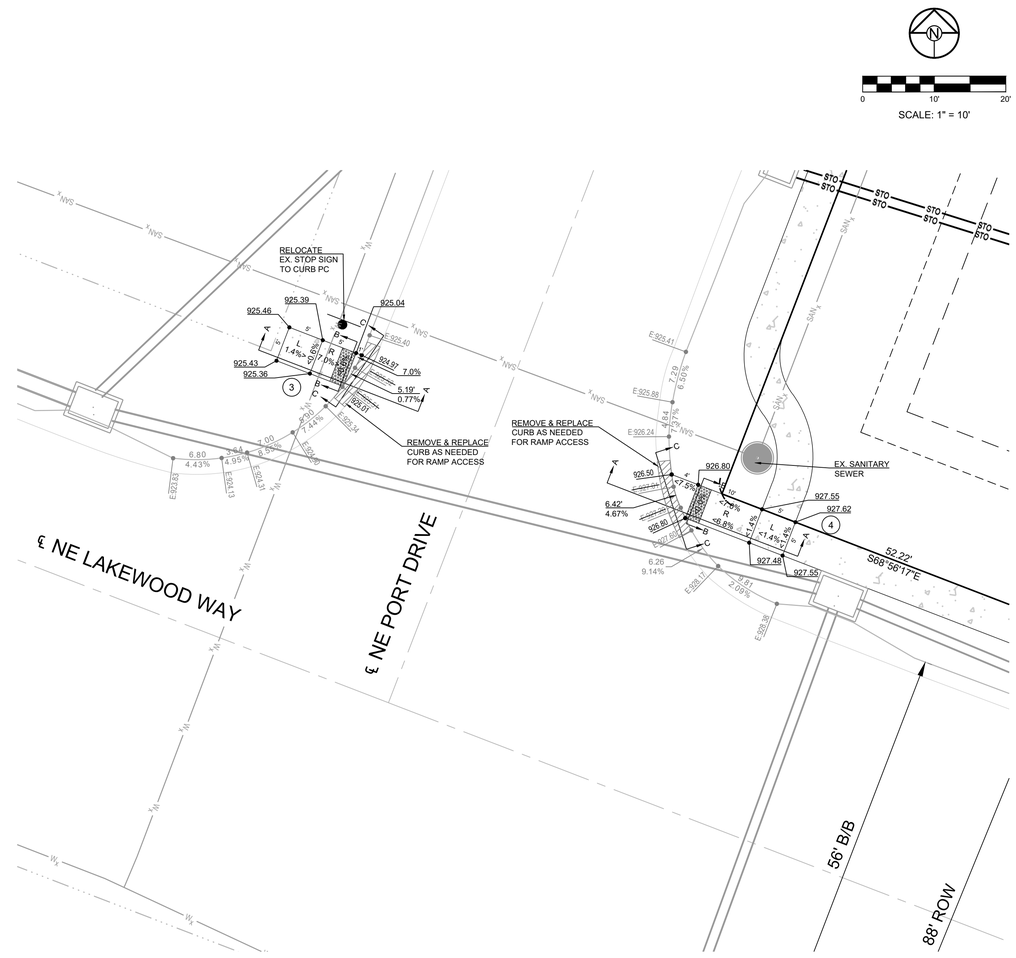
DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	08/25/2021
PROJ. NUMBER:	20-261

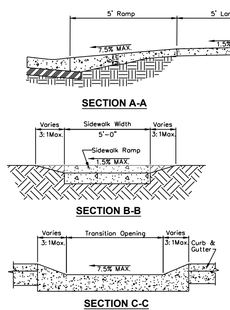
GRADING PLAN

SHEET
C2.0

I:\PROJECTS\2020\20-26113 0 Design\3.0 DWG Plans\3.0 FDP\20-261-2-FDP-GRAD.dwg, 8/26/2021 2:16:29 PM, 1:1

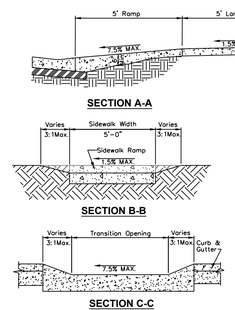






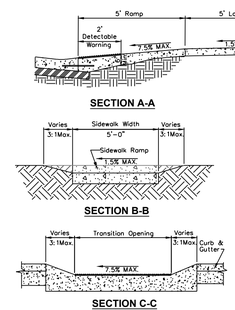
RAMP 1

N.T.S.



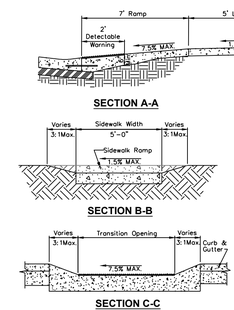
RAMP 2

N.T.S.



RAMP 3

N.T.S.



RAMP 4

N.T.S.

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificate of Authority
#E2000200380-F #LA2001005237 #LS2000200858S-F

PREPARED BY:

JEFFREY T. SKIDMORE
LICENSED
16516
KANSAS
PROFESSIONAL ENGINEER
8-26-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

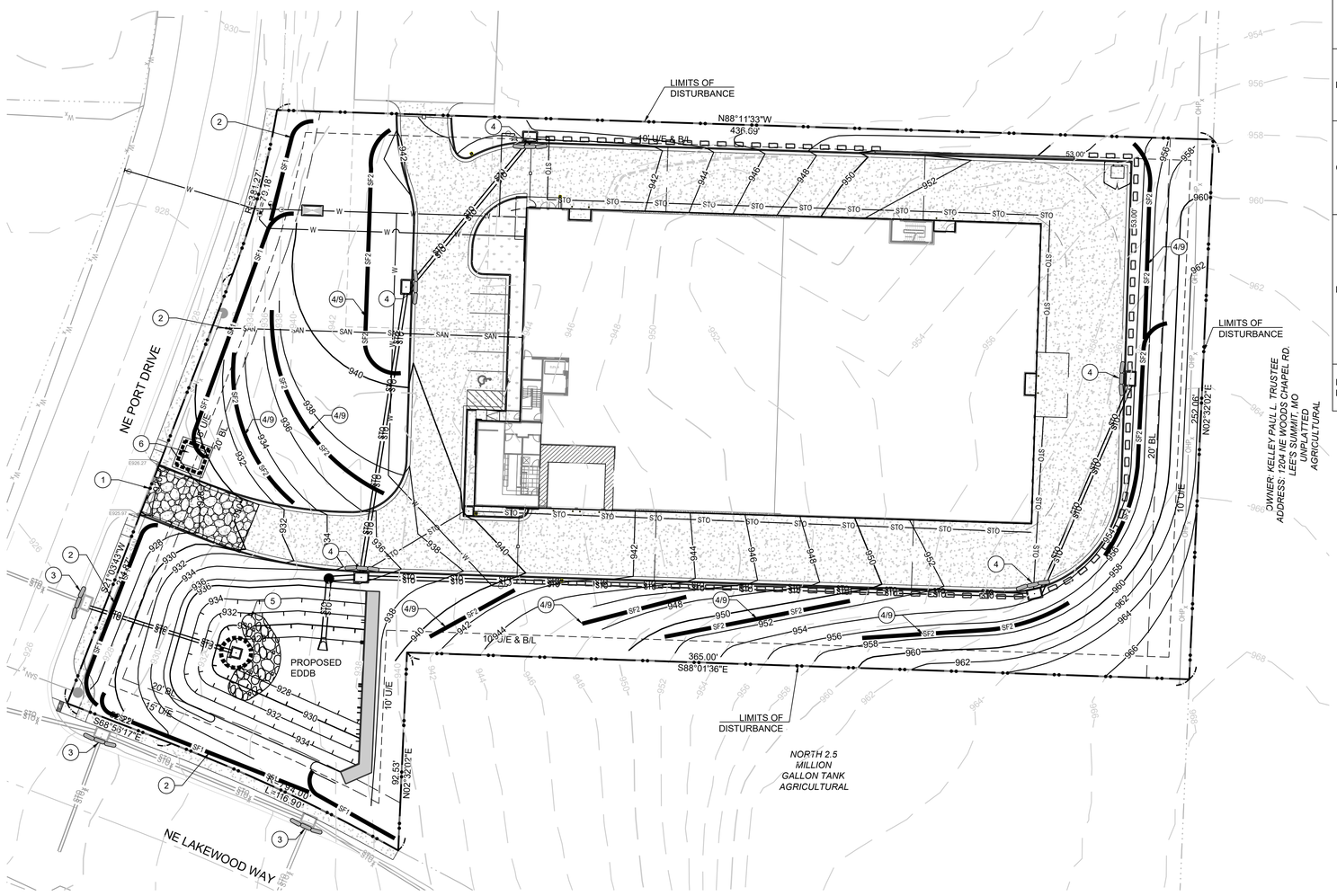
REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

INTERSECTION DTAILS

SHEET
C2.1

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-1-FDP-SITE.dwg, 8/26/2021 2:16:57 PM, 1:1



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	BMP PLAN REF. NO	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A - PRIOR TO LAND DISTURBANCE	1	CONSTRUCTION ENTRANCE & STAGING AREA	D	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
	2	SILT FENCE (PRIOR TO LAND DISTURBANCE)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	3	EXISTING INLET PROTECTION (GRAVEL CURB INLET SEDIMENT TRAP)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
B - MASS GRADING	4	SILT FENCE (DURING CONSTRUCTION)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	5	TEMP. SEDIMENT TRAP (REF. DETAIL ON SHEET C3.1)	E	TO BE INSTALLED PRIOR TO DISTURBING ENTIRE SITE.
C - UTILITY CONSTRUCTION	6	CONCRETE WASHOUT AREA	E	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
	7	INLET PROTECTION (SILT FENCE)	D/E	PLACE SILT FENCE AROUND ALL STORM SEWER STRUCTURES / YARD AREA STORM STRUCTURES PRIOR TO TOPS BEING PLACED SILT FENCE REMOVED & REPLACE WITH #7 BELOW WITH PLACEMENT OF TOPS AND/OR STABLIZATION OF DRAINAGE AREAS.
D - AFTER PAVING OPERATIONS	8	INLET PROTECTION (GRAVEL FILTER BAGS)	E	BOARDS SHALL BE PLACED IN FRONT OF INLET OPENING FROM THE TIME SILT FENCE IS REMOVED UNTIL SUCH TIME THAT THE CURB / THROAT IS POURED. PLACE GRAVEL FILTER BAGS AT THE OPENING OF ALL CURB INLETS IMMEDIATELY AFTER THE INLET THROATS ARE POURED
	9	SILT FENCE (AFTER CURB CONSTRUCTION)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	10	SEEDING AND MULCHING	E	ALL DISTURBED AREAS AFTER 14 DAYS OF CONSTRUCTION INACTIVITY
E - UNTIL CLOSURE OF LAND DISTURBANCE PERMIT	11			ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED ANY TIME CURRENT MEASURES ARE FOUND TO BE INEFFECTIVE.

DISTURBED AREA = 2.93 A.C.

SITE SPECIFIC NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
2. THERE ARE NO WETLANDS, NATURAL OR ARTIFICIAL WATER STORAGE DETENTION AREAS IN THE PROJECT AREA.
3. NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0414G DATED JANUARY 20, 2017.
4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART.
5. 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.
6. STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING BMPS. INITIAL STABILIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES CEASE.
7. ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.
8. SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING CONTRACTOR.
9. AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.

LEGEND

- TEMPORARY STORAGE AREA FOR EXCESS MATERIAL
- TEMP. CONSTRUCTION ENTRANCE AND STAGING AREA
- CONCRETE WASHOUT AREA
- SILT FOAM DIKE - STAKED & INSTALL PER MFR'S RECOMMENDATIONS
- ROCK DITCH CHECK
- GRAVEL CURB INLET SEDIMENT TRAP
- BMP PLAN REF. NO.
- SF1 — SILT FENCE (PRIOR TO LAND DISTURBANCE)
- SF2 — SILT FENCE (DURING CONSTRUCTION)
- X — CONSTRUCTION FENCE
- LIMITS OF DISTURBANCE
- 965 — EXISTING CONTOURS
- 965 — PROPOSED CONTOURS
- STRAW BALE DITCH CHECK
- GRAVEL FILTER FOR STORM SEWER STRUCTURES ONLY
- TEMP. SEDIMENT TRAP BERM

PROJECT BENCHMARK:

MONUMENT FOUND
CHISELED "SQUARE" ON STORM CURB INLET #30 AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148
EASTING: 2803318.5413

ELEV. 1004.09

MISSOURI ONE CALL SYSTEM
1-800-344-7483 or 811
mo1call.com

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificate of Authority #E2000030800-F #LA2000105237 #LS2000208559-F

PREPARED BY:

JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER
8-26-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

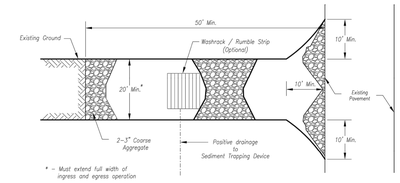
REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	
9	
10	

DRAWN BY: RPM
CHECKED BY: JTS
DATE PREPARED: 06/25/2021
PROJ. NUMBER: 20-261

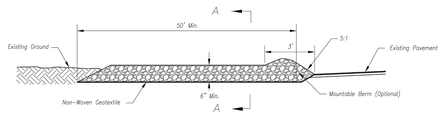
EROSION CONTROL PLAN

SHEET
C3.0

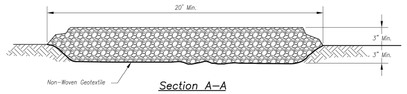
I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-5-FDP-ECP.dwg, 8/26/2021 2:17:28 PM, 1:1



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A–A
Not to Scale

Notes for Construction Entrance:

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

Maintenance for Construction Entrance:

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

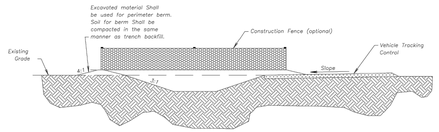
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

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

Maintenance for Concrete Washout:

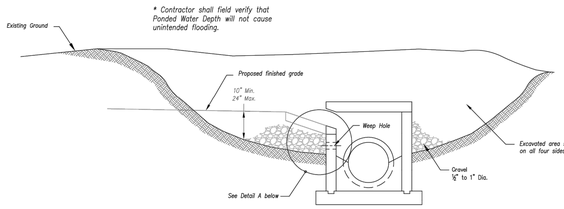
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface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

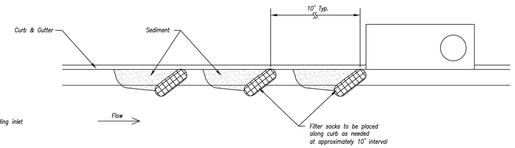


CONCRETE WASHOUT

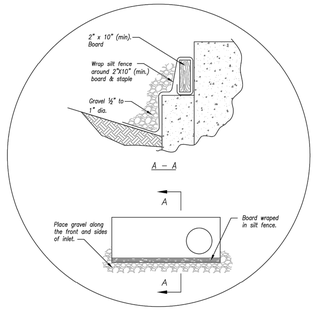
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016





On Grade Curb Inlet Protection



Detail A

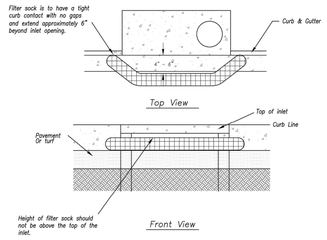
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

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

Maintenance:

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

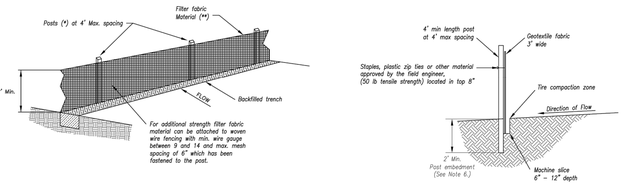


Sump Inlet Sediment Filter

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

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

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



(*) POSTS
– MIN. LENGTH 4'
– HARDWOOD: 1 ¾" x 1 ¾"
– NO.2 SOUTHERN PINE: 2 ⅛" x 2 ⅛"
– STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS
Not to Scale

Notes:

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

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

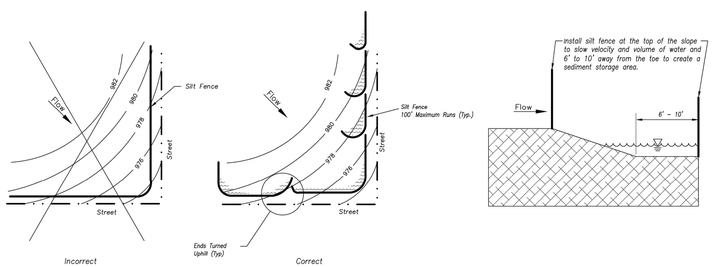
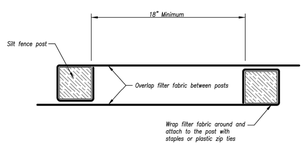


Figure A

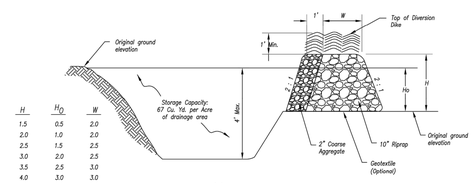
SILT FENCE LAYOUT
Not to Scale



JOINING FENCE SECTIONS
Not to Scale

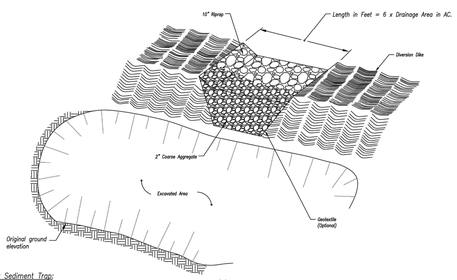
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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



H	H_O	W
1.5	0.5	2.0
2.0	1.0	2.0
2.5	1.5	2.5
3.0	2.0	2.5
3.5	2.5	3.0
4.0	3.0	3.0
4.5	3.5	4.0
5.0	4.0	4.5

(*) Cross Section of Outlet
Not to Scale



(*) Perspective View of Outlet
Not to Scale

(*) – The perspective view and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

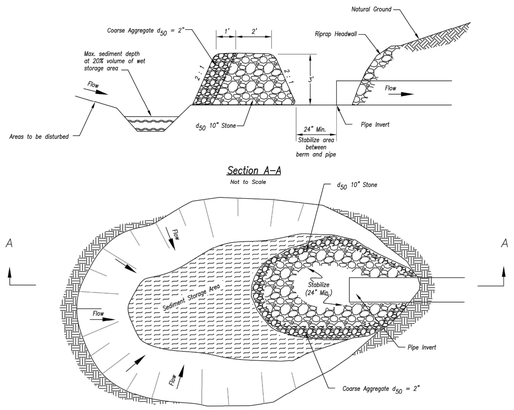
Notes for Sediment Trap:

1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 6-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP



Plan View
Not to Scale

Notes for Sediment Trap at Culvert Opening:

1. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
2. The inlet protection devices shall be constructed in such manner that any resultant ponding stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
3. Geometry of the design will be a horseshoe shape around the culvert inlet.
4. The toe of the riprap shall be no closer than 24" from the culvert opening to provide an acceptable emergency outlet for flows from larger storm events.
5. Storage requirements equivalent to that of temporary sediment trap.
6. 67 C.Y./Acre wet storage below base of stone.
7. 67 C.Y./Acre dry storage from base of stone to top of stone berm.

Maintenance for Sediment Trap at Culvert Opening:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP AT CULVERT OPENING

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

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER
SEDIMENT TRAPS
STANDARD DRAWING NUMBER ESC-08
ADOPTED: 10/24/2016

SCHLAGEL
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
#E2002000800-F #LA2001005237 #LS2002000859-F

PREPARED BY:

JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER 8-30-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

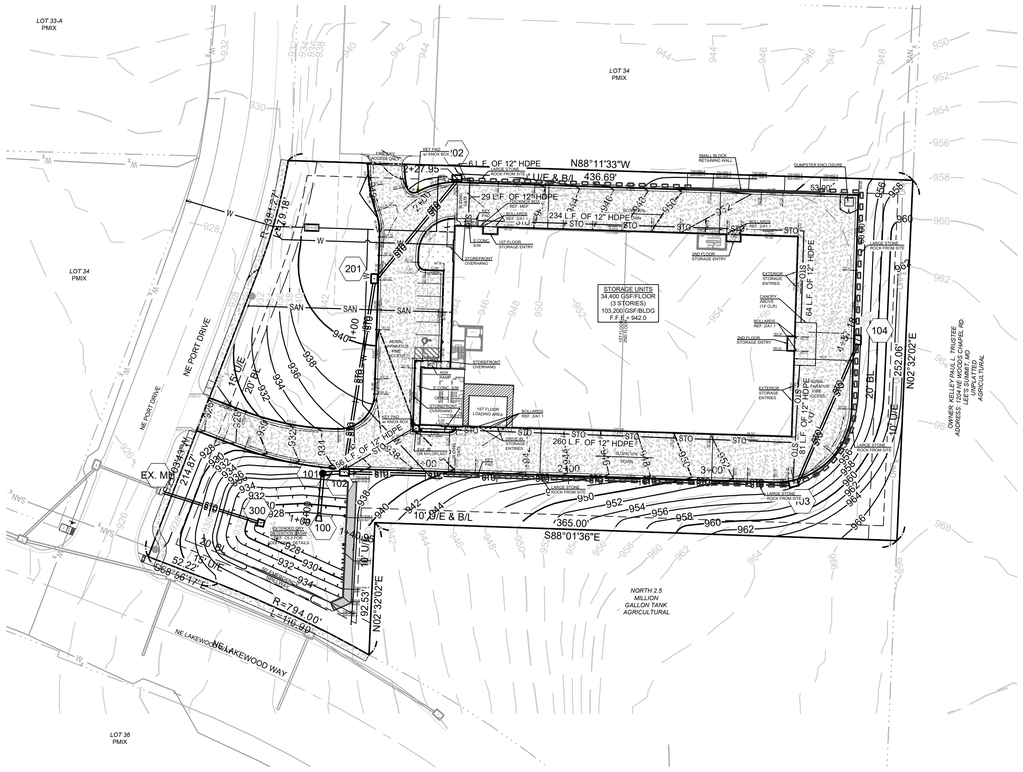
REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/26/2021	City Comments
3		
4		
5		
6		
7		
8		

DRAWN BY: RPM
CHECKED BY: JTS
DATE PREPARED: 06/25/2021
PROJ. NUMBER: 20-261

EROSION CONTOL DETAILS

SHEET C3.1

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-5-FDP-ECP.dwg, 8/26/2021 2:17:37 PM, 1:1



Schlagel & Associates, P.A.

Project Name:	LAKEWOOD BUSINESS PARK	Curb Type:	A
Project #:	18-222	City:	LEE'S SUMMIT
Time:	6/22/2021 11:14		

Design Storm:	10
"K" Value:	1.00

Runoff Calculations															Pipe Properties											
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Pipe Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top	HGL Elev.
LINE 100																									DS TAILWATER @ STR #100	FREE
101	0.00	0.70	2.83	1.98	5.6	7.18	0.00	14.24	25.70	8.18			0.00	0.00	101	100	PEP	0.012	24	28.19	1.10	3.01	926.31	926.00	935.12	927.97
102	1.95	0.70	2.83	1.98	5.6	7.18	9.82	14.24	64.84	20.64	201		0.32	0.22	102	101	PEP	0.012	24	15.10	7.00	0.50	930.38	929.32	935.50	932.04
103	0.28	0.70	0.56	0.39	5.2	7.30	1.44	2.87	24.13	13.65			0.00	0.00	103	102	PEP	0.012	18	314.03	4.50	0.50	945.00	930.88	953.21	945.76
104	0.28	0.70	0.28	0.20	5.0	7.35	1.44	1.44	17.18	9.72			0.00	0.00	104	103	PEP	0.012	18	109.83	2.28	0.50	948.00	945.50	953.33	948.53
LINE 200																			Drop in Inlet 102			0.50				
201	0.09	0.70	0.32	0.22	5.2	7.29	0.45	1.62	12.12	9.88			0.00	0.00	201	102	PEP	0.012	15	137.13	3.00	0.50	934.99	930.88	941.28	935.59
202	0.23	0.70	0.23	0.16	5.0	7.35	1.19	1.19	8.99	7.33			0.00	0.00	202	201	PEP	0.012	15	90.81	1.65	0.50	936.99	935.49	942.42	937.49

Design Storm:	100
"K" Value:	1.25

Runoff Calculations															Pipe Properties											
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Pipe Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top	HGL Elev.
LINE 100																									DS TAILWATER @ STR #100	FREE
101	0.00	0.70	2.83	1.98	5.6	10.09	0.00	25.01	25.70	8.18			0.00	0.00	101	100	PEP	0.012	24	28.19	1.10	3.01	926.31	926.00	935.12	928.64
102	1.95	0.70	2.83	1.98	5.6	10.09	17.24	25.02	64.84	20.64	201		0.32	0.22	102	101	PEP	0.012	24	15.10	7.00	0.50	930.38	929.32	935.50	932.70
103	0.28	0.70	0.56	0.39	5.2	10.24	2.53	5.04	24.13	13.65			0.00	0.00	103	102	PEP	0.012	18	314.03	4.50	0.50	945.00	930.88	953.21	946.04
104	0.28	0.70	0.28	0.20	5.0	10.32	2.53	2.53	17.18	9.72			0.00	0.00	104	103	PEP	0.012	18	109.83	2.28	0.50	948.00	945.50	953.33	948.72
LINE 200																			Drop in Inlet 102			0.50				
201	0.09	0.70	0.32	0.22	5.2	10.24	0.79	2.85	12.12	9.88			0.00	0.00	201	102	PEP	0.012	15	137.13	3.00	0.50	934.99	930.88	941.28	935.81
202	0.23	0.70	0.23	0.16	5.0	10.32	2.08	2.08	8.99	7.33			0.00	0.00	202	201	PEP	0.012	15	90.81	1.65	0.50	936.99	935.49	942.42	937.68

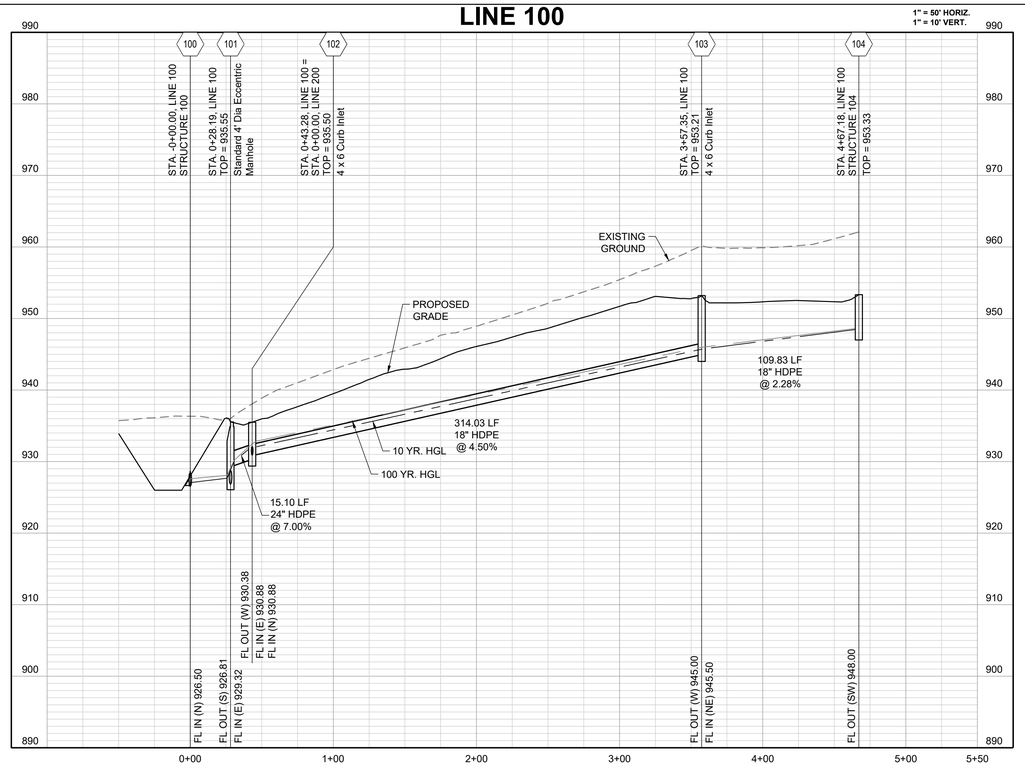
SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificates of Authority
#E2002000380-F #LA2001005237 #LS2002008859-F

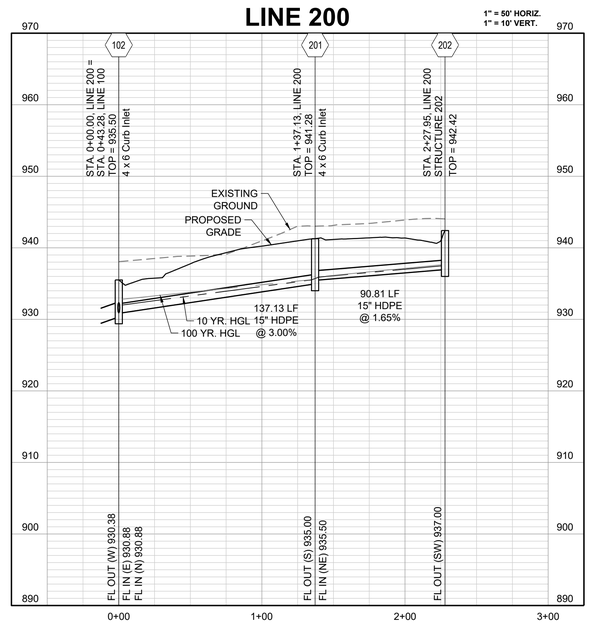
PREPARED BY:

JEFFREY T. SKIDMORE
LICENSED
16516
KANSAS
8-26-21
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

MISSOURI ONE CALL SYSTEM
1-800-344-7483 or 811
mo1call.com





Storm Sewer Construction Notes	
Structure	Notes
100	STA -0+00.00, LINE 100 INSTALL 24 INCH RCP F.E.S. 264°58'18" N 1026415.6767 E 2830785.4381
101	STA 0+28.19, LINE 100 INSTALL STANDARD 4' DIA ECCENTRIC MANHOLE 84°58'17" N 1026443.7542 E 2830787.9087
102	STA 0+43.28, LINE 100 INSTALL 4 X 6 CURB INLET 88°11'33" N 1026444.3471 E 2830802.9959
103	STA 3+57.35, LINE 100 INSTALL 4 X 6 CURB INLET 102°35'10" N 1026436.7618 E 2831116.9328
104	STA 4+67.18, LINE 100 INSTALL 4 X 6 CURB INLET 178°11'33" N 1026537.0354 E 2831161.7330
201	STA 1+37.13, LINE 200 INSTALL 4 X 6 CURB INLET 358°11'08" N 1026579.8758 E 2830823.9201

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

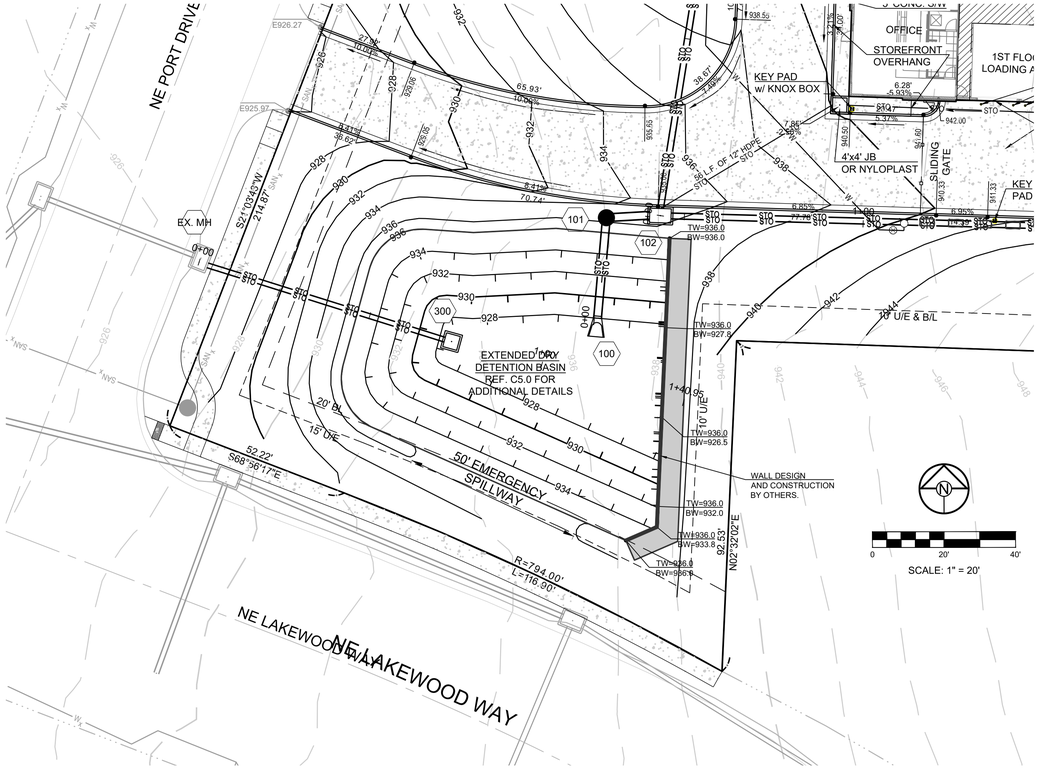
REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

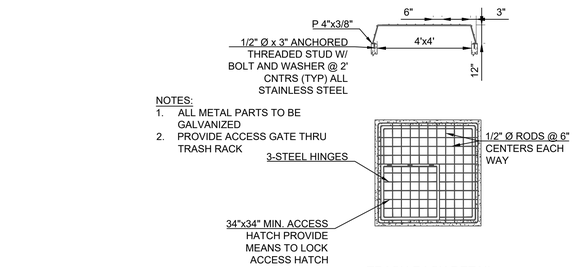
STORM SEWER
PLAN & PROFILE

SHEET
C4.0

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DVG Plans\3.0 FDP\20-261-3-FDP-STRM.dwg, 8/26/2021 2:18:17 PM, 1:1

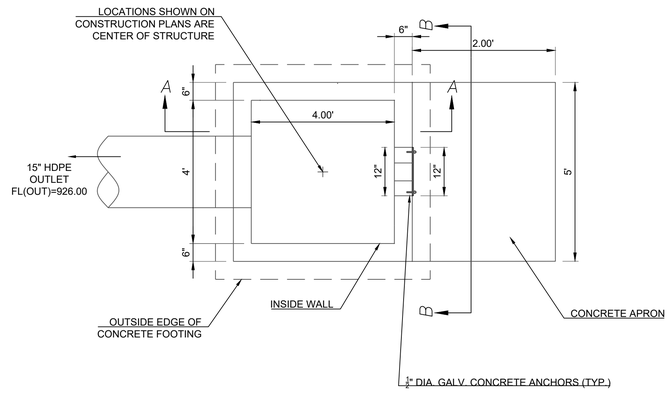


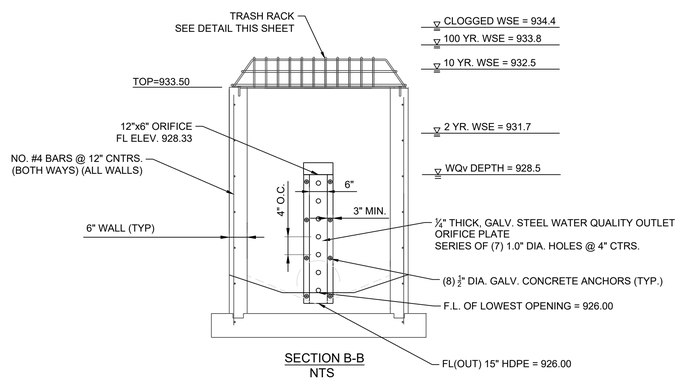
OUTLET STRUCTURE 300



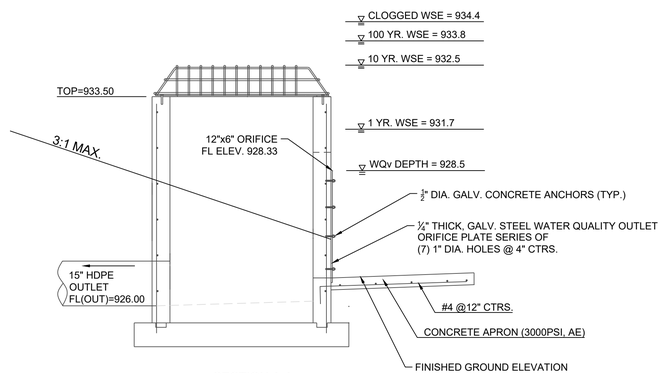
NOTES:
1. ALL METAL PARTS TO BE GALVANIZED
2. PROVIDE ACCESS GATE THRU TRASH RACK

TRASH RACK DETAIL





SECTION B-B
NTS



SECTION A-A
NTS

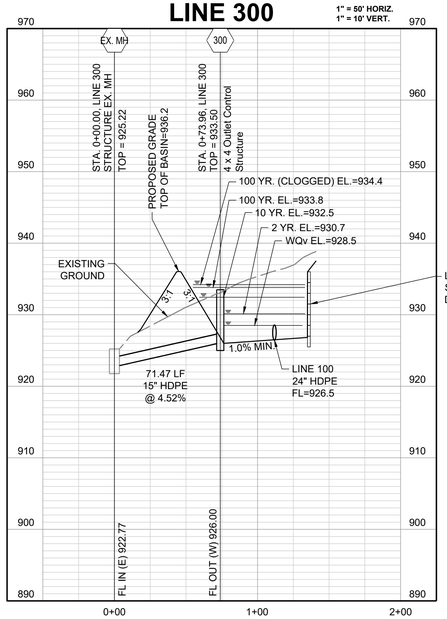
MISSOURI ONE CALL SYSTEM

1-800-344-7483 or 811
mo1call.com

SECTION VIEW OF DAM OUTLET STRUCTURE

LINE 300

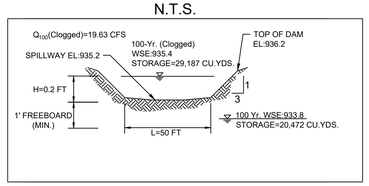
1" = 50' HORIZ.
1" = 10' VERT.



LARGE BLOCK WALL SEE STRUCTURAL PLANS FOR DETAILS (SEPARATE PLAN SET)

PROFILE VIEW EMERGENCY SPILLWAY

N.T.S.



OVERFLOW CALCULATIONS:

$Q = C * L * H^{(3/2)}$

- $Q = Q_{100}$
- C = 3.33
- L = BASE WIDTH
- H = HEIGHT

Storm Sewer Construction Notes	
Structure	Notes
300	STA 0+73.96, LINE 300 INSTALL 4 X 4 OUTLET CONTROL STRUCTURE 344°39'59" N 1026409.1464 E 2830744.6401

SCHLAGEL
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
#E2000200880-F #LA2001005237 #LS2000200859-F

PREPARED BY:

JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER 8-26-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

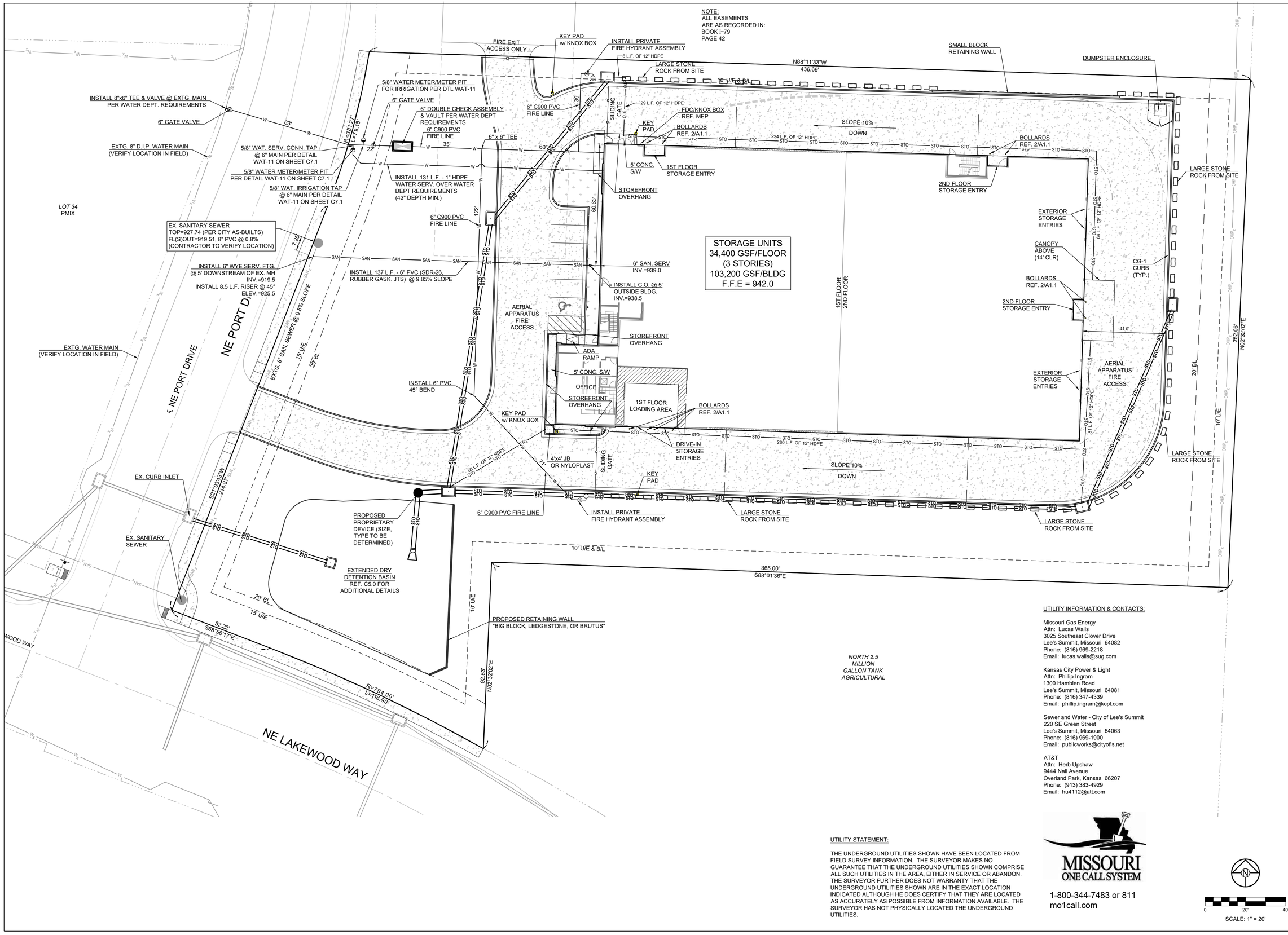
REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/26/2021	City Comments
3		
4		
5		
6		
7		
8		

DRAWN BY: RPM
CHECKED BY: JTS
DATE PREPARED: 06/25/2021
PROJ. NUMBER: 20-261

DETENTION BASIN PLAN & PROFILE

SHEET
C5.0

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-3-FDP-STRM.dwg, 8/26/2021 2:18:28 PM, 1:1



UTILITY INFORMATION & CONTACTS:

Missouri Gas Energy
Attn: Lucas Walls
3025 Southeast Clover Drive
Lee's Summit, Missouri 64082
Phone: (816) 969-2218
Email: lucas.walls@sug.com

Kansas City Power & Light
Attn: Phillip Ingram
1300 Hamblen Road
Lee's Summit, Missouri 64081
Phone: (816) 347-4339
Email: phillip.ingram@kcpl.com

Sewer and Water - City of Lee's Summit
220 SE Green Street
Lee's Summit, Missouri 64063
Phone: (816) 969-1900
Email: publicworks@cityofls.net

AT&T
Attn: Herb Upshaw
9444 Nall Avenue
Overland Park, Kansas 66207
Phone: (913) 383-4929
Email: hu4112@att.com

UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDON. THE SURVEYOR FURTHER DOES NOT WARRANTY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

MISSOURI
ONE CALL SYSTEM
1-800-344-7483 or 811
mo1call.com

0 20' 40'
SCALE: 1" = 20'

SCHLAGEL
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
#E2000200380-F #LA2001005237 #LS2000208859-F

PREPARED BY:

JEFFREY T. SKIDMORE
LICENSED
16516
KANSAS
PROFESSIONAL ENGINEER
8-26-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

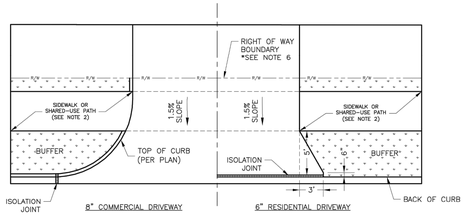
REVISION DATE	DESCRIPTION
08/13/2021	City Comments
08/26/2021	City Comments

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

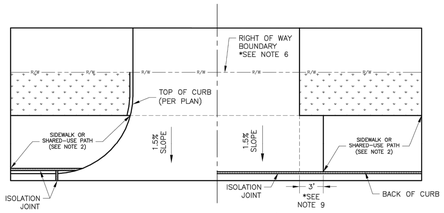
UTILITY PLAN

SHEET
C6.0

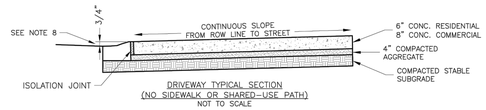
I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-4-FDP-UTIL.dwg, 8/26/2021 2:18:55 PM, 1:1



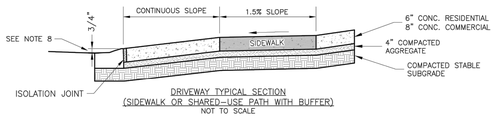
DRIVEWAY WITH BUFFER
NOT TO SCALE



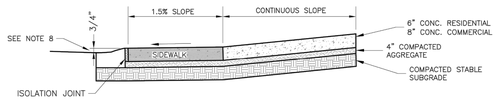
DRIVEWAY WITHOUT BUFFER
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(NO SIDEWALK OR SHARED-USE PATH)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)
NOT TO SCALE

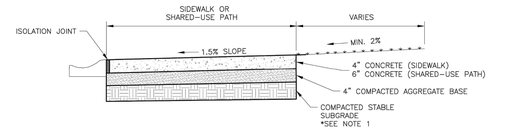
GENERAL NOTES
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL).
3. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
5. COMMERCIAL DRIVEWAYS AND DRIVEWAY APPROACHES, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
9. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
10. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

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

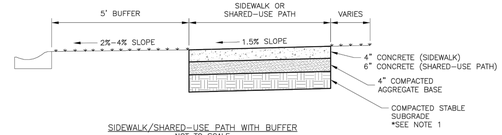
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: DRIVEWAY DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-1



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE

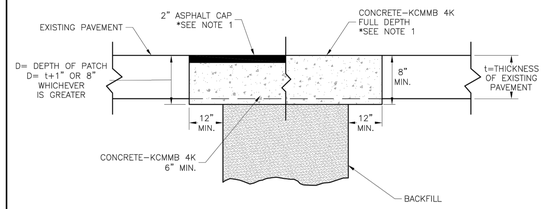


SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
6. SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
7. SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SIDEWALK/SHARED-USE PATH DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL
GEN-2

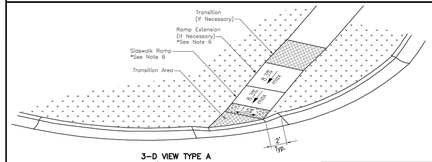


TRENCHING/PATCHING DETAIL
NOT TO SCALE

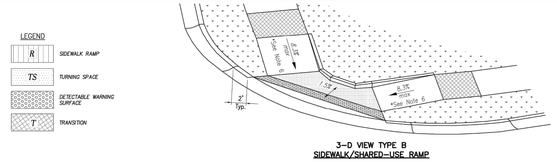
NOTE:
1. ASPHALT CAP OR FULL DEPTH CONCRETE SHALL BE DETERMINED BY CITY INSPECTOR.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
TRENCHING/PATCHING ROADWAYS DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL
GEN-5

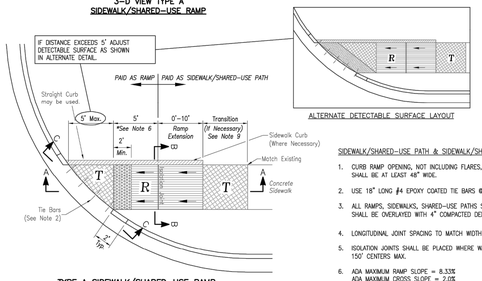


3-D VIEW TYPE A
SIDEWALK/SHARED-USE RAMP

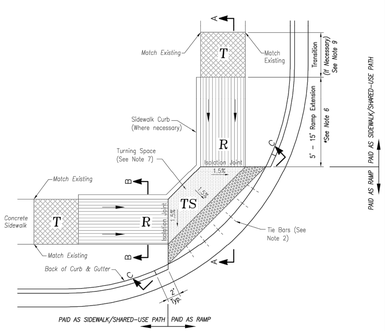


3-D VIEW TYPE B
SIDEWALK/SHARED-USE RAMP

LEGEND
- R — SIDEWALK RAMP
- TS — TURNING SPACE
- DETECTABLE WARNING SURFACE
- T — TRANSITION

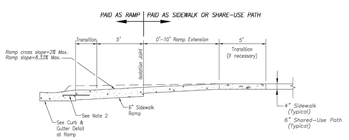


TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale

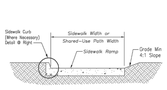


TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale

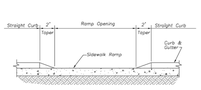
SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



SECTION A-A

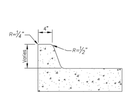


SECTION B-B

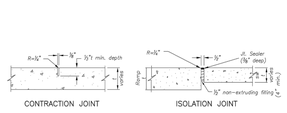


SECTION C-C

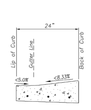
TYPE A & B SIDEWALK RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale



CONTRACTION JOINT
ISOLATION JOINT
JOINT DETAILS
Not to Scale



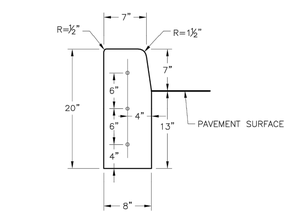
CURB & GUTTER DETAIL AT RAMP
Not to Scale

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

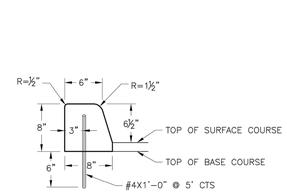
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: ADA RAMP RETROFIT DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

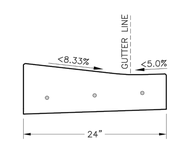
GEN-3A



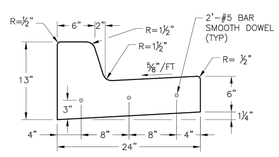
STRAIGHT CURB
(TYPE C-1)



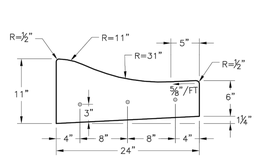
DOWELLED CURB
(TYPE DC)



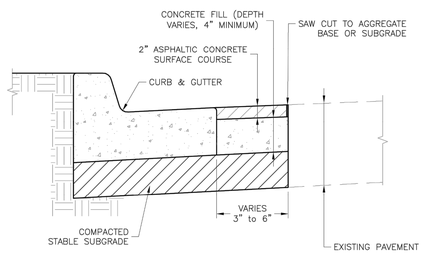
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



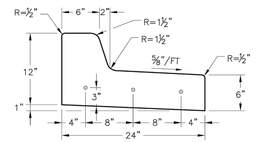
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



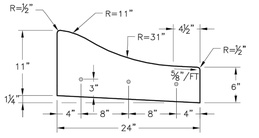
ROLL BACK CURB & GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)



ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

GENERAL NOTES
1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

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

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

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-4

GENERAL NOTE:
ALL NEW CURB AND GUTTER SHALL BE INSTALLED ON AN AGGREGATE BASE, A STABILIZED SUBGRADE OR GEOGRID EXTENDING A MINIMUM OF 1 FOOT (1.0') BEHIND THE BACK OF CURB.

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificate of Authority
#E2000200380-F #LA2000105237 #LS2000208859-F

PREPARED BY:

JEFFREY T. SNIDER LICENSED 16516 KANSAS PROFESSIONAL ENGINEER
8-30-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

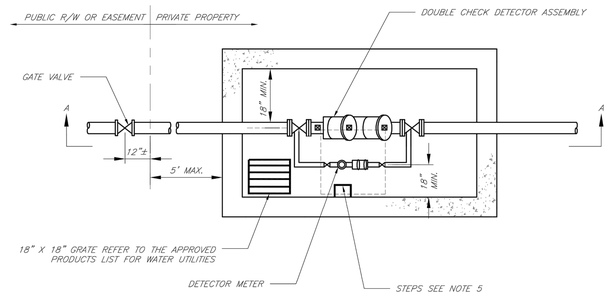
REVISION DATE	DESCRIPTION
08/13/2021	City Comments
08/26/2021	City Comments

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

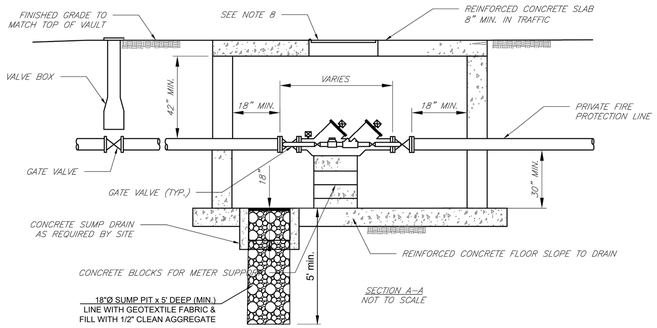
SITE DETAILS

SHEET
C7.0

I:\PROJECTS\2020\20-26113.0 Design\3.0 DWG Plans\3.0 FDP\20-26113-FDP-DTL.dwg, 8/26/2021 2:19:14 PM, 1:1



PLAN VIEW
NOT TO SCALE



SECTION A–A
NOT TO SCALE

GENERAL NOTES:

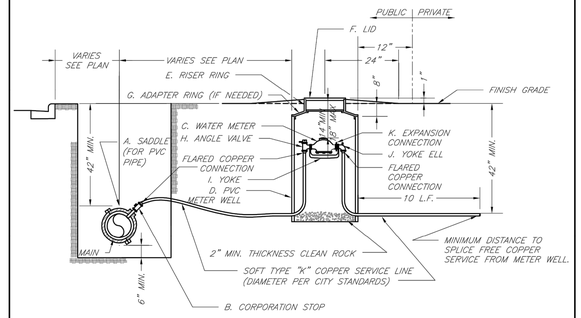
1. METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE WITH OPENING CENTERED OVER DETECTOR METER. REINFORCED WALLS AND SLABS ARE TO BE DESIGNED BY THE OWNER'S ENGINEER OR PRECAST ENGINEER.
2. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA AND WHERE SURFACE WATER WILL NOT DRAIN INTO IT. PROVIDE CONCRETE SUMP TO DRAIN TO AN ABOVE GROUND DISCHARGE POINT.
3. ALL PIPE AND FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
4. ALL FITTINGS FOR THE DETECTOR METER TO BE BRASS.
5. STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16" CENTERS.
6. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT WATER UTILITIES AT 816-969-1900.
7. ALL VALVES SHALL HAVE RISING STEMS.
8. MANHOLE COVER SHALL BE A BILCO K-1 MODEL UNLESS IN A VEHICLE TRAFFIC AREA. SEE THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR TRAFFIC CONDITIONS. THE COVER SHALL HAVE A 1-3/4" ø HOLE DRILLED FOR A TOUCH/READ DEVICE.
9. A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC.
10. CONTACT PUBLIC WORKS ENGINEERING FOR VAULTS THAT INCLUDE A FIRE DEPARTMENT CONNECTION OR A 3" OR LARGER METER.

CITY OF LEE'S SUMMIT, MO
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

STANDARD DRAWINGS

Project:
Sheet Name: VAULT FOR DOUBLE CHECK DETECTOR CHECK

Drawn By: AS
Checked By: DL
Date: 1/14
Rev: 1/14
or
WAT–12



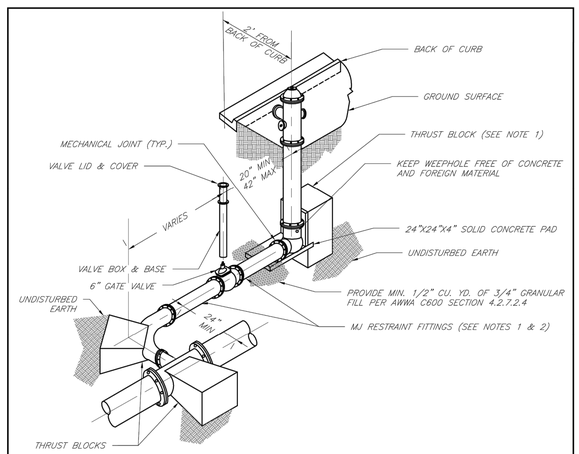
TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

NOTES:

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

LS
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SERVICE CONNECTION/METER WELL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–11
Rev: 1/14
Rev:

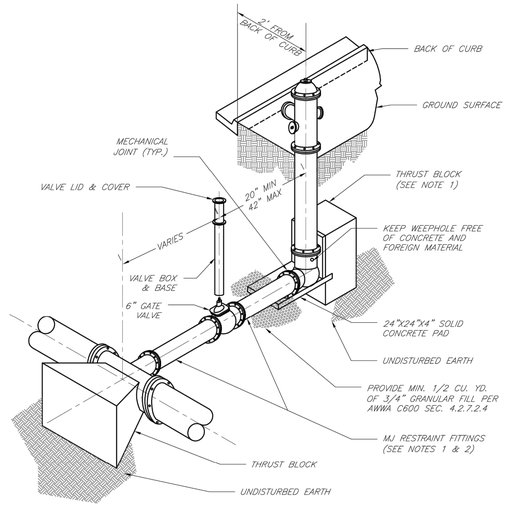


NOTES:

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

LS
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HYDRANT WITH 90 DEGREE BEND

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–8
Rev: 1/14
Rev:



NOTES:

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

LS
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HYDRANT INSTALLATION – STRAIGHT SET

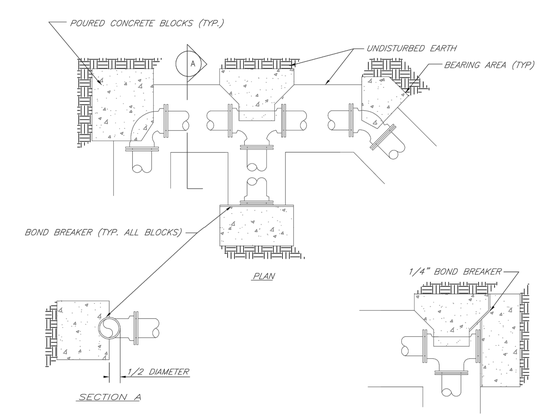
Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–7
Rev: 1/14
Rev:

REQUIRED CONCRETE BEARING AREA (SQUARE FEET – SF)

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

NOTES:

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



LS
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
HORIZONTAL THRUST BLOCKS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT–1
Rev: 1/14
Rev:

SCHLAGEL
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
#E2002000080-F #LA2001005237 #LS2002000859-F

PREPARED BY:

JEFFREY T. SKIDMORE
LICENSED
16516
KANSAS
PROFESSIONAL ENGINEER
8-26-21

SCHLAGEL & ASSOCIATES, P.A.

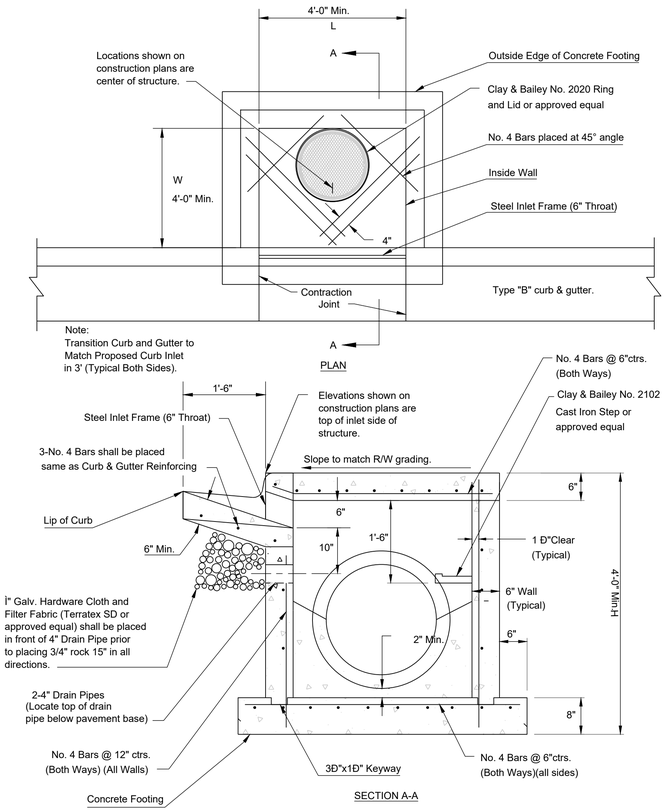
LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	
9	
10	

DRAWN BY: RPM
CHECKED BY: JTS
DATE PREPARED: 06/25/2021
PROJ. NUMBER: 20-261

SITE DETAILS

SHEET
C7.1



NON-SETBACK CURB INLET
(6" Throat)

NOTES:

General

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 Prior to casting.

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.

Concrete

5. Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board, unless noted otherwise.

6. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition, unless noted otherwise.

7. Inlet floors shall be shaped with non-reinforced concrete inverts to provide smooth flow.

8. Bevel all exposed edges with 3/4" triangular molding.

Reinforcing Steel

9. Reinforcing steel shall be new billet, minimum Grade 40 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 +/- 1/8" 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.

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.

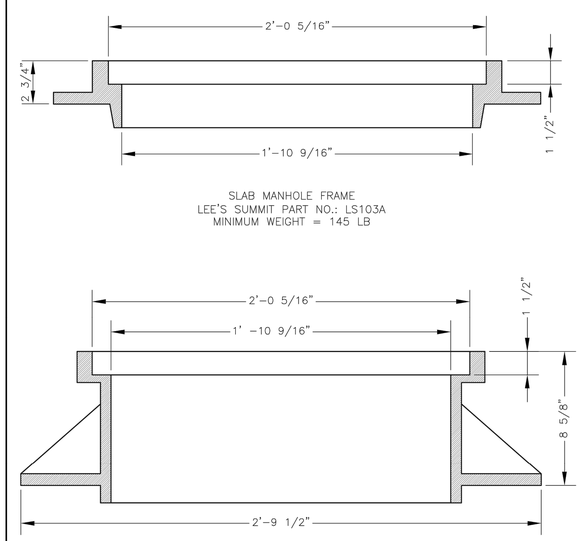
Construction

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 structure.

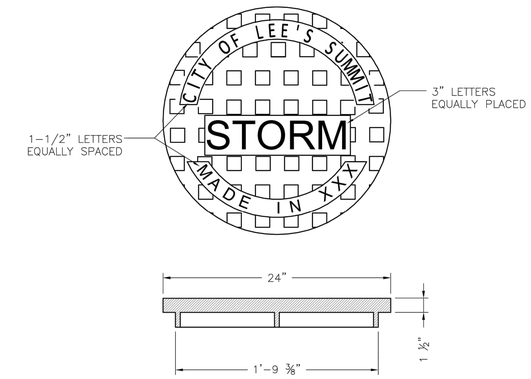
16. Material selection and compaction requirements for backfill around structures shall be as specified in the project manual.

NON-SETBACK CURB INLET



*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

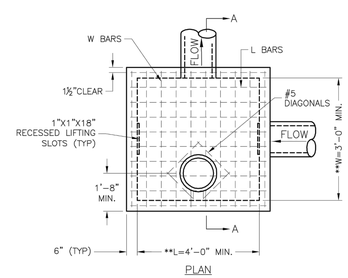
LS **LEE'S SUMMIT** MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STORM MANHOLE FRAME DETAIL
Date: 04/17 | Drawn By: MJF | Checked By: DL | STM-7

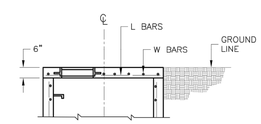


STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LS **LEE'S SUMMIT** MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STORM MANHOLE COVER DETAIL
Date: 04/17 | Drawn By: MJF | Checked By: DL | STM-6



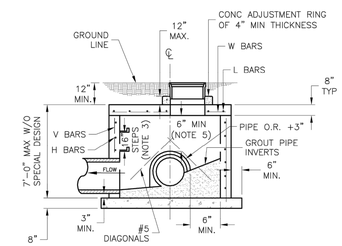


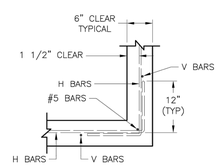
SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

** INCREASE IN MULTIPLES OF 6" (7'-0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6





WALL CORNER DETAIL

GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
5. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LS **LEE'S SUMMIT** MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: JUNCTION BOX DETAIL
Project:
Drawn By: MJF | Checked By: DL | Date: 04/17 | Proj. #:
STM-3

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
www.schlagelassociates.com
Missouri State Certificate of Authority
#E2002000800-F #LA2001005237 #LS2002000859-F
PREPARED BY:
JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER
SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

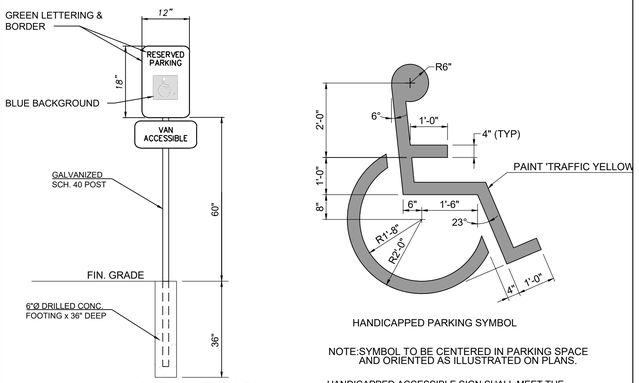
REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/26/2021	City Comments
3		
4		
5		
6		
7		
8		

DRAWN BY: RPM | CHECKED BY: JTS | DATE PREPARED: 06/25/2021 | PROJ. NUMBER: 20-261

SITE DETAILS

SHEET C7.2

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-6-FDP-DTL.dwg, 8/26/2021 2:19:28 PM, 1:1

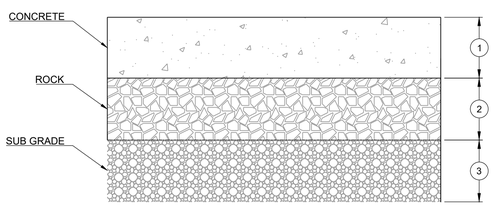


HANDICAP SIGN
(SEE PLAN FOR LOCATION)

NOTE:SYMBOL TO BE CENTERED IN PARKING SPACE AND ORIENTED AS ILLUSTRATED ON PLANS.

HANDICAPPED ACCESSIBLE SIGN SHALL MEET THE REQUIREMENTS AS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - SIGN R7-8.

TYPICAL HANDICAPPED PARKING DETAILS



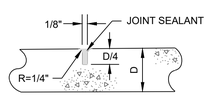
DRIVE AND PARKING AREAS

1. 8" - 4000 PSI PCC PAVEMENT
2. 4" - 3/4" CLEAN ROCK
3. 9" STABILIZED SUBGRADE

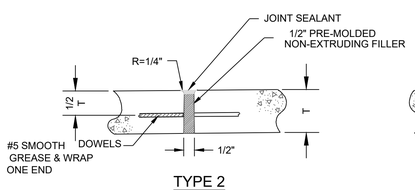
TRASH AREA

1. 8" - 4000 PSI PCC PAVEMENT
2. 4" - 3/4" CLEAN ROCK
3. 9" STABILIZED SUBGRADE

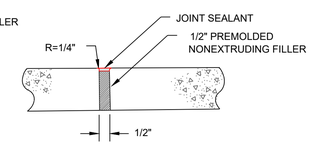
TYPICAL CONCRETE PAVEMENT SECTION



TYPE 1



TYPE 2



TYPE 3

NOTES:

1. TYPE 1 JOINTS MAY BE CONSTRUCTED WITH A GROOVING TOOL OR WITH A CONCRETE SAW AFTER THE CONCRETE IS SET.
2. TYPE 1 JOINTS SHALL BE SPACE TO EQUAL THE WIDTH OF THE SIDEWALK.

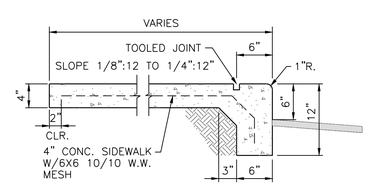
NOTES:

1. TYPE 2 JOINTS SHALL BE PLACED @ ALL P.C.'s, P.T.'s AND TRANSITIONS, AND WHERE NEW WALK TIES INTO EXISTING WALK.
2. SMOOTH BARS SHALL BE 24" LONG.

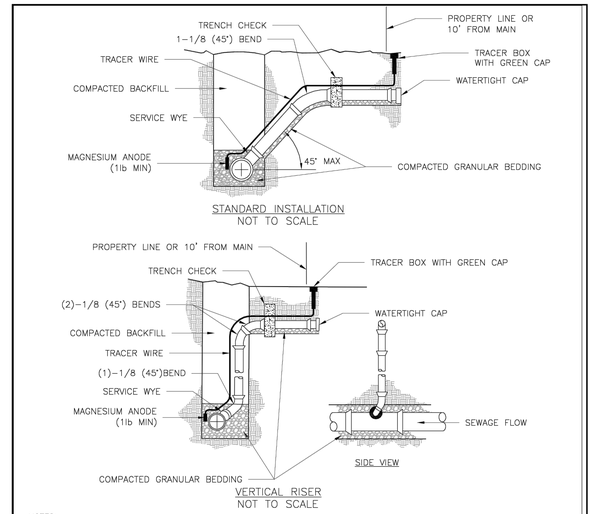
NOTE:

1. TYPE 3 JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE DOWEL BARS ARE NOT REQUIRED BY THE ENGINEER.

TYPICAL CONCRETE PAVEMENT - JOINT DETAILS



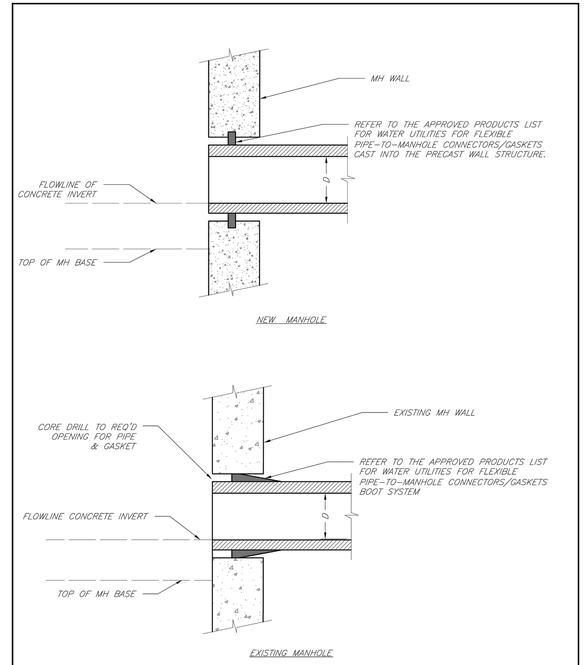
INTEGRAL CURB/SIDEWALK DETAIL



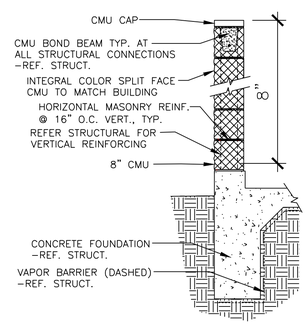
NOTES:

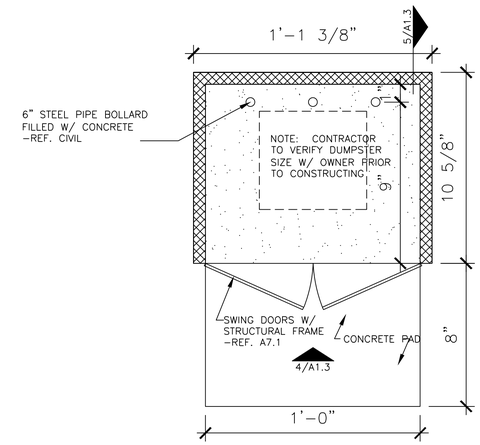
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36" ABOVE GROUND AND PAINTED GREEN.
3. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
4. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
5. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
6. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
7. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
8. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
9. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

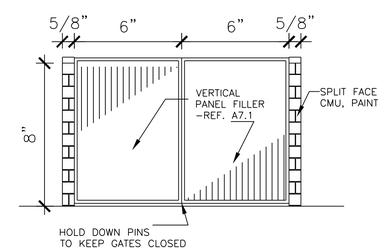
LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 04/17 Drawn By: MJF Checked By: DL
	BUILDING SEWER STUB AND RISER	SAN-1



LS	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 02/13 Drawn By: JN Checked By: DL FILE: SAN-5
	MANHOLE WALL CONNECTIONS	Rev: 1/14 Rev:







SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 W. 107TH STREET • LENEXA, KANSAS 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificates of Authority
#E2000003800-F #LAC2001005237 #LS2000008859-F

PREPARED BY:

JEFFREY T. SKIDMORE LICENSED 16516 KANSAS PROFESSIONAL ENGINEER 8-30-21

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE
LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/30/2021	City Comments
3	
4	
5	
6	
7	
8	

DRAWN BY:	KPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

SITE DETAILS

SHEET
C7.3

AFA	15 EA.	Acer x freemanii 'Armstrong'	Armstrong Maple	3" Cal.	B&B
QRR	6 EA.	Quercus robur x bicolor(aka x warei) 'Long'	Regal Prince Oak	3" Cal.	B&B
TAR	5 EA.	Tilia americana 'Redmond'	Redmond Linden	3" Cal.	B&B
ZSM	13 EA.	Zelkova serrata 'Musashino'	Musashino Columnar Zelkova	3" Cal.	B&B
EVERGREEN TREES					
JCSP	8 EA.	Juniperus chinensis 'Spartan'	Spartan Juniper	8' Ht.	B&B
JVC	8 EA.	Juniperus virginiana 'Canaertii'	Canaert Juniper	8' ht.	B&B
PS	8 EA.	Pinus strobus	White Pine	8' ht.	B&B
ORNAMENTAL TREES					
AGA	5 EA.	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	3" Cal. & 8' Ht.	B&B
SRI	5 EA.	Syringa reticulata 'Ivory Silk'	Ivory Silk Lilac	3" Cal. & 8' ht.	B&B
SHRUBS					
BSW	28 EA.	Buxus sinica var. insularis 'Wintergreen' fka a microphylla var.	Wintergreen Boxwood	5 gal.	Cont.
CSA	14 EA.	Cornus sericea 'Farrow'	Arctic Fire Red Twig Dogwood	5 gal.	Cont.
JVG	31 EA.	Juniperus virginana 'Grey Owl'	Grey Owl Juniper	5 gal.	Cont.
VCK	8 EA.	Viburnum carlesii 'Korean Spice'	Koreanspice Viburnum	5 gal.	Cont.
GRASSES					
CAK	11 EA.	Calamagrstis x acutifolia 'Karl Foerster'	Karl Foerster Grass	2 gal.	Cont.

NOTE: MODIFICATION REQUESTED FOR PLANT SIZES

NOTES:

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 AND ANSI A60.1 THE AMERICAN STANDARD FOR NURSERY STOCK.
4. ALL TREES SHALL MEET THE SIZE REQUIREMENTS OF THE LEE'S SUMMIT ORDINANCE. 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.

LANDSCAPE DATA LOT 1 ONLY

STREET FRONTAGE LANDSCAPE

LAKEWOOD WAY TREES REQUIRED(1 PER 30')(169.12'/30')	6 TREES
LAKEWOOD WAY TREES PROVIDED	6 NEW TREES
PORT DRIVE TREES REQUIRED(1 PER 30')(294.05'/30')	10 TREES
PORT DRIVE TREES PROVIDED	11 NEW TREES
LAKEWOOD WAY SHRUBS REQUIRED(1 PER 20')(169.12'/20')	9 SHRUBS
LAKEWOOD WAY SHRUBS PROVIDED	9 SHRUBS
PORT DRIVE SHRUBS REQUIRED(1 PER 20')(294.05'/20')	15 SHRUBS
PORT DRIVE SHRUBS PROVIDED	15 SHRUBS (IN PARKING LOT SCREEN)

SITE LANDSCAPE REQUIRED

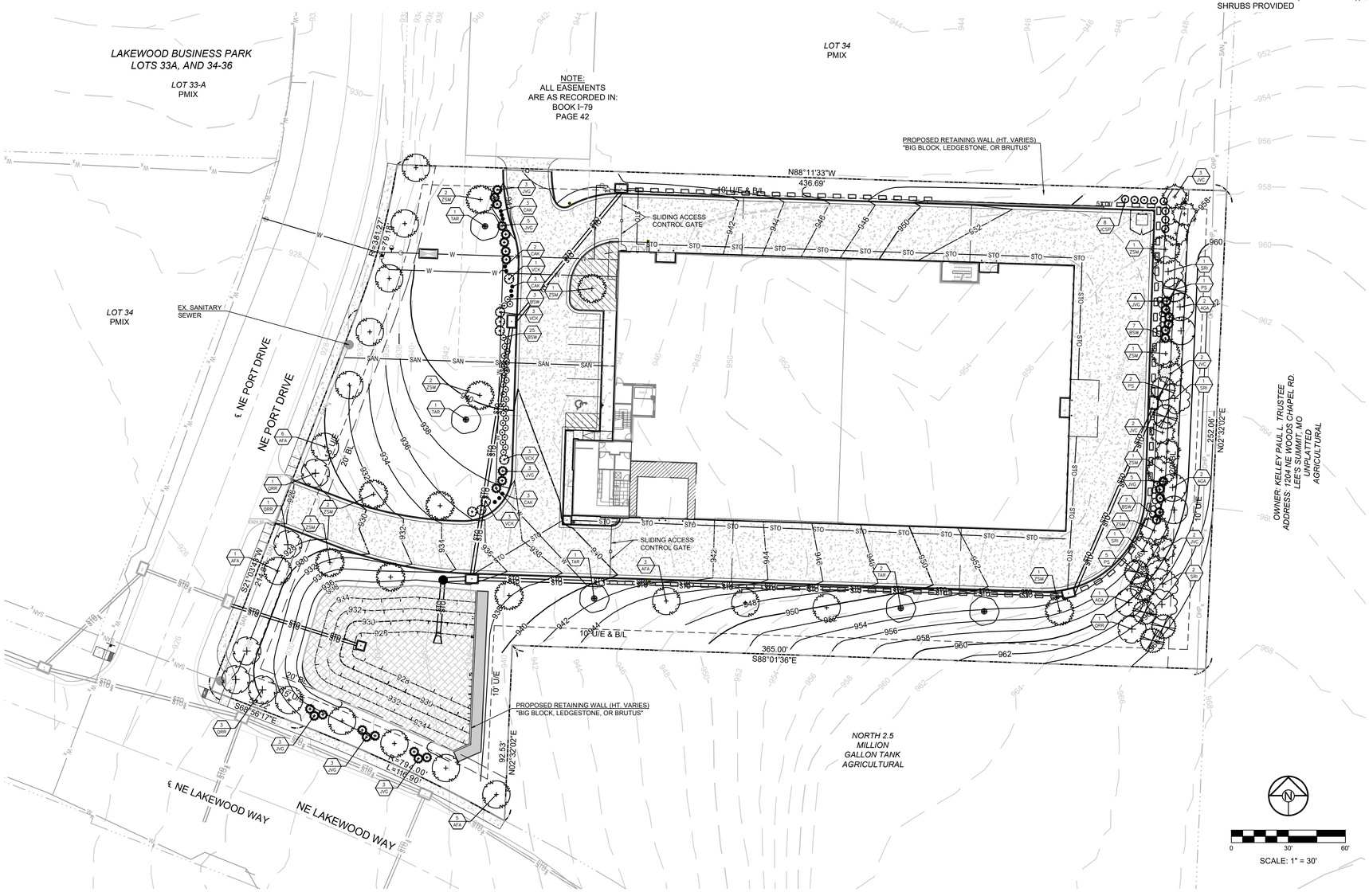
TREES REQUIRED (1 PER 5,000 S.F OF OPEN SPACE)(93,083/5000)	19 TREES
TREES PROVIDED	19 TREES (3 IN BUFFER SCREEN)
SHRUBS REQUIRED (2 PER 5,000 S.F. OF LOT AREA)(93,083/5000X2)	37 SHRUBS
SHRUBS PROVIDED	37 SHRUBS (25 IN BUFFER, 12 IN FRONT)

PARKING LOT LANDSCAPE

LANDSCAPE AREA REQUIRED(5% OF PARKING AREA)(2741.0 x 0.05)	138 S.F.
LANDSCAPE AREA PROVIDED	738.0 S.F.
TREES REQUIRED (1 PER ISLAND)	1 TREE
TREES PROVIDED	1 TREE
SCREENING (2.5 FT. HT ALONG ENTIRE FRONTAGE ADJ. TO STREET)	58 SHRUBS (12 FROM OPEN SPACE, 15 FROM LAKEWOOD WAY)

MEDIUM IMPACT LANDSCAPE BUFFER- EAST BOUNDARY

TREES REQUIRED (1 PER 1,000 S.F.)(5,041/1,000)	5 TREES
TREES PROVIDED	5 TREES (3 FROM OPEN SPACE)
ORNAMENTAL TREES REQUIRED (1 PER 500 S.F.)(5,041/500)	10 TREES
ORNAMENTAL TREES PROVIDED	10 TREES
EVERGREEN TREES REQUIRED (1 PER 300 S.F.)(5,041/300)	17 TREES
EVERGREEN TREES PROVIDED	17 TREES
SHRUBS REQUIRED (1 PER 200 S.F.)(5,041/200)	25 SHRUBS
SHRUBS PROVIDED	25 SHRUBS (25 FROM OPEN SPACE)



PARKING LOT LANDSCAPING BED

BIORETENTION PONDING AREA

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

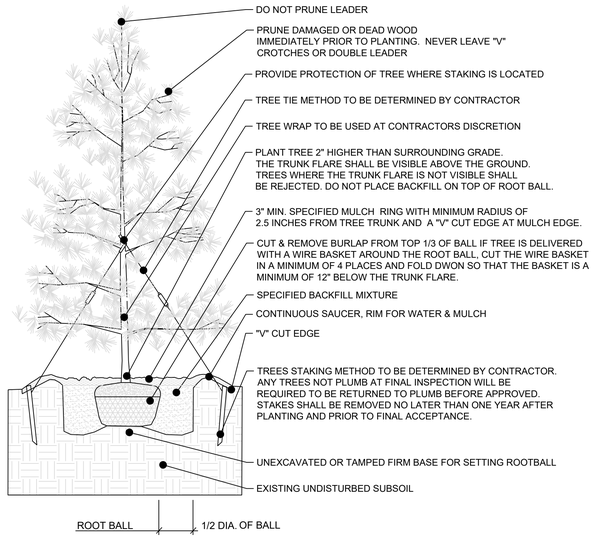
LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 08/13/2021	City Comments
2 08/26/2021	City Comments
3	
4	
5	
6	
7	
8	
9	
10	

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

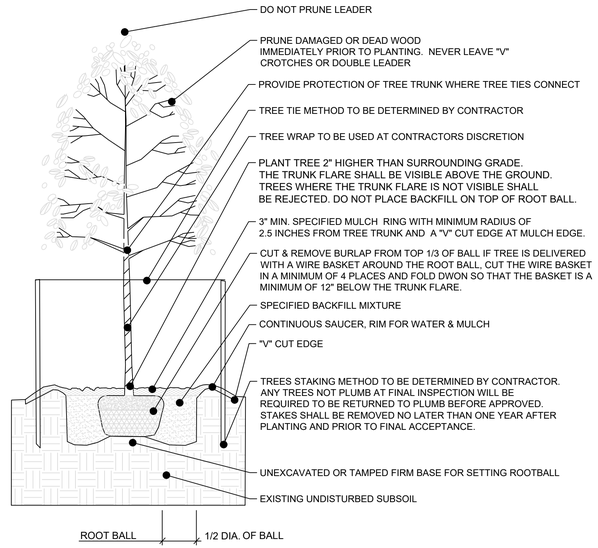
LANDSCAPE PLAN

SHEET
L1.0



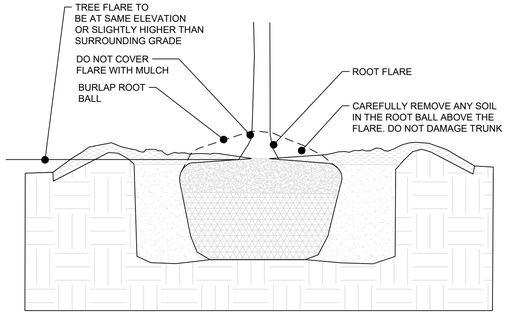
TYP. EVERGREEN PLANTING & GUYING

NO SCALE



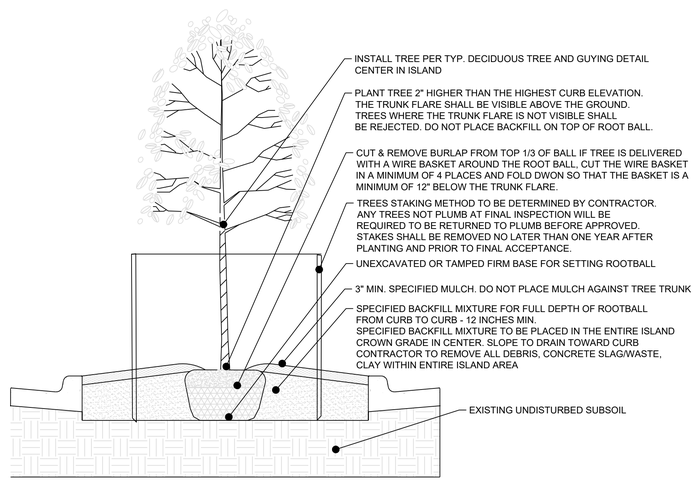
2 TYP. DECIDUOUS PLANTING & GUYING

NO SCALE



TYP. TREE PLANTING DEPTH

NO SCALE



TYP. PARKING LOT ISLAND PLANTING

NO SCALE

1. All trees shall comply with State and Federal regulations. Trees should be obtained from local sources but must meet the quaility quidelines herein. Trees transported from out of the region shall 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.
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 the following:
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 over watering as indicated by wilted, shriveled, or dead leaves.
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, or otherwise injured branches.
   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 shall form a balanced crown appropriate for the cultivar/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.
   c.) The attachment of the largest branches (scaffold branches) shall be free of included bark.
   d.) Branches shall be distributed radially around and vertically along the trunk, forming a generally symmetrical crown typical for the species.
   e.) The attachment of scaffold branches shall be free of included bark.
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 the tree and can split easy.
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 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 branches should be less than half the diameter of the adjacent trunk (less than one-third is preferred).
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). Codominant trunks (trunks of similar size) will not be accepted.
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 should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
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 end of the warranty period.
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.
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 tree.
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 Acceptance details and the following:
18. The roots shall be reasonably free of scrapes, broken or split wood.
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 produce a high quality root system are not considered injuries.
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 growth shall be appropriate for the species.
21. Plants with structural roots on only one side of the trunk (J roots) shall be rejected.
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.
23. The root system shall be free of stem girdling roots over the root collar or kinked roots from nursery production practices.
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.
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.

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

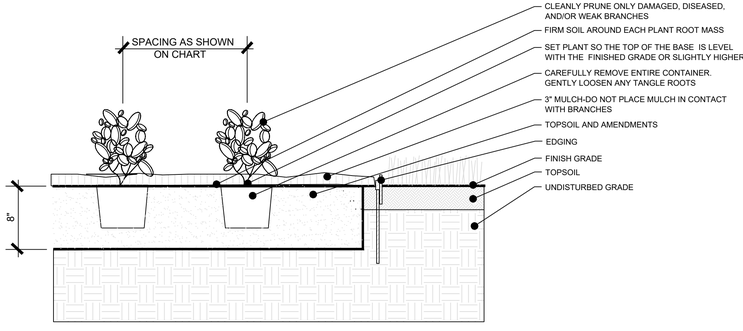
LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
09/13/2021	City Comments
09/20/2021	City Comments

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

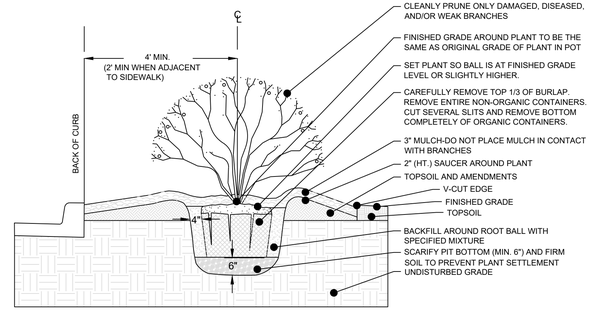
LANDSCAPE DETAILS

SHEET
L2.0



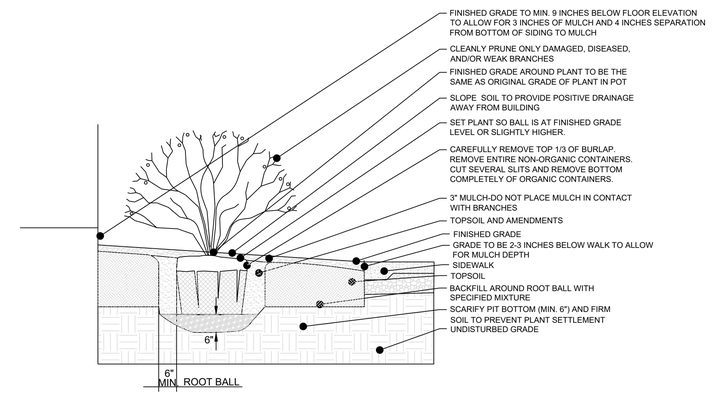
TYP. ANNUAL/PERENNIAL PLANTING

NO SCALE



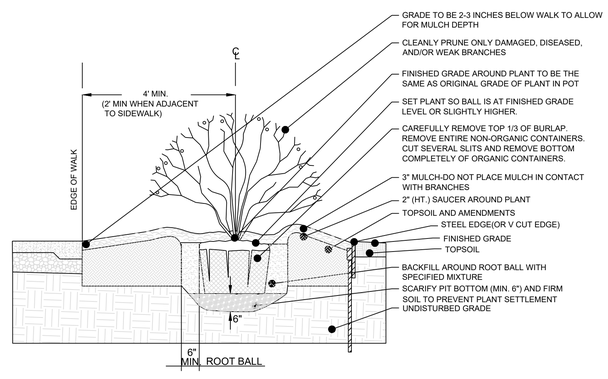
TYP. SHRUB PLANTING ADJACENT TO CURB

NO SCALE



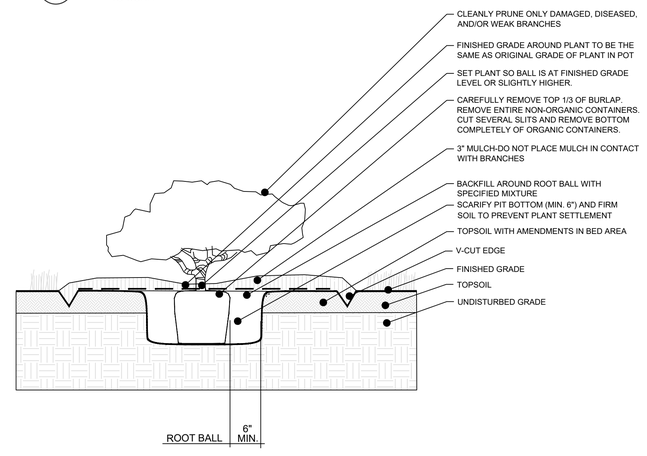
TYP. SHRUB PLANTING ADJACENT TO BUILDING

NO SCALE



TYP. SHRUB PLANTING ADJACENT TO WALK

NO SCALE



TYP. SHRUB BED IN LAWN DETAIL

NO SCALE

SCHLAGEL
ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS
14920 West 107th Street • Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

LAKEWOOD BUSINESS PARK - LOT 35
FINAL DEVELOPMENT PLANS
4101 NE PORT DRIVE LEE'S SUMMIT, MISSOURI

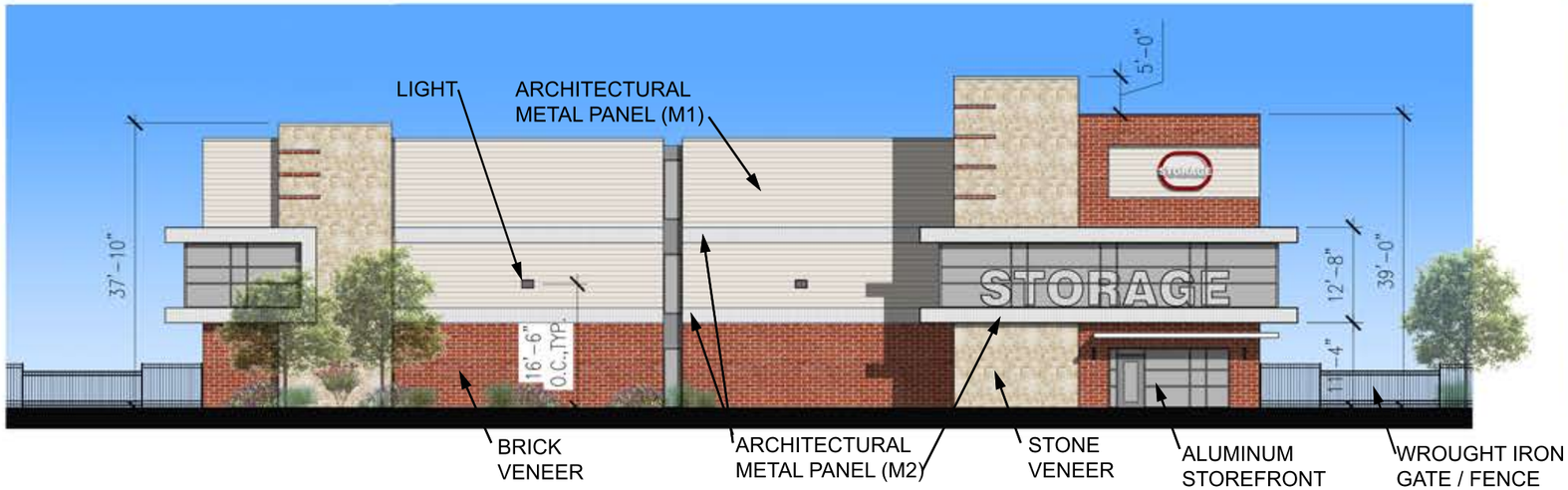
REVISION	DATE	DESCRIPTION
1	08/13/2021	City Comments
2	08/20/2021	City Comments
3		
4		
5		
6		
7		
8		

DRAWN BY:	RPM
CHECKED BY:	JTS
DATE PREPARED:	06/25/2021
PROJ. NUMBER:	20-261

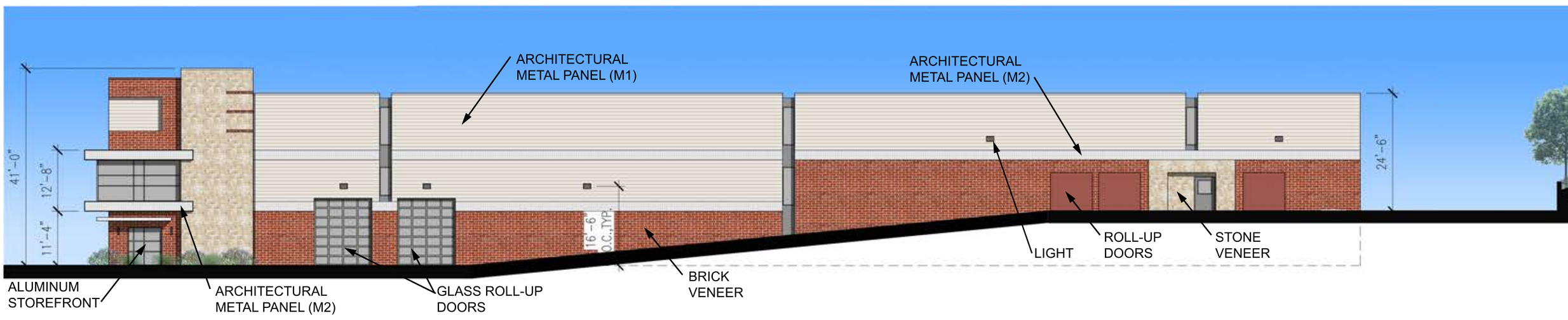
LANDSCAPE DETAILS

SHEET
L2.1

I:\PROJECTS\2020\20-261\3.0 Design\3.0 DWG Plans\3.0 FDP\20-261-7-FDP-LP.dwg, 8/26/2021 2:20:12 PM, 1:1



WEST ELEVATION



SOUTH ELEVATION

EXTERIOR ELEVATIONS

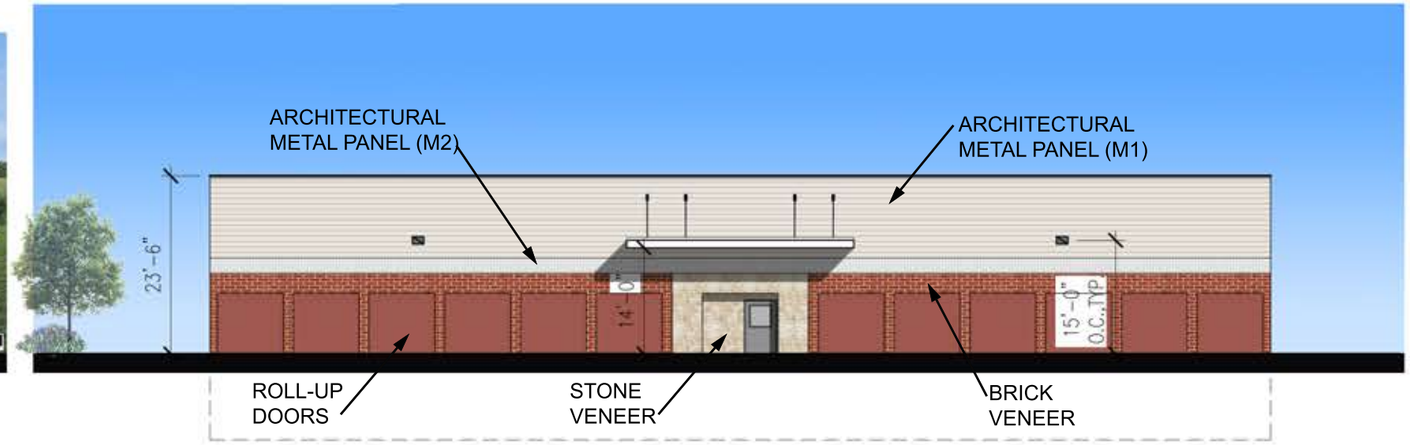
SCALE: 1" = 20'-0" 02.19.2021

0 10' 20' 50'

LAKEWOOD STORAGE

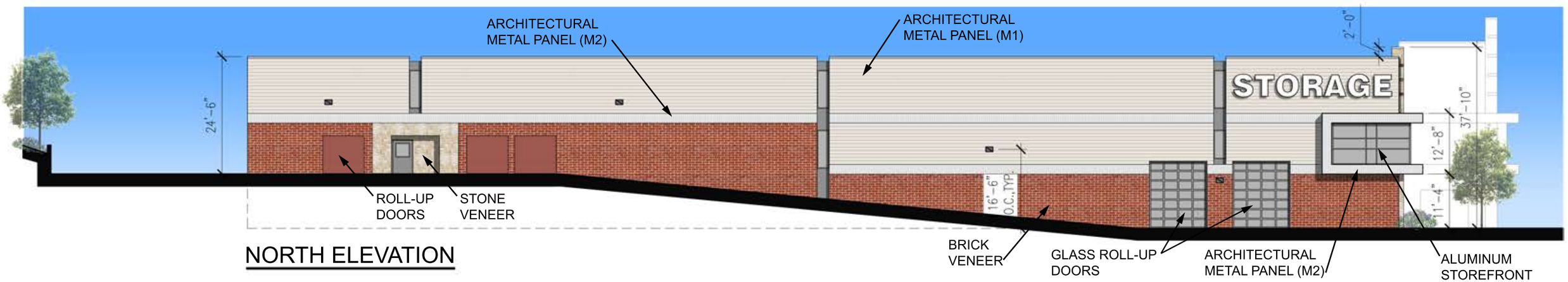
LEE SUMMIT, MISSOURI

DALLENBACH•COLE
ARCHITECTURE
12035 COLWICK
SAN ANTONIO, TX 78216
WWW.DALLENBACHCOLE.COM
P 210.493.2234



EAST ELEVATION

NORTH ELEVATION



NORTH ELEVATION

EXTERIOR ELEVATIONS

SCALE: 1" = 20'-0" 02.19.2021

0 10' 20' 50'

LAKEWOOD STORAGE

LEE SUMMIT, MISSOURI

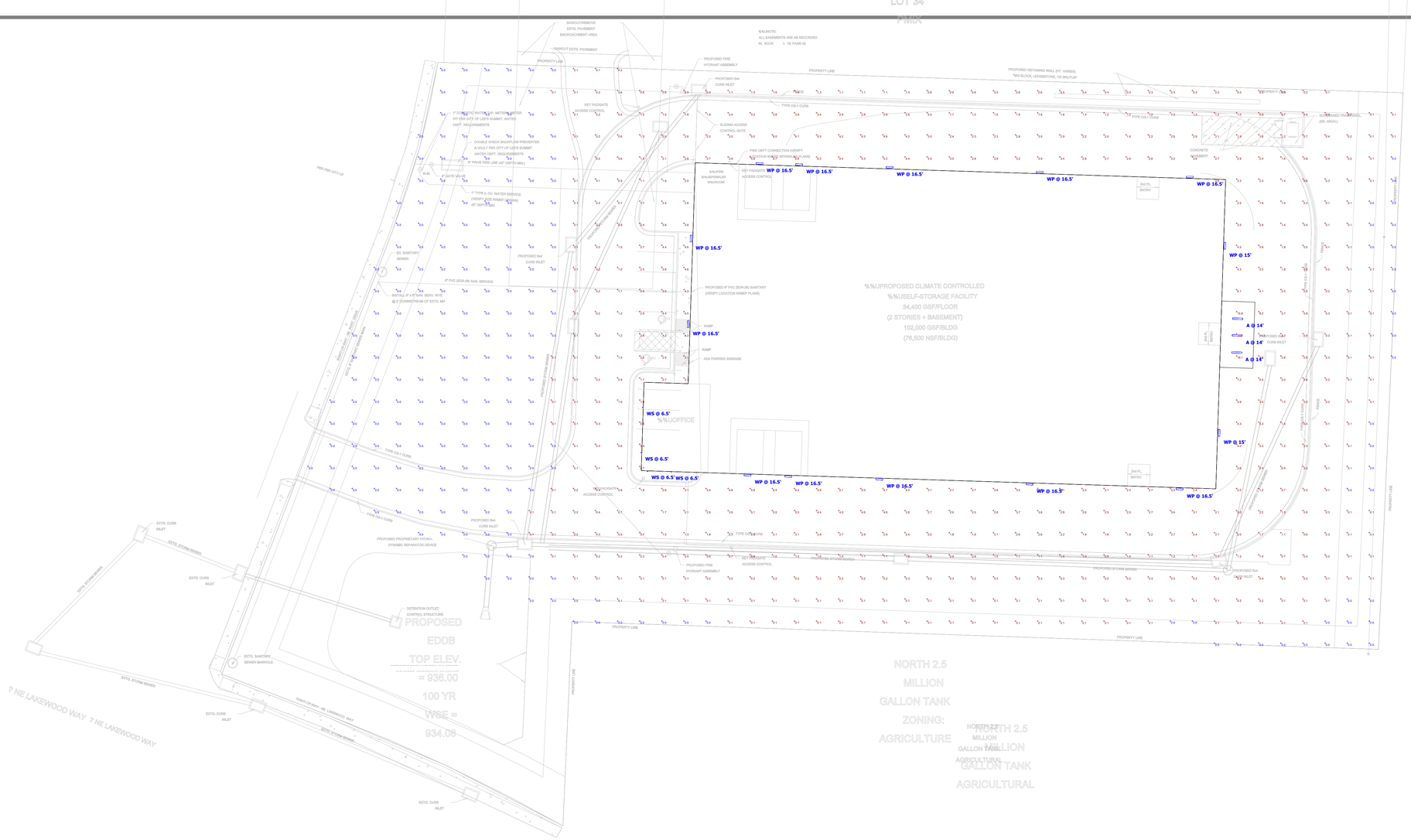
THIS DOCUMENT IS NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION.

JEFFREY S. DALLENBACH, AIA
MO REGISTRATION NO. A-2020036988

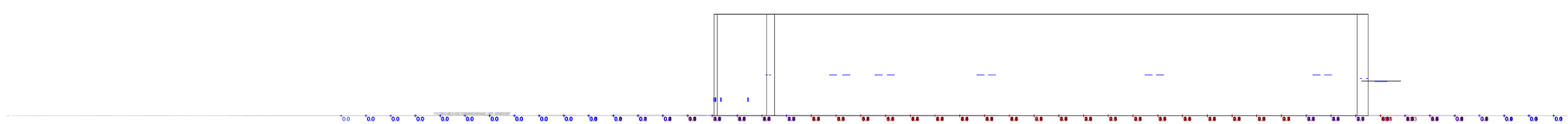
CONCEPTUAL SITE PLAN HAS BEEN DEVELOPED WITHOUT SURVEY, SETBACK, EASEMENT, OR CIVIL ENGINEERING INFORMATION.

DALLENBACH•COLE
ARCHITECTURE
12035 COLWICK
SAN ANTONIO, TX 78216
WWW.DALLENBACHCOLE.COM
P 210.493.2234


STORAGE
STORAGE
DALLENBACH·COLE
ARCHITECTURE



Plan View
Scale - 1" = 25ft



South View
Scale - 1" = 25ft

SCHEDULE - NOT FOR USE IN CONSTRUCTION DOCUMENTS

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Distribution
	WP	14	Lithonia Lighting	DSXW1 LED 20C 1000 40K T2M MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T2M OPTIC, 4000K, @ 1000mA.	LED	1	DSXW1_LED_20C_1000_40K_T2M_MVOLT.ies	7373	0.95	73.2	TYPE III, MEDIUM, BUG RATING: B2 - U0 - G2
	WS	4	VISA LIGHTING	OW5524	VANITY HORIZONTAL MOUNT 19"	LED 3500K -H	1	OW5524-L35K-H.ies	981	0.95	10.4	
	A	3	Lithonia Lighting	VAP 6000LM FST MD 40K 80CRI	VAP LED with BLT Gen 2 Boards		1	VAP_6000LM_FST_MD_40K_80CRI.ies	5442	0.95	49.31	DIRECT, SC-0=1.18, SC-90=1.19

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.1 fc	23.1 fc	0.0 fc	N/A	N/A

Note

1. ALL EXTERIOR CALCULATIONS ARE ASSUMED ON EVEN OR FLAT TERRAIN.

2. ALL EXTERIOR CALCULATIONS ARE TAKEN AT 0'-0" AFG.

3. VALUE NEXT TO LUMINAIRE LABEL DRAWING REPRESENTS OVERALL MOUNTING HEIGHT.

SPECTRUM LIGHTING, INC.
SAN ANTONIO

LAKEWOOD STORAGE FACILITY SITE

Designer
Matt Stohlmann
Date
03/15/2021
Scale
Not to Scale
Drawing No.
REV 2
Summary

OUTDOOR PHOTOMETRIC REPORT

CATALOG: VAP 6000LM FST MD 40K 80CRI

Test #:	ISF36812P29
Test Lab:	SCALED PHOTOMETRY
Catalog:	VAP 6000LM FST MD 40K 80CRI
Description:	VAP LED with BLT Gen 2 Boards
Series:	VAP LED
Lamp Output:	Total luminaire Lumens: 5442.5, absolute photometry *
Input Wattage:	49.31
Luminous Opening:	Rectangle w/Luminous Sides (L: 1.39M, W: 0.2M, H: 0.01M)
Max Cd:	1,942.6 at Horizontal: 270°, Vertical: 2.5°
Roadway Class:	Type VS

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1,458.8	26.8%
0-40	2,347.3	43.1%
0-60	4,014.7	73.8%
60-90	1,120.1	20.6%
70-100	597.6	11%
90-120	165.4	3%
0-90	5,134.8	94.3%
90-180	307.7	5.7%
0-180	5,442.5	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	182.7	3.4%	90-100	65.2	1.2%
10-20	515.3	9.5%	100-110	50.7	0.9%
20-30	760.8	14.0%	110-120	49.5	0.9%
30-40	888.6	16.3%	120-130	45.1	0.8%
40-50	889.6	16.3%	130-140	38.3	0.7%
50-60	777.7	14.3%	140-150	29.2	0.5%
60-70	587.7	10.8%	150-160	18.1	0.3%
70-80	365.0	6.7%	160-170	9.0	0.2%
80-90	167.4	3.1%	170-180	2.6	0%

*TEST BASED ON ABSOLUTE PHOTOMETRY WHERE LAMP LUMENS=LUMENS TOTAL.
*CUTOFF CLASSIFICATION AND EFFICIENCY CANNOT BE PROPERLY CALCULATED FOR ABSOLUTE PHOTOMETRY.

ISF36812P29
VISUAL PHOTOMETRIC TOOL

PUBLISH
PAGE 1 OF 3

OUTDOOR PHOTOMETRIC REPORT
CATALOG: VAP 6000LM FST MD 40K 80CRI

Roadway Summary

Distribution:		Type VS
Max Cd, 90 Deg Vert:		172.9
Max Cd, 80 to <90 Deg:		340.1
	Lumens	% Lamp
Downward Street Side:	2,548.6	46.8%
Downward House Side:	2,586.7	47.5%
Downward Total:	5,135.3	94.4%
Upward Street Side:	153.4	2.8%
Upward House Side:	154.2	2.8%
Upward Total:	307.7	5.7%
Total Lumens:	5,443.0	100%

LCS Table

BUG Rating	**B2 - U3 - G1**	
Forward Light	Lumens	Lumens %
Low(0-30):	727.1	13.4%
Medium(30-60):	1,268.8	23.3%
High(60-80):	470.5	8.6%
Very High(80-90):	82.1	1.5%
Back Light		
Low(0-30):	731.9	13.4%
Medium(30-60):	1,287.4	23.7%
High(60-80):	482.2	8.9%
Very High(80-90):	85.2	1.6%
Uplight		
Low(90-100):	65.2	1.2%
High(100-180):	242.5	4.5%
Trapped Light:	0.000	0%

ISF36812P29
VISUAL PHOTOMETRIC TOOL

PUBLISH
PAGE 2 OF 3

OUTDOOR PHOTOMETRIC REPORT
CATALOG: VAP 6000LM FST MD 40K 80CRI

Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937	1937
2.5	1930	1933	1931	1933	1938	1935	1937	1938	1931	1938	1937	1935	**1943**	1937	1935	1935	1930
5	1921	1922	1920	1918	1924	1921	1927	1930	1927	1934	1930	1930	1935	1930	1930	1928	1921
7.5	1908	1907	1899	1897	1901	1904	1911	1915	1914	1924	1918	1917	1922	1918	1915	1915	1908
10	1886	1884	1873	1869	1875	1875	1886	1897	1895	1905	1901	1898	1902	1897	1897	1895	1886
12.5	1860	1856	1843	1835	1840	1845	1856	1871	1872	1881	1875	1873	1878	1871	1871	1872	1860
15	1827	1820	1807	1796	1800	1806	1823	1839	1843	1852	1848	1842	1848	1842	1840	1840	1827
17.5	1791	1783	1764	1754	1760	1761	1781	1803	1810	1816	1811	1810	1813	1807	1806	1803	1791
20	1747	1737	1719	1705	1712	1718	1739	1758	1768	1774	1771	1770	1777	1767	1765	1762	1747
22.5	1703	1685	1667	1657	1659	1667	1689	1711	1721	1731	1731	1728	1735	1728	1719	1715	1703
25	1650	1634	1611	1601	1610	1613	1634	1660	1673	1679	1682	1685	1693	1679	1673	1663	1650
27.5	1592	1575	1559	1549	1554	1562	1582	1604	1617	1624	1630	1634	1646	1634	1621	1613	1592
30	1536	1515	1497	1489	1494	1502	1522	1542	1561	1572	1579	1582	1594	1581	1564	1552	1536
32.5	1470	1456	1435	1428	1440	1441	1458	1483	1497	1510	1520	1532	1545	1526	1509	1494	1470
35	1402	1388	1375	1365	1375	1383	1399	1415	1431	1444	1460	1474	1486	1467	1447	1427	1402
37.5	1337	1317	1307	1306	1316	1316	1330	1345	1360	1382	1402	1418	1425	1411	1388	1358	1337
40	1265	1251	1238	1238	1248	1249	1262	1280	1294	1311	1336	1353	1368	1346	1320	1293	1265
42.5	1196	1179	1175	1173	1177	1186	1196	1206	1219	1245	1274	1287	1298	1284	1252	1221	1196
45	1121	1105	1102	1104	1114	1115	1126	1138	1150	1173	1203	1225	1231	1216	1189	1149	1121
47.5	1046	1039	1035	1033	1042	1051	1053	1064	1075	1100	1130	1154	1164	1146	1117	1082	1046
50	977	966	961	961	968	977	987	989	999	1033	1062	1082	1091	1079	1045	1009	977
52.5	902	898	888	895	902	905	915	921	930	958	990	1016	1025	1006	979	934	902
55	827	824	823	823	830	839	843	847	853	882	915	942	951	934	906	866	827
57.5	758	751	749	757	767	767	777	775	778	814	846	869	881	866	833	793	758
60	685	680	677	687	698	696	705	709	709	741	771	798	810	794	767	726	685
62.5	611	615	615	620	631	634	634	636	636	673	700	734	748	725	693	654	611
65	546	545	546	561	568	569	569	563	562	601	636	667	680	664	623	582	546
67.5	474	476	484	499	513	506	500	499	496	529	565	607	615	597	558	517	474
70	405	414	421	441	455	453	435	429	425	465	499	543	559	535	491	448	405
72.5	342	346	360	389	405	396	378	363	355	395	440	481	499	478	432	380	342
75	275	281	303	336	352	343	318	303	293	327	378	428	440	421	372	320	275
77.5	213	226	255	287	303	297	269	239	228	269	321	372	391	366	314	258	213
80	160	169	208	245	264	251	219	182	167	209	272	320	340	318	261	199	160
82.5	107	124	164	205	223	210	174	134	117	156	223	277	293	271	216	147	107
85	62	84	130	167	186	173	138	91	69	114	179	232	254	232	173	107	62
87.5	30	53	95	134	153	140	104	59	35	78	143	192	212	190	137	71	30
90	19	33	69	105	121	108	73	36	19	49	107	157	173	153	102	45	19
92.5	17	26	53	82	97	85	56	26	17	35	79	125	143	124	76	32	17
95	19	24	43	69	81	71	45	24	19	30	63	101	117	101	61	27	19
97.5	22	26	40	59	69	59	40	24	20	30	53	85	98	84	52	29	22
100	23	27	42	56	63	56	40	26	23	32	52	75	86	75	50	29	23
102.5	23	29	42	56	62	56	40	27	24	33	53	73	81	72	50	30	23
105	24	30	43	58	63	56	42	29	24	35	53	72	79	72	52	32	24
107.5	24	32	43	58	63	56	42	30	26	36	53	72	79	72	52	35	24
110	26	33	45	58	63	58	43	32	26	37	55	72	79	72	53	36	26
112.5	26	35	45	58	62	58	45	35	26	39	55	72	79	71	53	37	26
115	26	35	46	58	62	56	45	36	26	40	56	72	78	71	55	39	26
117.5	26	36	48	58	61	56	46	37	27	40	56	71	76	71	55	40	26
120	27	36	48	56	61	56	48	37	27	42	56	69	75	69	55	42	27
122.5	27	36	48	56	61	56	49	39	27	42	55	69	73	68	56	43	27
125	27	36	48	56	61	56	49	39	29	42	55	68	72	68	56	43	27
127.5	29	36	48	56	59	58	50	39	29	42	53	66	71	68	56	43	29
130	29	35	48	56	59	58	52	39	30	42	53	65	71	66	56	45	29
132.5	29	35	48	55	59	58	53	39	30	40	52	65	69	66	58	45	29
135	29	33	46	55	59	58	53	39	30	39	52	63	69	65	59	45	29
137.5	29	32	45	55	59	58	55	39	29	37	50	61	68	65	61	43	29
140	29	32	43	55	59	59	55	37	29	36	49	59	66	65	61	43	29
142.5	29	30	40	53	61	61	52	36	29	35	48	59	65	65	61	40	29

145	29	29	37	52	61	61	49	36	29	33	43	58	66	66	59	39	29
147.5	29	29	35	49	62	59	46	35	29	32	40	56	68	66	56	37	29
150	29	29	32	43	59	55	43	33	29	32	37	52	68	65	52	37	29
152.5	29	29	30	39	53	50	42	33	29	32	36	48	65	62	49	36	29
155	29	29	29	33	48	46	39	33	29	30	33	42	59	58	46	36	29
157.5	30	29	27	30	42	43	37	33	30	30	32	36	53	52	43	35	30
160	30	29	27	27	39	39	37	32	30	30	30	32	46	46	40	35	30
162.5	30	29	27	24	35	36	36	32	30	30	29	29	42	42	39	33	30
165	30	29	26	23	32	35	33	32	30	30	29	26	37	39	36	33	30
167.5	30	29	26	22	29	32	32	30	30	30	29	23	35	36	35	32	30
170	30	29	26	20	26	30	30	30	30	30	27	22	30	33	32	30	30
172.5	30	29	26	20	22	27	29	30	30	30	27	20	26	30	30	30	30
175	30	30	27	20	14	24	27	30	30	30	27	20	19	27	29	30	30
177.5	30	30	27	22	10	23	27	30	30	30	27	20	12	24	27	30	30
180	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24

Location: Wall Sconce at Office

Rev: 2021/01/20

OW5524 – SHINE™

VISA LIGHTING

Type: | Project: | VisaLighting.com/products/Shine

Fill in shaded boxes using information listed below

Order Code:	OW5524	3500K	–	MVOLT	TW9016	
	MODEL	A SOURCE		VOLTAGE	B FINISH	C OPTION(S)

Shine is an ideal outdoor fixture with versatile features including horizontal or vertical mounting, LED sources, 4 size options, and end accents that can be painted in one of 16 standard colors to accent any facade.

A SOURCE (Select one) and VOLTAGE

MVOLT fixture accepts 120 through 277 input voltage
Dimmable 0-10V to 1%
80CRI, within 3-step MacAdam

Sources	CCT	Delivered Lumens	Power (Watts)	Voltage
● **L30K**	3000K	1000	11	**MVOLT**
L35K	3500K			
● **L40K**	4000K			

B FINISHES (Select one)

See page 2 for color chart

Powder Coat Painted Finishes (Standard)

AG7038	Agate Grey	**CVBL**	Cove Blue	**GW9002**	Grey White	**PB1035**	Pearl Beige
BMAT	Bronze Matte	**CW9001**	Cream White	**HTHR**	Heather	**RUST**	Rust
BRNZ	Bronze	**GLIM**	Glimmer	**JB9005**	Jet Black	**SUNG**	Sungold
BSIL	Blade Silver	**GSIL**	Graphite Silver	**OBRZ**	Old Bronze	**TW9016**	Traffic White

C OPTIONS (Multiple Selections Allowed)

⚠ Option availability may be interdependent with Voltage, Source or Other Options

JBC Junction box cover (4-1/2" square) for use with an existing 4" octagonal junction box. Painted to match finish. Adds 1/4" to Depth (D dimension)

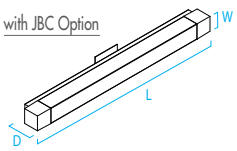
XPS Express 10 day shipping. Items marked with a bullet (●) are not available with **XPS**

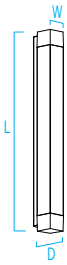
DIMENSIONS

Depth is measured from wall to front of fixture

L = Length W = Width D = Depth

L	19"	(483 mm)
W	3"	(76 mm)
D	4"	(102 mm)
D (with JBC option)	4.25"	(108 mm)



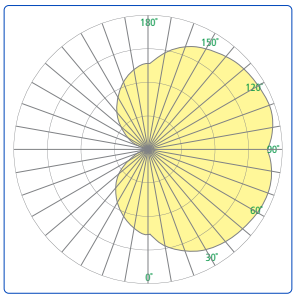


ADA | XPS | LED | ETL Listed | 5 Year Warranty

OW5524 – SHINE

VISA LIGHTING

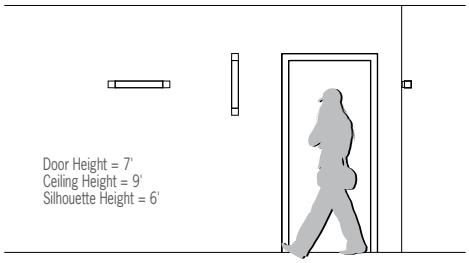
Photometrics



Technical Information

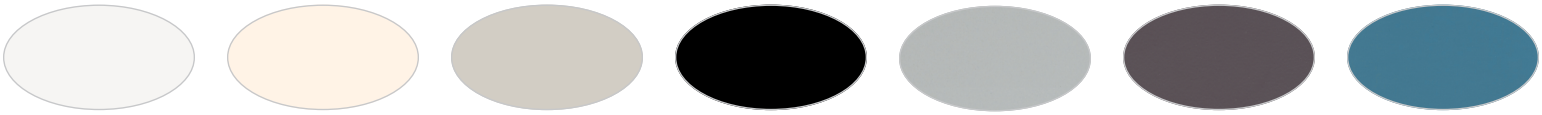
- Integral high power factor electronic power supply
- Modular design for replacement of LED source and power supply
- IP55 rated
- Vertical or horizontal mounting
- Surface mount to 2x4 junction box. Optional junction box cover (JBC option) available for 4" junction box
- Tamper resistant fasteners
- Cast and extruded aluminum construction
- Frosted 1/8" high impact grade acrylic
- No VOC powder coat paint finish
- ETL listed for wet location

Relative Scale Drawing

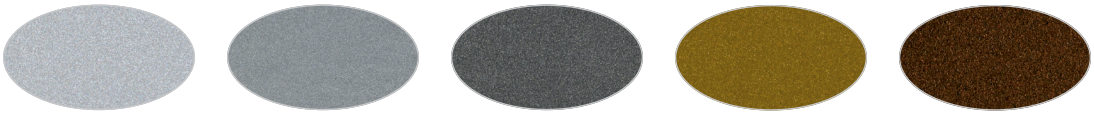


Specify color code when ordering. For accurate color matching, individual paint and finish samples are available upon request
For additional information see VisaLighting.com/materials-finishes

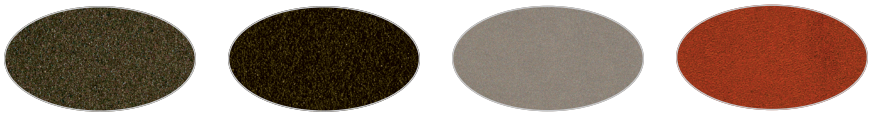
Painted Finishes (Standard)



TW9016 Traffic White (RAL9016)
CW9001 Cream (RAL9001)
GW9002 Grey White (RAL9002)
JB9005 Jet Black (RAL9005)
AG7038 Agate Grey (RAL7038)
HTHR Heather
CVBL Cove Blue



BSIL Blade Silver
GSIL Graphite Silver
GLIM Glimmer
SUNG Sungold
BRNZ Bronze



OBRZ Old Bronze
BMAT Bronze Matte
PB1035 Pearl Beige (RAL1035)
RUST Rust

Location: Wall Packs on Exterior Elevations

d"series

D-Series Size 1
LED Wall Luminaire

Catalog Number

Notes

Type **M**

Hit the Tab key or mouse over the page to see all interactive elements.

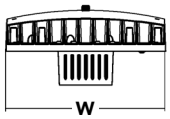
Specifications

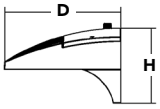
Luminaire

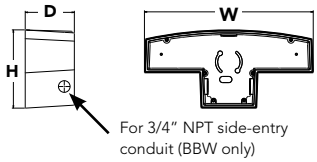
Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		







Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED	20C	1000	40K	T2M	MVOLT		
Series	**LEDs**	**Drive Current**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**	**Control Options**
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] ELCW Emergency battery backup (includes external component enclosure), CA Title 20 Noncompliant [8,9]

	DNAXD
Other Options	**Finish** *(required)*

Shipped installed

SF	Single fuse (120, 277 or 347V) [3,10]
DF	Double fuse (208, 240 or 480V) [3,10]
HS	House-side shield [11]
SPD	Separate surge protection [12]

Shipped separately [11]

BSW	Bird-deterrent spikes
VG	Vandal guard
DDL	Diffused drop lens

DDBXD	Dark bronze	DSSXD	Sandstone	DWHGXD	Textured white
DBLXD	Black	DDBTXD	Textured dark bronze	DSSTXD	Textured sandstone
DNAXD	Natural aluminum	DBLBXD	Textured black		
DWHXD	White	DNATXD	Textured natural aluminum		

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1VG U	Vandal guard accessory

NOTES

1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7 Reference Motion Sensor table on page 3.
8 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9 Not available with SPD.
10 Not available with ELCW.
11 Also available as a separate accessory; see Accessories information.
12 Not available with ELCW.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

			Current (A)					
LEDs	Drive Current (mA)	System Watts	120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

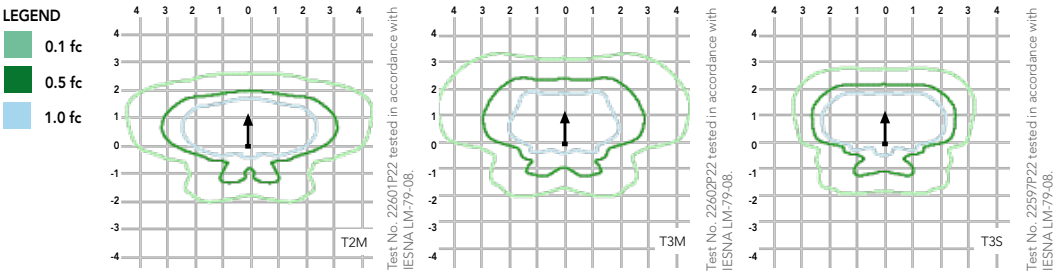
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use with site wide Dusk to Dawn control

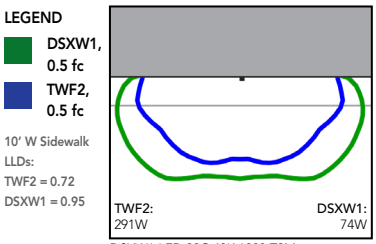
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left)

HS - House-side shields

BSW - Bird-deterrent spikes

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY

Five-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.